

Confidential Information Statement

Per the requirements of Section 21 and Section 31 of the Request for Proposal - Gaming System and Services (CRFP LOT170000001) (the "RFP"), as well as the response to Question No. 33 from the Questions & Answers (Addendum No. 3) to the RFP, IGT Global Solutions Corporation ("IGT") has expressly excluded from this Proposal all material that IGT considers to be confidential, a trade secret or otherwise not subject to public disclosure (collectively, "Confidential Information"), which would otherwise be exempt from public disclosure under the West Virginia Uniform Trade Secret Act (W. Va. Code § 47-22-1 et seq.) and the West Virginia Freedom of Information Act (see W. Va. Code § 29B-1-4(a)(1)) (collectively, the "Confidential Information Exemption Acts").

However, IGT has noted, in specific responses throughout this Proposal, certain areas where IGT believes that the provision to the Lottery of this critical Confidential Information would be in the best interest of the Lottery and the State of West Virginia, as the Lottery's review of this Confidential Information will allow the Lottery to make the most informed decision regarding the gaming system proposed by IGT (as well as other vendors) and to ensure that the State of West Virginia is receiving the most secure and technically superior gaming system available in the market. This includes, for example, Confidential Information regarding security of the gaming system (such as security features and security plans), which, if provided in this Proposal (and thus made publicly available as set forth in Section 21 and 31 of the RFP), could cause significant and devastating harm to the security and operation of the gaming system and the Lottery should IGT be awarded the Contract.

To that end, IGT has noted in those instances, where IGT believes provision of such Confidential Information is warranted and in the best interest of the Lottery and the State of West Virginia, that IGT would be agreeable to making this Confidential Information available for review by the Lottery during the Oral Presentation (assuming such Oral Presentation is not subject to the West Virginia Open Meetings Act) and/or under a separate Non-Disclosure Agreement or similar ("NDA"), whereby IGT can be assured that such Confidential Information will not be made publicly available. While IGT acknowledges that a significant factor in not including certain of this Confidential Information in this Proposal is a result of the fiduciary duty IGT owes to its shareholders to protect its trade secrets and other information that has significant commercial value to IGT and that gives IGT a business advantage over its competitors. However, IGT also believes that IGT has a duty to disclose, and that the Lottery should receive and review (either at the Oral Presentation or under the proposed NDA), security and other similar information (that would otherwise be protected under the Confidential Information Exemption Acts) regarding its proposed gaming system. IGT would be happy to discuss this issue further should the Purchasing Division or the Lottery have any questions, as IGT's ultimate goal is to ensure that the Lottery and the State of West Virginia receive the most cost-effective and superior gaming system available and that the security of such gaming system is maintained for the duration of the Contract.

02/21/17 15:12:58
WV Purchasing Division



February 22, 2017

Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

Re: Request for Proposal – Gaming System and Services
West Virginia Lottery: Solicitation No.: CRFP 0705 LOT1700000001

Dear Purchasing Division:

With this letter, IGT Global Solutions Corporation ("IGT") submits its proposal in response to Request for Proposal – Gaming System and Services, Solicitation No. CRFP 0705 LOT1700000001 (the "RFP").

We are proud to be the current lottery gaming system and related services provider to the West Virginia Lottery (the "Lottery") and welcome the opportunity to build upon this long-standing and productive relationship. If IGT is selected as the successful vendor, the Lottery can be assured of the same high level of service, integrity, and security that it currently provides for West Virginia's lottery operations today. Additionally, we are committed to working with the Lottery to increase operational efficiencies and sales through the many features and functions that IGT's new technology will provide.

IGT proposes its latest lottery system, retailer terminals, associated equipment, and communications network. They have each been carefully developed to facilitate growth of lottery sales and provide the Lottery with an innovative and, most important, reliable solution. We will also provide a timely conversion that strictly adheres to the conversion plan timeline and all requisite quality assurance and acceptance testing requirements.

IGT employs a *Customer First* philosophy. This customer-centric ideology is the framework around which our long-lasting customer relationships are forged and our professional expertise is skillfully delivered. Customer First means that the Lottery will receive reliable, customized collaboration based upon the consistent quality service standards we apply to every customer account. This approach has become a time-tested and proven methodology for listening, learning, and collaborating to ensure that the Lottery is the beneficiary of a positive and productive partnership that exceeds expectations.

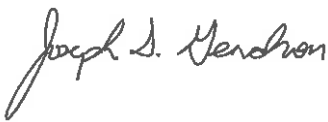
We are committed to responsible gaming and will adhere to the Lottery's socially responsible gaming framework, government legislation, and rules. This commitment is demonstrated by our ongoing investment in new and creative features and functions in this area, including age control, customer relationship management, player tracking, and analytics.

Should the Purchasing Division or the Lottery have any questions concerning our response or would like to further discuss our proposal, please feel free to contact either me or Elizabeth (Nikki) Orcutt, the Account Development Manager for our West Virginia operations (contact information below).

Elizabeth (Nikki) Orcutt
Account Development Manager, West Virginia Lottery
IGT Global Solutions Corporation
1700 MacCorkle Avenue, SE
Charleston, WV 25314
Phone: 304-206-3190
Mobile: 304-552-3079
Fax: 681-265-9143
Email: Elizabeth.Orcutt@IGT.com

Thank you for this exciting opportunity to present IGT's enclosed proposal to the West Virginia Purchasing Division and the Lottery for your consideration.

Best regards,



Joseph S. Gendron
Senior Vice President, WLA North America
IGT Global Solutions Corporation
10 Memorial Boulevard
Providence, RI 02903
Phone: 401-392-7631
Email: Jay.Gendron@IGT.com

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Elizabeth (Nikki) Orcutt, Account Development Manager

(Name, Title)

Same as Above

(Printed Name and Title)

1700 MacCorkie Avenue SE, Charleston, WV 25314

(Address)

304-206-3190/681-265-9143

(Phone Number) / (Fax Number)

Elizabeth.Orcutt@IGT.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

IGT Global Solutions Corporation

(Company)



(Authorized Signature) (Representative Name, Title)

Joseph S. Gendron, Senior Vice President, WLA North America

(Printed Name and Title of Authorized Representative)

1/31/17

(Date)

401-392-7631/401-392-4810

(Phone Number) (Fax Number)



Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Request for Proposal
27 - Miscellaneous

Proc Folder: 202610

Doc Description: RFP - GAMING SYSTEM AND SERVICES

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2016-10-28	2017-02-15 13:30:00	CRFP 0705 LOT1700000001	1

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

25305

US

VENDOR

Vendor Name, Address and Telephone Number:

IGT Global Solutions Corporation

10 Memorial Boulevard

Providence, RI 02903

401-392-1000

FOR INFORMATION CONTACT THE BUYER

Michelle L Childers

(304) 558-2063

michelle.l.childers@wv.gov

Joseph S. Gendron, Senior Vice President, WLA North America

Signature X

Joseph S. Gendron

FEIN # 05-0389840

DATE

1/31/17

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:**Request for Proposal**

The Acquisition and Contract Administration Section of the Purchasing Division is soliciting proposals for the Department of Revenue, State Lottery Commission for equipment and services to operate its on-line and instant ticket gaming system. Service and equipment requirements are contained within Section 4 of this RFP. This solicitation serves as notice, pursuant to WV Code 5A-3-10c, of the commodity or service being sought and is to be considered the opportunity for vendors to indicate their interest in bidding on such commodity or service. Per the bid requirements, specifications and terms and conditions attached hereto.

* **ATTENTION:** This solicitation is composed of the Request for Proposal, attached terms and conditions and a compact disk (CD) containing additional reference and bid documents. Vendors must separately request the CD by contacting the Purchasing Division at 304.558.4785 and referencing solicitation number CRFP LOT1700000001.

INVOICE TO		SHIP TO	
ACCOUNTS PAYABLE LOTTERY PO BOX 2067		PURCHASING LOTTERY 900 PENNSYLVANIA AVE	
CHARLESTON	WV 25327-2067	CHARLESTON	WV 25302
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	GAMING SYSTEM AND SERVICES				

Comm Code	Manufacturer	Specification	Model #
43211512			

Extended Description :

Equipment and services to operate on-line and instant ticket gaming system per attached specifications. Service Fee as a percentage of sales. Vendor must attach Attachment C Cost Sheet with submitted bid response.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFP 0705 LOT1700000001

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

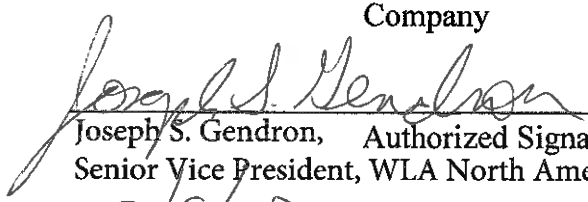
(Check the box next to each addendum received)

<input checked="" type="checkbox"/> Addendum No. 1	<input type="checkbox"/> Addendum No. 6
<input checked="" type="checkbox"/> Addendum No. 2	<input type="checkbox"/> Addendum No. 7
<input checked="" type="checkbox"/> Addendum No. 3	<input type="checkbox"/> Addendum No. 8
<input checked="" type="checkbox"/> Addendum No. 4	<input type="checkbox"/> Addendum No. 9
<input type="checkbox"/> Addendum No. 5	<input type="checkbox"/> Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

IGT Global Solutions Corporation

Company


Joseph S. Gendron, Authorized Signature
Senior Vice President, WLA North America

2/8/17
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

Revised 6/8/2012

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West Virginia Lottery Network Architecture



WEST VIRGINIA

EXECUTIVE SUMMARY

Pride, Partnership, and Promise *for All* West Virginians

West Virginia pride. It's a common thread that weaves intricately throughout the entire state and makes us appreciate the opportunity to partner with the West Virginia Lottery to provide draw-based and instant ticket scratch-off game systems and services.

IGT – including the nearly 60 professionals who make up the local team – remains optimistic despite the State's economic challenges. Our ongoing commitment to collaboration and high expectations will result in a collective end goal to drive a positive trajectory of profits for contributions to some of the many things West Virginians hold dear: **education, senior citizens, tourism, and state parks** – all with the confidence that, together, we will meet and exceed both your stated requirements and high expectations.

Our proposal brings news of the significant investments in innovation, organizational structure, and culture that we have made since our acquisition of IGT. For the Lottery, these investments represent an energetic and enhanced partnership in direct alignment with its requirements for technology, content, and services to support current needs and identify future opportunities.

Together, we will meet and exceed both your stated requirements and high expectations.

Figure 1: IGT – Values That Shape Our Culture



Built on Customer and Employee Engagement: Our culture reflects the kinds of values, operating principles, and core competencies that comprise the kind of partner the West Virginia Lottery seeks.

Having defined our company and capabilities from customer and internal feedback, we can assure the West Virginia Lottery that we have heard you. We value our West Virginia partnership, are passionate about your business, and our site and corporate teams will have a laser focus on increasing your proceeds to the good causes you serve.

Customer First Service

The changes we have implemented position us to serve you better. In addition to the exciting new products and capabilities we have brought to market, we have, since our acquisition of IGT, channeled innumerable legacy resources into streamlined service organizations focused on customer service.



Nikki Orcutt

To illustrate the benefit to West Virginia, we introduce Nikki Orcutt as our Account Development Manager (ADM) to serve as your General Manager. Previously, she served as the Lottery's Deputy Director of Marketing prior to joining IGT in December 2015.

Nikki is one of our most knowledgeable experts and thoroughly experienced with the West Virginia Lottery's business operations.

Since joining us, she has become a catalyst for game innovation – a strategic function of critical importance to the Lottery and IGT – the fruits of which are available to you in your next contract. In addition to being a proven and accountable leader, Nikki embodies, and will demonstrate, all of IGT's values in her service and proactive support of the Lottery's goals.

With Nikki's oversight of the IGT-West Virginia team, you will receive enthusiastic effort and tangible results from our team of dedicated professionals. These are the same people whom you have come to know and trust – across all functional areas of your business – and who will continue to strive every day to guarantee your satisfaction.



Matt Cedor

learning, and working together to assure the Lottery of a positive and productive experience that exceeds expectations.

Your organization, too, has undergone a recent leadership change. We welcomed the opportunity to work with Interim Director Myers, and assert that our changes and yours – including the January 15, 2017, appointment of Alan Larrick as Director – bode well for a productive and long-term partnership.

IGT's approach ensures that it will be engaged with the Lottery at every step, with a high level of involvement that guarantees transparency. It will also enable the Lottery to see first-hand how its guidance and feedback are built into the solutions that will support West Virginia and other lotteries in the future. It is this level of collaboration with our customers that has helped us evolve pioneering new products, such as the Altura® Flex retailer terminal and Aurora™ central system that we propose for your next contract.

As General Manager, Nikki will report directly to IGT Regional Vice President Matthew Cedor. Matt will ensure Nikki sets the example for our West Virginia-based team in providing Customer First service to the West Virginia Lottery. Customer First represents the framework around which our customer relationships are built and professional expertise delivered. Customer First means that you will receive proactive, reliable, customized service based on the consistent quality standards we apply to every customer account. It is our proven methodology for listening,

As manager of one of the top-ten stores in Lottery sales in the State of West Virginia, I have been very pleased with the job IGT has done as the contractor for the West Virginia Lottery.

– Wayne Davis, Manager, One Stop #101, Retailer #146512, South Charleston, West Virginia.





Modernization at Retail

Our Research & Development investment has enabled us to produce our latest point-of-access products and operating system. IGT proposes its latest, fastest, most innovative terminal yet – the full-function Altura Flex – that will reliably meet your retailers' needs for speed, efficiency, and ease of use and maintenance. For lower-volume, space-challenged retailers, we offer the Flex Vision tablet-based terminal.

Your new terminals originate from the Altura platform, first deployed in 2001,

hard at work in more U.S. lotteries than any other, and selected in 11 recent procurements. Today's Altura platform – and the Flex in particular – reflects new features and functions that originated directly from retailer and customer feedback.

The self-service solution we propose – the Gemini™ Touch – also evolved from a highly successful platform, and has players excited and sales rising. In Washington State, during a five-month period of 2016, average weekly instant ticket scratch-off game sales rose 7.5% (based on settlements) compared to the same period from the previous year, and draw-based game ticket sales rose 23.6%. In 2017, the Touch will be deployed in Florida, North Carolina, Virginia, and Missouri.

At one point, we were doing \$77,000 a minute in sales. We had no hiccups, no issues, no paper shortages. Nothing occurred that in any way lessened the excitement of the moment. IGT was there for us.

– Alice Garland, Executive Director, North Carolina Education Lottery

Your retailers know they can rely on IGT equipment on a daily basis and during the rush precipitated by record jackpots. In the research conducted for the Lottery by Repass in May 2016, your retailers indicated that they are “very satisfied with the terminal and how it operates,” and “find the machines easy to use, reported few problems and, even when pushed, had a hard time coming up with suggestions as to how they could be improved.”

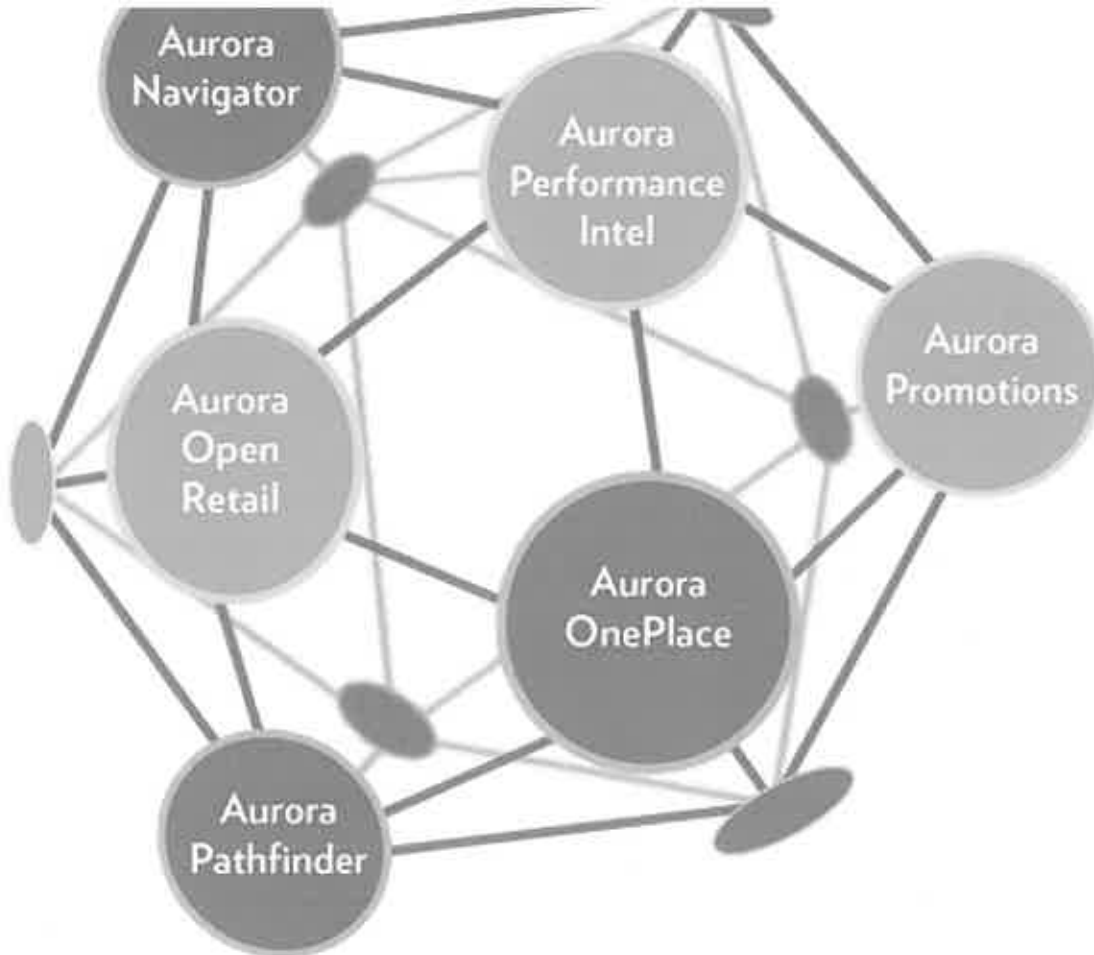
Both our proposed terminals and self-service solutions are two generations removed from your current equipment – with even more user-friendly features. They will make Lottery purchases and transactions easier and more efficient and, as a result, continue our record of satisfying your retailers and players with easy-to-use and reliable point-of-access equipment.

Operational Efficiency for Current and Future Needs

IGT’s technology solutions align with your objectives, providing a high level of operability to enhance current operations and the flexibility and adaptability to incorporate the best of IGT, third-party, and industry products and services.

Reliable, Efficient, and Secure Systems

IGT systems process nearly **80%** of U.S. lottery transactions every day, or \$4 out of every \$5 spent by players on lottery.



Anchoring the Lottery's new system will be IGT's Aurora, evolved from 15 years of customer feedback on its predecessor, Enterprise Series (ES), which runs more than half of U.S. lotteries. Aurora builds on ES functionality, providing the same high level of performance and system integrity, combined with new tools and content needed to transform, manage, and grow your business now and as you plan for the future.

Of particular interest is Aurora Navigator Back-Office, which augments the proven ES feature set with an improved and customized experience and features promoting user productivity and operational efficiencies. For example, Navigator provides retailers, sales staff, administrators, operators, security personnel, and others role-specific and actionable, task-specific user interfaces that enable them to efficiently execute their jobs. In short, Aurora will provide your users a single gateway to all back-office applications.

The Lottery will derive numerous benefits from Aurora, including:

- Open design for interoperability and reduced risk of obsolescence over a long-term contract.
- Compatibility with IGT's library of games – the largest in the industry – as well as easy integration with third-party content.
- A continuous player experience across current and potential products, channels, and devices.
- Actionable insights from a depth of analytics across all lottery touch points.
- Universal access to a single retailer view for exceptional retailer Customer Relationship Management (CRM).

With Aurora, the Lottery will have the capacity and capability to easily add games, new play styles, and game enhancements, and quickly develop and launch promotions. Add to that our process structure and discipline, which makes us more agile and responsive to your needs. To address persistent calls for improved speed to market, for example, we implemented a streamlined test automation process that has reduced testing time from 14 days to just 11 hours.



Supporting the retail equipment will be our redundant communications solution, including Dual Comm Inside (DCI), for the top 50% of your retailers. These retailers generate 80% of your total lottery sales today. Defined in Section 4.2.23, Communications Networks. DCI uses two separate communications technologies (Very Small Aperture Terminal [VSAT] and Internet Protocol [IP] Cellular) within the terminal; switchover to the secondary path is instantaneous and seamless in the event that the primary path fails. This solution provides nearly 100% uptime, minimizing or eliminating any disruption to retail sales or interruption of play, and will protect 80% of your sales.

Increased Revenues

The bottom line is that our solutions and services have one job – to increase the revenues you transfer to your beneficiaries – and there are numerous assets at our disposal to help you do just that. It begins with knowing you, your retailers, and your players. The importance of market research has led us to take a deeper look into enhancing our already formidable capabilities and expertise. Our newly branded Insights 360 group will serve West Virginia by helping to harness actionable consumer and retail insights, using foresight into consumer behavior to accelerate growth in lottery sales and proceeds. Insights 360 is part of an overall Global Lottery Marketing Organization led by experts who can collaborate with you across the spectrum of lottery products and services.

Figure 2: Global Lottery Marketing Organization



Expert Support for Your Site: The support of IGT's Global Lottery Marketing Organization's expertise spans all technology, games, and services we propose to West Virginia, along with the analytics and insights to inform your decision making.

We also bring to West Virginia the expertise of third parties whose work will enhance our service to you. One such organization is the Foresight Factory, a well-respected trendspotting firm that can help us help customers anticipate and address shifts in retail environments and player preferences, or whatever the future holds.

New Game Strategies

IGT wants to collaborate with you on portfolio strategy and content. To assist that effort, we offer FutureGame™, a results-driven process borne out of our R&D efforts process to initiate and test concepts that lead to the development and launch of innovative and exciting new games. Several draw-based games from our most recent rounds of testing are relevant to the Lottery's market and, thus, highlighted in our proposal. FutureGame can also be a valuable tool for the Lottery to use, at no additional expense, to assess, benchmark, and validate its current games.

FutureGame™

An additional source for new games exists as a result of our acquisition of IGT in 2015. We can now offer you games built from the legacy content assets which, when combined with our lottery game content, creates the industry's largest and most relevant library of games.

Awareness of your games can be greatly accentuated with a strategically sound and executable promotions program. We know you want to do more with promotions, and have applied lessons we learned from your last conversion to ensure that every promotion you want to run is built into the requirements documentation, fully tested, and available to you from Day One. In addition to providing ease-of-use functionality through Aurora Promotions, IGT will provide a wide range of promotion choices and evidence of their success in other jurisdictions.

New Retail Strategies

Bricks-and-mortar retailers still account for nearly 99% of all lottery transactions. Our proposal details how we can make lottery sales more efficient. With automation tools like OnePlace, recently acquired by IGT from Hudson Alley, our Field Marketing and Sales Representatives (FMSRs) will enter each retailer visit with up-to-the-minute knowledge of the retailer and, as a result, can spend the visit discussing sales opportunities rather than counting inventory. This will give the salesforce that serves the West Virginia Lottery the same tools as those used by IGT customer sites in Texas, Nebraska, Indiana, New Jersey, and Italy.

Additionally, IGT will collaborate with the Lottery to agree upon a stratified visit schedule to ensure that high-volume and high-potential retailers receive the increased level of support required to build and sustain successively increasing lottery sales.

IGT's Retail Market Insights (RMI) is the industry's only data collection and insights tool. Counting the West Virginia Lottery among the 26 lotteries signed on, IGT has filled a gap in research that now enables customers and non-customers alike to share and glean insights from direct retailer research. Soon, you will see the benefit of using the analysis to determine issues that are consistent across jurisdictions and share what they have done to solve problems, improve operations, retain quality retailers, and expand their retailer base.

Your retailers will also appreciate IGT's latest retailer website, Retailer Wizard, which will vastly improve the Lottery's current solution, particularly with its at-a-glance dashboards that give retailers a comprehensive view of their lottery business.

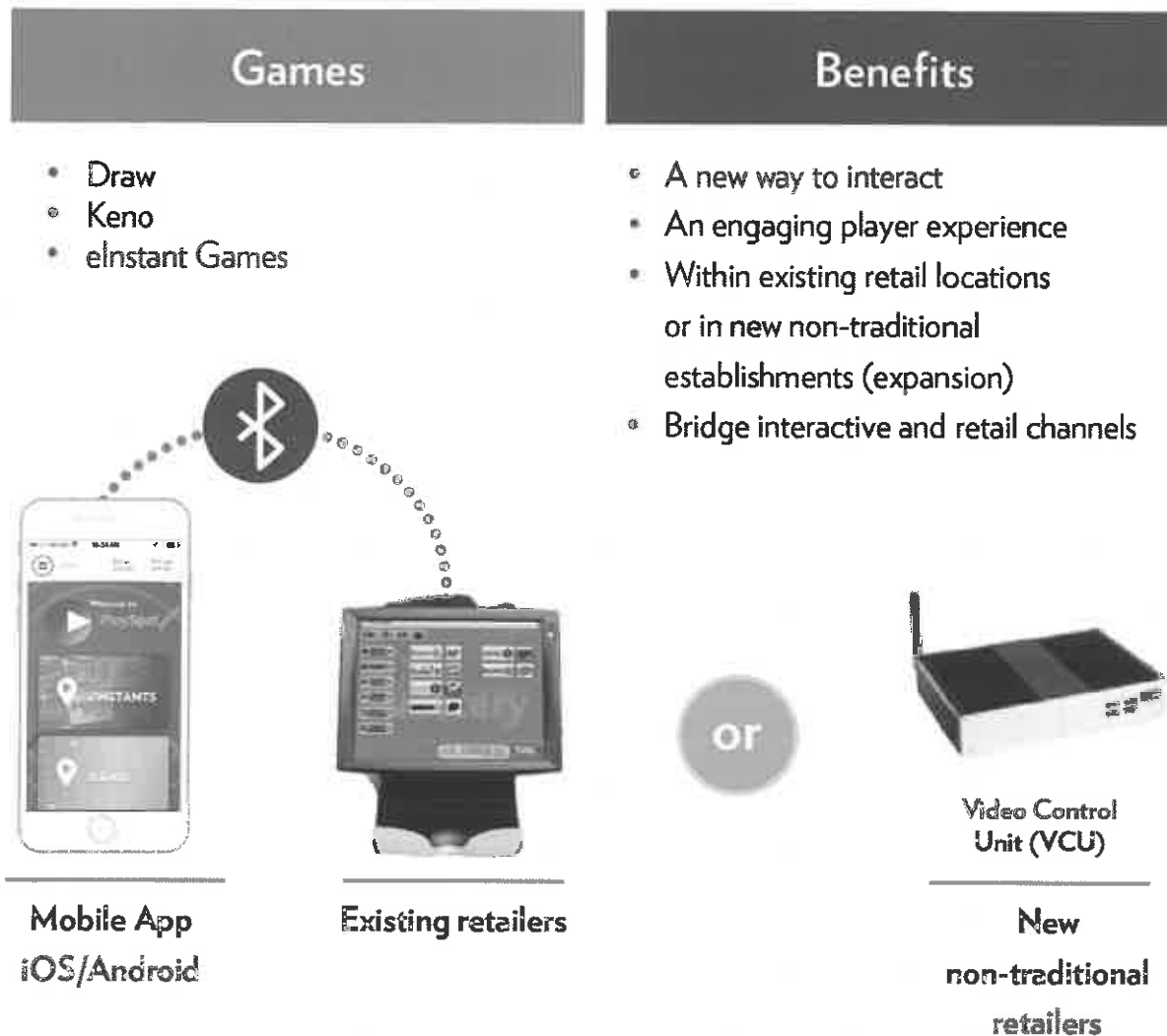
I have to say that I am highly impressed with the professionalism of the employees that I have dealt with at IGT. Along with his professionalism, my representative Bruce is very polite, courteous, and always willing to help out if my employees or myself encounter a problem, which are few and far between. I could not ask for better service or support.

– Angela Dean, Manager, J&J's Mountaineer Mart #10,
Retailer #117826, Mount Hope, West Virginia.

New Ways to Play

IGT's PlaySpot solution – which recently went live for the Rhode Island Lottery – represents a major bridge between the retail and digital channels.

Figure 3: PlaySpot Overview



Enabling Players to Play Where They Shop: PlaySpot means what its name implies – that the Lottery can reach consumers with messages and special opportunities on their own devices, and right on the spot, as soon as they enter the stores where they prefer to shop.

With convergence of the retail and interactive channels being a central component of a comprehensive iLottery solution, we can work with you to devise the optimal, compliant solution set to engage your players and retailers.

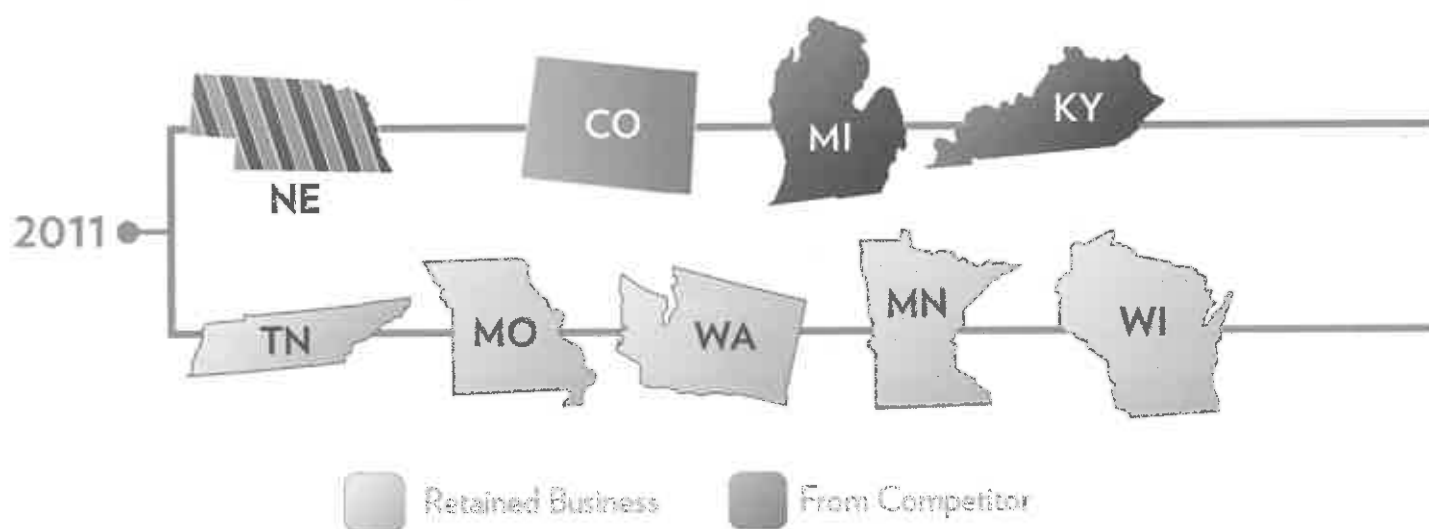
With these solutions:

- The Lottery and its players can take advantage of opportunities in the interactive space in compliance with a regulatory and political climate that does not allow Internet wagering.
- The Lottery will discover new ways in which to drive players to and engage them at the retail space.

IGT will continue to provide services to support retailers and players and expand those services under the new Contract, according to the Lottery's specifications.

In summary, the foundation of who we are as partner to the West Virginia Lottery remains. IGT is financially sound, will be here to support you for the long run, and commits itself to helping the Lottery achieve profit growth by promoting responsible play. In addition, we have worked to address your concerns by making changes that will immediately benefit you across all product and service areas.

Figure 3: Recently Retained, Recaptured, and Extended Contracts

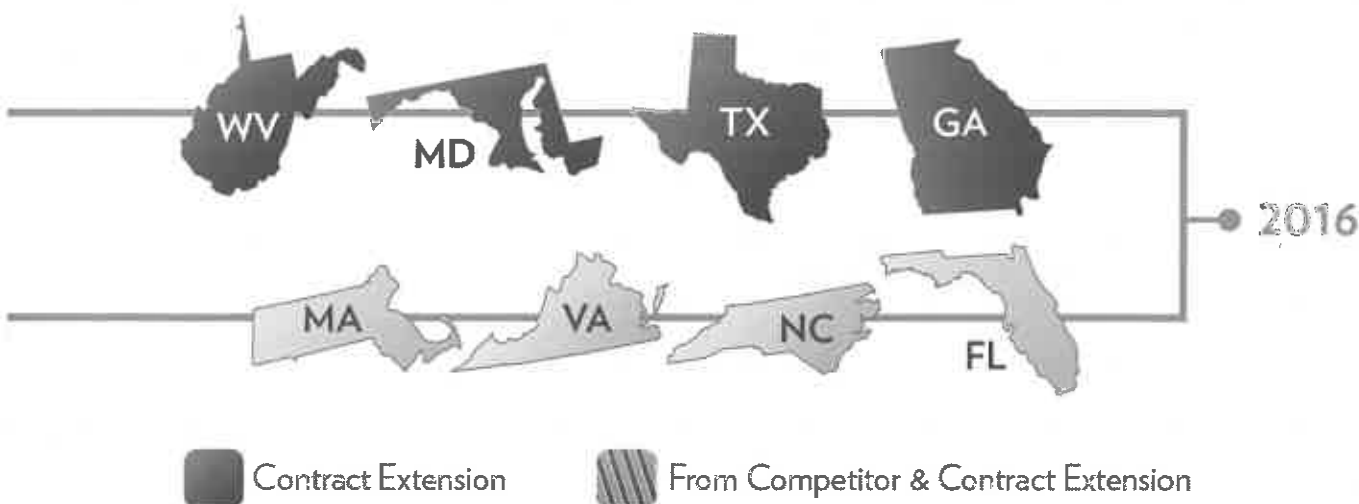


With IGT for the Foreseeable Future: In the past five years alone, IGT has retained 10 out of 11 long-term contracts through competitive procurements, while other customers have significantly extended existing contracts. Customers cite both technology and customer service as reasons for choosing, or staying with, IGT.

IGT wants to continue to win your business and your trust. We are humbled by the fact that, over the past five years, many lotteries have either renewed or extended our long-term contracts, or selected IGT after working with a different vendor.

By selecting IGT and remaining a valued customer, the Lottery will benefit from the customized service we continue to build from our experience and lessons learned – primarily in West Virginia, and also from these other successful IGT customers. We know where the opportunities exist, and have designed our products, services, and professional leadership and expertise to ensure that you achieve your sales and profit goals and sustain year-over-year (YOY) growth. As an R&D-focused organization, we bring you a wealth of new products, services, and professionals, all ready now to positively impact your business.

The Lottery will benefit from the customized service we continue to build from our experience and lessons learned





Our West Virginia team, whether in our main office, data center, National Response Center, or out in the field, is composed of dedicated West Virginians who take great pride in their state and its possibilities. We all have a stake in wanting the Lottery to succeed because we see the impact it has – when citizens play, and when they win – in improving the quality of life for our neighbors and their communities.



We recognize that there is great promise in West Virginia's future, and look forward to continuing our partnership to support what we know will be a highly successful next chapter in the life of the West Virginia Lottery.



3

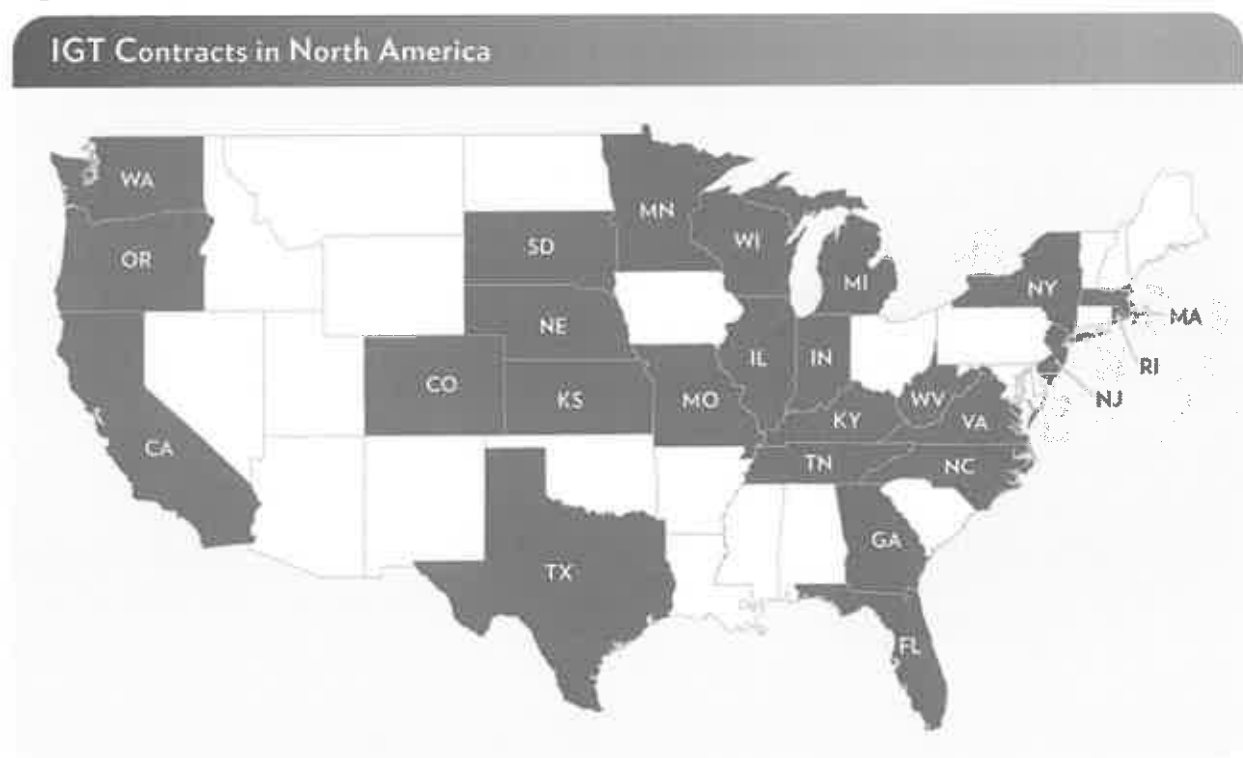
Qualifications and Experience

Provide a response regarding the following: firm and staff qualifications and experience in completing similar projects; references; copies of any staff certifications or degrees applicable to this project; proposed staffing plan; descriptions of past projects completed entailing the location of the project, project manager name and contact information, type of project, and what the project goals and objectives where and how they were met.

IGT has been a strong and reliable partner with the West Virginia Lottery since 2009, working to maximize returns to the state. Going forward, we will use our decades of experience to provide a seamless conversion for the Lottery, paving the way for it to generate even more revenue to the good causes it serves.

Including West Virginia, IGT has contracts to provide lottery systems in 25 North American states, and its systems process nearly 80% of all U.S. lottery transactions daily.

Figure 3 – 1:



IGT's impact is equally strong on a global level; the company serves customers in more than 100 countries worldwide.



We will build on our industry-leading system foundation to give the Lottery the tools required to run the day-to-day business while providing its retailers with industry-leading technology. Our in-state support staff and all critical components of the Lottery's operation will remain in West Virginia, keeping jobs in the state when they are needed most. Copies of our proposed staffing plan and all applicable certifications are included in Section 3.4, Vendor Staff and Qualifications.

In everything we do, our focus will be on using our experience and qualifications to improve performance for growth opportunities in West Virginia. IGT provides technology and related services for lotteries both larger and smaller than West Virginia. We have helped other lotteries with these same goals and have included references and case studies of similar projects.

Rhode Island Lottery (RIL)

- **Contact:**
Gerald Aubin, Director
401-463-6500
gaubin@rilot.ri.gov
1425 Pontiac Avenue
Cranston, RI 02920

A long-term partner with IGT, the Rhode Island Lottery, with its 1,150 retailers, is similar to the West Virginia Lottery in terms of size and diversity of gaming.

Since 1978, IGT has worked hard to ensure that the lottery in its home state of Rhode Island has benefited from the industry's leading technology. IGT has been privileged to provide the RIL with its state-of-the-art draw-based game, instant ticket scratch-off game, and video lottery central systems, along with management and operational support of those systems.



"We have been very fortunate to develop not only a business relationship, but a true partnership with IGT. They have proven to be a trusted market leader in our industry, and most importantly, have continued to deliver top-notch technology, systems, and services to the Rhode Island Lottery."

IGT has also worked closely with the RIL to develop a mobile player convenience app. The app became available to players in fall of 2015, giving players quick access to real-time lottery information, including jackpot information, winning numbers, lottery retailer locations, instant game information, and details related to responsible gaming.

Most recently, the RIL was the first in the nation to install IGT's new Gemini™ Touch instant ticket scratch game vending machines. FY15 sales were \$865.9M, with \$381.9M total revenue to the state. The current contract term is from 2003 to 2023.

North Carolina Education Lottery (NCEL)

- Contact: Alice Garland, Executive Director
919-301-3600
Alice.garland@loterync.net
2100 Yonkers Road
Raleigh, NC 27604

The NCEL awarded IGT a 10-year contract on January 24, 2016, following a competitive procurement. The project kickoff took place on March 9, 2016. Terminal emulation begins in September, and the Go Live date is March 26, 2017.

IGT provides the NCEL with the same Aurora™ Open Retail software solution and Altura® Flex lottery terminals it is proposing for West Virginia. The NCEL also receives 1,500 Gemini Touch self-service lottery vending machines, the latest Aurora MultiMedia digital display solution, and 3,500 ticket checkers.

Virginia Lottery

- Contact: Paula Otto, Executive Lottery Director
804-692-7100
potto@valottery.com
600 East Main Street,
Richmond, VA 23219

The Virginia Lottery awarded IGT a seven-year contract on March 29, 2016, following a competitive procurement. Terminal emulation will begin in March 2017, with a Go Live date of October 22, 2017.

Under the contract terms, the Virginia Lottery will receive the Aurora Open Retail software solution, 5,500 Altura Flex terminals, 1,500 Gemini Touch self-service lottery vending machines, and 4,000 ticket checkers. IGT will also provide warehousing and distribution for instant ticket scratch-off games, field services, and marketing support.

3.1

Corporate Capabilities and Overview

The Vendor should have corporate experience, technical and project management skills, and financial capability to support this Contract. The Vendor should provide the following information:

- *Name and address of the business entity making the proposal*
 - *Type of business entity (e.g. corporation, partnership, etc.)*
 - *Place of incorporation, if applicable*
 - *Name and location of major offices, plants, and other facilities that relate to performance under the terms of this RFP*
 - *Name, address, and function of all subcontractors, associated companies, or consultants to be involved in any phase of this project*
 - *Name, address, and telephone number of Vendor's representative to contact regarding all contractual matters concerning this proposal*
 - *Name, address, and telephone number of Vendor's representative to contact regarding all technical matters concerning this proposal*
 - *Name, address, and telephone number of Vendor's representative to contact regarding site visit schedule and other arrangements*
 - *Vendor's Federal Employer Identification Number*
-

Name and Address of the Business Entity Making the Proposal:

- IGT Global Solutions Corporation
10 Memorial Boulevard
Providence, RI 02903

Type of Business Entity (e.g. Corporation, Partnership, etc.):

- Corporation

Place of Incorporation, if Applicable:

- Delaware

Name and Location of Major Offices, Plants, and Other Facilities that Relate to Performance Under the Terms of This RFP:

- IGT's Primary Data Center for the West Virginia Lottery
1700 MacCorkle Avenue SE
5th Floor South
Charleston, WV 25314
- IGT's Warehouse for the West Virginia Lottery
4998 South Elk River Road, Unit J
Elkview, WV 25071

- IGT's Backup Data Center for the West Virginia Lottery
64 Sterling Drive
Bridgeport, WV 26330
- IGT Operating Headquarters
10 Memorial Boulevard
Providence, RI 02903
- West Virginia IGT NRC Call Center
1700 MacCorkle Avenue SE, 5th Floor
Charleston, WV 25314

Name, Address, and Function of All Subcontractors, Associated Companies, or Consultants to Be Involved in Any Phase of This Project:

If IGT is the successful vendor, its list of primary subcontractors will continue to include the following:

- **United Parcel Service (UPS)**
UPS Customer Center
3100 MacCorkle Avenue SW
Charleston, WVA 25303

UPS is a well-recognized and highly respected package delivery company. It is known for its secure, reliable service and high level of customer service. IGT currently uses UPS to deliver instant tickets and other items from its warehouses to retailers in West Virginia, as well as New York, Texas, Michigan, New Jersey, Virginia, North Carolina, Nebraska, and Arizona. UPS consistently meets its delivery commitments for our customers.

- **HCL Technologies, Ltd. (HCL)**
806 Siddharth, 96 Nehru Place
New Delhi 110019, India

HCL will provide software development support services to IGT. HCL is a global Information Technology (IT) services company with offices in 32 countries. HCL has been in business for 35 years and subcontracting with IGT for 15 years. It is among the top 20 largest publicly traded companies, with a reputation for accountability, transparency, and trust.

- **IEI Integration Corp. (IEI)**
4F, No. 29, Zhongxing Road, Xizhi Dist.
New Taipei, 221, Taiwan, R.O.C.

IEI, an International Organization for Standardization (ISO)-certified Taiwanese company, will manufacture certain hardware/components of the Altura Flex retailer terminals. To determine the viability of its secondary source, IGT relied on its own extensive manufacturing experience and expertise. IEI uses standard processes and procedures equivalent to those adhered to by IGT. IEI's production facility in Shanghai is certified to both the ISO 9001:2008 and ISO 14001 standards, and IEI's second facility in Taipei is certified to ISO 9001:2008.



- **Hughes Network Systems (Hughes)**

11717 Exploration Lane
Germantown, MD 20876

Hughes will provide certain Very Small Aperture Terminal (VSAT) communications network support services. Based in Germantown, MD, Hughes is the world's largest provider of satellite networks and services.

IGT's successful relationship with Hughes began in 2003. Since then, resources at Hughes and IGT have worked hand-in-hand crafting the very best in design, deployment, operations, and tech support, as well as repair and upgrade strategies and processes. Upcoming growth and rollouts are now logistically simple, as Hughes engineering, operations, and construction resources are all collocated, streamlining the development and deployment processes.

- **Ventus Networks, LLC (Ventus)**

10 Norden Place
Norwalk, CT 06855

Ventus will be a secondary communications provider. For more than 20 years, Ventus has developed cellular wireless and fixed line IT solutions for an expanding array of business connectivity applications. The company's solutions include Payment Card Industry Data Security Standards (PCI DSS)-compliant data transport, integration services, data encryption, cloud services, and integrated network administration and monitoring systems.

IGT also plans to contract with third parties for VSAT and Point of Access (POA) installations. The subcontractor(s) will be determined upon contract award.

Name, Address, and Telephone Number of Vendor's Representative to Contact Regarding All Contractual Matters Concerning This Proposal:

- Joseph S. Gendron
Senior Vice President, WLA North America
10 Memorial Boulevard
Providence, RI 02903
Jay.Gendron@IGT.com
401-392-7631

North Carolina Education Lottery (NCEL)

- Contact: Alice Garland, Executive Director
919-301-3600
Alice.garland@lotterync.net
2100 Yonkers Road
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 - *Place of incorporation, if applicable*
 - *Name and location of major offices, plants, and other facilities that relate to performance under the terms of this RFP*
 - *Name, address, and function of all subcontractors, associated companies, or consultants to be involved in any phase of this project*
 - *Name, address, and telephone number of Vendor's representative to contact regarding all contractual matters concerning this proposal*
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-

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5th Floor South
Charleston, WV 25314
- IGT's Warehouse for the West Virginia Lottery
4998 South Elk River Road, Unit J
Elkview, WV 25071

The resumes contain the following information for each team member:

- Most recent five-year employment history, including dates, locations, and experience working on any equivalent project performed onsite for any other state or provincial lottery or regulated lottery in a foreign jurisdiction.
- Description of traditional lottery gaming system and lottery experience.
- Contractual role of the individual for the project.
- Any additional information indicating the individual(s) ability to perform the work specified in this proposal.

Our proposed team for the conversion of the Lottery's Aurora lottery gaming system will be committed to the project for its duration and collaborate with the Lottery with full transparency. It is composed of a group of dedicated team leads, many of whom are familiar with West Virginia and the surrounding region and, combined, have nearly 130 years of lottery industry experience. Some members of the team will also continue to support the Lottery after the conversion is completed. Throughout the project, our team will collaborate with our Ongoing Operations Team in West Virginia. Please refer to Attachment A, Section 4.5.2, WV Vendor Staff, for more information.

The following tables list the conversion staff who will work on the project for West Virginia, along with their responsibilities for the project, certifications and/or degrees (if applicable), and with whom they will partner and collaborate from our West Virginia Local Team. These tables also appears in Attachment A, Section 4.8.1, Project Implementation.

Figure 3 – 2:

Key Conversion Staff	
Role:	Project Manager
Staff Member:	Gaurav Jain
Responsibilities:	Gaurav will have overall responsibility for the West Virginia implementation, including acting as a primary IGT liaison with the West Virginia Lottery, and work closely with Nikki Orcutt, our West Virginia General Manager. He will be responsible for all planning, tracking and controlling throughout the execution of the project. He will define scope, activities, dependencies, and duration of tasks to complete the project on time and within budget. Gaurav will develop the risk management plan, manage the change control process, and serve as the primary interface between IGT and the project team
Certifications/ Degrees	<ul style="list-style-type: none"> • MBA from Bryant University in Smithfield, Rhode Island • Master of Science in information systems from Bryant University • Project Management Professional (PMP)-certified from the Project Management Institute • Certified Scrum Master, Microsoft Certified Technology Specialist (MCTS), and holds Information Technology Infrastructure Library (ITIL) Foundations certification
West Virginia Local Staff Partner	<ul style="list-style-type: none"> • Nikki Orcutt: General Manager

Role:	Systems Engineer
Staff Member:	John Wood
Responsibilities:	John is a returning member of our West Virginia Conversion Team, having been a part of your last online conversion in 2009. In his role as Senior Systems Engineer, he will support the Delivery Team with an understanding of the requirements of the defined solution. He will align and influence technical requirements and work closely with the team to deliver the proposed solution. John will also drive and participate in design and change reviews and system readiness evaluations
Certifications/ Degrees:	<ul style="list-style-type: none"> • B.S. in physics from Leeds University in the United Kingdom • Post-graduate courses in software engineering • PMP-certified • Completed numerous corporate training courses in engineering and management
West Virginia Local Staff Partner	<ul style="list-style-type: none"> • Nikki Orcutt: General Manager • Tim Snyder: Operations Manager • Joe Payne: Field Marketing and Sales Manager • Marketing Content Manager: To be hired • Roger Ezzell: Field Service and Warehouse Manager • Jeramie Gibson: Business Analyst • Tim Powers: Systems Administrator

Role:	Lead Business Analyst
Staff Member:	Pierre Gallant
Responsibilities:	Pierre will provide guidance to the Business Analyst (BA) team throughout the project life cycle in the design, development, implementation, operation, and maintenance of software through requirements management. He will manage and control the project scope in collaboration with project managers and the technical lead
Certifications/ Degrees:	<ul style="list-style-type: none"> • Bachelor's degree in applied computer sciences from the Université de Moncton in Moncton, New Brunswick, Canada • Associate's certificate in business analysis from TwentyEight Strategy Execution, formerly ESI International
West Virginia Local Staff Partner	<ul style="list-style-type: none"> • Jeramie Gibson: Business Analyst

Role:	Software Project Manager
Staff Member:	Ashish Agarwal
Responsibilities:	Ashish will facilitate all software design and development, as well as software implementation and acceptance. He will ensure that software is delivered within specifications, on time, on budget, and to the Lottery's satisfaction
Certifications/ Degrees:	<ul style="list-style-type: none"> • Bachelor of Technology degree in electrical engineering from the Institute of Engineering and Technology in Lucknow, India • PMP-certified from the Project Management Institute
West Virginia Local Staff Partner	<ul style="list-style-type: none"> • Tim Snyder: Operations Manager • Jeremy Vickers: Software Quality Assurance (SQA) Analyst

Role:	Quality Assurance Lead
Staff Member:	Celestina Alessio
Responsibilities:	Celestina will review the software requirements specifications, create the test plan, oversee the creation and review of test cases, manage the daily allocation of work among the QA team, provide progress reports, ensure that items are fully tested before release, and provide assistance to the Lottery during its own testing
Certifications/ Degrees	<ul style="list-style-type: none"> • A.S. Data Processing degree from Thames Valley State Technical College, now called Three Rivers Community College, in Norwich, Connecticut • Holds certifications from HP Quality Center
West Virginia Local Staff Partner:	<ul style="list-style-type: none"> • Jeremy Vickers: SQA Analyst

Role:	Finance Lead
Staff Member:	Kim Scholle
Responsibilities:	Kim will lead the monthly forecast reviews, assist the appropriate teams in managing project budgets, and compile detailed variance analyses. She will also participate in the costing process for new business opportunities, prepare benchmark analyses for cost reviews, and report the financial status at the executive level for projects in delivery
Certifications/ Degrees	<ul style="list-style-type: none"> • B.S. in accounting from the University of Maryland
West Virginia Local Staff Partner:	<ul style="list-style-type: none"> • Nikki Orcutt: General Manager

Role:	Infrastructure Project Manager
Staff Member:	Justin Lefebvre
Responsibilities:	Justin will implement data center servers as well as communications hardware and software, manage all Information Technology (IT) systems support and communications engineers, and serve as a member of the Core Project Team
Certifications/ Degrees	<ul style="list-style-type: none"> • Associate of Arts degree in elementary education/special education from the Community College of Rhode Island • Associate of Science degree in computer information systems from the New England Institute of Technology • Instructor/facilitator-certified by Langevin Learning Services • Holds two ITIL certifications in Foundations v3 and Service Capability: Operational Support and Analysis
West Virginia Local Staff Partner:	<ul style="list-style-type: none"> • Tim Snyder: Operations Manager

Role:	Communications Lead
Staff Member:	George Lonergan
Responsibilities:	George will configure, install, and test the hardware and peripherals associated with the communications network. This responsibility expands to all facilities including the Primary Data Center, Backup Data Center, remote offices, Lottery connectivity, as well as the retailer network and backbone
Certifications/ Degrees	<ul style="list-style-type: none"> B.S. in aerospace engineering from Boston University
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Tim Snyder: Operations Manager Tim Powers: Systems Administrator

Role:	Network Rollout Organization (NRO) Lead
Staff Member:	Dustin Larson
Responsibilities:	Dustin is a returning member of our West Virginia Conversion team, having been a part of your last online conversion in 2009. As a Senior Network Rollout Manager, he will manage the installation of your new ALTURA® Flex terminals, peripherals, and communications equipment. Dustin will be in charge of the daily management of the IGT third-party vendors hired to install communications network and point-of-sale equipment in all retail locations. He will also work with the local IGT field service staff in charge of conversion warehousing and logistic channels to ensure that all equipment is tracked and allocated properly to all retailers and contractors
Certifications/ Degrees	<ul style="list-style-type: none"> Very Small Aperture Terminal (VSAT) certified: Hughes Network Services, Spacenet/Gilat, MDS Radio, and AOTMP Silver Telecommunications Certification Working toward PMP certification
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Roger Ezzell: Field Service and Warehouse Manager

Role:	Training PM
Staff Member:	Christopher Lawrence
Responsibilities:	Christopher will manage all training-related initiatives for the full life cycle of the project. Specifically, he will be the central point of contact for all training deliverables and create and manage the timeline for training activities and documentation
Certifications/ Degrees	<ul style="list-style-type: none"> BA in English from the University of Colorado PMP-certified Six Sigma Master Black Belt certified ITIL Certification Microsoft Certified Systems Engineer (MCSE)
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Nikki Orcutt: General Manager Joe Payne: Field Marketing and Sales Manager Marketing Content Manager: To be hired

Role:	Facilities Manager
Staff Member:	David Rannacher
Responsibilities:	David is a returning member of our West Virginia Conversion team, having been a part of your last online conversion in 2009. He will manage the selection, leasing, and tenant improvements at all facilities supporting the West Virginia Lottery. This process includes incorporating all of the needs of the account team, including offices, data centers, warehousing, and repair depots. David will execute this effort by teaming with landlords, engineers, and general contractors to deliver the facility requirements on time and within budget
Certifications/ Degrees	<ul style="list-style-type: none"> Completed facility engineering management classes at Johnson & Wales University in Providence, Rhode Island
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Nikki Orcutt: General Manager Roger Ezzell: Field Service and Warehouse Manager

West Virginia Ongoing Support

As described more fully in Section 4.5, Vendor Administration, IGT will also provide a dedicated, experienced team to provide on-going Aurora operations and support services. We have provided this team's resumes, which include all management, supervisory, field service, and key technical personnel, within the exhibit entitled **Resumes**, which is located behind the Exhibits tab. Should any staffing changes occur, we will provide the Lottery with updated resumes, and understand that resumes will be reviewed by Lottery personnel to determine if the individual(s) are qualified to perform the work specified in this RFP. We also understand that all staff assigned to this Contract are subject to approval and a criminal background check by the Lottery as defined in Lottery Terms and Conditions item 44.1 titled Criminal Background Investigation.

With nearly 50 team members who have supported and learned from the West Virginia Lottery since 2009, IGT is committed to maintaining a smooth level of business continuity in West Virginia. The organizational chart for our West Virginia team may be found within Attachment A, Section 4.5.2, WV Vendor Staff. Additionally, we will continue to hire West Virginians for any open positions or positions that may have to be filled during the course of the contract. IGT is uniquely committed to the economy and job market in West Virginia. For example, West Virginia currently hosts one of several National Response Centers for retailer and player Hotline calls that we maintain to serve our entire base of U.S. customers (see Attachment A, Section 4.6.5, Hotline, for more information).

3.5

Vendor Technical Capabilities and Resources

Vendor should have the capacity to provide the software applications and System support that is critical to this project. Vendor's response should include descriptions of its (1) software engineering and system integration capabilities, and (2) configuration management tools and procedures.

IGT's technical capabilities and resources have been refined over the last 35 years and will ensure that best practices continue to be applied across the West Virginia Lottery's operations. We remain committed to providing the highest-quality service and software to the Lottery and are prepared to deliver system improvements that will ensure the future success of your business. In short, we are well-positioned to partner with you throughout the life of the next Contract.

IGT has a worldwide presence, with more than 800 full-time staff and 450 consultants or variable staff who consistently deliver between 1.8 million and 2 million software hours annually, as illustrated in the following figure:

Figure 3 – 3:



We build our terminals in compliance with the International Organization for Standardization's (ISO's) 9001:2008 standard for development and manufacturing quality. IGT also holds global certifications under ISO 27001:2005 and World Lottery Association Security Control Standard (WLA SCS): 2012.

Many of the professionals on our software team are leaders in the field, having received formal training at respected colleges and universities and industry certifications through organizations such as the Project Management Institute (PMI) and Scrum Alliance as well as industry leaders such as Microsoft, Sun, and IBM.

IGT has also achieved Capability Maturity Model Integration (CMMI-DEV) Level 3 certification for software development. Our manufacturing team holds some of the most prestigious accreditations in the industry from organizations such as the PMI, the American Society for Quality (ASQ), and the Institute for Supply Management (ISM).

Software Engineering and System Integration Capabilities

IGT's approach to software and quality engineering is based on our Systems Development Life Cycle (SDLC) approach, which incorporates requirements, systems engineering and architecture, and software development, design and quality from the Integrated Delivery Model (IDM) framework for repeatable success.

One of the critical components of the SDLC, as it relates to software development and quality engineering, is our Build-Test-Correct (BTC) methodology. BTC is an iterative approach to creating software in cycles. It allows us to measure progress across the planned software development schedule and verify it against approved business requirements to correct defects as early in development as possible. As a best practices approach, we typically configure and enhance the more complex areas of the system in the earlier BTCs.

Configuration and Release Management

Our software services approach requires equally strong configuration and release management practices, especially when multiple code-lines are required for concurrent and parallel efforts to achieve long-term and short-term business objectives.

Strong configuration and release management starts with having our people trained and experienced to handle even the most dynamic of situations. We draw on our many years of CMMI experience to ensure our people have the processes in place for configuration and release management in order to handle these highly complex delivery environments. Because this aspect of our service is so critical, we have regular compliance checks and audits to safeguard the code that drives your business. We further support our people by providing them with the tools identified in the following table.

Figure 3 – 4:

Tools Used for Software Development	
Tool	Purpose
Dynamic Object-Oriented Requirements System (DOORS®)	A requirements management application for optimizing requirements communication, collaboration, and verification
JIRA™ (includes Partner-JIRA)	An issue-tracking and workflow tool from Atlassian. Along with the “out-of-the-box” built-in issue and work flow, IGT has developed its own custom workflows for enhancements and software requirements. JIRA also supports plug-in tools to facilitate Agile Project Management, e.g., Greenhopper™ (an Agile project management tool used for software development)
Quality Center™	QM software offered by the HP Software Division of Hewlett-Packard with many capabilities acquired from the acquisition of the Mercury Interactive Corporation
Tool	Purpose
Multi-Point Integrator	An IGT-developed tool that automates the integration of requirement artifacts from DOORS to JIRA to Quality Center. For example, content or status changes of requirements are automatically displayed in JIRA and Quality Center; development status, release, and test considerations are automatically pushed to Quality Center, thereby giving us a fully integrated suite of best-in-class tools for managing the software development life cycle. The Multi-Point Integrator also includes a data warehouse component that pulls all the data from the three tools to support reporting on different levels, e.g., high-level project status, burn-down and burn-up charts, defect find/fix/close rates, team productivity, etc.
Subversion	An open source version-control system founded in 2000 by CollabNet, Inc. Provides true atomic operations; maintains versioning for directories, renames, and file metadata; users can move and/or copy entire directory-trees very quickly while retaining full revision history
GIT	Repository and repository management for source code as well as all build/deploy rules
Red Hat Network Satellite (RHNS)	RHNS keeps server profiles by using standardized software channels. All packages including applications will be distributed using RHNS
RHNS - NEXUS PRO	Nexus is used to keep all artifacts required by maven (scripting tool) to build applications
PUPPET	PUPPET is used for automated operating system configuration, middleware delivery and configuration, and software installation
JENKINS	JENKINS is used as an orchestrator to trigger all builds and installations
VAGRANT	VAGRANT is used to distribute Virtual Machine images to developer boxes to support local builds and deployment before code is submitted into the code repository

In our ongoing efforts to be the leading technology provider in the lottery industry, we constantly assess our skills and capabilities to provide up-to-date, cutting-edge methodologies for delivering software. For additional information regarding our software engineering and system integration capabilities and configuration management tools and procedures, please refer to Section 4.2.24, System Hardware and Software, and Section 4.8, Conversion and Implementation Specifications.

3.6

Audit Requirements

Specific requirements related to financial audits are detailed below:

IGT has undergone an annual SOC1 audit every year since it was awarded the Lottery contract in 2009. We are proud of our record – six clean audits, with no exceptions noted.

Our response to requirements related to financial audits is detailed below.

3.6.1

Annual Financial Audit

The Vendor shall have a complete financial audit conducted annually.

IGT will comply.

The financial statements of International Game Technology PLC are audited on an annual basis by PricewaterhouseCoopers (PwC). PwC's audit report is included in the Form 20-F that is filed with the Securities and Exchange Commission by International Game Technology PLC no later than the due date of May 1, 2017.

3.6.2

Annual Examination by Independent Certified Public Accounting Firm

In addition, an examination of the description of relevant controls applicable to the Vendor's description of its West Virginia operations shall be conducted annually by an independent certified public accounting firm that will be selected by the Lottery. This examination shall be conducted in accordance with the attestation standards established by the American Institute of Certified Public Accountants (statement on Standards for Attestation Engagements No. 16, Reporting on Controls at a Service Organization (AICPA, Professional Standards. AT sec. 501))). This examination is commonly referred to as a SOC1, Type 2 examination. The expense of the examination will be paid by the Lottery.

As it does today, IGT agrees to cooperate with the independent certified accounting firm selected by the Lottery.

Under current practice, the SOC1 audits are conducted every July by Arnett Carbis Toothman, LLP in Charleston, West Virginia. If the Lottery contracts with a different auditing company in the future, we will work closely with that firm as well.

The Vendor will cooperate with the independent certified accounting firm selected by the Lottery in its performance of the examination and will:

3.6.2.a

System Description

Provide the description of the Vendor's system;

IGT will provide a description of its system to the independent certified accounting firm selected by the Lottery.

3.6.2.b

Management Assertion

Provide a management assertion about the fair presentation of the description and the suitability of design and operating effectiveness of the controls to achieve the related control objectives stated in the description;

IGT will provide the independent certified accounting firm selected by the Lottery with a management assertion about the fair presentation of the description and suitability of design and operating effectiveness of the controls to achieve the related control objectives stated in the description.

3.6.2.c

Responsibility for Description/Assertion

Acknowledge responsibility for preparing the description and for the assertion, including the completeness, accuracy, and method of presentation of the description and the assertion, providing the services covered by the description, specifying the control objectives and stating them in the description, identifying the risks that threaten the achievement of the control objectives, selecting the criteria, and designing, implementing, and documenting controls to achieve the related control objectives stated in the description; and

IGT will acknowledge responsibility for preparing the description and the assertion, including the completeness, accuracy, and method of presentation of the description and the assertion, providing the services covered by the description, specifying the control objectives and stating them in the description, identifying the risks that threaten the achievement of the control objectives, selecting the criteria, and designing, implementing, and documenting controls to achieve the related control objectives stated in the description.

3.6.2.d

Working Papers Review

Will not prohibit a review of the working papers of the examining auditor by the Lottery's independent auditors.

IGT agrees not to prohibit a review of the Working Papers of the examining auditor by the Lottery's independent auditors.

3.6.3

Examination Within 90 Days

The Lottery reserves the right to mandate the first examination of the Vendor's description to be conducted within ninety (90) days of installing the system.

IGT understands and agrees that the Lottery reserves the right to mandate the first examination of IGT's description to be conducted within ninety (90) days of installing the system.

3.6.4

Records and Operations Audit

The Lottery reserves the right to audit the Vendor's records and operations as they relate to West Virginia during the term of the Contract. The audits may be conducted by the Lottery's own auditors or an independent firm specified by the Lottery.

IGT understands and agrees that the Lottery reserves the right to audit IGT's records and operations as they relate to West Virginia during the term of the Contract. The audits may be conducted by the Lottery's own auditors or an independent firm specified by the Lottery.

3.7

Glossary of Terms in This RFP

TERM	DEFINITION
ABCA	Alcohol Beverage Control Administration, a state agency which has regulatory authority over facilities that sell alcohol.
Acceptance	Written notice of approval from the Director transmitted to the Vendor that the Lottery has evaluated the performance of an action by the Vendor and has determined that the performance meets the Lottery's requirements.
Activation, Activate	The act of notifying the Lottery through a Retailer Terminal that the Lottery Retailer has begun selling a particular Pack of Scratch Game Tickets which then authorizes a Retailer and the Lottery to validate and pay a prize from a ticket within that Pack.
ADA	Americans with Disabilities Act
Agreement	See Contract.
Back-office System	Data processing systems used to support the central business operation of the Lottery, as distinct from gaming systems or systems employed by the retailer at the point-of-sale. This includes for example the Lottery's ICS systems.
Back-up System	A computer system located at the currently active data center (PDC or BDC) that is able to immediately function as the Primary Computer System.
Base Cost	The rate proposed by a Vendor for the Online Gaming System and for all items, equipment, software, services, functions, and duties required by the RFP and subject to all of the terms and conditions specified by the RFP, and any other feature proposed to be included by the Vendor, represented as a percentage of daily net revenue.
Base System	Base System means the standard system marketed and sold to existing customers. It may or may not have all required functionality described in this RFP.
BDC	Backup Data Center: A remote data center that has the full functionality as the primary data center, including independent network paths. In this RFP, the traditional gaming system is housed in a Lottery provided BDC-
Chains	Chains are groups having the same ownership and/or electronic funds transfer ("EFT") account.

TERM	DEFINITION
Consumables	Play slips, ticket stock, printer paper, printer ribbons, ink supply, toner, and any other operational supplies required by retailers to operate their terminals. The term "Consumables" does not include point-of-sale promotional items or scratch tickets.
Contract	The written agreement resulting from this RFP, the successful Proposal and subsequent negotiations, which incorporates, among other things, this RFP and the Vendor's Proposal, and all modifications hereto and thereto as well as WV forms WV-96 and Affidavit.
Contract Manager	The manager of a party responsible for the Contract on behalf of the respective organization.
Degraded Functionality	The operation of the System when (i) any online function required by the Agreement, including but not limited to validation, selling and/or canceling tickets, or producing retailer accounting reports, is not available due to failures other than failures which are determined to be outside the responsibility of the Vendor, (ii) data is not being recorded on two (2) magnetic media within six (6) seconds of ticket issuance on the computer that is acting as the Primary Computer System, (iii) data is not being recorded on the Secondary Computer System, or (iv) data is not being recorded on the Back-up Computer System.
Degraded Performance	The operation of the System when draw game tickets are not being produced within the specifications and response times required by the Contract.
Effective Date	The date upon which the Contract is signed.
Gaming System, Online Gaming System, Online Lottery Gaming System, System, or Traditional System	The set of software and hardware components required in order to deploy and operate a particular game or set of games. Such components include for example game terminals, communications channels, and game host computers as well as back-office systems at the Lottery Headquarter Office.
Go-Live Date (Start-Up Date)	The designated date defined by the Lottery, when the conversion of the new System is completed and the Lottery permits the Vendor to enable live business transactions.

TERM	DEFINITION
Hash Totals	The two primary methods utilized are MD5 and SHA-1 each of which is a mathematical computation of the individual characters within a file resulting in a string of characters. If two files have the same hash value, their contents are identical. If any bit is changed in one of the files the hash numbers will not be the same. Changing MAC dates, file names or file locations will not change the computed hash values.
Hotline	The method utilized by a Vendor to handle incoming telephone calls from Lottery Retailers relating to Retailer Terminal problems, ordering of supplies and handling of Lottery Retailer questions.
IGT	IGT is the current vendor, known as IGT Global Solutions Corp.
Instant ticket	A physical product sold by the Lottery; belonging to the Instant products. To play, the player must scratch off or tear off a covering to reveal ticket symbols to determine if it is a winning ticket.
Intellectual Property Rights	Any rights with respect to inventions, discoveries, or improvements, including patents, patent applications and certificates of invention; trade secrets, knowhow, or similar rights; the protection of works of authorship or expression, including copyrights and future copyrights; and trademarks, service marks, logos, and trade dress; and similar rights under any laws or international conventions throughout the world, including the right to apply for registrations, certificates, or renewals with respect thereto, and the rights to prosecute, enforce, and obtain damages.
Internal Control System (ICS)	The audit system and its associated processes that performs auditing of the gaming system component to ensure the integrity, security, and accuracy of gaming transactions.
Lottery	The West Virginia Lottery.
Lottery Headquarters	The main physical location that houses the Lottery's central offices located at 900 Pennsylvania Avenue, Charleston, WV 25302.
Lottery Director	The person(s) in charge of running the Lottery and making executive decisions on a day-to-day basis or his designee.
Lottery Retailer, Retailer	Legal business authorized by the Lottery to sell and validate lottery tickets at a POS.
Management Terminal, Management Workstation	Terminal or personal computer used by the Lottery for inquiry, report preparation, and/or managing game parameters for the Online Gaming System or other Systems.

TERM	DEFINITION
<i>Material Change</i>	<i>Any event which, following Generally Accepted Accounting Principles (GAAP) or International Accounting Standards (IAS), would require a disclosure in the annual report of a publicly traded corporation.</i>
<i>MUSL</i>	<i>Multi-State Lottery Association - The association of lotteries based in Des Moines, Iowa that currently conducts a number of games, including Powerball®.</i>
<i>NASPL</i>	<i>North American Association of State and Provincial Lotteries, www.naspl.org.</i>
<i>Online Transaction, System Transaction, Transaction</i>	<i>The activity in the Online Gaming System that creates a record and receipt of a sale, canceled or validated ticket, or other transaction. A transaction may begin when a Lottery Retailer presses the send key or function on the Retailer Terminal and ends with the printing and dispensing of an Online Game Ticket or report. A transaction may also be a result of a player activated terminal, a kiosk, or a web-located user,</i>
<i>Pack</i>	<i>A quantity of Instant Game Tickets that are shrink-wrapped and inventoried to be distributed to Lottery Retailers.</i>
<i>Party, Parties</i>	<i>The Lottery and the Vendor or Vendor, each being a Party, jointly referred to as Parties.</i>
<i>Play Slip</i>	<i>A pre-printed Retailer Terminal-readable form issued under the authority of the Lottery used for marking a player's draw game play selections.</i>
<i>POS</i>	<i>Point of Sale (retail location), often linked to a Lottery Retailer.</i>
<i>Primary system</i>	<i>A computer system located at the Primary Site that has the ability to process and record all transactions on a real-time basis and all functions related to the Traditional Gaming System. Each data center has two redundant systems and the one that is currently operational and processing transactions is referred to as the Primary System.</i>
<i>PDC</i>	<i>The System is comprised of four redundant systems, two of which are housed at the Primary Data Center (a fully functioning data center) and two are housed at the Backup Data Center. At any moment in time, one of the four systems is actively processing gaming data and is referred to as the Primary System, the second system at that particular data center is referred to as the Secondary System, all four have mechanisms in place to synchronize all transactions so that the relevant databases are kept up to date and contain the same data.</i>

TERM	DEFINITION
<i>Proposal (Bid)</i>	<i>Anything that a vendor submits in response to a solicitation that constitutes an offer to the State and includes, but is not limited . documents submitted in response to request for proposals.</i>
<i>Proposal Clarification</i>	<i>A process used by the Proposal Evaluation Committee to resolve ambiguities and improve the understanding of an individual Vendor's Proposal. The responses of individual Vendors to Lottery requests for clarification are considered part of the deliberative process of clarifying the offerings in a Proposal.</i>
<i>RFP</i>	<i>References this "Request For Proposal" document including all appendices and subsequent amendments.</i>
<i>Secondary system</i>	<i>A second set of computers, located at each data center, which records all of the transactions on a real-time basis from the Primary Computer System in the event of a failure of the Primary Computer System. The Secondary system is able to immediately function as the Primary Computer System with identical performance and capabilities as the Primary Computer System. Note the PDC and BDC each have two systems, one is primary, the other is secondary unless the roles are reversed due to a local failure.</i>
<i>SLA</i>	<i>Service Level Agreement includes specifications and objectives to achieve a desired level of service.</i>
<i>Software</i>	<i>All system software and customized software (which is including the source code and any technical and functional (development) Documentation developed by the Vendor for or at the request of the Lottery).</i>
<i>SRS</i>	<i>System Requirements Specifications are used to document how certain functions or programs will be designed.</i>
<i>SSAE16</i>	<i>Statement on Standards for Attestation Engagements (SSAE) No. 16", short SSAE 16 (formerly known as SAS 70) producing a "Service Organization Controls (SOC) 1 report" as output. US equivalent to ISAE 3402. The report issued is a SOC 1 TYPE 2.</i>
<i>SST</i>	<i>Self Service Terminals allowing players to purchase and validate Lottery games.</i>
<i>Subcontractor</i>	<i>Person(s) to whom the Vendor entrusts a portion of the execution of the Contract.</i>

TERM	DEFINITION
System	<i>A collection of hardware, software, facilities, and procedural elements which provides gaming services and which produces data related to games played and won. In this RFP there are numerous references to systems, inclusive of references to systems that are subsystems of other referenced systems. The immediate context and adjectives or labels define which systems are being discussed. When used without other qualification, "System" refers to the comprehensive gaming system as per the objective of this RFP proposed by the Vendor.</i>
Telecommunications Network, Communications Network	<i>The System including telecommunication lines, switches, routers, and central office equipment that provides the interface and compatibility between Retailer Terminals, communications equipment, and the Primary and Back-up Computer Systems. The majority of the circuits utilize satellite communications.</i>
Terminal	<i>Machine designated to facilitate Lottery product sales, validations, reports, and instant ticket ordering at a POS.</i>
Ticket	<i>Tangible or digital evidence issued by the Lottery to provide participation in a Lottery game.</i>
Ticket Checker or Self-Check Unit	<i>A player activated terminal where a player can check to see if their Online Games or Scratch ticket is a winner. The terminal simply replies with an appropriate message,</i>
Transaction Log or System Log	<i>The file or data structure that lists all transactions, by a Lottery Retailer, that have occurred during a day (or longer). This includes all Online Game transactions, selection sets, times, management commands, Scratch Game Ticket validations pass through transactions, etc.</i>
Vendor	<i>The Vendor with whom the State of West Virginia will execute a Contract pursuant to this RFP; prior to Contract Award generally refers to bidders submitting a proposal.</i> <i>Once the State of West Virginia signs the Contract, the bidder becomes the Vendor.</i>
Voucher	<i>Ticket or transaction number on a ticket that will be used for entry for contests conducted over the internet.</i>

IGT has read, understands, and acknowledges the Glossary of Terms presented in this RFP.

4

Project, Goals, and Objectives

List project goals and or objectives contained in Section 4, Subsection 4:

IGT has read, understands, and acknowledges the project's scope, goals, and objectives, as well as specifications for the RFP response and potential engagement by the West Virginia Lottery with other sources.

4.1 Facilities

Facilities to house the System should be designed and constructed to support operation of the System and maximize efficiency. Please describe your plans to achieve the goals related to FACILITIES. (Section 4.1).

To meet and exceed the West Virginia Lottery's evolving business needs, IGT has invested substantially in a number of facilities throughout the state. If selected to be your next vendor, we will continue to provide local facilities that meet all state and local codes, are able to handle the complexity and growth objectives of the Lottery, and – perhaps most important – are safe and secure.

The facilities will include a local Primary Data Center (PDC), a separate local, remote Backup Data Center (BDC), a warehouse, and several lock-up locations distributed throughout the State. All facilities will be Americans with Disabilities Act (ADA)-compliant and adhere to all applicable West Virginia regulations.

The facilities include:

- **PDC Located in Charleston:** This PDC location will benefit from continuity of operations and the efficiency of being located 3.4 miles from Lottery Headquarters. Equally important, this location represents IGT's commitment to staff members who reside in and around Charleston.
- **BDC Continuity in Bridgeport:** Geographically separate and secure from the PDC, the Lottery-owned BDC facility will provide your new gaming system with redundancy and security in accordance with IGT best practices.
- **Warehouse in Elkview:** As well as being a storage and repair center for lottery terminals, peripherals, and consumables, our secure warehouse in Elkview also houses Pick 'n Pack operations.
- **Strategically Located and Secure Lock-up Locations:** We currently maintain five lock-up locations in West Virginia, strategically located to effectively serve your retailers. We will examine each location on a case-by-case basis to determine whether relocation will better suit your needs while maintaining our focus on strategic geographic placement. The figure in Subsection 4.1.5, Additional Warehouse Space, displays the specific locations of these facilities throughout the State.
- **Data Center of the Americas (DCA):** In addition to the robust capabilities of our proposed in-state data centers, we will provide support from our Austin, Texas-based DCA, a world-class facility and one of the longest-running consolidated data centers in the U.S. It is home to a well-trained, expert staff who are on site 24 hours per day, seven days a week.

We are the vendor best positioned to ensure that your PDC conversion proceeds on schedule and with minimal disruption to you and your retailers. We will not need to construct a temporary data center to use during implementation, as further described in Section 4.8.1, Project Implementation. Using our existing location will eliminate the disruptions and risks to your business and retailers that a new vendor might experience during such a multi-faceted conversion. Managing and operating secure and efficient data centers is one of IGT's core competencies. Following are further details on our proposed facilities.

4.1.1

Primary Data Center ("PDC")

In the current environment the Vendor provides facilities and utilities for the PDC. The Vendor provides and maintains in good operating condition, an appropriately sized uninterruptible power system ("UPS") and an appropriately sized generator with the capacity to support and serve the PDC. Should a utility power failure occur, the UPS currently provides at least 150% of the capacity needed to sustain all hardware, environmental equipment, communications equipment, fire protection equipment, alarm systems, and necessary lighting to conduct services at full capacity. Such equipment complies with all applicable fire and safety codes. The Vendor maintains the UPS and generator systems at their PDC with adequate periodic inspections and load testing required by the product manufacturers to assure dependability and functionality. Inspections and tests are requested and reviewed by the Lottery.

IGT will continue to provide and operate a PDC at the location specified below.

Location:

1700 MacCorkle Ave SE
5th Floor South
Charleston, WV 25314

Figure 4.1 – 1:

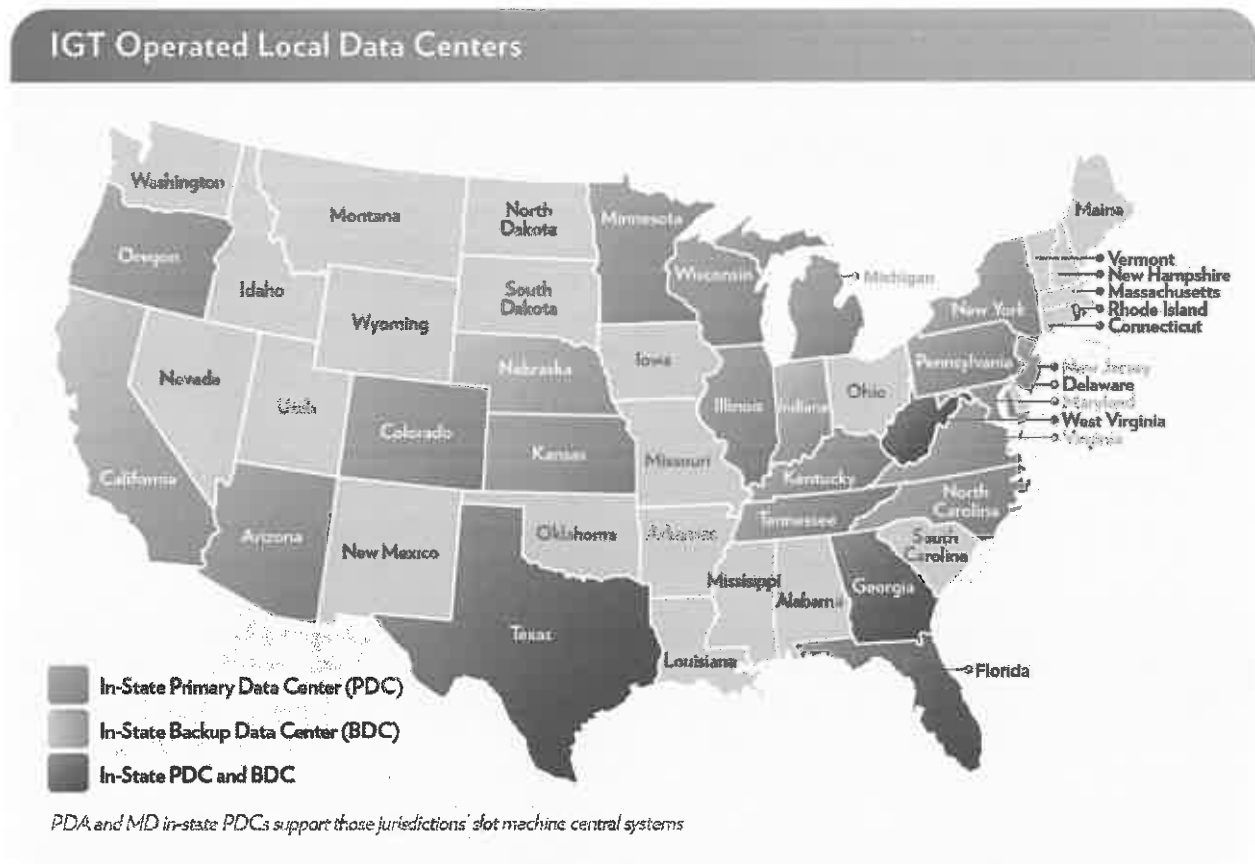
View of the West Virginia PDC Facility



Close Proximity for a Better Partnership: With Lottery Headquarters and the IGT PDC just a few miles apart, we will be able to continue our close collaboration and track record for getting things done.

IGT's West Virginia PDC facility is located 3.4 miles from the Lottery's Headquarters at 900 Pennsylvania Ave. Our current location in Charleston offers close proximity to the Lottery with convenient access for Lottery staff, giving us a better opportunity to serve your ongoing business needs in a timely manner.

Figure 4.1 – 2:



Data Center Expertise: IGT brings robust experience in the operation of local data centers on behalf of its lottery customers.

As we have for the Lottery – and as we do for all of our customers, whether their data center is local or at the DCA – we will continue to implement operational best practices that adhere to the highest lottery and Information Technology (IT) industry standards.

To ensure maximum efficiency at your PDC, the Lottery will:

- Benefit from IGT's experienced staff.
- Receive convenient access at all times to dedicated IGT personnel.

Unique in comparison to most PDCs, our existing facility at 1700 MacCorkle Ave. in Charleston will house:

- A local Quality Assurance (QA) lab.
- Call Center/Hotline operations.
- Tel-Sell operations.

Locating these departments in-state provides jobs for local West Virginia residents and ensures streamlined services that are specific to Lottery operations. The following figures give an on-site glimpse into the various departments housed in the PDC.

Figure 4.1 – 3:

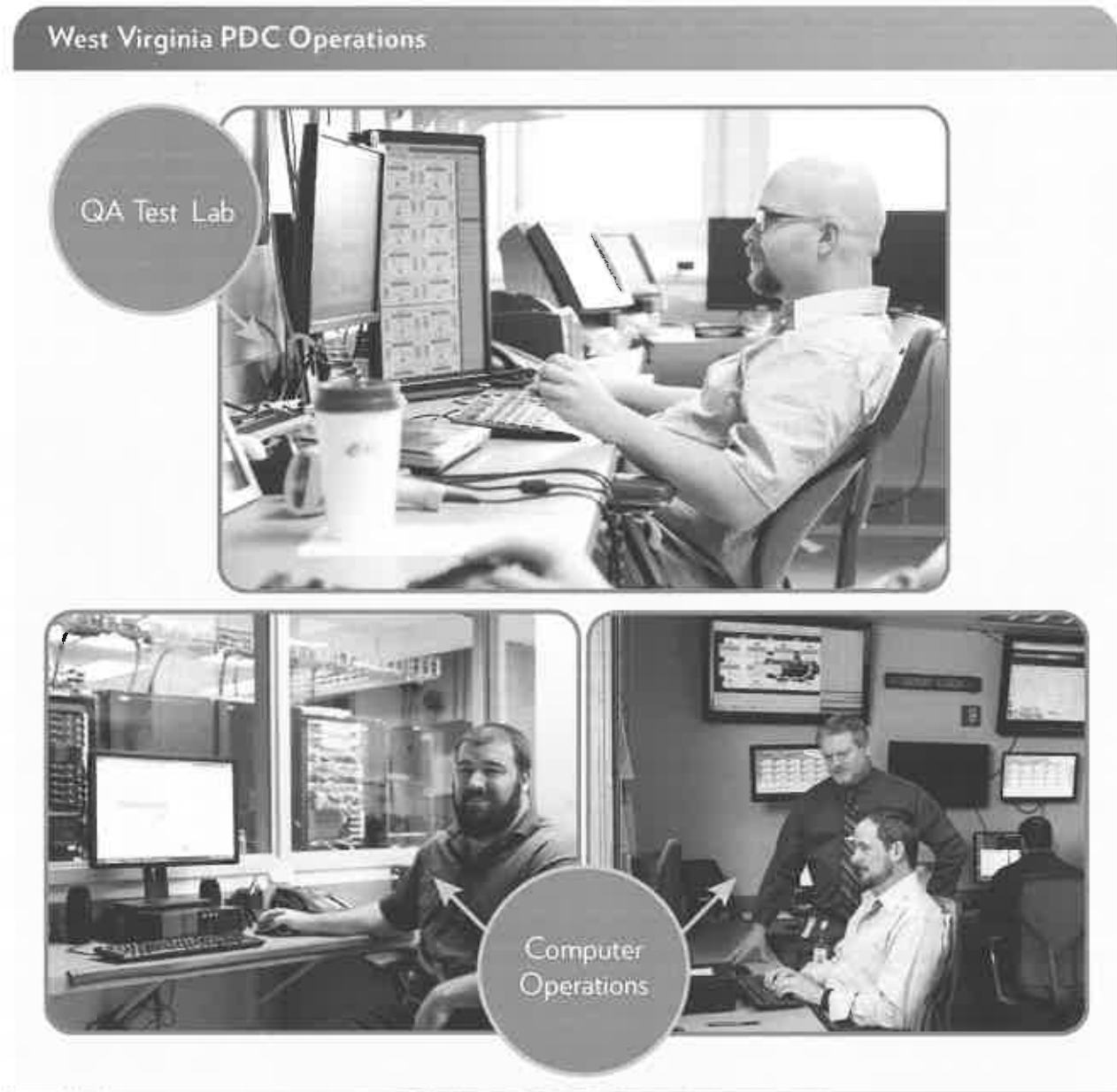


Figure 4.1 – 4:

West Virginia PDC Tel-Sell and Call Center Services



A Full Gamut of Lottery Services: IGT's Charleston PDC is distinctive in its housing of Computer Operations, the QA Test Lab, the Call Center, and Tel-Sell Operations under one roof. This "all in one" location ensures specialized, local services for the Lottery and its retailers.



The Lottery's CAT Lab and IGT's QA Test Lab will continue to be outfitted with IGT-furnished and -installed retailer terminals connected to the testing system in a manner that replicates all modes of actual retailer terminal communications. To ensure that exact replication is possible during testing, all terminal types across West Virginia will be available in the testing locations:

- ALTURA® Flex.
- Flex Vision.
- GEMINI™ Touch.
- Motorola TC55 Mobile/Handheld terminals.

Because data center safety and security are so critical in the lottery business, we have used our extensive experience in constructing and retrofitting facilities to establish safety and security best practices. Those best practices and our expertise in Multi-State Lottery Association (MUSL) standards will ensure that the Charleston PDC continues to operate according to the most current practices and specifications.

Additionally, the location of our PDC on the fifth floor of the facility prevents the possibility of water exposure to our server equipment in the event of a flood.

Power and Environmental Control Equipment

IGT will continue to provide and maintain, in good operating condition, an appropriately sized Uninterruptible Power System (UPS) and an appropriately sized generator with the capacity to support and serve the PDC. The proposed UPS provides at least 150% of the capacity needed to sustain all hardware, environmental equipment, communications equipment, fire protection equipment, alarm systems, and necessary lighting to conduct services at full capacity in the event of a utility power failure. All equipment complies with all applicable fire and safety codes. IGT will continue having periodic inspections and load testing performed as required by the product manufacturers to assure dependability and functionality.

4.1.2

Backup Data Center (“BDC”)

Vendor has acquired, installed, tested, and operates all of the remote backup system equipment and communications in the BDC facility for their systems. The remote backup system environment mirrors and is configured to run parallel with the systems at the PDC. The Vendor’s BDC is co-located with the Lottery’s BDC. Should the Lottery determine that relocating the current BDC is required the Vendor will have the option to relocate to a central data facility or co-locating with the Lottery subject to Lottery approval.

The Lottery’s BDC is located at 64 Sterling Drive, Bridgeport, WV 26330. The BDC has dedicated 2,869 square feet Of the 8,260 square foot building to the Vendor for the remote backup System and traditional operations, including a secure storage area for shared warehouse space, vendor office, an operations control room outside of the data center, and space for training and Storage. The building space and computer support equipment (HVAC/Generator/UPS and building environmental systems are provided with a lease cost Of \$19 per square foot per year which is paid by the Vendor on a monthly basis in arrears [currently \$4,543 per month]. The Lottery will limit any increases to no more than 10% or the annual rate of inflation, whichever is greater, should such an increase be deemed necessary by the Lottery.

The Lottery provides security systems, keycard access, UPS, generator, and HVAC to the entire building at the BDC. Detailed specifications for the environmental systems will be provided as an addendum to the RFP. The Vendor is provided access to security systems as appropriate.

IGT will continue to operate all of the remote backup system equipment and communications from the co-location specified below.

Location:

64 Sterling Dr.
Bridgeport, WV 26330

Continuing your BDC operations at this proven and convenient lottery facility will provide you and your retailers with both continuity and minimized risk. An on-site computer operator will be available at the location Monday through Friday, from 8 am to 5 pm.

Power and Environmental Control Equipment

The current Bridgeport BDC facility is outfitted with safety, security, and environmental control equipment that is appropriate for a computer facility. All construction and furnishings comply with fire, safety, building, and ADA codes. We will continue to maintain compliance with all such codes.

IGT understands that should the Lottery determine that relocating the current BDC is required, IGT will have the option to relocate to a central data facility or to co-locate with the Lottery subject to Lottery approval.



4.1.3

Warehouse

The primary warehouse provides adequate space to receive, process, package, ship, distribute, warehouse, track, and manage inventory for the Lottery's instant tickets, retailer and player consumables, POS items, promotional materials, and Vendor equipment.

IGT will continue to provide a primary warehouse that provides adequate space to receive, process, package, ship, distribute, warehouse, track, and manage inventory for the Lottery's instant ticket scratch-off games, retailer and player consumables, Point-of-Sale (POS) items, promotional materials, and vendor equipment from the location specified below.

Location:

4998 South Elk River Rd.

Unit J

Elkview, WV 265071

This location allows IGT to handle the bulk of the Lottery's equipment repairs locally rather than shipping parts out of state. We will also handle activities related to instant ticket scratch-off games from this facility such as Pick 'n Pack operations and the shipment of tickets.

Environmental controls are in place to maintain a temperature setting appropriate for the storage of paper goods such as instant tickets, roll stock, and play slips.

Resources available on site include a Field Services/Warehouse Manager and two Distribution Service Clerks.

Security Upgrades

IGT will add devices to the electronic security controls at the warehouse, which will enhance the current system by activating reader sirens. The upgrade will include the installation of an Alarm Expansion Board (AEB) and a Relay Expansion Board (REB). As well, an upgrade to the Digital Video Recorders (DVRs) currently in place will allow for convenient web-based viewing, rather than having to install software on a PC with a high definition picture. This upgrade enables IGT to deliver a single path through our firewalls while allowing connections to camera views at different locations.

4.1.4

Field Staff Sites

The Field Repair Center(s) support the Field Technical Service Staff by providing maintenance, repairs, and replacements for the Vendor's equipment including field equipment leased by the Lottery.

IGT currently maintains two Field Repair Centers in West Virginia: one located at our Warehouse in Elkview and the other located at the BDC facility in Bridgeport.

4.1.5

Additional Warehouse Space

The Vendor may include additional distribution or storage depots to support the primary warehouse and its functions and should describe how it plans to utilize the additional facilities for its operations and the benefits it may provide to the Lottery.

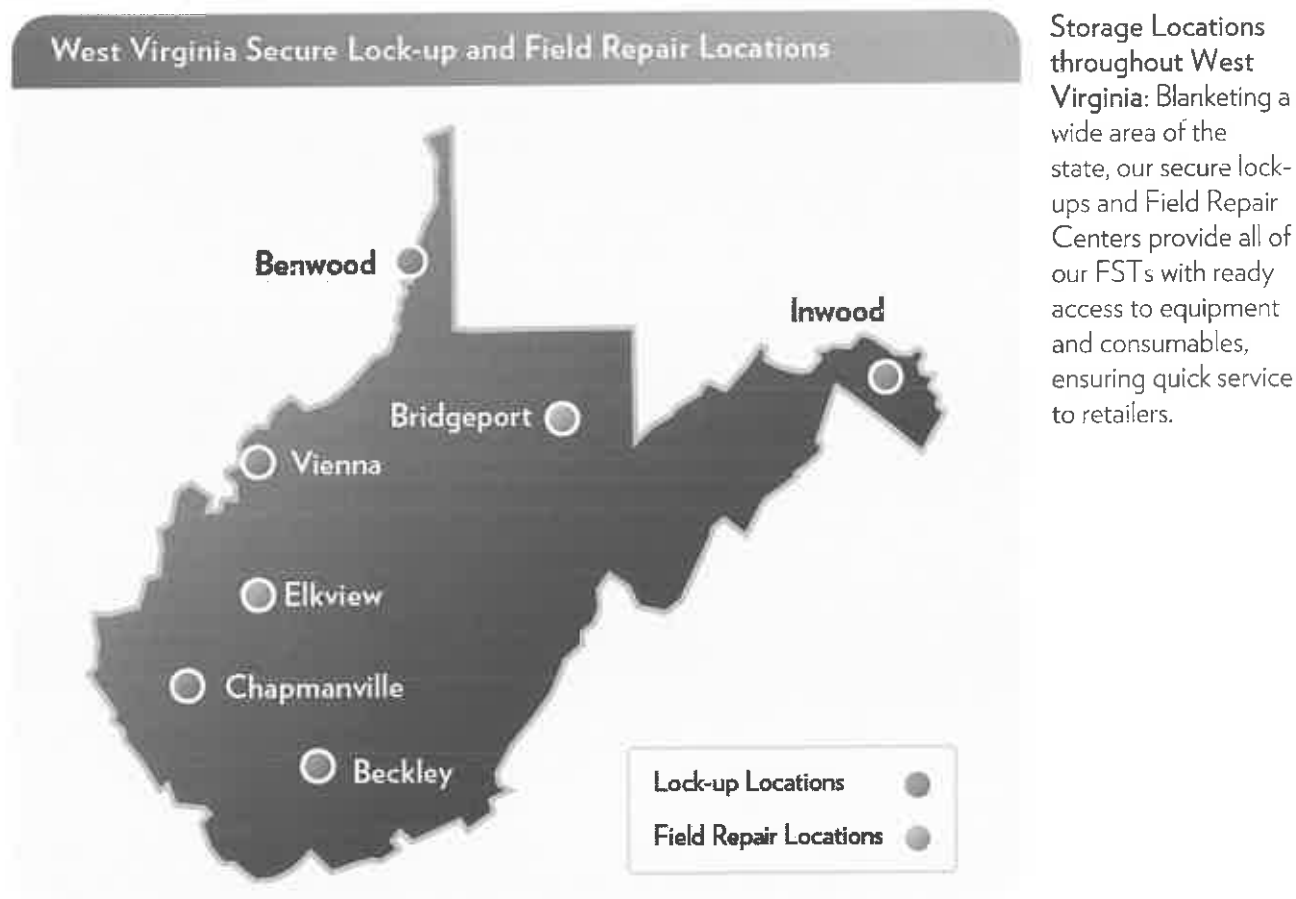
West Virginia Secure Lock-up Locations

To provide the Lottery and its retailers with the most effective and convenient service possible, we will continue to provide secure equipment and consumable storage units, known as lock-ups, to support remote Field Service Technicians (FSTs) throughout the state.

Our chief motivation when selecting the current lock-up configuration was to strategically locate the units in a manner that ensured FSTs would have the greatest and most convenient access for servicing the major concentration of retailers.

The next figure shows the locations of our secure lock-ups, as well as the aforementioned Field Service Centers.

Figure 4.1 – 5:





For the upcoming contract, we will review each of these facilities for their suitability to optimally support the Lottery.

The Vendor's proposal should describe exceptions to the Current environment and provide details about any known or planned enhancements or new features that would provide better service and increase revenue for the Lottery. The proposal should include any schematics, pictures, diagrams, configuration settings or network diagrams that would help the Lottery evaluate the proposal.

IGT plans to continue using the current environment with the following enhancements and new features.

Enhancements and New Features

To ensure that our PDC facility staff has all of the tools and information needed to effectively and efficiently perform their responsibilities, the PDC will undergo a modernization process. This process will entail a cosmetic refresh of the facility including new paint, carpeting in high-traffic areas, and new counter tops in the computer operations room and break room. An upgraded DVR and enhancements to the electronic security system currently in place at the PDC will promote a more secure environment. The computer room air conditioning units will be replaced post Go Live as the new Aurora systems will discharge a much lower heat load. As well, electrical work, including additional electrical outlets, will ensure the new computer systems receive enough power.

4.2 System

The System should be a turnkey deliverable that supports current and future needs related to traditional lottery sales and promotions. Please describe your plans to achieve the goals related to the SYSTEM including: System Configuration, Remote Backup Configuration, System Failover, ICS, Testing Configuration, Communications Network, System Hardware Design, System Performance, System Logging, and System Security Requirements.

With each new release and customer deployment of our systems over the years, IGT teams learned more about how technology is used every day by lotteries worldwide. The lessons learned, combined with the millions of dollars IGT invests in Research and Development (R&D), allow the Company to continually improve its solutions to meet evolving customer needs. Aurora, our proposed technical platform for the West Virginia Lottery's future, is the culmination of this experience.

Additional information regarding Aurora, in the form of screenshots, is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclosure Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant harm to IGT and its stakeholders.

Aurora

IGT's high-performance Aurora Gaming System is built upon 14 years of legacy, learning, and success built into our Enterprise Series (ES) gaming System. IGT developed the Aurora suite of smart, open solutions to support current and future lottery growth. Our lottery Systems are the most widely deployed of any vendor in North America and globally, currently in operation in 30 North American jurisdictions and 60 jurisdictions worldwide, identified in the following graphic:

Figure 4.2 – 1:

IGT Central System Customers Worldwide

U.S./Canada/Central America/Latin America

California California Lottery	Michigan Michigan Lottery	Rhode Island Rhode Island Lottery (+ES Video)	Loto-Québec (ES Video)
Colorado Colorado Lottery	Minnesota Minnesota State Lottery	South Dakota South Dakota Lottery	Manitoba Lottery Corporation (ES Video)
Florida Florida Lottery	Missouri Missouri Lottery	Texas Texas Lottery	Western Canada Lottery Corporation (ES Video)
Georgia Georgia Lottery	MUSL (ES Video)	Tennessee Tennessee Education Lottery Corporation	Mexico Pronósticos para la Asistencia Pública VIA Network (Commercial Services)
Illinois Illinois Lottery	Nebraska Nebraska Lottery	Virginia Virginia Lottery	Antilles (10 Caribbean Jurisdictions)
Indiana Hoosier Lottery	New Jersey New Jersey Lottery	Washington State Washington's Lottery	Argentina Cordoba Province (ES Video)
Kansas Kansas Lottery (+ES Video)	New York New York Lottery	West Virginia West Virginia Lottery	San Luis Province
Kentucky Kentucky Lottery	North Carolina North Carolina Education Lottery	Wisconsin Wisconsin Lottery	Buenos Aires Province (IPLC)
Louisiana Louisiana Department of Public Safety and Corrections (ES Video)	Oregon Oregon Lottery	Canada Alberta Gaming & Liquor Commission (ES Video)	Chile VIA Network (Commercial Services)
Maryland Maryland Lottery (ES Video)	Pennsylvania Pennsylvania Lottery (ES Video)	Atlantic Lottery Corporation (ES Video)	Colombia VIA Baloto
		Atlantic Lottery Corporation	Trinidad National Lotteries Control Board
			Costa Rica Junta Para la Protección Social
			Jamaica Supreme Ventures Limited
			Paraguay Entretenimientos Generales

Europe and Africa

Belgium National Lottery Belgium
Czech Republic SAZKA
Denmark Danske Spil
Finland Veikkaus Oy Ab
France La Française des Jeux
Germany Westdeutsche Lotterie GmbH & Co. OHG Lotterie-Treuhandgesellschaft mbH Thüringen Sächsische LOTTO-GmbH
Israel Mifal Hapayis
Italy Codere (Video) Gamenet (Video) Lottomatica (Video) Sindacato Nazionale Agenzie Ippiche (Video)

Lithuania Olijeja
Luxembourg Loterie Nationale
Madagascar The National Lottery
Mauritius The National Lottery
Poland Totalizator Sportowy Spółka z.o.o
Portugal Santa Casa da Misericórdia de Lisboa (SCML)

Slovakia TIPOS
South Africa Ithuba
Spain Organización Nacional de Ciegos Españoles
Sweden Svenska Spel (ES Video)
Switzerland La Société de la Loterie de la Suisse Romande
Turkey Milli Piyango
United Kingdom Camelot

Asia Pacific

China Beijing Welfare Lottery Center (BWLC) Shenzhen Welfare Lottery	New Zealand New Zealand Lotteries Commission
Malaysia Pan Malaysian Pools	Singapore Singapore Pools, Ltd.

Today, IGT's Aurora lottery gaming System builds on that proven ES legacy to address the industry's evolution to a player-centric and retailer-focused entertainment realm that vastly eases the use of the System by our customers.

Here are some highlights:

Figure 4.2 – 2:

How Aurora Design Features Benefits the West Virginia Lottery's Business	
Aurora Feature	Benefits to the West Virginia Lottery
Decision Support for Lottery Management	<ul style="list-style-type: none"> • Usability of the System: Single portal Graphical User Interface (GUI) to access all information, etc. • No operator intervention • Desktop tools by discipline, by user • Real decisions made in real time • Reporting tools allow proactive choices, not reactive results
Open, Standards-Based Architecture	<ul style="list-style-type: none"> • No proprietary-System barriers • Accessible to third-party, off-the-shelf software • Easier integration throughout the System due to the separation of middleware in its own tier • Open, standard architecture includes our terminals
Platform Independence	<ul style="list-style-type: none"> • Modularity, a modern Operating System (OS), and other improvements prevent Lottery data processing System obsolescence • Easy integration to Lottery-owned Systems through standard interface messaging and methods • Better service, performance, and uptime
Modularity	<ul style="list-style-type: none"> • Open standards, i.e., using industry-recognized, scalable architectures • Standard protocols for increased integration opportunities • No reengineering of the system architecture every few years
Internet Protocol (IP) Interfaces	<ul style="list-style-type: none"> • Most widely used protocol around the world • Bandwidth and speed to drive innovative content • IGT has adopted Information Technology (IT) and lottery industry-wide standards for messaging formats, such as eXtensible Markup Language (XML)
Flexibility and Scalability	<ul style="list-style-type: none"> • Sized for today and tomorrow • System configuration enables growth • Exceeds lottery-industry standard audits • N-plexing (IGT method for managing multiple systems) for data redundancy • Internet ready • Performance exceeds RFP requirements
Security	<ul style="list-style-type: none"> • IGT personnel with years of experience in lottery security and law enforcement will develop and support the Lottery's Operations Security Plan • IGT closely monitors and participates in the activities of the: <ul style="list-style-type: none"> - World Lottery Association (WLA) Security and Risk Management Forum - Multi-State Lottery Association (MUSL) • North American Association of State and Provincial Lotteries (NASPL)
Point-of-Sale (POS) Equipment Diversity	<ul style="list-style-type: none"> • Expand into non-traditional channels and maximize channels for the marketplace • Integration tools to reach more distribution channels • Match the implementation to the opportunity – no "one size fits all"



Evolution – From Enterprise Series to Aurora

The latest improvements to ES were based on emerging industry and technology trends and the current and future needs of our customers – and have led to the highly innovative Aurora System. To that end, we've incorporated our experience meeting worldwide lottery business challenges into Aurora's design.

Description of IGT's Aurora Gaming System

Aurora is the most advanced implementation of our gaming System to date. IGT places great importance on delivering solutions that are specific to each customer. To deliver tailored solutions, Aurora's flexible architecture allows for different System profiles by using the same code base. This allows us to leverage the best features across all of our implementations with a faster time to market. Aurora is composed of many components. These can be delivered and integrated as a single System or provided individually as an existing System upgrade. The Lottery's requirements and business objectives will drive the end solution and dictate the deployment/support model we provide to you.

Included in the following figure are those applications being proposed for the Lottery based on the requirements called for in the RFP and to meet your business objectives:

Figure 4.2 – 3:

Proposed Aurora Solution for the West Virginia Lottery	
Aurora Component	Function/Benefit
Aurora Transaction Engine (Central System)	<ul style="list-style-type: none">• The solution will perform gaming and transaction activities for our assembly of products, such as core game logic, game management, transaction processing, transaction data management, accounting, and promotions• The Lottery's business is powered by an industry-proven, stable and secure transaction engine, trusted by lotteries around the world
Aurora Anywhere	<ul style="list-style-type: none">• Aurora Anywhere is a core suite of gateway products exposing a standard set of Application Programming Interface (API) guidelines• It offers the Lottery quick, easy access to a system anywhere there's a web browser or digital channel
Aurora Connect®	<ul style="list-style-type: none">• Aurora Connect is a highly secure, high-volume, open-standards Internet Protocol (IP) network interface (i.e., the front-end communications processor) that connects the Lottery's sales channels, such as IGT's proposed Altura® Flex terminals, to the Aurora Transaction Engine• The Lottery's Retail Network is connected by a feature-rich, reliable network interface scaled to support the Lottery's network at cutover and future growth well beyond what will likely be required, ensuring that it does not need to consider network capacity when considering new sales opportunities

Aurora Component	Function/Benefit
Aurora Instant Processing System (Aurora IPS) and Aurora OrderStar	<ul style="list-style-type: none"> • Aurora IPS is an instant ticket scratch-off game management engine that is highly scalable to rapidly meet the Lottery's dynamic business rules and sales optimization initiatives. IGT's Aurora OrderStar uses a sophisticated series of formulas designed to generate Suggested Orders that will help retailers maximize their sales based upon their recent history and the Lottery's sales focus. This is a fully customizable sales tool that can effectively recommend orders to the Lottery for each retailer based upon the Lottery's objectives • Top-selling Lottery games will always be at every retailer, and retailers are never resupplied with slow-selling games. Returns are minimized. Aurora provides the Lottery and its retailers an integrated solution with an efficient single data source
Aurora Performance Intel	<ul style="list-style-type: none"> • This comprehensive BI and analytics toolset will provide the Lottery's analysts and managers with instant access to actionable lottery insights. These insights will help the Lottery see that the right level of retailer profits can be attained to grow the Lottery's retailer base • Advanced visualizations will simplify complex data into an "ah ha" moment for every Lottery stakeholder
Aurora Retailer Wizard	<ul style="list-style-type: none"> • Retailer Wizard is a retailer-website application enabling a new level of communication and engagement with both corporate and independent retailers; it supports in-store execution and sales performance • Functions with any HyperText Markup Language (HTML) 5-supported browser
Aurora MultiMedia	<ul style="list-style-type: none"> • The Aurora MultiMedia management System enables the management, configuration, and creation of multimedia shows on a local device, with the ability to test these shows on various device configurations prior to pushing the shows into an integrated environment (i.e., on monitors at the retail POS) • With many purchase decisions occurring at the POS, digital signage is the optimal solution to drive Lottery incremental sales and engage and inform customers
Aurora FlexDraw®	<ul style="list-style-type: none"> • Aurora FlexDraw is IGT's automated Random Number Generator (RNG) and physically secured RNG software solution for all lottery draw, or monitor, games including lotto, keno, raffles, and numbers • FlexDraw can accommodate a broad range of games with a variety of matrices. Each time a set of winning numbers is needed for a particular game, the central System will send a request to FlexDraw to generate a random set of winning numbers
Aurora Navigator Back-Office	<ul style="list-style-type: none"> • Aurora Navigator Back-Office is an extensive and fully integrated back-office management System. The solution comprises the back-office administrative applications that the Lottery can use to operate the System and manage users, retailers, players, games, etc., as well as a modern, highly useable User Interface (UI) (the Aurora Navigator) customized for Lottery users according to their roles • Lottery users will be armed with a device and browser-agnostic interface, using role-based navigation and a dashboard customized to Lottery business practices, delivering information and tools where, when and in a manner best for each user

Aurora Component	Function/Benefit
Aurora Navigator Back-Office: Aurora User Security	<ul style="list-style-type: none"> • Aurora protects data by strictly limiting access to the system to authorized individuals only. Aurora User Security will allow the Lottery (and/or IGT) to control users and their access to the system. IGT applies the Principle of Least Privilege to the access-control function, whereby users have access only to the resources or information that are essential to performing their job functions • The Lottery will use a simplified user-administration application, providing a comprehensive security program and supporting access at a granular level
Aurora Navigator Back-Office: Aurora Game Manager	<ul style="list-style-type: none"> • A web-based application, Aurora Game Manager is the principal back-office tool for managing and monitoring System activity, setup and control of draw games and game liabilities, transaction processing, draw processing, terminal administration, and monitoring data in real time. The solution also provides a range of features for balancing and reconciling draw games, along with audit trails and reporting capabilities • Landing pages provide quick snapshots of overall activity at the Lottery user login. Separation of products (games and features) within the engine allows for segregation of required modification, resulting in a more efficient development and test cycle and a more rapid time to market
Aurora Navigator Back-Office: Aurora Retailer Manager	<ul style="list-style-type: none"> • Aurora Retailer Manager will allow the Lottery to manage all aspects of its retailers' business. The solution provides automated management of the complete life cycle of retail locations and owners, clerks, and terminals. Retailer information is logged automatically and visible for authorized front- and back-office users • The retailer licensing process is tailored to the Lottery. New functionality is applied to Systematically move the user through the application and licensing process, allowing the Lottery to bring retailers online faster
Aurora Navigator Back-Office: Aurora Claims and Payment	<ul style="list-style-type: none"> • Aurora Claims and Payment (CAP) is an integrated solution that will allow the Lottery to validate claims, generate payments, write checks, and report payment information for draw games and instant ticket scratch-off games. This component will present the Lottery with a single view of its players' CAP history, including associated claims, payments, and annuities • The application is customized to Lottery business rules, providing the efficient processing of multiple claims, and outstanding checks and balances to ensure the integrity and auditability of the CAP process
Aurora Navigator Back-Office: Aurora Promotions	<ul style="list-style-type: none"> • Aurora Promotions is a flexible, scalable, and feature-rich tool that will enable the Lottery to provide a wide variety of terminal, game, and retailer promotions to drive consumer engagement. The solution enables promotions to be targeted to virtually any terminal group defined by a lottery • Aurora Promotions offers a vast array of promotion types, e.g., those designed to introduce players to new games and those that inform long-time players about new ways in which to play current games. It also allows for highly customizable promotion attributes: types, prizes, criteria, text, and participation • Aurora will enable the Lottery to easily and quickly create, group, prioritize, and launch promotions that will draw consumers to its games

Decision Support for Lottery Management

Aurora offers the Lottery more agility when executing key business decisions, and sound, actionable analytics to help make those decisions. Aurora's advanced BI portfolio allows data to be integrated, mined, and visualized, ultimately driving results.

IGT's Aurora solution will allow the Lottery to seamlessly connect all of the different channels in which it operates, enabling it to know its players, communicate with them, and give them value wherever and whenever they play. Aurora extends down to the point of sale, where a new framework provides flexibility to deploy applications across a full suite of terminals and devices.

Aurora Navigator Back-Office

IGT's Aurora Navigator Back-Office Applications (Aurora Navigator Back-Office) will give the Lottery a central point of access – Aurora Navigator, the UI to an extensive suite of back-office applications for managing games, retailers, draws, promotions, and more, along with solutions for BI and reporting. Those who use Aurora Navigator can customize the look, layout, and feel to meet their exact needs, help them better manage their business, and enhance their productivity.

Aurora Navigator provides an improved interface that is customizable and easy to navigate. It puts the information that Lottery users need to do their jobs front-and-center and in a manner that is easy to navigate.

Aurora Game Manager

A web-based application, Aurora Game Manager is the main tool for setting up and controlling terminal-based games and game liabilities and monitoring gaming data in real time. It also provides features and capabilities to balance and reconcile terminal-based games, along with audit trails and reporting capabilities. Authorized users can easily access Aurora Game Manager's capabilities via the Aurora Navigator UI.

Additional game control information can be found in Section in 4.2.15.1, Management Application Features and Capabilities.



Aurora Performance Intel

Another key solution is our Aurora Performance Intel analytics and reporting solution, which is described in detail in Section 4.3, Reports and Interfaces. We will apply our industry experience with data warehouses to create a unique and customized “Aurora Performance Intel” Data Warehouse for the Lottery that will support its specific needs and requirements. This includes BusinessObjects’ Data Universes, the windows used to view and analyze data within the Data Warehouse.

We understand that the current Lottery reporting System was not delivered with the Universes needed to satisfy the Lottery’s report requests. IGT will make certain that the Lottery will be provided with all required Universes in this offering.

Our Aurora Performance Intel solution will support comprehensive searches of all database tables within a centralized data warehouse using a single search screen as determined by the Lottery during the requirements part of our delivery process. The ability to see, for example, in one report, both retailers and winners by searching any field available in any data universe is a fundamental capability of our enterprise reporting and advanced visualization toolset.

Authorized Lottery staff will select from these windows to create and analyze information when conducting ad hoc analysis. It is important to understand that the universes of information are designed to include windows and views for the entire Lottery staff, such as Brand Management, Sales, Finance, Retailer Contracts and Administration, and Security. The resulting windows and views will provide authorized staff with the reporting capability to give them the insights needed to make smart business decisions throughout the day.

Our Aurora Performance Intel and Data Warehouse reporting System and Customer Relationship Management (CRM) tools will also enable you to analyze and better understand player behavior so you can make the right decisions to maximize sales.

4.2.1

System Configuration

Traditional game operations are supported by a quadplex hardware environment where two independent systems [primary system and secondary system] are installed at both the PDC and BDC. Each data center has independent communications networks to the retailers and the Lottery (at the BDC for the Lottery and Lottery headquarters).

System game, database, and administration functions are currently supported by a protectively redundant configuration. The PDC processing complex consists of two physically separate host processing systems, networked and designed for 100% redundancy. Physical separation of the PDC host processing systems ensures that no single point of failure exists. One host processing system is designated as the Primary System and the other one is a fully functional backup System. A component failure in one system cannot cause a failure in the other system. The remaining system assumes all processing in case of a failure in the primary System without loss or corruption of any data and transactions received prior to the time of the failure.

PDC system recovery in auto failover from a single system failure is designed to recover in no more than two minutes while still maintaining current sales transactions. This includes the ability to fully service the communications network supporting the retailer terminals. The System and communications network initiates recovery from failure automatically or manually at the discretion of the Lottery.

Response Note: The situation described in this paragraph refers to system failovers in the same data center; this might be the failure of a major hardware component in the primary system but the communication network and environmental systems (power/HVAC) are still functioning.

The System does not permit remote connectivity into the System from a remote, non-authorized terminal without Lottery approval. The Lottery reserves the right to request Vendor network device configurations and logs at any time and anticipates this need to occur in the future. These configurations, files, and logs include firewalls, routers, switches, remote access devices, and system logs.

IGT will comply and fully support this functionality. We know how important the West Virginia Lottery is to the good causes it serves. We have learned from our shared experiences with the Lottery since 2009 and your retailers and players. We acknowledge that, at times, there have been challenges and, through those experiences, we are committed to closing gaps with new leadership as discussed in Section 4.6, Vendor Administrative Functions and Support, to ensure transparency and accountability and new innovative solutions and services, many of which are discussed in this section.

We have examined all of your requirements and objectives, and paid diligent attention to detail in the proposed design and development of the System offer based on the firsthand insight we have into the Lottery's business. The proposed solutions will ensure increased efficiencies and productivity to the benefit of the Lottery, its retailers, and its players.

For a complete description of our proposed redundant Aurora central System and Primary Data Center (PDC) System configuration, please refer to Section 4.2.24, System Hardware and Software.

4.2.2

Remote Backup System Configuration

The BDC processing complex consists of two physically separate host processing systems, networked and coupled for redundancy. The remote backup system is configured with an independent communication network that runs in parallel with the systems at the PDC to immediately assume production operations of the System with no loss of data or transaction records.

IGT will comply and fully support this functionality. The Backup Data Center (BDC) processing complex consists of two physically separate host processing Systems, networked and coupled for redundancy. IGT will provide two remote Aurora Transaction Engines at the BDC in Bridgeport, West Virginia. The System will be configured with an independent communication network that runs parallel to the two production Aurora Transaction Engines at the PDC in Charleston.

The BDC Aurora Transaction Engines can take over Lottery operations with no loss of data or transaction records during the switching process in situations where the primary and secondary Aurora Transaction Engines, or the building in which they are housed, are no longer available.

The remote Aurora Transaction Engines can take over operations manually or automatically, should both Aurora Transaction Engines in the PDC, or the PDC itself, become inoperable. Because all data processed at the PDC is transferred to and recorded at these remote Systems in real time, these Systems will always contain the most recent transactions.

For additional information regarding the BDC, please refer to Section 4.1.2, Backup Data Center ("BDC").

4.2.3

System Failover

The PDC and BDC System configurations are designed and configured to failover and then fail back should a System problem occur. Neither communication network relies on routing, switching, or any connectivity from the alternate system. The PDC and its communication network are 100% independent from the BDC and its communication network.

***Response Note:** This situation refers to a failover from the PDC to the BDC or from the BDC to the PDC. This often implies environmental systems (power/HVAC) are not available at the current site or there is a major communications outage on the network between the current site and the retailers.*

The Vendor tests the remote backup system to demonstrate it is fully functional by operating in production from the BDC at least twice a year for a period that shall be requested and approved by the Lottery; Lottery and Vendor have agreed to a testing schedule that provides adequate notice to both parties prior to a planned failover. Testing includes full performance and end-to-end testing of all business processes and procedures, system, and component functionality. The Lottery observes the testing/exercises. The PDC serves as the backup data center in this scenario. The Lottery and Vendor work together to determine the duration of each fail test/exercise.

The Lottery requires a written report within five days of each failover test. This report highlights any issues encountered and the corrective actions being taken to mitigate these issues. The Lottery may request a repeat test outside of the scheduled semi-annual tests if it deems the issues encountered are serious enough to warrant another test is necessary. Prompt correction and retesting of any deficiencies discovered by audit findings or operational recovery is required.

IGT will comply and fully support this functionality. Before your new System goes live, IGT will have implemented and tested failover/takeover processes and procedures for your central System configuration. We will test the System at least twice per year for a period requested and approved by the Lottery. The Lottery and IGT will agree to a testing schedule that provides adequate notice to both parties prior to a planned failover. Testing will include full performance and end-to-end testing of all business processes and procedures and System and component functionality.

IGT understands that the Lottery will observe the testing/exercises and that the PDC serves as the BDC in this scenario. The Lottery and IGT will work together to determine the duration of each fail test/exercise. Neither communications network relies on routing, switching, or any connectivity from the alternate System. The PDC and its communication network are 100% independent from the BDC and its communications network.

Data transferred to and recorded on the Aurora Transaction Engine at the BDC will always contain the most recent transactions, allowing for a takeover/failover, if necessary. The retailer network will have a routing independent of the PDC so that the BDC can be reached without the PDC in place. Testing from the BDC will include a full MUSL game draw period – per MUSL requirements.

Games administration functions will also be available at the BDC, as well as remotely available by communications from the PDC; the System at the BDC will hold the same processing and disk-storage capacity as the primary System.



IGT will provide the Lottery with a written report on the failover testing within five days of each failover test. The report will highlight the specific test activities, the results of each, and clearly define any issues encountered and the corrective actions being taken to mitigate these issues. IGT understands that the Lottery may request a repeat test outside of the scheduled semi-annual tests if it deems the issues encountered are serious enough to warrant that another test is necessary. Prompt correction and retesting of any deficiencies discovered by audit findings or operational recovery will be provided.

For a complete description of our Failover procedures, please refer to Section 4.2.22.1, System Failover.

4.2.4 Internal Control System ("ICS")

The Vendor provides ICS applications through a third party vendor to ensure that all transactions remain in balance. The current solution includes four ICS applications that include all System components and peripheral equipment. Two ICS applications are configured and installed at Lottery headquarters, one ICS application at the Lottery BDC, and one ICS application at the Vendor PDC for testing. The Vendor ICS test system is physically and logically segregated from the System and any production networks.

The Lottery conducts daily operations on the three production ICS systems. The ICS checks the System independently by reprocessing transactions, audit daily transactions, error conditions, winner selection, winner verification, prize payout calculations, sales summaries, queries, and reconciliation activities.

The ICS platform components are designed to be fault tolerant. ICS connectivity is redundant using diverse connectivity paths approved by the Lottery. The ICS connects remotely to the third-party ICS software provider for support and service.

The ICS functions with the Vendor's PDC and Vendor's remote backup system location. In the event of a System failure, the ICS software, connectivity, and operations continue without interruption and without using the Lottery's network infrastructure at the PDC.

The Test Vendor ICS system communicates with both the Vendor and the Lottery test labs. The hardware environment for both the Vendor and Lottery test labs is located at the Vendor PDC with remote operations capabilities provided for the Lottery. The test lab environments are not used by any other jurisdiction.

Retailer transaction data supplied to the ICS includes the retailer number, terminal number, number of times the terminal had to send any particular transaction before completion, manually or reader entry, manually corrected after reader input, and the type of each transaction. All System functions and transactions are designed to be a near real time feed to the ICS, including periodic checkpoints to ensure complete files.

IGT will comply with and fully support the functionality detailed in this requirement. Special features offered by our proposed ICS vendor Elsym include a lockdown prevention program that will reduce costs associated with having personnel available during the Powerball draw times, and a monitoring program that makes the ICS solution fault tolerant with minimal human intervention, adding efficiency to the process and reducing labor costs.

These features, along with a complete description of our ICS solution, are described in Section 4.2.22.2, Internal Control System ("ICS").

4.2.5

Testing Configuration

The Vendor provides testing equipment for the Lottery and Vendor test labs. The Lottery, or its designee, conducted a series of acceptance tests with Vendor support before System conversion. All network and System components in the test labs are identical to the production System. Each type of communication that will be present in the field is installed in the test labs and configured among the test terminals unless otherwise approved by the Lottery.

IGT will comply and fully support this functionality. We will provide testing equipment for the Lottery and our test labs. IGT understands that the Lottery, or its designee, will conduct a series of acceptance tests with IGT support before System conversion. All network and System components in the test labs will be identical to the production System. Each type of communication that will be present in the field will be installed in the test labs and configured among the test terminals unless otherwise approved by the Lottery. For additional information regarding our proposed testing configuration, please refer to Section 4.2.22.3, Test Systems.

4.2.5.1

Lottery Test Lab

Test equipment permanently installed at the Lottery test lab currently includes the following: one of each type of terminal with at least one terminal configured to use dual communications, one self-service unit, one customer display, two Keno monitors, and one management terminal that must interface with all management applications on the testing system. The Lottery test lab is fully functional and able to test all aspects of the System, including instant ticket functions.

The Lottery test lab is used to test MUSL quality assurance requirements. All equipment and software simulating the production environment is supplied and installed by the Vendor.

IGT will comply and fully support this functionality. Test equipment permanently installed at the West Virginia Lottery test lab will include the following: one of each type of terminal with at least one terminal configured to use dual communications, one self-service unit, one customer display, two Keno monitors, and one management terminal that will interface with all management applications on the testing System. The Lottery test lab will be fully functional and able to test all aspects of the System, including instant ticket scratch-off game functions.

IGT understands that the Lottery test lab will be used to test MUSL Quality Assurance (QA) requirements. All equipment and software simulating the production environment will be supplied and installed by IGT.

4.2.5.2

Vendor Test Lab

The Vendor test lab is physically and logically segregated from the System and production networks. Approximately five terminals are permanently installed at the PDC in the Vendor test lab for testing by the Vendor and Lottery and are included as part of the percentage of net sales paid to the Vendor (Base Cost).

Upon the Lottery's request, the Vendor has provided additional retailer terminals for specialized testing, and at least one of each standard and specialized terminal(s) are utilized in the Vendor testing solution required by the Lottery. Two management terminals are installed and all Management Workstation application software is downloaded onto terminals or other workstations configured in the test lab. These terminals support testing of all features and operations available on the production systems in all logical configurations including all peripherals in respective retail configurations.

The Vendor's test lab space accommodates at least four Lottery employees during testing exercises and quality assurance ("QA") projects.

The Vendor utilizes separate system(s) for software development and corporate QA activities not using any of the production systems nor the Lottery testing systems identified above. All production system downloads for software upgrades or changes are done at the Vendor PDC location unless another location is approved by the Lottery.

IGT will comply and fully support this functionality. IGT's test lab will be physically and logically segregated from the System and production networks. We will permanently install approximately five terminals at the PDC in the Vendor test lab for testing by IGT and the Lottery, which will be included as part of the percentage of net sales paid to the Vendor (Base Cost).

IGT understands that, upon the Lottery's request, it will provide additional retailer terminals for specialized testing and at least one of each standard and specialized terminal(s) to be used in IGT's testing solution required by the Lottery. Two management terminals will be installed, and all Management Workstation application software will be downloaded onto terminals or other workstations configured in the test lab. These terminals will support testing of all features and operations available on the production Systems in all logical configurations including all peripherals in respective retail configurations.

IGT's test lab space will accommodate at least four Lottery employees during testing exercises and QA projects.

IGT will use separate System(s) for software development and corporate QA activities not using any of the production Systems nor the Lottery testing Systems identified above. All production System downloads for software upgrades or changes are done at IGT's PDC location unless another location is approved by the Lottery.

4.2.6 Communication Networks

Communication networks and facilities are designed with Vendor monitoring, redundancy, and security features minimizing the possibility of a disruption impacting the network and the System. Vendor provides wireless connectivity for terminals used at Lottery promotions, fairs, festivals, and events.

Communications network protocols are based on IP technology. The Vendor has implemented industry standard network security measures, including MUSL Rule 2, for all communication network designs and configurations.

IGT will continue to provide a communications network and facilities designed with monitoring, redundancy, and security features that minimize the possibility of a disruption impacting the network and the System. A full description of our communications network can be found in Attachment A, Section 4.2.23, Communication Networks. That section describes the kinds of communications technologies IGT will implement, network design, key security features, IGT's monitoring tools, and aspects of its redundancy plan.

IGT will also provide wireless connectivity for terminals used at West Virginia Lottery promotions, fairs, festivals, and events. Communications solutions can be deployed for these events using the most appropriate technology for the application and geographic location. Technologies include our Gaming Over Any Link (GOAL) solution with cellular or broadband connectivity or, if required, installing a temporary Very Small Aperture Terminal (VSAT). Additionally, IGT proposes the use of the highly portable Motorola TC55 Handheld Terminal with a Zebra Technologies iMZ320 battery-driven, Bluetooth printer for use at such events. Full details on the TC55 can be found in Attachment A, Section 4.4, Field Equipment and Consumables.

Our communications network protocols will be based on Internet Protocol (IP) technology, and we will implement industry-standard network security measures, including Multi-State Lottery Association (MUSL) Rule 2, for all communications network designs and configurations.

For full details, please refer to Attachment A, Section 4.2.23, Communication Networks.

4.2.6.1

Communication Network Functions

The Vendor is currently responsible for all placement and configuration of communications equipment, including any communications dishes, modems, in-store wiring, etc., and that practice is expected to continue with this Contract. The Vendor orders and cancels all data lines and other services necessary for terminal communications. The Vendor is responsible for resolution of outages related to communications.

IGT will continue to assume responsibility for all placement and configuration of communications equipment. We will order and cancel all data lines and other services necessary for terminal communications. IGT will also be responsible for resolution of outages related to communications. Our problem resolution and escalation practices are described in detail in Attachment A, Section 4.2.23, Communication Networks.

4.2.6.2

Network Security

Communications external to secured facilities are encrypted and monitored routinely by staff. Data is encrypted from point of transmission to point of receipt, including any data transmitted directly from the System to any administrative and remote backup systems. Protected information includes game transactions ("plays"), validations ("ticket redemption"), security codes, and downloaded software as required by MUSL Encrypted AES 256 bit or other commercially available encryption mechanisms that are of equal or better quality are acceptable. The encryption scheme is reviewed and approved by the Lottery.

Connections made between the Vendor-supplied Local Area Network (LAN) and the Lottery's LAN are channeled through a device to filter out unnecessary, unauthorized traffic, and bad-packet traffic, and provide improved security by limiting access to authorized nodes (firewall). In Aurora, communications external to secured facilities will be encrypted and monitored routinely by staff via our suite of network monitoring tools.

Data will be encrypted from the point of transmission to the point of receipt, including any data transmitted directly from the System to any administrative and remote backup Systems. Protected information will include game transactions ("plays"), validations ("ticket redemption"), security codes, and downloaded software as required by MUSL Encrypted Advanced Encryption Standard (AES) 256-bit or other available encryption mechanisms of equal or better quality. We acknowledge and accept that the encryption scheme must be reviewed and approved by the Lottery.

For a complete overview of IGT's network security features, including details on our LAN and Wide Area Network (WAN) connections, use of firewalls, monitoring capabilities, and data encryption, please refer to Section 4.2.23, Communication Networks.

4.2.6.3

Network Monitoring

Communications network test and monitor tools reside on the System and remote backup System and are used to interface and analyze protocols and view transaction data for analysis. Vendor uses standard protocol such as SNMP to facilitate monitoring of the communication path and to extend this capability to any new network devices.

Tools include the ability to determine whether failure has occurred in the equipment at the PDC or BDC, within the wide area communications network, or at the terminal level. Equipment supplied includes recording capability which is configured and maintained to industry standards. Qualified communications maintenance technicians are available for assistance to onsite Vendor staff whenever the System is operational and whenever the Lottery requests such support for test purposes.

Non-responding terminals are logged in real time to a communications network monitoring application featuring visual and/or audible notification. A terminal is logged as not responding during a Communication failure (non-responding terminal) when it fails to respond within a set number of transaction attempts or within an approved time window set by the Lottery. The current System includes allowance for servicing of all other terminals on the network between transaction attempts of the terminal not responding.

The host processor, front end processor, retailer terminal, and diagnostic equipment are designed to notify the System monitor of a transmission failure as soon as possible after an occurrence.

Diagnostic information that is recorded with the Vendor Hotline includes a real time display with retailer diagnostic information including such items as communication failure, retailer sign on status, and other relevant information. This information is easily accessible by the authorized Lottery personnel.

IGT's communications network test and monitor tools will reside on the System and remote backup System and be used to interface and analyze protocols and view transaction data for analysis. Our network monitoring suite comprises three tools that will provide IGT and the Lottery with a comprehensive view of network connectivity, down to the device level (e.g., individual terminals, cellular modems, etc.).

Our tools will determine whether failures have occurred in the equipment at either data center, within the WAN or at the terminal level. Our monitoring equipment includes recording capabilities that are configured and maintained to industry standards. IGT's staff includes engineering and support staff who will be available to our onsite staff whenever Aurora is operational and whenever the Lottery requires support for test purposes. Our staff has years of experience deploying and supporting large data communications networks and are industry-certified. Network Engineers and Administrators have Cisco, Database 2, and other senior-level certifications.

IGT's Aurora Connect monitors terminals and will log, in real time, when terminals are non-responsive and feature visual and/or audible notification. The Lottery's Aurora System allows for servicing of all other terminals on the network between transaction attempts of the non-responsive terminal.

The host processor, front-end processor, retailer terminal, and diagnostic equipment will continue to notify the Aurora System monitor of a transmission failure as soon as possible after an occurrence.

Information, such as retailer diagnostics, that is recorded with the Vendor Hotline, i.e., communication failure, retailer sign on status, etc., will be easily accessible to authorized Lottery personnel.

A detailed description of IGT's network monitoring suite can be found in Section 4.2.23, Communication Networks.

4.2.6.4 Communication Maintenance

All maintenance on communications and communications networks, including maintenance performed by third-party service providers, is performed at the conclusion of the business day during the nightly maintenance window or other required times approved in advance by the Lottery.

IGT will comply with this requirement. Maintenance on communications and communications networks – including maintenance performed by third-party service providers, will be conducted at the conclusion of the business day during the nightly maintenance window or other required times, approved in advance by the Lottery.

4.2.7 System Hardware and Software

Vendor is responsible for developing, providing, implementing, and maintaining all software for the terminals and systems which will be delivered and installed as per the Lottery's requirements for the duration of the Contract.

All maintenance on software and hardware components, including maintenance performed by third-party service providers, is performed at the conclusion of the business day during the nightly maintenance window or other required times approved in advance by the Lottery.

IGT will assume responsibility for developing, providing, implementing, and maintaining all software for the terminals and Systems that will be delivered and installed as per the West Virginia Lottery's requirements for the duration of the Contract.

Software and hardware maintenance – including maintenance performed by third-parties – will be conducted at the conclusion of the business day during the nightly maintenance window or other required times approved in advance by the Lottery.

4.2.8

System Capacity, Memory, and Processing Speed

The System was designed to support a network of 2,200 terminals at System startup without any upgrades to the System bandwidth.

The Vendor implementation converts all existing files from the prior system (e.g. sales, retailers, players, validations, inventories, annuities, etc.), along with 36 months of historical data to the new System prior to conversion. The System validates all winning tickets sold prior to conversion with minimal retailer input. System design includes sufficient capacity to allow retention of all data and game information relating to winning tickets on the System for 365 calendar days after each game drawing.

The System is designed with the hardware and software capacity to accommodate 300 concurrent instant games being distributed, sold, and validated; the new System should have the memory and capacity to support 400 concurrent instant games as specified in section 44.1 and Lottery Terms and Conditions 44.10.6.9.

The System is configured to support and interface with multiple transaction platforms without loss of current speed and functionality, including internet transactions, during processing. The System is designed with the processing speed to maintain all functionality during periods of high volume sales supporting up to \$9 million in daily draw game sales. The System has the capability to process a minimum of 32,000 combined transactions per minute, including wagers, validations, and cancellations.

System Capacity

Performance Matters

During the January 2016 \$1.6 billion Powerball drawing, IGT's Systems were up 99.99% of the time, averaging more than 500,000 transactions per minute, and equaling more than 1 billion transactions total, with an average send-to-cut time of 3 seconds or less.



IGT will continue to support the Lottery's network well in excess of 2,200 terminals at System start-up, without any upgrades to the System bandwidth. Our Aurora Connect server, which is a highly secure, high-volume, open standards network interface that connects your Aurora Transaction Engine to sales channels, can support up to 100,000 terminals, far exceeding the Lottery's requirements for terminal support.

For full details on our Aurora System design, including how virtualization will provide the Lottery with enhanced flexibility and growth potential, please refer to Attachment A, Section 4.2, System, under the heading Aurora Virtual Solution.

Conversion from Current System

When the West Virginia Lottery's new System starts up, the accuracy of its data will already be bolstered by the fact that, because we are your current provider, the new data structures will be similar to that which is in the existing System, significantly mitigating conversions risks. In addition, we will ensure accurate data at start-up through our parallel processing phase, the act of synchronizing historical data and current end-of-day transaction data from the current gaming System with the new gaming System. The parallel processing phase ensures that the new System is up and running on the morning of Go Live with previously validated and verified data.

Ticket validations, retailer accounting, and other processes depend on accurate data to prevent disruption to retailers and players during conversion. To start parallel processing, we must first convert the large volumes of historical data that exists on the current System. Our experience has shown that this initial static data conversion step can take many hours to accurately process and balance. It is a procedure that you do not want to have fail on cutover night. Our parallel processing approach allows this time-consuming conversion component to be vetted many weeks prior to the start of the new System.

After final conversion and verification of transaction and historical data to the newest format, IGT generally performs two weeks of parallel processing to ensure that all data on the new System is synchronized and verified against the legacy System on a daily basis. This process ensures complete accuracy and preserves and protects the integrity of the Lottery.

Handling the Unexpected During Parallel Processing

Developing and managing a project of this size and scope brings with it the understanding that there are some things you cannot control. For example, during the parallel processing phase of a conversion project in New York, the New York Lottery experienced its highest jackpot to date. In the course of synchronizing data between the existing and new Systems at end of day for a two-week period, IGT's new System processed 36 million additional transactions with no reported issues.

This synchronization, along with all parallel processing that will be performed during conversion, is vital to maintaining consistency for your retailers and staff with respect to data. With accurate data, we preserve and protect key financial functions, the Lottery's revenue stream, and its integrity in the public eye.

Hardware and Software Capacity

The System will have the “as delivered” capacity in all hardware and software aspects to accommodate 400 concurrent instant ticket scratch-off games being in any status (i.e., available, unavailable, picked, packed, shipped, confirm shipment, activated, promotional, validated, returned, damaged, recalled, destroyed, archived, etc.). The proposed System has the capacity for a draw-based game sales day of at least \$50,000,000 and a multi-billion-dollar jackpot.

Supporting and Interfacing with Multiple Transaction Platforms via Aurora Connect® and Aurora Anywhere

IGT’s System is configured to support and interface with multiple transaction platforms without loss of current speed or functionality – including Internet transactions through Aurora Anywhere and retail transactions through Aurora Connect – during processing. As previously stated, Aurora Connect connects your Aurora Transaction Engine to a multitude of sales channels, including retailers, mobile, and self-service. Aurora Connect operates with any number of physical networks to meet the changing needs of the Lottery as well as cost efficiencies. These include VSAT, 3G, 4G Long Term Evolution (LTE), Fiber To The Curb (FTTC), Data Over Cable Service Interface Specification (DOCSIS) Cable, and MetroEthernet using an Ethernet cable for connectivity.

IGT’s Aurora Anywhere provides lottery gaming to points of sale far beyond traditional in-store terminals. It is the industry’s leading multi-channel gateway solution, offering instant ticket scratch-off and draw-based game play on all kinds of digital devices.

The technology that underpins this new lottery paradigm is the Application Programming Interface (API). Aurora Anywhere opens the door to this technology with a secure, scalable, developer-friendly path into lottery Systems for digital access to mobile and web applications.

Our solution supports gaming on:

- Laptops and PCs.
- Smart TVs.
- Mobile Phones.
- Tablets.
- Cash Registers.
- Gas Pumps.
- Smart Wristwatches.
- ATMs.

Best of all, Aurora Anywhere offers quick, easy access to lottery Systems anywhere there is a web browser or digital channel. So, for every new smart device in the future, Aurora Anywhere will be there to link it to the Lottery. It’s all made possible by APIs, which provide interfaces over the Internet in a format that is consumable by most modern connected devices. In addition to lotteries being able to expand their service offerings to multiple connected consumer devices, they can even expand existing service points at retail locations.

IGT is the first lottery provider to bring break-through API technology to the industry.

The following figure illustrates some examples of Aurora Anywhere's ability to support digital channels:

Figure 4.2.7 – 1:



Anywhere, Anytime: Aurora Anywhere is fully capable of supporting any digital channel that can use APIs over the Internet.

As the broker between front-end users and back-end assets, Aurora Anywhere can integrate with lotteries' Systems to expose functionality, such as Player Account Management (PAM), wagering, draw information, instant ticket scratch-off game information, and ticket checking.

Maintaining Processing Speed and Functionality

As stated previously, the System maintains processing speed and functionality, even during periods of high-volume sales. In this regard, IGT far exceeds the Lottery's requirement of supporting up to \$9 million in daily draw-based game sales, as the System can support daily sales of up to \$50 million. In addition, our Aurora Transaction Engine has been benchmarked – on comparably sized hardware – to process in excess of 300,000 transactions per minute, including wagers, validations and cancelations, exceeding the Lottery's minimum requirement of 32,000.

4.2.9

Hardware and Software Maintenance

The Vendor should provide an example maintenance plan and schedule that includes all System components at the PDC, BDC, ICS systems, communication networks, hardware and software components, and all terminal devices to assure continuous, accurate, and secure System operations and functions.

Maintenance

We take a proactive approach to System maintenance by maintaining hardware in accordance with the manufacturer's guidelines. For example, maintenance agreements for all hardware will be in place with manufacturers such as IBM and Cisco. Operating procedures and automation will dictate daily System maintenance, such as data retention and disk space availability.

Any hardware maintenance or System software upgrades are performed in a timely manner and in accordance with the West Virginia Lottery's approvals. All work will be done during the nightly maintenance window or a period of time with the least impact on sales.

IGT implements service contracts to ensure the production hardware is supported 24/7/365 with qualified providers (e.g., IBM, Trident). Contracts are in place prior to having any hardware implemented in any location. When applicable and necessary, we will obtain replacement parts and maintenance services that are approved, recommended, or recognized by the original equipment supplier as effective.

Maintaining Production and System Integrity

Recognizing the importance of maintaining the integrity of your production and test Systems, we have built automation that continually monitors the versions of System components, including application and gaming software. Reports are generated for our operations staff to monitor Original Equipment Manufacturer (OEM) and third-party software for notification of upgrades and patches. For maintenance, should any patches or upgrades be recommended (for security fixes, for example), we will seek approval for a change to be made through our disciplined change-management procedures.



Upgrades Process

Upgrades can include updates to third-party products running on our Systems, upon either their “end of life” or the introduction of new features that will create value for the Lottery. Upgrades may also include the merging of new or improved Lottery applications that will drive sales or create value for your end users or retailers. We understand that our System will evolve and grow as your needs change, and you can rely on us to provide efficient and timely modifications, enhancements, and upgrades to supplement those changes.

Our Change Management Approach Overview

Firmware updates will be applied to follow industry best practices. IGT will provide strict performance according to the principles of configuration and change management for any change (hardware, network, software, etc.) to production. IGT has more than 35 years of experience specifically handling production System change control and configuration management. We have found that the proper combination of people, processes, and tools are required to maintain System change control and configuration management for today’s complex Systems.

To ensure our System change control and configuration management protects the integrity of our customers’ Systems, IGT has adopted best practices from the Information Technology Infrastructure Library (ITIL), and the International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC), specifically ISO/IEC 27001:2005. This large body of reference, combined with the strength of our people, will guarantee that your new Systems will be governed by disciplined change and configuration-management principles.

IGT will fully test all changes to Systems, network devices, and applications in a test environment following standard Quality Assurance (QA) best practices. When we’ve satisfactorily completed testing, you will have an opportunity to test on your dedicated testing System. We will require your acceptance and approval prior to implementation into any production environment. Once deployed, all Systems, production, backup, QA, etc., will receive the upgrades necessary to ensure consistency and compatibility.

IGT will provide release notes for all software changes that characterize the planned changes. The software changes will be incorporated into a completely defined release package. Our software release process also includes ITIL-based Change Management processes. IGT uses the same ITIL processes for other System-related changes such as firmware, Operating System (OS) database, and other third-party software, updates, and patches. Release notes shall include, but not be limited to, version number, files affected, change-request identifiers, and change descriptions.

4.2.10

Hardware and Software Upgrade Opportunity

In year five, the Lottery may elect to obtain replacement hardware and any new coordinating software in part, or in whole, for the System, player and retailer websites, and field equipment. At the Lottery's request, the Vendor should present options and discuss the benefits of each new product offering. Costs for acquisition of hardware and additional software are to be excluded from this cost proposal. The Lottery may determine when the option is exercised and new lease annual lease cost per unit will be negotiated. Vendor will configure necessary software upgrades to ensure functionality on the System at no additional cost.

IGT will fully comply with this requirement. We acknowledge that the Lottery, in year five of the Contract, may elect to obtain replacement hardware and any new coordinating software in part, or in whole, for the System, player and retailer websites, and field equipment.

At the Lottery's request, IGT will present options and discuss the benefits of each new product offering. Costs for acquisition of hardware and additional software have been excluded from IGT's cost proposal. We understand that costs will be the responsibility of the Lottery when the option is exercised. In addition, IGT will configure necessary software upgrades to ensure functionality on the System at no additional cost.

4.2.11 Game Design and Operations

Any standardized bar code methodologies developed by the Lottery or for use by the Lottery are configured, readable, and supported by the Vendor during the Contract. The System reads and processes barcodes through scanning and manual input for tickets, coupons, and other processes.

We have a proven history of enhanced game design and operations experience. Any standardized barcode methodologies developed by the West Virginia Lottery or for use by the Lottery will be configured, readable, and supported by IGT during the Contract. The System will read and process barcodes through scanning and manual input for tickets, coupons, and other processes. IGT's System will fully comply with all the Game Design and requirements described through this subsection.

4.2.11.1 Validations

The System checks and redeems all tickets for a minimum of 180 calendar days following the draw date or instant game end date or a validation period as determined by the Lottery. Following the end validation date, expired draw game and instant game tickets appear on the System for a minimum of 185 days. The validation transaction should reference the original bet transaction. A winning ticket cannot be cashed or validated more than once.

Validation stations and retailer terminals are designed to issue payment for winning tickets for prizes up to \$600. The System produces a validation prompt for the retailer to verify sufficient funds for payment of prize winnings or decline the transaction so that no ticket is recorded in the System as redeemed/validated without payment of prize winnings. The trigger amount for the validation prompt is set by the Lottery and allows retailer modification to a lower amount as needed.

The System processes each wager and play separately even if the transaction contains more than one wager. Multiple wagers on a winning ticket are handled separately for tax and offset prize payment purposes (e.g. two wagers on one ticket, both winning \$500, and each are paid separately and require no tax withholding). The System issues a continuation ticket for remaining draws and wagers on a multiple draw ticket. Continuation tickets are printed, clearly marked, and logged on the System.

The System provides alerts relating to retailer activities and allows the Vendor to enable, disable or suspend a drawing or game function. This ability should include, but not be limited to, game sales, cancels, reports and validations System-wide, by game, or by retailer.

Further information on validation and vendor controls can be found in Section 4.2.13.3, Game Validation and Prize Payment Operations, Section 4.4.2, Standard Terminals, and Section 4.2.15.1, Management Application Features and Capabilities.



4.2.11.2

Additional Controls for Certain Purchases

The System produces a large dollar purchase prompt for the retailer to verify the purchase by providing an option to stop or make another appropriate action prior to completing the transaction. The trigger amount for the large dollar purchase prompt is set by the Lottery. The retailer has the ability to subtotal at any time during the processing of a players activity.

For additional information, please see Section 4.4, Field Equipment and Consumables.

4.2.11.3

Terminal Messages and Alerts

Ticket messages, reports, and audible alerts are produced for players and retailers announcing prize awards that include cash, merchandise, entry notification, free play prizes, and other information. All messages include variable descriptive information. If the terminal is not powered on or not communicating with the System, the System ensures that the terminal receives the message immediately upon sign on.

The System categorizes and sends messages to all retailers, a specific retailer, any group of retailers in a given circuit, county, zip code, business type, promotion, game type, chain, or sales level without disrupting wagering. Retailer terminal messages are defined as immediate or deferrable. Immediate messages are received by the retailer right away with no disruption to the wagering process. Deferrable messages may be requested by the retailer when it is more suitable to player traffic.

Further information regarding terminal messages and alerts can be found in Section 4.2.15, System Management Applications, Section 4.4.2, Standard Terminals, and Section 4.7.4, Retailer Website Enhancements.

4.2.11.4

MultiMedia Content

The Vendor schedules and creates messages to retail terminals, text and graphics to customer displays, and Keno monitors.

For additional information, please see Section 4.4, Field Equipment and Consumables.

4.2.11.5

Secure Data Transfer and Interfaces

The System has connectivity and supports encrypted data transfer to the existing Lottery LAN/WAN infrastructure. The System and applications are designed to be flexible so that any future software and hardware upgrades made to the Lottery infrastructure will be compatible with the System.

The Vendor provides and supports all required interface files and data feeds to support Lottery operations, including but not limited to, the Lottery accounting system ("Microsoft Dynamics OP"), the Lottery website, MUSL Mega Millions, and any future programs implemented by the Lottery. The Vendor provides a real time interface for website updates of winning numbers as required by the Lottery for each game.

The Vendor develops new interfaces as required. New interfaces are developed and supported as directed within timeframes designated by the Lottery.

For additional information, please see Section 4.2.37, Third-Party Agreements and System Interfacing, and Section 4.3, Reports and Interfaces.

4.2.12 Instant Game Operations

The System supports instant game receipt, inventory, ordering, distribution, sales, and validation. The System currently supports 300 instant games.

IGT's proposed Aurora gaming system for the new contract period includes the Aurora Instant Processing System (IPS), the latest generation of the IPS software that has supported the West Virginia Lottery under the current contract. Aurora IPS will support the Lottery's requirements for instant ticket scratch-off game receipt, inventory, ordering, distribution, sales, and validations. Aurora IPS will support up to 400 instant ticket scratch-off games simultaneously, exceeding the current system's capability. IGT will meet the Lottery's current functionality for instant ticket scratch-off games plus provide more features to make the Lottery's job easier.

A complete description of IGT's instant ticket scratch-off game management system is provided in Section 4.2.32, Instant Ticket Game Operations.

Barcode Algorithms

The System accommodates reading and processing a minimum of four different bar code algorithms. The System is capable of simultaneously loading and processing all games and game files provided by the current and any subsequent instant ticket print vendor(s). The System is designed to have the ability to add packs to an existing game, change game definition parameters when adding reorder packs, append validation files when adding reorder packs, modify prize structures, and overwrite a validation file to correct printing and/or validating error(s).

Aurora will accommodate the reading and processing of a minimum of four different barcode algorithms. We commit to the Lottery that we place no limit on the number of barcode algorithms that Aurora will accommodate. If the Lottery needs to replace an algorithm, IGT will replace it. We understand the critical importance of barcode algorithms to an instant ticket scratch-off game program.

Like the current system, Aurora IPS can load and process game files from any of the firms supplying instant ticket scratch-off games to U.S. lotteries today. Our systems in Arizona, California, Florida, Indiana, New York, North Carolina, Texas, Virginia, and Wisconsin regularly process game files from "our factory, Pollard Banknote, and Scientific Games simultaneously.

Also like the current system, Aurora IPS will allow the loading of additional packs to an existing game along with the additional low- and high-tier validation files, modifying the prize structure of the game. When a reorder is added to the system, game parameters can be changed, if necessary, by authorized staff. Should it be determined that there is an issue with either an inventory or validation file, Aurora will allow the files with the error(s) to be replaced.



Security Grid

Operations on packs and tickets depend on a rules-based security grid that defines acceptable status changes. The grid's rules are developed jointly with the Lottery. The System should allow a retailer to activate a pack of tickets for validation and security purposes. Validation records are a one-to-one ratio with instant ticket validations, instant game transactions at the retailer terminal level are confirmed against a validation database maintained by the System and validated by any retailer ("cross-validation"). The System confirms that the ticket was properly issued and activated. The System responds with a transaction ("pay, no-pay, claim") sent back to the retailer verifying whether the ticket is a winner and specifies the amount to be paid. Accounting functions apply to ranges of tickets within a pack (i.e. stolen packs or partially settled packs) reflecting the remaining number of available winning tickets.

Aurora IPS, like our current system, operates using a rules-based security grid that defines acceptable status changes. The grid will be developed jointly with the Lottery, allowing the Lottery to make any changes it deems necessary.

We anticipate configuring Aurora IPS to require retailers to activate a pack of tickets before placing it on sale for security and validation purposes, like the current system.

Aurora IPS will support "cross-validation." All validation requests received from retailer and claim center terminals will verify that the status of the ticket makes it eligible for validation. If eligible, Aurora IPS will check the validation database to confirm that the prize has not previously been paid. Aurora IPS will then return a "pay, no-pay, claim" message to the retailer, along with the amount of the prize (if appropriate).

Like the current system, Aurora IPS supports all accounting functions and validation controls related to ranges of tickets in a pack in connection with stolen (and/or missing) and partially settled packs. Winning tickets from the portion of a pack not marked as Stolen, Missing, or Returned will still be eligible for prize payment authorization.

Keyless Validation

The System uses a secure "keyless validation" requiring no more than a bar code read for Lottery approved prize levels and terminal type. "Auto-cashing" of low tier tickets is not considered a satisfactory solution by the Lottery. The Lottery bears the responsibility of acquiring special bar codes in the instant ticket printing process to support keyless validations. System validates winning tickets by scanning one barcode located on the ticket back and scanning another code under the scratch coating, or scanning one barcode under the scratch coating, scanning one barcode located on the bottom of draw tickets, and manual entry of any ticket serial and validation codes.

Aurora IPS will support a keyless validation functionality that requires no more than a barcode read for Lottery-approved prize-level and terminal types, just like our current system. IGT acknowledges that auto-cashing of low-tier tickets is not considered a satisfactory solution by the Lottery.

With the expiration of the "FailSafe" patent in October 2015, the Lottery's ticket vendor(s) will supply keyless validation using any current validation algorithm acceptable to the Lottery.

Like today's system, Aurora can be configured to support the following validation methods:

- Scanning one barcode on the ticket back and scanning another code under the scratch coating.
- Scanning one barcode under the scratch coating on the front of the ticket (the Lottery's current practice).
- Scanning one barcode located on the bottom of draw-based game tickets.
- Manual entry of a ticket's serial number, inventory number, and validation number, as appropriate.

As the leading supplier of lottery systems and instant ticket scratch-off game management systems, IGT will continue to supply the secure validation of all of the Lottery's games. Our proposed terminals and Aurora IPS support all instant ticket scratch-off game validation processes used in the U.S. today. No instant ticket scratch-off game validation functionality will be lost in transitioning to the new terminals and Aurora system.

System Support for Game Parameters Information

The System supports parameters for the administrative input and maintenance of game information that includes:

- Game name [up to 30 characters] and number;
- Game number [up to five digits];
- Pack number [six digit pack identifier];
- Validation number [current 24 digit validation number], the new five digit game number, and any changes to the instant ticket validation and bar codes in the future;
- Ticket data that includes start pack number, missing pack numbers, number of packs in game, cost per pack, number of tickets per pack, pack value of low-end prizes, cost per ticket, and number of tickets per pool;
- Prize structure information that specifies each prize level for each game and associate the following: prize value, low/mid/high tier, prize description, PIN requirement, payor claim code, estimated number of winners, actual number of winners, and multiple occurrences of the same prize amount;
- Game event dates that include order start date, activation start date, validation start date, order end date, activation end date, and end validation date (180 calendar days after announcement of game end. The Lottery has the ability to search expired games for a minimum of 185 days following the end validation date); and
- Any authorized user override dates of Game Date parameters for either one retailer or all retailers to allow migration of pack statuses in the event of lost, stolen, misplaced, or unsettled packs.

Like your current system, Aurora supports a wide variety of parameters for the administrative input and maintenance of game information, including:

- Game name (up to 30 characters) and number.
- Game number (up to five digits).
- Pack number (seven-digit pack identifier).
- Validation number (the current 24-digit validation number using a four-digit game number), any changes to the validation number to support a five-digit game number, and any changes to the validation algorithm and barcode required by the Lottery during the new contract and any extension thereof.
- Ticket data that includes the starting pack number, missing pack numbers, number of packs in game, cost per pack, number of tickets per pack, pack value of low-end prizes, cost per ticket, and number of tickets per pool.

- Prize structure information that specifies each prize level for each game and associates the following: prize value, low/mid/high tier, prize description, Personal Identification Number (PIN) requirement (if any), payor claim code, estimated number of winners, actual number of winners, and multiple occurrences of the same prize amount.
- Game event dates that include order start date, activation start date, validation start date, order end date, activation end date, and end validation date. Aurora will support the current 180 calendar days end validation date. The Lottery can change this value for an individual game or all games as it deems appropriate. IGT will configure Aurora to allow the Lottery to search expired games for a minimum of 185 days following the end validation date.
- Any authorized user override dates of Game Date parameters for either one retailer or all retailers to allow migration of pack statuses in the event of lost, stolen, misplaced, or unsettled packs.

4.2.12.1

Instant Ticket Inventory and Tracking

The System provides receiving reports and inventory management for all inventory movement. The System tracks and provides accounting of packs shipped to retailers and any subsequent status changes. Unopened packs may be returned within 30 days of Lottery announced game end. Field Marketing and Sales Representative may return packs/tickets for resale or return inventory to the warehouse.

Like your current system, the new Aurora IPS application will provide receiving and inventory management reports for all inventory movement. Aurora IPS will track and provide accounting of packs shipped to retailers and any subsequent status changes. Unopened packs will be returned within 30 days of Lottery-announced game end. Field Marketing and Sales Representatives (FMSRs) may return full packs of tickets for resale or storage as returned inventory to the warehouse. Authorized staff may process partial-pack returns based upon Lottery procedures.

Using Aurora OnePlace (the successor to the well-known OrderPad), our FMSRs will have access to inventory information while they are in the field. For example, if a retailer needs a pack of tickets for a particular game, an FMSR will be able to check the inventory of other retailers in the area to find an extra pack for the retailer who is low on inventory. Our FMSRs can also generate replenishment orders for both retailers for delivery the next business day. Recently, IGT acquired Hudson Alley Software, Inc. (Hudson Alley) and its OnePlace solution, which we have renamed Aurora OnePlace. IGT now provides integrated sales force automation solutions to 20 U.S. lotteries, and this number continues to grow each year.

Please see Section 4.6.8, Field Marketing and Sales, and Section 4.6.9, Field Marketing and Sales Reports, for additional information about IGT's OnePlace.

4.2.12.2

Settlement and Billing

The System supports settlement with billing of the packs to retailers. The System allows packs to be manually settled and support automatic settlement parameters.

The System allows any pending electronic fund transfer ("EFT") amounts to become due immediately when retailers are no longer licensed.

Aurora IPS will support settlement with billing of the packs to retailers. In addition to supporting automatic settlement by monitoring the status of each pack, Aurora IPS allows retailers to settle packs manually before the settlement parameters cause a pack to settle.

Aurora IPS monitors the current status of each individual pack of tickets at each retailer for the purpose of supporting pack settlement. The Lottery's current settlement rule can be supported without question.

Aurora allows the simultaneous use of multiple settlement parameters, such as the time since the pack was delivered, the time since the pack was activated, the percentage of low-tier validations from the pack, and settling the oldest active pack with the activation of a new pack. Most of our customers take advantage of this ability, which allows them to settle packs as soon as any of the thresholds is met. Different retailers can have different settlement rules.

Typically, Aurora is configured to perform a settlement automatically when a partial pack is either returned or marked as Stolen. This simplifies accounting in these situations by automatically charging the retailer for the part of the pack that was sold or not stolen. Manual adjustments are not required in these situations.

Aurora monitors the current status of every pack of instant ticket scratch-off games. As a result, authorized staff can view the current status of each pack at any retailer. Packs in other locations – for example, at the warehouse, in transit, in possession of an FSMR, or returned to the warehouse – are similarly monitored by Aurora IPS and can be reviewed by authorized staff.

All retailer inventory status information is maintained in real time, so the data is always current.

Aurora IPS can support ticket-level accounting for instant ticket scratch-off games, which can encourage more retailers to offer more tickets at higher-price points for sale at the same time, even if they sell slowly.

Settlement and Billing for Retailers Who Lose Their Licenses

Aurora allows pending EFT amounts to become due immediately when retailers are no longer licensed.

4.2.13

Draw Game Operations

The System automatically closes a game draw without operator intervention at a specified time before the drawing is approved by the Lottery.

The System maintains control of transactions underway to allow transactions before the game draw close event to apply to the current drawing and all transactions after the game draw close event to apply to the subsequent drawing.

At each game draw close, the Vendor and the Lottery management terminals produces the following information for the game draw including the time of day, net game pool (wagers minus cancels), Hash Total of wagered numbers (including cancels), pool status, and game I.D.

Game Draw Close

The Aurora lottery gaming system will fully support the Lottery's requirements for draw-based game operations. Aurora will automatically close a game draw without operator intervention at a specified time before the drawing is approved by the Lottery.

Aurora will maintain full integrity and control of all transactions underway at game close to ensure that all transactions before the game close time apply to the current drawing and that all transactions after the game-draw close time will apply to the following drawing, as described in the following paragraphs.

After the game close, Aurora will provide game-related standard information (i.e., totals, sums, status, etc.). We acknowledge that it is important for the Lottery to minimize the time window between close of the game, the drawings, and the ability to pay winning tickets. Aurora will comply, and is easily configured to comply, with the time window specifications established for each game.

The Aurora Transaction Engine (the central system of the Aurora lottery system) will automatically close each game, without operator intervention, at a specified time before the draw is held. All wagers for a given game that are taken after that time will be eligible for the subsequent draw. Once a game has been closed, the following automatic procedures occur:

- A game-closed transaction is logged in the Master Journal File (MJF) of each Aurora Transaction Engine in the central-system configuration. That transaction identifies, down to the hundredth of a second, the exact time the game closed.
- The game-closed transaction is sent to the Internal Control System (ICS) in near real time. The ICS reads the transaction, thereby allowing it to calculate sales to that point to ensure balancing with Aurora.
- A logged-status message is displayed on the system-management console at the PDC and BDC. That message alerts operations staff that the game is closed, allowing them to prepare for winning numbers entry following the draw.

At the close of each game draw, the Lottery's and IGT's management terminals will produce this information for the game's draw: the time of day, net game pool (wagers minus cancels), Hash Total of wagered numbers (including cancels), pool status, and game Identification (ID).

Dual Entries for Game Draw

The Vendor and the Lottery must each enter the data separately. The data entry is not accepted if it does not match. All entry attempts are logged. Prize pool amounts are modifiable if authorized by the Lottery.

Drawn winning numbers for a game draw must be dually entered with one number set entered by the Vendor and one number set entered by the Lottery on two different management workstations each requiring a unique password. The entry cannot be processed nor does winner selection begin if the password and/or winning numbers do not match. All entry attempts must be logged.

The System allows suspension of sales of a game for the remainder of the operation day after the last drawing of the day. This feature mainly supports a game matrix change.

The System allows a game to resume future sales without finalizing a drawing and declaring a problematic drawing.

Aurora supports dual entry of the winning numbers drawn, as well as prize and jackpot amounts. All attempts to enter this information, whether successful or not, are logged, including the user ID.

Unsuccessful attempts result in restarting the process from the beginning. We will monitor, track, and supply reports of all entry attempts, as required by the Lottery. It is important to note that each attempt is also logged to the MJF on each Aurora Transaction Engine and transferred to the ICS. Prize pool amounts will be modifiable if authorized by the Lottery.

Dual manual-entry of winning numbers as a critical tool in protecting the Lottery. While this function was initially developed to ensure that no one person had control or had the ability to commit fraud, it has the added benefit of providing an additional layer of protection for the Lottery in the case of a single incident of operator error that could, potentially, impact players.

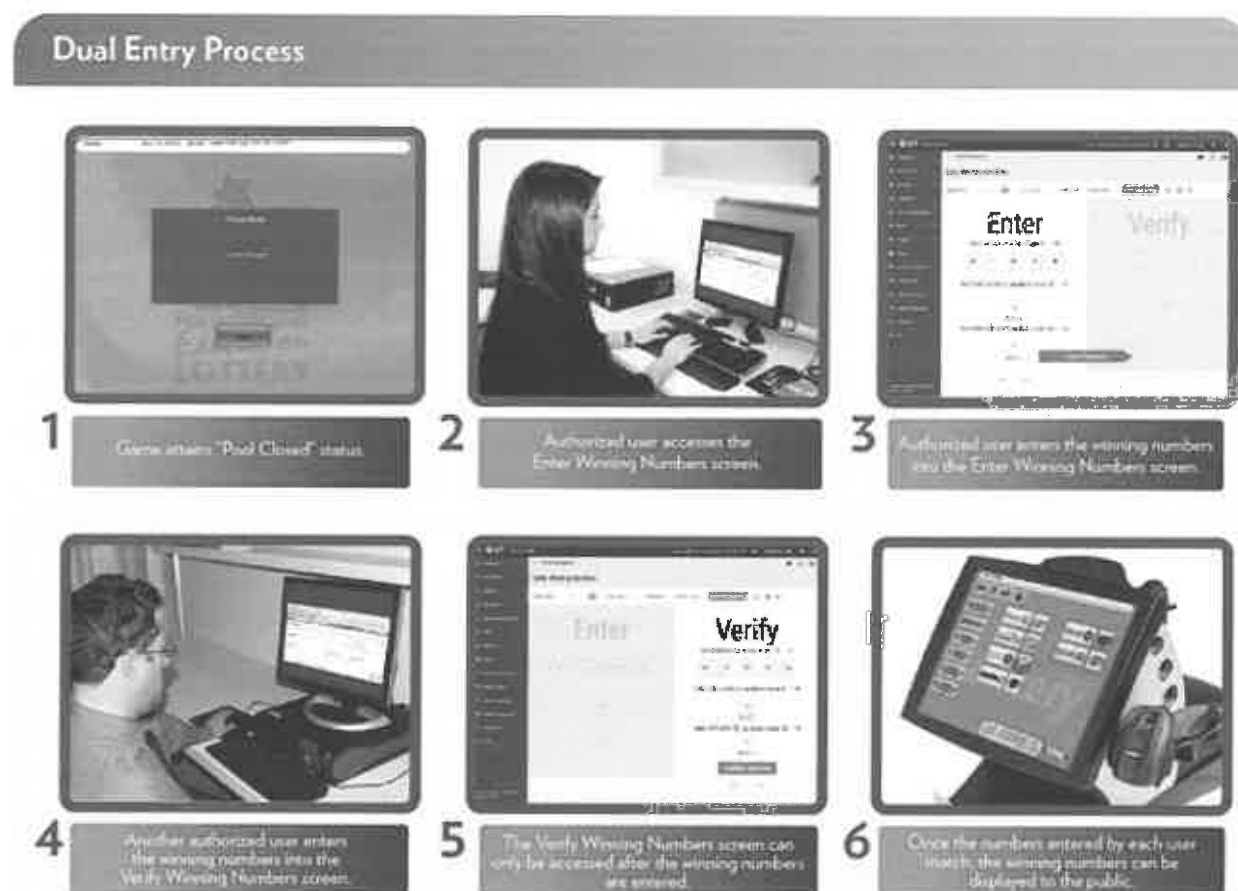
Aurora enforces dual-manual entry through two different application screens. To further ensure the integrity and security of the dual-manual entry process, access to the two separate screens can be configured to require two different users to log in. With Aurora, it is possible to define privileges to ensure separate users are performing each function independently. Finally, the dual-entry process can be done from separate physical locations, providing another check and balance for control and accuracy of key entry of winning numbers.

Our dual-manual entry process works in the following manner. Once a draw attains the appropriate status (e.g., Draw Closed) and before the draw is set such that all divisions are payable:

- An authorized user accesses the Enter Winning Numbers screen in Aurora for the game (as shown in the photo in the following figure).
- The authorized user enters the winning numbers.
 - Aurora will not allow this authorized user to access any other screen, following the first successful entry of winning numbers. (Only the second authorized user will be able to access the second screen – i.e., the Verify Winning Numbers screen – to independently enter the winning numbers to verify the numbers that were entered in the first, successful attempt.)
- A different authorized user then enters the winning numbers on the Verify Winning Numbers screen in Aurora. This second screen can be accessed only after the winning numbers have been entered on the first screen, i.e., the Enter Winner Numbers screen.

The winning numbers on both screens must match before the draw close process can continue.

Figure 4.2.12 – 1:



Ensuring Accuracy, Integrity, and Security: Checks and balances within the dual manual-entry process will provide an added layer of authentication to ensure the integrity of the Lottery.

If the numbers entered on the two independent screens (and different management workstations) do not match, both users are notified, and the process must be repeated. All attempts are logged, regardless of whether or not they were successful. The entry screens of successful attempts can be automatically printed and a file created and delivered to the Lottery for updating other systems.

Aurora will allow sales of a game to be suspended for the remainder of the operation day after the last draw of the day. We acknowledge that this feature mainly supports a game matrix change. Aurora will also allow a game to resume future sales without finalizing a draw and declaring a problematic draw.

4.2.13.1

Random Number Generator (RNG)

Random Number Generator ("RNG"): Vendor provides RNG software programs to generate tickets from the terminals and produce game draw selections. RNG software on terminals is configured and installed to produce random play picks/numbers [partial or total selections] for all draw games on all terminals (e.g. Easy Picks).

The RNG program(s) are required by MUSL to be certified as random by a reputable, Lottery-approved test laboratory paid for by the Vendor. The Vendor is required to periodically test any and all RNG equipment and software used in the operation of the System. The Vendor assumes all costs for such testing within the Base Cost.

IGT will comply with and fully support the functionality detailed in this requirement.

Our Aurora Open Retail terminal platform includes RNG software, which is common across all terminal types and used to generate Easy Picks (random play picks). The RNG software is tested extensively using IGT's proprietary GRAD software application prior to submission to a MUSL-approved third-party testing vendor. IGT currently contracts with Gaming Laboratories International (GLI) for third-party testing of all RNGs.

Please refer to Section 4.4.2, Standard Terminals, under the heading "Random Number Generator," for further details.

4.2.13.2

Keno Game Operations

Travel Keno utilizes computerized closing of pools and game draws using a random number generator ("RNG"). The Vendor provides backups for the RNG software and equipment that automatically failover. Game drawing numbers are obtained from a RNG backup in the event of a System failover. The Vendor has no means, programmatically or manually, to create game drawing numbers to override the RNG output.

IGT will comply with and fully support the functionality detailed in this requirement. Our solution is described below.

Aurora FLEXDRAW® can support traditional draw-based games, like keno, that have set game matrices of "X" numbers from a larger set of numbers, without replacement (e.g., 10 of 80). Aurora FlexDraw also supports games with greater mathematical complexity, such as our monitor-based poker game. This type of odds-based game, in which each participant has a predefined probability to win, requires the system to shuffle a deck of cards and draw winning number sets that correlate with that predefined probability.

Please refer to Section 4.2.29, Concurrent Draws, for more information on our FlexDraw solution.

4.2.13.3

Game Validation and Prize Payment Operations

The System is configured with validation and prize payment software that validates and accounts for all cash and non-cash prizes won playing any lottery game [ticket]. The software is programmed to automatically record all validation tasks and transactions in the System as validated and paid so it cannot be validated more than once [Note: continuation tickets are printed if validating a ticket purchased for multiple draws].

IGT will comply with and fully support the functionality detailed in this requirement. Our solution, in which we describe various game validation and prize payment operations, is described below.

Validation and Payment of “Normal” Prize Claims

Aurora will provide the Lottery with the functionality to validate and pay “normal” prize claims. In addition, a daily validation file for all games that the Lottery sells will be provided. The Lottery can use this information to generate the payment of prizes with winner checks and provide the information for IRS filings as necessary.

Validation and Payment of Grand Prize Cash and Annuity Claims

Grand prize cash and annuity claims and associated payments require the Lottery to perform additional validation procedures (required by the MUSL) before payment of the prize claim can be made. Aurora supports the validation and payment of grand prize cash and annuity claims.

Validation and Payment of Noncash (Merchandise) Prizes

Our Aurora Claims and Payment (CAP) module enables the validation and payment of non-cash (merchandise) prizes. It is fully capable of evaluating, processing, and reporting on tax liability for higher value merchandise, whether the prize be tax paid or taxable. Where the option is available to the player, Aurora CAP will also manage and process the cash equivalent value associated with a merchandise prize.

Payment of Prizes with a Debt Setoff

Aurora CAP has a powerful, open-standards-based structure that can interface with third-party back-office systems. For example, it can connect directly to external state agencies that communicate debtor information automatically. This makes state debt collection easier to automate. Debts such as overdue taxes or child support can be set off against prizes, ensuring that the appropriate state agencies are paid before paying the claimant.

For the Lottery winnings to be intercepted, the parent must owe past-due child support. IGT can support the Lottery with debt collection activity through Aurora CAP.

System Processes

In the following paragraphs, IGT describes how each of the related processes will be accomplished by Aurora and its associated modules and applications.

Multiple Prizes Paid to One Player

Aurora CAP has the ability to “merge” multiple payments for one player into one payment. For example, if a player has three separate claims processed for \$1,000, \$2,000, and \$3,000, and the checks have not yet been printed, the “merge” feature of Aurora CAP can be used to combine these three payments and produce a single check for \$6,000.

This feature is useful if a check needs to be created for one of the agencies for which debt collection was withheld. Several payments can be retrieved and a single check created.

Ensuring that Draw Game Prizes and Instant Ticket Scratch-Off Prizes Are Legitimate

Aurora CAP will process draw game and instant ticket scratch-off game validations. It will process the validations in the same way the terminal processed them. The validations will be sent from Aurora CAP to the appropriate Aurora component to process the validation.

Tickets will be rejected if already paid or if they fall within an invalid ticket range, i.e., Stolen or Returned.

If a winning ticket that’s already been paid is presented for payment again, either at a retailer or from the Aurora CAP system, an error message will be sent to the Exception Log.

When a ticket is presented for validation, Aurora checks its current status. That status is identified by a flag assigned to the ticket’s record in Aurora (each ticket has a record). A marked flag indicates that a ticket was previously cashed; an unmarked flag indicates that the ticket is available to be cashed. If a ticket has not been cashed, Aurora extracts the appropriate payment authorization data, automatically sets the flag to “paid” (cashed), appends a unique ID of the validation transaction, and authorizes payment. Validation information for the play transaction is stored in the Aurora Transaction Engine’s MJF and Backup Journal File (BJF) and in the game’s Product Transaction Master (PTM) file, as well as updated in the game’s Outstanding Tickets and Winners File (OTWF), to maintain system liabilities. Additional information, such as the date, time, and cashing terminal, is also stored with the transaction.

If someone attempts to validate the ticket more than once, Aurora will see the flag, determine that the ticket has already been validated, and deny authorization of a prize payment. Aurora will also return a suitable message, such as “Previously Paid,” to the originating terminal along with the identity of the retailer who validated it.

In addition to ensuring one-time validation, Aurora will allow the Lottery to mark an uncashed ticket as “on hold” by entering that ticket’s serial number into the system. If anyone attempts to validate that ticket at a retail location, Aurora will alert the Lottery, noting the location, date, and time of the attempt. Validation will be denied with a message on the terminal that says, “Unable to Validate – Please Contact Lottery.” This message can be customized by the Lottery to suit its business needs.

4.2.14

Privileged Validation Software Operations

The privileged validation stations cash winning tickets of any denomination, produce continuation tickets, produce reports, and function with terminal peripherals (i.e. ticket checker, digital jackpot signage, customer display). Prior to processing and issuing a prize payment, the privileged validation stations will calculate and offset ("withhold") standard state withholdings, standard federal tax withholdings, child advocate, delinquent taxes, and any other mandated withholdings that may be required in the future. The System is programmed to allow privileged validation stations to calculate and deduct these withholdings in a specified order.

IGT will comply with and fully support the functionality detailed in this requirement. Please refer to Section 4.2.26, Privileged Validation Hardware and Software, for a description of our validation activities.

4.2.14.1

Check Writers and Prize Payment Operations

The current System has three check writers, one at Lottery headquarters and one at the Lottery's regional office, and one additional check writer is maintained but not installed at the BDC. Check writers complement the privilege validation stations and also provide for the printing of tax documents such as W-2G and 1099 forms.

The check writer software prints a physical check with an authorized signature [signature stamp] or issues an electronic funds transfer transaction ("EFT"). Software is configured to process EFT transfers that will deposit winnings directly into a winner's bank account, and to print checks using MICR capable laser printers located in all Lottery offices.

The System provides proper identification codes for each Lottery location to identify transactions when users query and view check registry and associated reports.

Operations allow voided checks to be reissued under check maintenance and the W-2G database is automated to update to reflect corrections.

IGT will comply with and fully support the functionality detailed in this requirement.

IGT will provide the Lottery with check writer software and system as an integrated check-writing application for use by the Lottery at privileged validation stations. Check-generation will be strictly controlled and limited to authorized Lottery personnel. In addition to the granular level of application security and user authorization provided by the Aurora User Security function, Aurora CAP allows for management workstations that originate check-generation requests to pass additional security verification based on separate ID protocols.

Network security recognizes management workstations through the use of Media Access Control (MAC) addresses. Only certain workstations will be authorized for appropriate functionality. Furthermore, user ID passwords will identify and permit authorized users to perform critical functions such as check-generation.

Please refer to Section 4.2.26.1, Check Writers, and 4.2.26.2, Check Writing/EFT Prize Payment Accounting and Reporting, for further details on our solution.

4.2.14.2

Additional Check Writer and Prize Payment Tasks

The validation and check writing/prize payment software solution is designed and configured to perform the following tasks and operations on the System:

- *Simultaneous Validations:* Validation functions and check writing/EFT transaction processing is designed for use by multiple users simultaneously without processing or accounting degradation
- *Multiple Claimants:* Provides prize payment to more than one claimant by splitting the total prize won on a single ticket [\$600 or more] based on certain percentages paid to each individual;
- *Exception Checks:* Provides prize payment and an automated accounting process to issue an "exception check" for winnings associated with a valid game and ticket that is expired, defective, or damaged a minimum of 60 days beyond the end validation date after security features requiring dual approval by the Lottery are satisfied;
- *Retailer Bonuses:* Provides prize payment and an automated accounting process to issue an "administrative check" for commissions and bonuses associated with Lottery determined prize awards (e.g. retailer commission and bonus checks for selling jackpot prize tickets presented at press conference). The System calculates the percentage of the selling bonus given to a retailer based on the jackpot amount as opposed to the cash option amount;
- *Tax Withholdings:* (a) Calculates, produces, and submits payment of state and federal withholding taxes, and other off-set statutory amounts from the prize payment on an ad hoc basis; and (b) captures and maintains historical claimant information required by IRS at year-end (W-2Gs), which includes a database of winner names, addresses, game type, amount won, claim date, retailer location, withholdings, etc. The System supports the printing and mailing of W-2Gs for the current year, along with the previous three years; and
- *Produce Lottery required correspondence materials that accompany prize checks and any explanations for specific withholdings.*

IGT will comply with and fully support the functionality detailed in this requirement.

Please refer to Section 4.2.26.1, Check Writers, and 4.2.26.2, Check Writing/EFT Prize Payment Accounting and Reporting, for further details on our solution.

4.2.15

System Management Applications

The Vendor's management application software resides on the Vendor's workstations, on database servers, on the management computers, or a combination of the above. Access to software functions by the Vendor or Lottery personnel requires written Lottery authorization.

The Lottery's LAN has Windows-based computer workstations used to perform System management functions as well as normal Lottery functions. Management application software and System interfaces are installed on Lottery workstations for authorized users by the Vendor.

The Vendor provides communication and connectivity between the Lottery's LAN and the System. Connectivity to the Lottery's LAN for printing on existing Lottery printers is permitted. The Lottery may request modifications or additional software to produce reports, screen displays, inquiries, and other administrative applications.

IGT will comply with and fully support the functionality detailed in this requirement.

IGT's new Aurora Navigator Back-Office solution takes a giant step forward in making Lottery staff more productive and their work easier. This dynamic solution includes the administrative applications a lottery uses to run its lottery (manage retailers, players, promotions, claims, etc. and operate its system). It also comes with a new User Interface (UI) – the Aurora Navigator – that's device and browser-agnostic. In other words, your authorized users can work on any device, with any browser, to meet the needs of today's multi-tasking, fast-paced lottery environment. Aurora Navigator Back-Office will provide many efficiencies and benefits to the Lottery in terms of streamlining and personalizing operations.

The web-based Aurora Navigator, built on HTML 5 for maximum flexibility, will support laptops and mobile devices of any screen size. This modern UI is also role-based, i.e., it is customized to each user's role. Each authorized user's Aurora Navigator will show that user, starting with data visualizations on the initial screen, exactly what he or she needs to see to do his or her job.

Aurora is a totally integrated, secure, exceptionally efficient, and MUSL-compliant system. With its open architecture, it can be expanded to add new features and functions, allowing it to serve the Lottery throughout the contract period and any possible extensions.

4.2.15.1

Management Application Features and Capabilities

Vendor provides an interface for the Lottery to access the System for all functions requiring access by Lottery staff. Lottery Back Office Systems have access to game management applications for performing and controlling functions such as licensing, configuring game settings, managing Retailer terminals, performing accounting functions, etc.

The management workstation software or interface is compatible with all current versions of Windows Operating systems and subsystems such as Internet Explorer. Functionalities of the management workstation software and management application features include the following:

- *Management workstation applications provide a payoff figure and a payoff liability for each game in real time. Vendor maintains dynamic pools for the current draw and dollar summaries for plays for future draws for all draw games. The current day's pools include all current days wagers as well as advance day wagers for that draw.*
- *Monitors number combinations selected in game sales and identifies when any fixed payout game reaches the Lottery determined liability limit (example: a particular number combination quota is met) and can no longer be sold.*
- *Authorized users may trigger suspension of sales of a number combination in any fixed payout game within any approved timeframes:*
- *e Applications are designed and configured with ability to shut down and resume all wagering and validation functionality on each game independently;*
- *Control of certain draw game functionality and terminal functionality (e.g. activation/deactivation of individual retailer terminals); and*
- *Ability to query retailer and chain level licensing and financial information [e.g. (1) sales, voids, and validations by game, by day, by retailer; (2) sales, voids, and validations by game, by calendar month, by retailer; (3) sales, voids, and validations by game, by billing week, by retailer; and (4) owner contact information, address, email, phone number, etc. by individual retailer or chain] is provided to the Lottery.*
- *Lottery and Vendor are able to query the status of draw game information in real time including but not limited to: sales, voids, and validations, by game, by day, by drawing; prize pool amounts; status of pools for each drawing (open or closed); and sales/transactions by minute.*
- *System is capable of querying retailer information and financial history including: retailer name, address, phone, contact, etc.; current day and historical financial information (containing both the beginning and ending balances) by retailer, by day, by week, by month, by calendar year and by State fiscal year (July 1 – June 30); consumable, equipment, and point-of-sale item inventory as reported and logged by administrative support personnel.*
- *Security features to ensure data integrity require "dual-entry" by Lottery and the Vendor to reconcile all winning numbers, variable prize data, and jackpot amounts entered into the System before production operations may commence related to any such information.*
- *Ticket cancellations are available through a terminal function, Vendor and Lottery management application software functions, and by manual input. Note: Tickets and any terminal transactions can only be cancelled from the issuing terminal within the specified timeframe on Lottery approved games.*

IGT will comply with and fully support the functionality detailed in this requirement. A description of our solution follows.



Aurora Game Manager

Aurora Game Manager is one of the Aurora Navigator Back-Office applications and the principal tool for controlling games and monitoring gaming data in real time. This web-based application allows authorized users to set up and control games and liabilities and monitor and manage system activity related to:

- Games.
- Game management.
- Draw-based game transaction-processing and validation.
- Draw processing.
- Terminal administration.
- Audit trails.
- Reporting.

Payout

The Aurora Transaction Engine monitors wagering for fixed-payout games. It will immediately alert the Lottery and IGT operations, via emails, when sales of a number in a fixed-payout game reach a warning level and then a specified liability level:

- Upon reaching a predefined percentage of such a limit.
- Upon reaching 100% of the limit; in addition to sending an alert, no further wagers will be accepted for the combination in question. Through the Aurora Game Manager application on the management workstations, authorized Lottery personnel can obtain payoff figures and payoff liability for each game in Aurora whenever the Lottery requests them. The Aurora Transaction Engine can also be configured to automatically suspend sales of any number, or any combination of numbers, when the liability limit is reached. The Lottery can override such suspensions. Liability limits are easily configurable so that the Lottery can respond to market trends.

Draw Schedule

IGT will support the Lottery according to its draw schedule and support current and future Lottery game offerings through Aurora. Aurora will provide the flexibility needed for various game status changes – either automatically (e.g., game close) or by manual intervention, as determined by the Lottery. IGT understands that this may also include the suspension of sales and validations for a game. All such changes will be fully and securely logged by Aurora.

Draw Close

Aurora will maintain full integrity of all transactions underway at game close to ensure that all transactions before the game-close time apply to the active draw and all transactions after the game-close time shall apply to the following draw, as described in the following paragraphs.

Aurora will provide game-related standard information (i.e., totals, sums, status, etc.). We know that it is important for the Lottery to minimize the time window between close of the game, the draw, and the ability to pay winning tickets. Aurora will be, and is easily, configured to comply with the time window specifications established by the Lottery for each game.

The Aurora Transaction Engine will automatically close each game's draw, without operator intervention, at a specified time before the draw is held. All wagers for a given game that are taken after that time will be eligible for the subsequent draw. Once a game has been closed, the following automatic procedures occur:

- A game-closed transaction is logged in the MJF of each Aurora Transaction Engine in the central-system configuration. That transaction identifies, down to the hundredth of a second, the exact time the draw closed.
- The game-closed transaction is sent to the ICS in near real time. The ICS reads the transaction, allowing it to calculate sales to that point to ensure balancing with Aurora.
- A logged-status message is displayed on the system-management console at the PDC and BDC. That message alerts Operations staff that the game is closed, allowing them to prepare for winning numbers entry following the draw.

Shutdown Functionality

The proposed Aurora system is able to activate, de-activate, and re-activate all Lottery functions or specified gaming functions for the entire retailer network or for specified retailers or groups of retailers at any time (i.e., the ability to sell and validate draw-based games or instant ticket scratch-off games).

With Aurora, an authorized user can enable/disable functionality, such as wagering globally across all games, an individual game, an individual retailer, or a group of retailers.

Aurora Navigator, the UI to the back-office applications, is the principal tool for controlling a retailer's ability to perform gaming functions. It is used to:

- Set up a retailer's privilege to control games and their associated liabilities.
- Monitor and manage system activity related to games, transaction processing, draw processing, and terminal administration.

Aurora Navigator includes a comprehensive set of gaming data and management screens that are available on demand in real time.



Aurora Navigator:

- Provides a range of features and capabilities to balance and reconcile draw games; it also provides audit trails and reporting capabilities.
- Allows authorized users to shut off and resume sales and validations for each game (including draw-based games), independently, in real time, for the entire network. Authorized users can suspend other functions, such as cancellations, for each game independently.
- Provides the ability to suspend functions at the retailer, sales associate, and terminal levels. For example, a function could be suspended for one sales associate while other users of that same terminal continue to use that function. This feature provides retailers with the type of management flexibility they are looking for.

Retailer Queries

Please refer to our response in Section 4.2.16.1, Licensing Data Fields and Query Capabilities.

Dual Entry

Please refer to our response in Section 4.2.13, Draw Game Operations.

Ticket Cancellations

As required in this RFP, ticket cancellations will be available through terminal function, vendor, and lottery management application software functions, as well as by manual input.

4.2.16 Retailer and Licensing Function

The System is the primary data source for all information that is maintained about all of the Lottery's traditional retailers. The current Vendor converted the existing legacy Lottery traditional retailer files to its new retailer master files and reference files at the inception of the current contract.

The System allows authorized user(s) to define, enable and/or disable any retailer terminal. Actions taken toward retailer management are effective without waiting for a batch run and create an audit trail of the changes made, the date of the change, and the user who made the change to a retailer terminal. Any actions taken reside on the System for 365 days following the occurrence.

The System provides a coding scheme for layered retailer "disabling" reasons and is capable of reporting a retailer's disable history (e.g. if a retailer is disabled for a collection related problem and disabled for a disciplinary problem, these multiple disabling codes are recorded in the retailer record, historically maintained, and clearly displayed upon management workstation query.) The coding scheme has the ability to accommodate a minimum of 20 different types of disable.

The System produces and allows printing of licenses by types and groups with variable graphics and data (e.g. license year, license type, logos, etc.).

The System maintains a transactional history log of all changes made to the retailer master and reference file information, accessible in real time for at least 12 months following the change. The transactional history log includes the user's ID who made the change. The information is retrievable for the term of the Contract.

Traditional retailer information files are updated in real time. Information maintained by the System includes:

- *Permanent retailer application information with restricted access including Application control number, retailer type (e.g. SIC), ownership type (e.g. sole proprietor, partnership, corporation, non-profit, LLC, etc.), tax information (e.g. FEIN, tax exempt status, 1099), ownership (indicating 1099 to be produced), application received data, chain affiliation, retail license, officers and their social security numbers, background check status, license approval or denial date, application fee, workers compensation data, state tax data, unemployment data, NCIC — security and financial security;*
- *Permanent traditional retailer information: Legal name, doing-business-as (d/b/a), location address, mailing address, billing address, terminal numbers, phone numbers, email addresses, terminal classifications, circuit number and drop, store hours, demographic data, licensing event dates, ownership data, marketing codes, financial codes, commission rate, sales bonus rate, cashing bonus rate, county, zip, Standard Industrial Classification (SIC) codes, 6-digit retailer number, accounting information, retailer type, 6-digit control number, and ABCA number (e.g. 23-A-212-010345);*
- *Retailer relationships between: other retailers with the same ownership (e.g. chain, headquarters, and other locations), additional terminals and peripherals, equipment and point-of-sale items, sales regions, delivery routes, and Vendor field and marketing service employees;*
- *Retailer status and reason codes with dates: License (Active, Inactive, Terminated, Suspended, etc.), Marketing (Active, Inactive, Terminated, Suspended, etc.), Financial (Active, Inactive, Settlement Hold, Terminated), Billing and EFT sweep (Complete, Pending), Application/License (Approved, Rejected), and Sales Type (Traditional, Full-Product, SSTs);*
- *Historical location information: Changes of ownership (or partnership), changes of retailer ID number (link to previous number), sales, commissions, bonuses, change of location, accounts receivable and collections information including NSF information, and application and renewal status and reason codes.*

IGT will comply with and fully support the functionality detailed in this requirement.

Please refer to Section 4.2.36, Retailer and Licensing Function, for further details on our solution.

4.2.16.1

Licensing Data Fields and Query Capabilities

The System allows authorized Lottery and Vendor staff to run queries based on certain data fields. The System allows queries by retailer number or application number providing retailer information, historical location information and inventory data of the retailer; query by retailer name provides all matches or near matches, and allows selection of retailer number; query by address, city, zip code, or county provides all retailers in the selected address, city, zip code, or county and allows selection of retailer number; query by status or type codes provides all retailers associated with the selected code(s), and allows selection of retailer number; query by owner, business name, or Social Security number provides all matches or near matches of owners; and query by any, or all other data fields in the System as required by the Lottery.

IGT will comply with and fully support the functionality detailed in this requirement.

Please refer to Section 4.2.36, Retailer and Licensing Function, for further details on our solution.

4.2.17

System Logging

The Lottery requires the ability to research transaction history files to verify the existence of all transactions. The System is designed to search by entering the transaction ID, view all fields of any transaction (or group of transactions) history immediately after the transaction has taken place, and view or print transaction content. Use of secure offsite storage for critical files, software, and backup data is subject to Lottery approval.



IGT will comply with and fully support the functionality detailed in this requirement. A description of our solution follows.

Aurora will enable an authorized user to view all fields of any transaction (or group of transactions) history immediately after the transaction has taken place (been recorded). In addition, the Aurora Performance Intel data warehouse will provide immediate online access to detailed transaction data for up to three and one-half years (current year to date plus 30 months over two prior years). Detailed transaction data for earlier periods will be retrievable from off-line storage upon request, through a UI view, i.e., the Aurora Performance Intel's Ad Hoc Module's UI. By leveraging IBM's DB2 compression technologies, we provide significant capabilities to store years of data online while maintaining query performance.

Aurora will support an authorized user entering a transaction ID for look-up. An authorized user will be able to view or print transaction content available on the Aurora system.

We understand and acknowledge that the use of secure off-site storage for critical files, software, and backup data is subject to Lottery approval.

Backup media is maintained in accordance with each customers' data retention requirements. An automated Tape Library system is located in the PDC and BDC. This automated tape library houses media designated by barcode for storage management and sequential- or random-access retrieval. The data is backed up to the media without human intervention.

Periodically, the PDC and off-site data storage will be audited to ensure the integrity of the historical data.

- The BDC site also houses an automated tape library. Backups are performed in the same manner.
- Media is stored at a secure third-party off-site facility to provide additional confidence that IGT has the capability to completely restore any day's system activity for the duration of your retention requirement. Iron Mountain will pick up the media daily and transport the media in locked containers, each of which must be signed in/out and inventoried. Our off-site storage also protects your data in the event of a disaster and is a critical part of our Disaster Recovery Plan.
- The backup media is tested monthly to ensure media and data integrity.

The current Vendor uses report balancing and reconciliation to ensure files and archived backup copies are valid, with emphasis on validation files and future bets files where recovery by reprocessing large volumes of aged transactions may be impractical.

As part of our operational practices, we employ automated nightly report balancing and reconciliation to:

- Ensure that the current files and archived backup copies are valid.
- Prevent the need for reprocessing large volumes of aged transactions.

Nightly report balancing is completed on all of the Aurora Transaction Engines in the central-system configuration. These reports are reconciled within each Aurora Transaction Engine and then between other systems (ICS, etc.) as required. This reconciliation process ensures that all of the Aurora Transaction Engines are in sync. In addition, we maintain configuration-management files to allow system configurations to be restored, if necessary.

Checksums are mandatory for executable programs on the System for auditing purposes. These figures are verified and delivered at startup and shutdown every day during Customer Acceptance Testing and any other times as directed by the Lottery. The Vendor works jointly with the Lottery to develop procedures for daily and change control checksums including any function that impacts with the ICS.

Software Checksums

IGT employs checksums to verify, for auditing purposes, that the correct software for all executable programs is installed across Aurora, including the Aurora Transaction Engines, front-end processors, network equipment, administrative systems, and all field-deployed equipment.

When Aurora is installed, all executable files on the system and terminals will be check-summed and verified. If a file's checksum is deemed invalid, the installation will not continue until the discrepancy is resolved. Any time a change to the executable files is required, the change in the checksum will be supplied to the Lottery, and the checksum values on the system will be updated following Lottery approval.

IGT offers a unique solution in which each morning, before the beginning of sales, Aurora will generate a checksum of all executables on the system and record it in the MJF. Since this consolidated checksum is recorded as a transaction, it will be passed to the ICS for auditing purposes. The ICS can enact an automated process to compare the previous day's checksum with the current day's and report any discrepancy to the Lottery's Security division immediately along with the daily ICS verification process.

IGT will print these figures at start-up and shutdown every day and at other times at the Lottery's discretion.

A transaction simulation program generates all types of transactions (terminal and System) in optional percentages for use in testing software quality and performance. This program allows manually entered draw game sales to mix with the simulation program generated sales.

IGT's industry-recommended test-automation tools facilitate the delivery of quality solutions and services. Our automated Game Matrix (GM) tool has the ability to automatically create game transactions based on your game portfolio. Please refer to Section 4.2.22.3, Test Systems, for more information.

All System processing activities are recorded and stored immediately on storage media on multiple hosts so that the following functions occur:

- *The System backup, recovery, and redundancy features can be supported using log files for recovery if necessary.*
 - *The System, including outages and recovery events, can be audited and checked for appropriate usage and any errors [confirms a one-to-one relationship between tickets printed, tickets registered in the log files, and ticket transactions carried forward to the ICS on secured file transfers and then are made available to authorized Lottery personnel]:*
 - *The System transaction log includes detailed records of canceled draw game tickets, rejected validation inquiries, terminal outages, takeovers by the backup system, date, time, transaction type (e.g. wager, validation), and location (e.g., retailer number, terminal number) of each transaction. The System processes and logs all transactions occurring from all terminal types including self-service terminals. The System must individually process and log all transactions from a given location regardless of the number of terminals. Transaction log entries allow standard queries, sorts, and reports by data types. Training mode is controllable by the System and logs when the terminal has entered or exited training mode. All training mode transactions are logged by the System and labeled as training mode transactions: and*
 - *The System transaction logging process includes periodic checkpoints including significant totals (counts and amounts) for all games.*
 - *Log files are provided by Vendor in ASCII text format and install any software necessary to interpret or decrypt its proprietary or unique file formats.*
-

IGT will comply with and fully support the functionality detailed in this requirement.

With our solution, all game processing activities and transactions are securely logged immediately across multiple disks – the MJF and then the BJF as well as each game's PTM – on each Aurora Transaction Engine operating in the central-system configuration.

Each MJF contains a real-time, time-stamped (to the nearest hundredth of a second) sequence of all transactions. These include sales, rejects, cancels, payouts, validations, validation attempts, other play-related transactions, any other retailer terminal commands, application-error conditions, and any commands issued from the game-management applications.

All transactions are also sent to the connected ICS in near real time. In addition to these redundancy mechanisms, all job-console entries, error conditions, and major system-level events are logged in the standard System log (Syslog).

System Recovery

IGT maintains multiple log files to permit the reconstruction of gaming data for reprocessing, if necessary. Log files of game-processing activities and transactions that are logged to the MJF and BJF disks on each Aurora Transaction Engine can be used for system recovery.

System Auditing

Numerous internal and external audits are performed to validate the integrity of our software, systems, and processes. Authorized Lottery staff can audit and check – from a number of audit and log files maintained on Aurora – all events and transactions in the system, including outages and recovery events, to ensure appropriate use as well as freedom from error.

These audit and log files include:

- Operating System (OS) logs.
- Transaction Engine logs.
- System-console logs.
- User command logs.

In addition, we perform system checksums and complete user access reviews to maintain the appropriate level of access for users, further ensuring the integrity of all transactions.

The Lottery will track and verify the life of any ticket transaction or other event in the system. Aurora maintains a relationship between tickets printed, log records for ticket transactions, and ICS records. In other words, there is a strict *one-to-one* relationship between tickets processed, wagers printed, tickets registered in the MJF, and ticket transactions carried forward to the ICS.

Using these audit/log files, the Lottery can track and verify the life of any ticket transaction or other event in the system. For example, all transactions representing modifications to the Aurora Transaction Engine (such as game-control parameters or winning-number entries) are logged and protected.

Tracking and verification can also occur through our software and back-office applications.

4.2.18

System and Data Security

To ensure the integrity of the System and games, the Vendor provides methods and procedures that prevented unauthorized access or tampering with any part of the System.

Management workstations have a hierarchical security scheme which allows system access to specific Lottery personnel based on Lottery authorized security level and entered password. The security scheme accommodates a minimum of 40 individuals with varying security levels without intervention by a privileged System operator.

System passwords or security codes do not print and are not displayed on the user's workstation. The System precludes the use of generic passwords (such as single characters and common dictionary words) and requires periodic password changes. Password length must be at least eight characters, non-replicated in 24 previous passwords, preclude use of full names, and contain the following: Alpha upper, alpha lower, numerals, and non-alpha. The maximum age of a password may not exceed 60 days.

Management workstations are password protected and designed to log information necessary for an audit trail. Log entries reference the time, date, terminal, and valid/invalid sign on attempts. All transactions from the management applications representing modifications to the System are logged and protected by verification steps with a printout of both the entry and the verification.

Terminal level password functions permit multiple levels of secure access including Lottery representative, field sales and service representatives, store manager/owner, and clerk. Passwords are not to be displayed, printed, or visible in any manner at the terminal, and the System permits password changes without a service call to the retailer. Terminal level password functions restrict transaction types to authorized users (e.g. store managers may be able to display or print retailer financial reports, but the function may not be available to other retailer employees), prohibiting unauthorized use, and be configured to permit multiple levels of secure access.

IGT will comply with and fully support the functionality detailed in this requirement.

To IGT, the security of the systems and data for which it is responsible is paramount. Whether it is our own corporate systems and data, or that of our lottery customers, retailers, or players, we take the secure management and care of the data and systems under our control very seriously.

Among the critical areas for which we provide comprehensive security controls:

- Physical access.
- User access.
- Network communications and encryption. (Please also refer to Section 4.2.23, Communication Networks).
- Sensitive data.

Aurora User Security – IGT's System Access Control Solution

With Aurora, the Lottery will have a tool to administer access control. Through the Aurora Navigator UI and the Aurora User Security module, the Lottery will be able to control retailer, Lottery staff, and IGT access to Aurora.

Aurora is designed to be flexible to meet individual customer needs; that flexibility applies to managing user access. The Aurora User Security component of Aurora will allow the Lottery and/or IGT to control users and their access to Aurora.

Aurora User Security comes with a single interface from which to manage roles, groups, and users. The Lottery or IGT will be able to assign multiple roles to each group and multiple groups to each user, effectively mirroring your organizational structure. Roles are activity-based to make setting access permissions to the Aurora applications easier. Please note that the Principle of Least Privilege has been applied to Aurora User Security, which means users are allowed access to only the resources or information that are essential to their job.

Aurora User Security allows lotteries to:

- Customize access assignments to mirror their organizational structure.
- Decide access levels for different users.
- Manage user access.

Additional information regarding this Section is trade secret and/or highly sensitive security information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize the security and integrity of the system, and public disclosure of this information is not in the best interest of the Lottery or the State of West Virginia.

4.2.19 Software Distribution and Tracking

The System controls terminal software distribution in order to prevent terminals from running unauthorized versions of software. The Vendor's software manages the System development lifecycle including versioning and tracking of change. The Vendor's software also identifies the history, use, and location of a component including logging "when, what, and by whom" changes were made to avoid update conflicts; producing a configuration status report or listing; any enhancement or modification of the operating software must be approved by the Lottery prior to install.

IGT will comply with and fully support the functionality detailed in this requirement. A description of our solution follows.

Software integrity is a critical component for the successful operation of the West Virginia Lottery, and our process ensures that it is maintained. We employ checksums to verify that we have the correct, unchanged software versions for all executable programs across the configuration of Aurora Transaction Engines and terminals for auditing purposes.



Distribution Control

Aurora maintains control of software distribution so that systems and terminals cannot run inappropriate versions of the software. With Aurora, all executable files on the system and terminals are checksummed and verified. Any time a change to the executables is required, we will supply the change in the checksum to the Lottery. Checksum values on the system will be updated following the Lottery's approval.

Software releases are managed using Linux Package Manager (RPM). When we install a release, RPM maintains an up-to-date database with checksums of the software modules installed on the system(s). Operations, as part of its daily processes, uses automated scripts to verify the installed software with the checksums in the RPM database. Any discrepancies are reported for resolution. RPM reports can be verified by each system, across systems, and reports can be distributed. This process also applies to the development and Quality Assurance (QA) systems, and evidence will be provided to the Lottery upon request.

At the terminal level, all software versions are passed to the front-end processors at sign-on. If a terminal is not at the correct software revision, it will request and load the correct revision from Aurora. Sign-on can then again be attempted. This process ensures that the Aurora system and terminals cannot inadvertently run inappropriate versions of the software.

All operator commands executed by the System and any System warnings or problem messages are recorded on secured logs that are provided daily and as requested by the Lottery. The console log is also provided digitally to the Lottery for auditing and contains all activity entered or received through the operator's console and includes such items as System operation, time of inquiry, access code of inquiries, reason for inquiry, etc.

Command and Error Logging

The functionality for researching transactions and operations will be provided to authorized Lottery personnel. The Aurora Transaction Engines will record, as stated, all game-processing activities on electronic media. All commands executed by system operators and any system warning or problem message will be logged immediately on a numerically sequenced console log file, a copy of which will be provided daily or more frequently as requested by the Lottery. Additionally, all job console entries, error conditions, and major-system-level events will be logged in the standard Linux system log. Further, a record of all accesses and changes to the operational systems and their environment that do not affect the games themselves (e.g., file backups and transfers) will be stored in the system logs.

Numerous logs are available on the system and readily available to users for viewing based on the user's security level/role. These roles are provided and controlled through the Aurora User Security application, which is accessible through the Aurora Navigator, the single, user-friendly web interface through which all authorized management users of the Lottery (and/or IGT) will access the back-office applications to do their work.

Real time monitoring of gaming transaction traffic and system utilization is provided. The Lottery receives immediate notification of abnormal System operations and their causes, such as validation problems, communication difficulties, computer downtime, etc. The System tracks and provides terminal diagnostics and status conditions that can be managed and observed remotely by Vendor and Lottery personnel.

IBM Tivoli Monitoring

Aurora provides comprehensive, real-time monitoring of gaming transaction traffic and system use – including sales, game and feature status, system performance, system events, and other statistics – through the management workstations. Our monitoring tools will allow operators and administrators to be notified immediately of abnormal system operations, unusual system events, or software/hardware failures (such as validation problems, communication difficulties, and computer downtime) through automated audible messaging, warning emails, or exception logs. Your designees will receive immediate notification of these abnormal system operations and their causes. Tivoli Monitoring will also monitor system use and performance in order to help you determine capacity needs.

Terminal Diagnostics

We can easily monitor the ALTURA® Flex through the terminal's self-diagnostics and indicators that monitor and collect data on the operating status. Local diagnostics will be available to both IGT and Lottery personnel, providing Contact Image Sensor (CIS) play slip reader and printer tests, communications tests, and barcode reader tests.

Diagnostic messages communicated on the display screen include information about the terminal and processing status, terminal errors, validation and cancellation errors, reader device errors, reader edit errors, terminal entry and communications errors, as well as Lottery news.

These tests and additional guided diagnostic procedures available during hot line calls provide rapid corrective action or dispatch of Field Service Technicians (FSTs).

4.2.20

Secure Transaction Processing

Each transaction from a terminal must be received by at least two active processing systems before authorization to print a ticket including the System handling the transaction (primary System) and a system capable of recovering for a failure of the system processing the transaction (backup system). The terminal retains and transmits retailer identification, device identification, and other unique security identifiers to the System. It is not possible to enter transactions on the network using unknown or duplicate retailer terminal addresses. The System ensures network integrity wherein no action, either operational or by tampering, can permit duplicate or unauthorized addresses to be established on a communications link.

IGT will comply with and fully support the functionality detailed in this requirement. A description of our solution follows.



To ensure high-performance, minimize service interruptions, and prevent loss or corruption of data from a hardware or software failure and loss of processing capability from a component failure, we will provide fail-safe operation and fault-tolerant hardware and software at both the Primary Data Center (PDC) and Backup Data Center (BDC.) All transactions processed by Aurora will be recorded, multiple times on the Aurora Transaction Engines in the PDC and the BDC. When necessary, switching from the primary Aurora Transaction Engine to the secondary at the PDC will occur instantaneously and seamlessly. Switching between the PDC location and BDC location for transaction processing can be performed seamlessly. We will demonstrate a failover/takeover of the primary Aurora Transaction Engine to the secondary Aurora Transaction Engine at the PDC and failover/takeover from the PDC to BDC – as part of the pre start-up tests/demonstrations.

The Aurora Transaction Engines will be fully functional prior to start-up, and we will test the system-to-system failover (primary to secondary) periodically throughout the year and the PDC-to-BDC failure at least twice per year.

Neither external agents nor insiders can create a duplicate or unauthorized terminal address. We will guard against retailer “spoofing,” a situation in which one person or computer program successfully masquerades as another by falsifying data.

4.2.21

Ticket Stock Security and Tracking

The System is configured to maintain detailed inventory records of ticket stock distributed to the retailers and permit returns, reissues, and destruction of stock as approved by the Lottery. The System allows the Lottery to access detailed inventory records of ticket stock distributed to the retailers.

The Vendor provides all System configurations and other mechanisms necessary to store, maintain, query status and interpret information relating to ticket stock assigned to specific retailers. Each pack of ticket stock has a bill of lading that identifies the rolls contained inside. Each roll has a unique bar code allowing receipt and activation of ticket stock at the Lottery headquarters or at alternative sites designated by the Lottery in the specifications of this RFP or otherwise proposed by the Vendor and accepted upon Contract Award.

Every ticket is identified with a unique preprinted ticket stock number and accounted for in ticket control reports. Ticket stock activity reports track erroneous ticket stock activity. The ticket stock tracking information is delivered from the ticket stock printer to the Lottery using a method of secure electronic delivery.

In addition to the System logged transaction number, the System generates and prints a unique ticket serial number that links transactions to specific retail terminals and unambiguously identifies all tickets by specific game, game extension, price, date, site location, and unique validation to secure printed tickets independently from the System.

IGT will comply with and fully support this functionality. Our ticket stock tracking system is in compliance with multi-jurisdictional and lottery-security standards that apply to the Lottery (e.g., MUSL rules, serial number).

Please refer to Section 4.2.38, Ticket Security, for a complete description of our solution.

Exceeding MUSL Guidelines

IGT's ticket stock inventory system will exceed the minimum MUSL (or other multi-jurisdictional-organization) security requirements. We welcome a review of the tracking system.

Following are examples of how we exceed minimum requirements:

- We capture all ticket stock information from the time we physically receive it in our Configuration Management Software (CMS) database.
- Any carton received gets a status, which typically starts with Available.
- All cartons shipped to retailers are assigned to those retailers immediately.
- All cartons assigned FSTs or FMSRs are assigned to them once they leave the warehouse.
- In some sites where we use United Parcel Service (UPS), we use a Quantum View feature that confirms receipt of ticket stock at the retailer location every day. This becomes a record in the CMS system, allowing us to determine that a package was received at the location and who signed for it.
- In the event of a returned package, we scan the barcode label on the carton and assign a Returned status, which updates the retailer's inventory. Only after this process can a carton be returned to inventory and placed back in Available status.
- We only return full cartons back to inventory.
- Any partial rolls are returned and held in a separate caged area, and only after a lottery's security team has confirmed and logged the roll numbers are the rolls then destroyed securely and logged as Destroyed.

4.2.22

System Configuration

Vendor should describe its failover design in detail including the estimated time to failover from a single system failure (to redundant system in same Data Center).

Aurora is designed with no single point of failure; that is, the system cannot be disabled by a failure of any single component of the architecture. Redundancy is designed down to the component level. If the primary Aurora Transaction Engine were to fail for whatever reason, the backup (secondary) Aurora Transaction Engine at the PDC will take over automatically. A failover within the PDC will not cause any loss of game-processing continuity. Should there be a need to start processing transactions from the BDC, the system takes less than two minutes to failover to the BDC, and there will be no loss of transactions during the failover.

Failover Design

Before your new Aurora gaming system goes live, we will have implemented and tested failover/ takeover processes and procedures for the configuration of four Aurora Transaction Engines. We will test the system at least twice per year. Data transferred to and recorded on the Aurora Transaction Engine at the BDC will always contain the most recent transactions, allowing for a takeover/ failover, if necessary. The retailer network will have a routing independent of the PDC so that the BDC can be reached without the PDC in place. Testing from the BDC will include a full MUSL game-draw period – per MUSL requirements.

Games administration functions are also available at the BDC, as well as remotely available by communications from the PDC; the Aurora Transaction Engines at the BDC holds the same processing and disk-storage capacity as the primary Aurora Transaction Engine.

IGT will provide the Lottery with a written report on the failover testing within five days of each failover test. The report will highlight the specific test activities, the results of each, and clearly define any issues encountered and the corrective actions being taken to mitigate these issues.

4.2.22.1

System Failover

The Vendor should describe System failure scenarios, describe the typical System failover scenario, estimated failover recovery timeframes, and describe the procedures used for correction in the event of System failure at the PDC

PDC Transaction Engine Failure Scenario

If the primary Aurora Transaction Engine in our four-system configuration malfunctions or fails, failover to the remaining Aurora Transaction Engine at the PDC occurs automatically with no operator intervention, and transaction processing continues without:

- Interrupting or degrading system performance.
- Causing delays in play.
- Losing or corrupting any data or transactions received prior to the time of the failure.

If one Aurora Transaction Engine fails at the PDC, one of the Aurora Transaction Engines at the BDC can be enabled as the new “secondary backup” until the Aurora Transaction Engine that failed at the PDC is recovered, at which time the Aurora Transaction Engines will go back into their traditional configuration.

Failover to the BDC Scenario

The BDC can assume control of system operations. We recommend that an operator perform this function (a best practice). The BDC’s Aurora Transaction Engines will be able to take over all transaction-processing functions should both systems in the PDC become inoperable.

The PDC to BDC takeover strategy is typically in three phases: the pre-failover checks, the actual failover, and post-failover checks.

Pre-failover:

1. Verify all terminal applications are in sync across the PDC and BDC.
2. Collect terminal counts from the PDC.

Actual failover:

1. Disable Wide Area Network (WAN) on PDC side (via Server Control).
2. Set BDC Aurora Transaction Engines to backup mode.
3. Gracefully shutdown primary Aurora Transaction Engine.
4. Verify BDC Aurora Transaction Engines are now in LIVE state.
5. Enable WAN on BDC side (via Server Control).

Post-failover:

1. Stop front-end application access in PDC.
2. Perform standby database takeovers from BDC.
3. Start front-end application access in BDC.
4. Verify terminal counts from BDC against expected counts.

The pre-failover activities are performed at any time prior to the failover; in addition, these activities are part of standard system monitoring. The actual failover takes significantly less than two minutes. The post-failover steps run concurrently with the failover steps and are completed in under two minutes.

Backup Site System Recovery Scenario

BDC system recovery from a PDC failure in auto-failover mode will be accomplished in no more than two minutes without loss of any transactions. This includes the ability to fully service the communications network supporting the retailer terminals.

While we can configure the failover to occur automatically and thus achieve a failover to the BDC in less than two minutes, best practices have shown the value of performing the failover to the BDC manually when viable. This ensures that any momentary disruption to the WAN to the PDC does not cause a failover to the BDC to occur unnecessarily.

4.2.22.2

Internal Control System ("ICS")

Vendor should include a detailed description of its plan for an ICS solution in its proposal that includes how its solution is fully optimized and equipped to handle two test environments as the minimum specifications require or include a detailed proposal for a fifth system if Vendor believes it is required or advantageous.

Integrity of Lottery operations is our mission for the West Virginia Lottery – and that includes providing an ICS that is trustworthy, secure, and compatible with the Lottery's gaming system. We recommend keeping the current provider used for the Lottery, Elsym Consulting, Inc. (Elsym), a highly experienced and qualified firm that is independent from IGT.

Elsym's test ICS can be configured to have more than one logically separated environment in order to run simultaneous testing. Each testing environment performs full testing functionality, from real-time data feed to draw processing to balancing – all independent of one another. Report history, data backups, the ability to re-process days, etc., are maintained within each testing environment. This feature allows for a single hardware server to be implemented and maintained yet permits different tests to be performed simultaneously. A single user interface prevents users from needing multiple logon accounts for each testing environment. User credentials control which testing environment the user has access to, from one to all.

Elsym currently provides ICS support to more than 35 lotteries worldwide and is approved in 28 MUSL jurisdictions. Elsym's experience provides a competence in understanding multi-jurisdictional games that surpasses that of all other ICS subcontractors combined. Furthermore, Elsym's system has achieved the ISO 9000:2008 standard for quality assurance.

Elsym has been providing ICS solutions since 1989 and is very familiar with supporting our Aurora (formerly Enterprise Series) systems. Elsym provides ICS services on various platforms for the following lotteries.

Figure 4.2.12 – 2:

Elsym ICS Customers and Platforms	
Elsym ICS Processing on Windows Server Platform	
Arkansas	California
Connecticut	Delaware
District of Columbia	Georgia
Indiana	Louisiana
Maryland	Michigan
Missouri	Montana
Nebraska	New Jersey
New Mexico	North Carolina
Ohio	Rhode Island
West Virginia	South Dakota
Tennessee	Texas
USVI	Virginia
Illinois	West Virginia
Wisconsin	Washington State
Wyoming	

ICS Functionality

The ICS will receive and reprocess transactions for draw-based and instant ticket scratch-off games in near real time from the Aurora Transaction Engine's transaction log file for the purpose of auditing and balancing the system processes. This approach will permit the ICS to perform draw-sales balancing, immediately, once the draw closes. Draw-result balancing between the Aurora Transaction Engine and the ICS will begin once the draw-close processing and the end-of-draw processing are completed on both systems. The ICS will continually and automatically audit and balance against the Aurora Transaction Engine at each checkpoint in the Aurora Transaction Engine's checkpoint schedule. This means any out-of-balances will be found and reported immediately, instead of at draw break, and thus can be resolved more quickly.

Transactions are received by the ICS, reprocessed, and compared to the Aurora transaction Engine. Three automated procedures are used in this comparison to ensure the systems balance:

- Daily end-of-day ICS reports are automatically compared to the identical draw-based games and instant-ticket games Aurora Transaction Engine reports for accuracy.
- Draw-result balancing is automatically performed following winner selection after each draw.
- Weekly financial balancing generates retailer invoice reconciliation and adjustment data to maintain financial accuracy.

The Aurora Transaction Engine's MJF, generated by our system software, contains very detailed information on every system and operator-generated command. The ICS uses this detailed information to scan and identify any command that is out of the ordinary. Any situation that the Lottery deems abnormal can be scanned for and, if found, is reported on the system- and operator-generated Command Exception Report. This report provides information on the type of exception generated, who generated it, and when. This information can then be supplied to you for follow-up. This process ensures the integrity of the data captured by the ICS.

The ICS application software will reprocess all data for each drawing, verifying sales by game and by drawing for each retailer, verifying the number of prize winners at each prize level for each game, and confirming validations and outstanding prize liabilities for each game and each drawing. Various reports are also created to show that the system is balanced.

ICS Reports

The following ICS reports are generated on a daily basis:

- **Log Tape Edit Report:** A count of all transactions processed as well as any errors/anomalies encountered during processing.
- **Daily Activity Summary Report:** A count of all draw-based game transactions processed.
- **Daily Activity Game Report:** A count of all draw-based transactions by game.
- **Daily Game Financial Report:** A count and amount of all activity by game.
- **Daily Retailer Activity Report:** A count and amount summarizing all retailer financial activity for the day by retailer.
- **Sales by Time Interval Report:** A count and amount of all financial activity by hour.

- **Deferred (Advance) Sales Report:** Breaks down total sales for the day by draw pool to show total pool-to-date figures for each game.
- **Check Files Consistency Report:** Compares an actual ticket count to the summary values, to ensure no tickets have been added or removed from the sales files.
- **Retailer Adjustment Report:** Shows detail of all adjustments made to a retailer including the final balance.
- **Carryover Sales Report:** Shows all multi-draw tickets still eligible for future draws.
- **Cashed/Purged Tickets Report:** Shows all tickets cashed for a particular day and all tickets whose cashing period has expired and are now ineligible to win.
- **Transaction Gap Report:** A list of all gaps in validations and sales by game, as well as first and last transactions for the day.
- **Pre-Draw Sales Report:** A list of net sales for each day for the current draw.
- **Winning Numbers Report:** A list of large draw-based game jackpot winners or cancelled winners for the current draw.
- **Draw Share Report:** A report of all shares, liability, and other financial information for the current draw.
- **Instant Game Activity Report:** A count of all instant ticket scratch-off game transactions processed and their financial value.
- **Instant Game Validation Report:** A count and amount of all instant validations by game and tier level.
- **Daily Instant Activity Report:** A count and amount summarizing all retailer financial activity for the day, by retailer.
- **Transaction Summary Instant:** A summary of all instant ticket scratch-off activity.
- **Weekly Instant Activity:** Weekly sales activity by retailer.
- **Auto-Balancing Report:** Automatically balances all ICS information on a single report.

These reports are compared to the draw-based game system to ensure the two systems balance.

Automated Balancing

A main feature of Elsym's ICS solution is its automated balancing module, which will be provided to Lottery. Each critical number from each of the daily, weekly, and draw reports is recorded in an auto-balancing file for the day. After the ICS has created and recorded these numbers, the equivalent information is extracted from IGT's reports, and the numbers are electronically compared. Any discrepancies are identified and displayed. The operator is notified both visually and electronically that the system is either in-balance or out-of-balance.

The benefits of this process are as follows:

- The Lottery operator no longer needs to perform the time-consuming process of printing and comparing reports.
- The operator does not need to be familiar with the balancing process. The system ensures that all critical numbers match.

Elsym's ICS encompasses a wide range of system auto-balancing. The following items are tracked and balanced on a daily basis:

- Daily sales.
- Daily cancellations/returns.
- Daily validations.
- Daily net sales.
- Weekly sales (invoice day only).
- Weekly cancellations/returns (invoice day only).
- Weekly validations (invoice day only).
- Weekly net sales (invoice day only).
- Unclaimed prizes.
- Future sales.
- Retailer cashes – lottery vs. non-lottery terminals.
- Sales commissions.
- Validation commissions.
- Bonuses.
- Claims.
- Adjustments.
- Draw sales.
- Number of winners.
- Share amounts.
- Draw liability.
- Retailer net due.
- Terminal net due.

Report Archiving

The ICS generates a significant set of detailed reports. All reports are generated and stored in an electronic format, which can then be emailed, printed, and transferred via Secure File Transfer Protocol (SFTP) to a report server and archived. Reports are part of the daily backup process and can be stored indefinitely.

Special Features to Enhance West Virginia Operations

Elsym has created a Lockdown Prevention Program that will reduce costs associated with having lockdown personnel available during the Powerball draw times. In addition, Elsym developed a special monitoring program that makes the ICS solution fault tolerant with minimal human intervention, adding efficiency to the process and reducing labor costs. These features are described in detail below.



MUSL Lockdown Alternative Reduces Lottery Costs

Elsym is pleased to provide a Lockdown Prevention Program based upon the recently approved MUSL Rule 2 changes. Implementation of this option will allow the Lottery to reduce costs because there will now be no need to have extra security on-site to support a lockdown during Powerball draw times.

Included in the draw-break process, all tickets eligible for the draw are copied off to external removable media (i.e., flash drive) or SFTP server. At the same time, a copy of IGT's transaction file is also copied off to the same external media. It is recommended that the Lottery obtain a copy of IGT's transaction file, to their SFTP server, directly from IGT, in the event that the ICS cannot obtain all of the data via the real-time link at the time of the draw break (i.e., in the event of a network outage).

Elsym will supply the Lottery with a stand-alone Windows application that can be installed on any standard Windows PC in the Lottery's Security department. This application is used to read the ICS ticket files and IGT's transaction file. The user can query the data based on the selling retailer, date/time range a ticket was sold, a serial number or serial number range (if known), or the draw number on which a ticket won in order to produce a report showing the details of the ticket or tickets in question. This can be used to verify the authenticity of the ticket being presented as a winner.

Note: This solution is in production in many jurisdictions and has been MUSL-approved. Although it is included with IGT's proposal, MUSL requires that the Lottery submit its own lockdown alternative plan for final approval by MUSL.

Also, Elsym will provide the ICS portion of the new MUSL Automated Reporting System (MARS) Application Programming Interface (API) reporting features to replace the current reporting system. MARS will allow the pre- and post-draw results for MUSL games to be transmitted directly to MUSL via an outgoing Internet connection to MUSL, eliminating any manual entry error.

Configuration Management/Monitoring

If outgoing-only Internet access is allowed to retrieve software updates, Elsym will be responsible for all configuration management activities to ensure the OS, Oracle, and applications are at their current level of support. On a quarterly basis, all configuration updates will be loaded on the test system and a regression test will be performed. Updates will then be applied to the secondary system and a week later to the primary system.

Elsym has written a special monitoring program that runs separately, and continuously, on the primary and secondary ICS solutions. A monitoring program on the primary ICS monitors the status of the system. If the ICS solution fails or stalls at any point, notification is sent out via email that the ICS system has degraded or failed. At the same time, the secondary monitor program monitors the primary ICS for a complete hardware failure. If the primary ICS fails, the secondary ICS notifies Elsym and the Lottery via email that the primary has failed. The reverse scenario is in effect also for monitoring the secondary ICS. After a review of the system, if it is determined that the primary ICS cannot be restarted due to hardware or system failure, the secondary ICS is used to continue processing the day. This makes the ICS system fault-tolerant with minimal human intervention.

4.2.22.3

Test Systems

The Vendor provides testing equipment for the Lottery and Vendor test labs. The Lottery, or its designee, conducts a series of Acceptance Tests with Vendor support before System conversion. All network and System components in the test labs are identical to the production System. Each type of communication that will be present in the field should be provided in the test labs and configured among the test terminals unless exceptions are approved by the Lottery.

IGT will fully support the functionality detailed in this requirement. While we understand that the Lottery or its designee will conduct acceptance tests before system conversion, IGT will support the Lottery in a variety of activities, such as system recovery, load testing, reporting, system setup, system processing, data entry and much more.

We understand that each type of communication to be present in the field will be provided to the test labs and configured among the test terminals – unless exceptions are approved by the Lottery.

Vendor should provide at least two separate host processing systems for software testing, and any individual system must be available for testing by the Lottery at any time with full support from the Vendor. The test systems are identical in architecture and capacity to each of the production systems provided for all transaction processing, front-end processing, and games management applications.

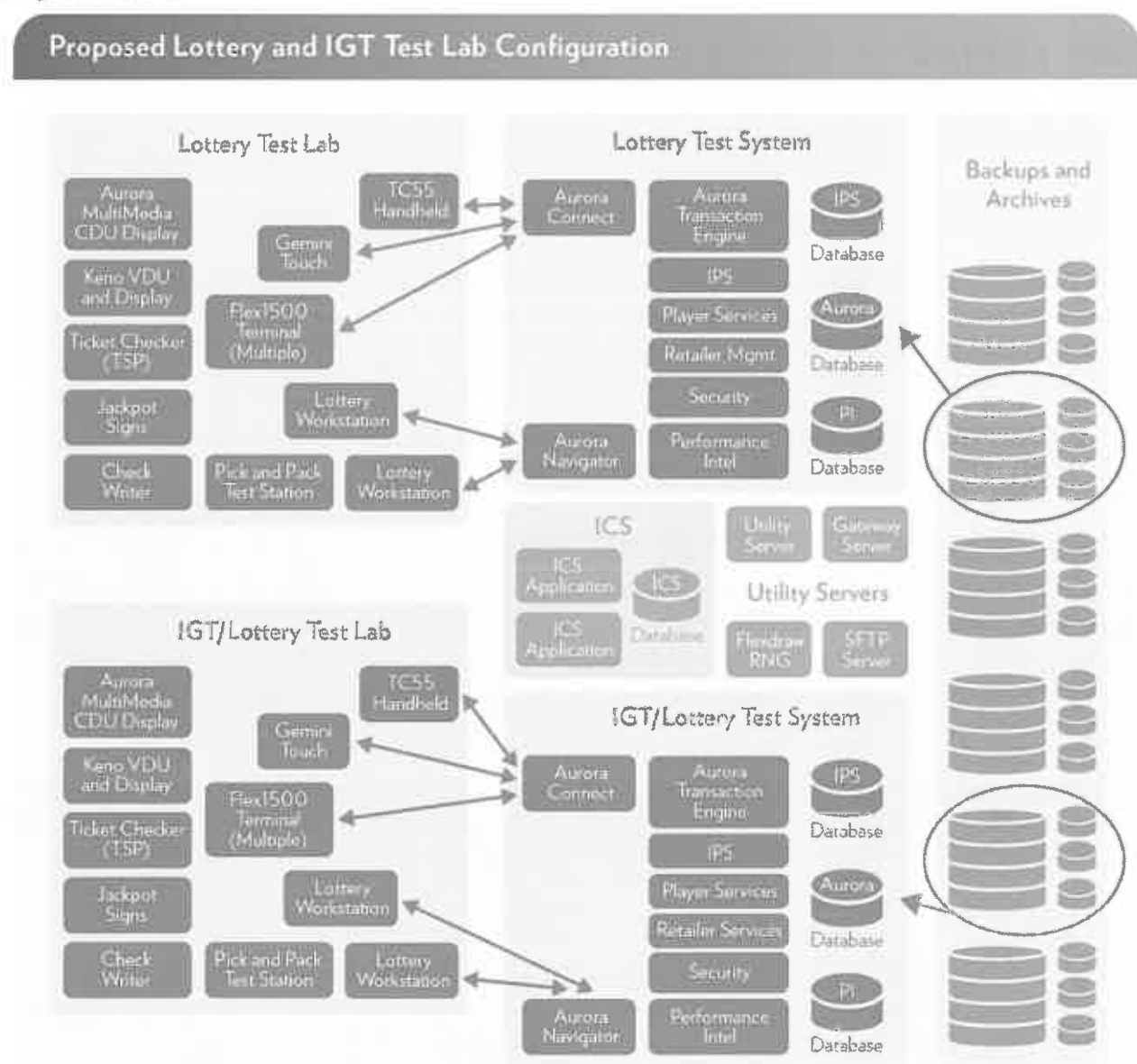
The test lab environments and ICS systems are not to be used by any other jurisdiction. The two test lab environments could be separate hardware or virtualized system subject to Lottery approval. The Lottery has assumed that either test environment could be configured to connect to the test ICS independently if they are not connected at the same time, but the Vendor must determine whether that is possible or a fifth ICS system is required and should include this information in its proposal.

The Vendor should describe its proposed test environment including local and corporate personnel support. Vendor should detail estimated timelines for any System alterations that require testing (i.e. length of time it takes to program, test, and launch new/updated System software, game, and promotion functions).

Test Systems

IGT will provide a Lottery test lab and IGT test lab. Each will contain a full complement of retail terminals and back-office equipment and be connected to separate test systems. The two test systems will be implemented as virtual systems on separate IBM ESX virtualization servers. The test systems will not be used by any other jurisdiction or for any purpose other than to support the Lottery. The configuration of the test facilities that we propose for the Lottery's use is illustrated in the following figure.

Figure 4.2.12 – 5:



Test System Architecture

The test systems will be of identical architecture and capacity to the production systems, using entirely separate IBM ESX virtualization servers to those used for production. The test systems will be located in the PDC; however, they will reside on a separate network, physically and logically segregated from all production systems and networks.

Some of the utility services are provided by stand-alone servers that can be shared between the two test environments with no loss of functionality. Shared utility servers include:

- **IGT Gateway Server:** Provides access to IGT personnel for maintenance and software releases.
- **Utility Server:** Provides a platform for operations and diagnostic tools.
- **FlexDraw Server:** Provides a dedicated RNG source for test environments.
- **SFTP Server:** Provides a secure end-point for inbound and outbound interface files.
- **Backup and Tape Library:** Provides a dedicated backup server and tape library for test system use.

IGT will also have access to additional development and test environments located in IGT's Corporate infrastructure. These will be used to support development and system test activities prior to submitting releases for Lottery acceptance testing.

Virtualization During Testing

Virtualization allows IGT to provide separate testing systems far more easily and efficiently for our customers than in the days where physical systems were the standard. Virtualization provides many benefits, including:

- In cases where we have overlapping projects, we sometimes create extra environments in order to manage and get releases to market faster for our customers.
- During the implementation phase of the conversion project, we often deploy a dozen or more environments in our Corporate server facility for development and testing, including many more virtual servers for all of the various disciplines required to deliver the complete system to the customer.
- When the project is completed and post live, IGT can maintain multiple testing and development environments based on the scope of work required to meet customer needs.

Test Labs

The Lottery test lab, the Customer Acceptance Testing (CAT) lab, will be located in the Lottery's headquarters facility. Test equipment permanently installed in the test lab will include:

- **Retailer Terminals:** Sufficient retailer-operated terminals to provide at least one of each type of retailer-operated terminal and support at least one instance of each type of terminal communications connection: Very Small Aperture Terminal (VSAT), Dual Comm Inside (DCI), and one type of each GOAL communication medium deployed to the field. At least five terminals will be provided, to the Lottery's requirements, including one privileged terminal capable of validating higher-value tickets.
- **Self-Service Terminals:** One of each type of self-service terminal (GEMINI® Touch, INSTANT-TO-GO® 4) deployed to production retail locations.
- **A Full Suite of Peripherals:** They will be provided for each terminal, to the Lottery's requirements, including printers, barcode readers, customer displays, cash drawers, jackpot signs, and TICKET-SCAN® Plus ticket checkers.

- **Two Keno Monitors with Video Controller Units (VCUs).**
- **A Pick and Pack Test Station with Label Printers:** To support full simulation of Pick 'n Pack operations within the test lab.

The IGT's test lab will be located in the IGT offices in Charleston and will duplicate the equipment and functionality provided in the CAT lab. The IGT test lab will be available on request for use by the Lottery in support of its test objectives. We will also ensure that production data is not replicated in the test environment unless it has been previously anonymized or otherwise modified to protect the confidentiality of sensitive data elements.

IGT will not conduct any software development or QA activities on any of the production systems or on the Lottery's test systems. Our technology services organization will provide separate development and QA system(s) at one of our technology hubs.

Test System Communications

The test systems each reside on their own network, completely separate from the production networks at the PDC and BDC. Each test system will include a front-end processor (Aurora Connect), which will provide communications to test terminals and Keno VCUs located in the test labs. Examples of all terminal communications technologies, on separate networks to production terminal connections will be provided, distributed over the test terminals located in the Lottery test lab. Terminal communications and connectivity will be duplicated in the IGT test lab.

Connectivity for back-office workstations, pick and pack, and claims equipment located in the Lottery test lab will be over a separate network to the equivalent production connections. Identical connectivity for back-office and remote systems will be provided in the IGT test lab.

Test ICS System

The ICS test system is a physical server, completely separate from the production ICS systems. The server connects to the CAT and IGT test systems, maintaining separate instances of the ICS software and database for each test system. Please refer to Section 4.2.22.2, Internal Control System ("ICS"), for additional details on the ICS systems.

Local and Corporate Personnel Support

Immediately following Go Live of the new Aurora system, the conversion project team will monitor the system and respond to issues, supporting the Lottery for a minimum of four weeks post live, or by agreement with the Lottery, to resolve any critical issues which may arise.

During CAT, local IGT Operations and QA staff will support the Lottery in the IGT test lab and at the Lottery's test lab, as necessary, for system administration and assistance in configuring environments. Local IGT staff will be augmented by Corporate developer and QA resources allocated to support the Lottery as necessary during ongoing contractual maintenance and development activities, and in accordance with the scope of the effort at any given time.

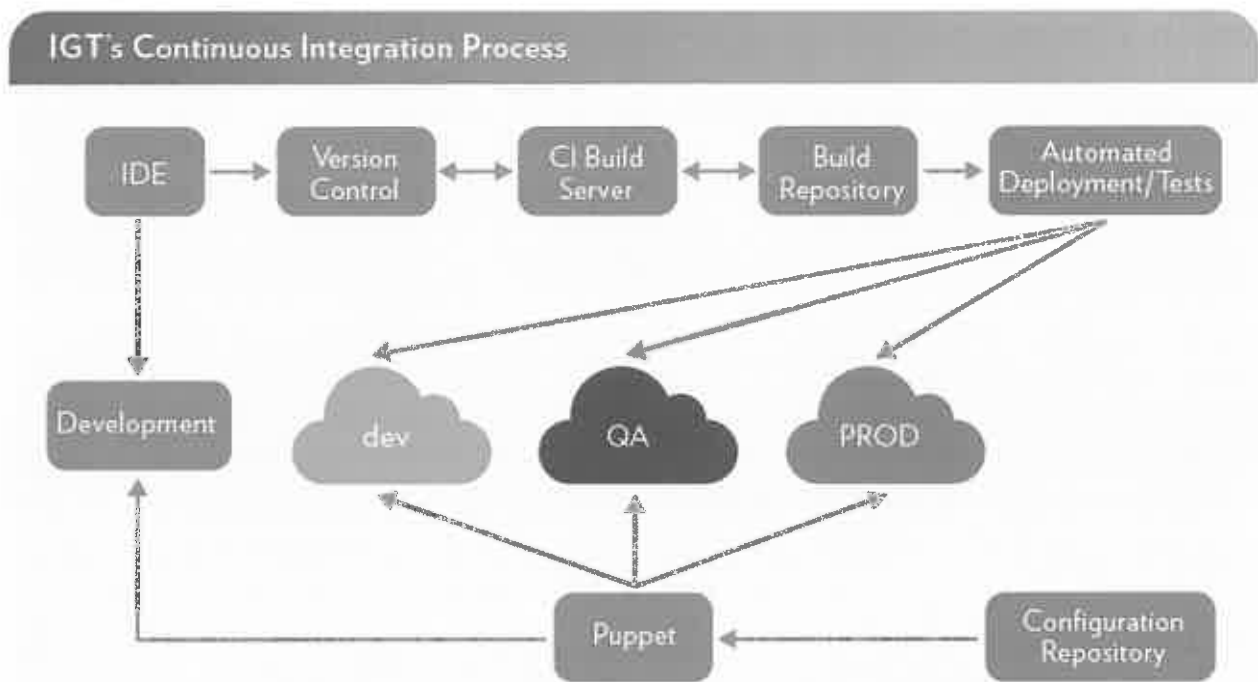
Timeline for Setup and Software Release

With the release of the Aurora product suite, IGT has implemented a process of Continuous Integration (CI), which has greatly increased our ability to support rapid deployment of software releases. Depending on the complexity and scope of the release, the setup and deployment of a software release for the Lottery's CAT can be accomplished in one or two hours. Additional time may be necessary to back up the system should roll-back to an existing configuration be considered. With the provision of two test systems, and the automated CI tools and processes that we have adopted for release management, IGT is sure that the frustrating delays that have sometimes occurred during preparations for the Lottery's test programs will no longer happen. We look forward to timely releases and productive test programs in support of the Lottery's ongoing and future development and maintenance initiatives.

CI is the practice of having engineering teams, typically software development teams, successfully deliver solutions by frequently delivering or committing small tested changes, often many times a day. Continuous Delivery (CD) is the practice of having engineering teams successfully deploy CI solutions using repeatable, controlled methods. This frequent delivery model, enabling diverse teams to discover integration and test issues as early as possible, requires an infrastructure able to support a specific set of tools.

The ideal of CI implies a high degree of automation; however, IGT recognizes that human intervention, particularly in testing and validation, is an essential component of a managed process in a high-reliability production environment. Our CI solution provides the framework to support an engineering team's ability to use distributed version control, deliver efficient, automated software builds, and apply automated unit testing as build deployment artifacts are constructed.

Figure 4.2.12 – 4:



In a typical CI workflow, a developer's code is first checked into the repositories from their Integrated Development Environment (IDE). The build server is configured to connect to the repositories, and automated procedures are initiated, resulting in the creation and storage of RPM deployment files in preparation for release to IGT QA system test, or CAT environments. The standard processes used in this workflow are briefly described in the following table.

Figure 4.2.12 – 5:

Standard Processes	
Process	Comment
CI – Snapshots Build and Deployment	Process defined on build-management tools. Artifacts are created and staged using jobs that are triggered every time any submit or push is done to repository
Automated Deployment (Daily Build)	Application is built by jobs scheduled to run daily or when triggered manually. Schedule can be changed per requirements. Snapshot artifacts (usually RPMs) are deployed to snapshot channels in Red Hat Network Services (Linux) (RHNS), and are then deployed on development environments using automated deployment tools
Automated Release Process	Release jobs use an automated solution based on maven plugins. If there is any other flow, defined jobs cover it by executing commands in an appropriate sequence. As a last step, RPM packages are built from tag created during release process and are pushed to the RHNS server from where they can be published to any system
Automated Release Installation	This process usually uses the same jobs which are used by automated deployment. The only difference is the environment they are executed on and the RPM version (release instead of snapshot)
Automated Tests	Tests are executed as part of the build process. A wide variety of test frameworks are provided and can be executed, including reports presentation, archiving etc.

For additional information on IGT's software development process, please refer to Section 4.2.24, System Hardware and Software, under the heading "Procedures for Developing, Providing Testing, Modifying, Upgrading, and Supporting Hardware and Software During the Contract."

Typical Software Deliveries

The Lottery and IGT have collaborated over the years to develop requirements and software more rapidly while ensuring proper test plans and cycles remain intact. Our approach is based on iterative and incremental software development, whereby requirements and solutions evolve through cooperation among cross-functional teams. Using this approach, IGT will deliver quality software for new games and features, emergency fixes (including defects), and/or on-going enhancements to the Lottery within shorter time durations than the Lottery has today. This will be accomplished through a combination of grouping requirements to gain efficiencies while leveraging new system flexibility.

Some vendors may promise extremely fast turnarounds for software development, but such speed without the discipline afforded from principles grounded in recognized quality practice standards can adversely affect software quality. The Lottery is meticulous about developing and reviewing its requirements for any software deliverable. Promising an aggressive delivery date before this process is completed would be irresponsible on the part of a true partner.

Figure 4.2.12 – 6:

Examples of Typical Software Changes	
Change Type	Description
Emergency Fixes	These software modifications need to be made immediately to correct any aspect of the system deemed mission-critical. The duration of these changes is typically measured in terms of hours rather than days
Enhancements to Games and Back-Office Applications	These software modifications impact single modules of the software (such as a report or a screen change) that is cosmetic in nature. The duration for such a release varies, but our approach is to combine these enhancements into a development “sprint” and deliver the software in a shortened sprint cycle
Small-Scale Software Service Project	These software modifications may impact multiple modules of the system software, such as end-to-end business processes. The duration for this type of release varies but will typically be a shorter development sprint cycle (a typical development sprint cycle)
Medium-Scale Software Service Project	These software modifications include changes that individually affect multiple modules of software, yet together may affect a major portion of the system. This includes matrix changes for existing games and the addition of new features or business processes to an existing piece of functionality. The duration for this type of release varies but generally takes two development sprint cycles or a medium development duration if delivered in one drop
Large-Scale Software Service Project	A large software service project, such as adding a new complex functionality or adding a new multi-state game, has the highest impact on the system and is the most complex. The duration for this type of release varies but will likely take two to three development sprint cycles after requirements are agreed upon

Our approach provides better agility, communication, and collaboration and a less rigid and more flexible process. To facilitate communication and collaboration, we will provide authorized Lottery users with access to Partner-JIRA, a helpful tracking tool.

Partner-JIRA will enable the Lottery to check the progress or status of software under development at any time. The use of our existing, mature development methodologies with additional improvements for requirement optimization and test automation will make this shortened software development time frame possible without risking quality.

Speed to Market

IGT understands time to market for new games and game changes is critical for the Lottery to ensure its game offerings remain fresh and interesting. Through the Aurora solution, the Lottery will have the ability to make new games and game modifications quickly and efficiently. When launching new games, however, IGT recognizes a delicate balance exists between timeliness and risk. In response to these considerations, the terminal application framework within Aurora and IGT’s game release processes enable easy and fast development, modification, and maintenance of games sold on the Altura Flex terminal. When approved, new games are downloaded to terminals in the background and are ready for sales.

Innovations for Efficient Acceptance Testing – Test Automation

IGT has built a set of industry-recommended test-automation tools that will streamline the CAT process and reduce time to market during software deliveries. Test automation uses software to control the execution of tests, the comparison of actual outcomes to predicted outcomes, the setup of test preconditions, and other test control and reporting functions. Commonly, test automation involves automating a manual, formalized testing process already in place.

Benefits of Test Automation

Test automation is often used in regression tests to ensure that basic functionalities remain stable. It brings multiple advantages to the testing system, including:

- Reduction of execution time.
- Improved test coverage.
- Reliable, repeatable, and consistent test results.
- Better use of system resources (off-hour/unattended testing).
- Greater confidence in products (from more frequent and thorough testing).
- The incorporation of industry best practices.



Our automated process has decreased manual test-case execution time from weeks to hours.

Our QA test engineers currently use test automation tools to:

- Exercise terminal UI for end-to-end regression.
- Automate gaming functions to rapidly progress the system through daily procedures.
- Initialize core Aurora Transaction Engine functions through remote procedure calls.
- Export selected reports to a user's workstation for balancing configurable financial data across a report set.

IGT's investment in test automation has resulted in delivering game changes faster and at a higher quality. Our automated process has decreased manual test-case execution time from weeks to hours. With the implementation of QA and engineering best practices for our automated testing of software products, we are able to deliver lottery solutions of exceptional quality within minimal timelines.

4.2.23

Communication Networks

The Vendor response should describe communication methods to be utilized and include a detailed communication design proposal that describes the links to retail agents, the central data processing sites (PDC/BDC), Lottery's LAN/WAN, and other connections relevant to the network's topology and the state's geography. In the communication design, all Vendor configuration items should be identified by manufacturer, model number, and operating parameters.

The Vendor should account for LAN/WAN elements to serve the System components and communications services for Hotline and dispatch. Vendor should include key factors such as security, fault recovery procedures, availability of service, reliability, maintainability, utilizing and managing resources to maximize capacity, open System technology, last mile connections, backbone communications, System to Lottery communications, and maintaining reliable, cost effective communications with retailers.

Vendor should describe any plans for dual communications networks or redundant network connectivity if its solution includes alternative connection possibilities for retailers that can handle all gaming system activities. Proposal should detail whether this would be implemented for all retailers or certain retailers meeting sales thresholds or other conditions that would warrant dual communications.

The Vendor's response includes procedures for retailer trouble reporting, communication problem resolution, and escalation procedures for the communications network. The System communication queues should be minimized through effective demand techniques to limit contention allowing maximized response times.

A robust and reliable retailer communications network is essential to protecting and growing sales and keeping retailers satisfied and excited to continue selling Lottery products.

IGT's 35 years of experience in designing and implementing wireless communication networks has taught us that no single technology can provide 100% uptime. While VSAT remains the most reliable technology, poor weather conditions can interfere with the signal. IP Cellular continues to improve in terms of reliability, but based on our experience in numerous jurisdictions, it is not yet dependable enough to warrant a single, cellular-only solution.

These factors have led us to offer the Lottery a communications solution with greater reliability than your current network: Our solution will still employ a VSAT foundation, but it will be coupled with our patented Dual Comm Inside (DCI) solution for 50% of your retailers. DCI-enabled retailer terminals will be implemented with two separate communications paths: one using VSAT and one using IP Cellular. The routing logic resides in the terminal and switchover to the secondary communications path – when the primary path is disrupted – is automatic and seamless.

It is worth noting that the IP Cellular portion of DCI will be provided in partnership with a managed network service provider of integrated machine-to-machine and enterprise cellular wireless solutions. Our provider will deliver the hardware and assist in the engineering and management of the network, including working directly with cellular carriers.

By taking this approach to building a redundant network, your retailers can expect high uptime and fewer disruptions. And, by outfitting 50% of your top retailers with DCI, a significant portion of the Lottery's sales are protected at all times. In the following section, we explain why we chose this technology solution and why it's the most advantageous for retailers. We also detail the network design, security features from the sales terminal to the data center, and aspects of IGT's redundancy plan.



Communication Technologies

Our proposed network comprises a combination of reliable, high-performance communications technologies:

- **IP Very Small Aperture Terminal (VSAT) Satellite:** IP VSAT offers state-of-the-art universal coverage and high-speed data. Our configuration of multiple, independent satellites and two hubs provides unbeatable redundancy. In addition, the West Virginia Lottery's VSAT-outfitted retailers will experience significant improvements in uptime with our enhanced transmitter, which will bolster VSAT-retailers' signal strength, providing greater availability. IGT's transmitters are more powerful than other vendor offerings. In addition, no other vendor has our experience with VSAT.
- **IGT's patented DCI solution:** DCI will bring together different combinations of VSAT and IP Cellular. With DCI, if one network technology fails, the other immediately takes over and retailers just keep on selling. DCI provides the greatest uptime in the industry.
- **Internet Protocol Cellular (IP Cellular):** IP Cellular is proposed as the secondary communications path for DCI-enabled terminals for reasons such as excellent geographic coverage, high network availability, and the minor effect weather has on its performance, as compared to other communications technologies.
- **IGT's Gaming Over Any Link (GOAL):** GOAL, our versatile Virtual Private Network (VPN) solution, is for retailers with challenging communications environments. Adaptable to any IP network, GOAL provides communications where all else falls short. GOAL uses several different wireless and wireline solutions.

Our proposed network will ensure that the new Aurora system meets all of your business requirements and relevant performance criteria. With the different types of technologies being proposed, we will cover every communication scenario in West Virginia, including retailers in challenging geographic areas. For information on configuration items, please refer to the Exhibit entitled, **West Virginia Lottery Network Architecture**, located behind the Exhibits tab.

National Radio Quiet Zone (NRQZ)

A number of retailers in West Virginia fall within this protected zone. We researched these locations based on latitude and longitude and will follow the permit process required by the National Radio Astronomy Observatory (NRAO), Green Bank, West Virginia, and the Naval Research Laboratory, Sugar Grove, West Virginia. IGT works closely with the NRAO to ensure that Lottery retailers located within this area are fully compliant with all government regulations, and we will continue to do so going forward.

Highly Reliable and Fast Communication Solution for Lottery Retailers

Our communications network is built with world-class partners providing VSAT, IP Cellular, and components of our GOAL solution. IGT's MultiProtocol Label Switching (MPLS) backbone is part of our managed services provider's robust 250,000-route-mile U.S. fiber network.

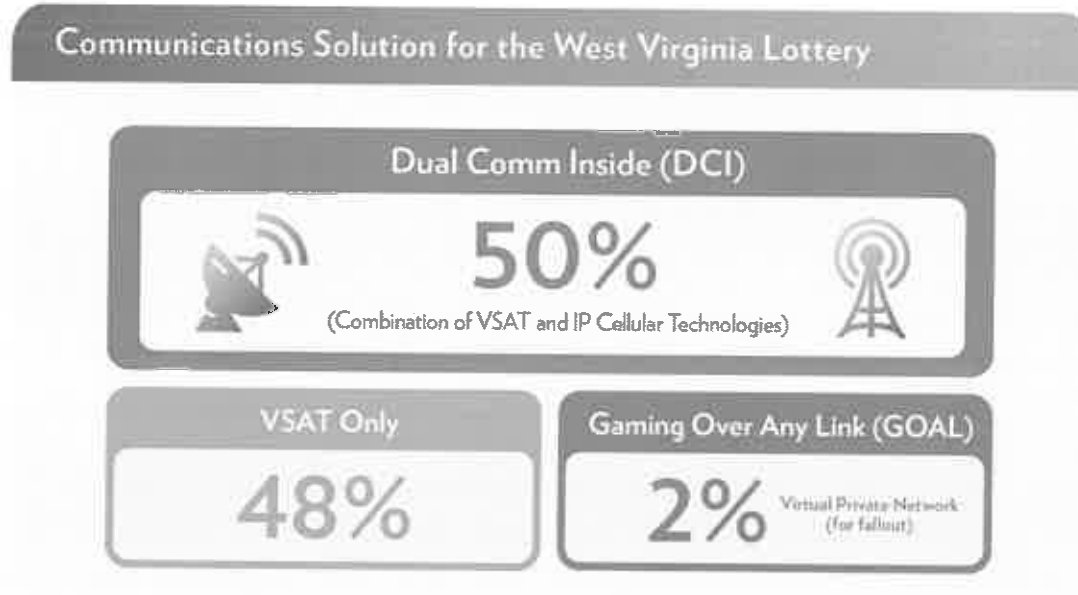
How the Technologies Will Be Allocated

Our proposed communications network comprises:

- **VSAT Satellite Technology:** 48% of your retailers will receive the latest VSAT technology as a stand-alone solution. In addition, 50% of your retailers will receive VSAT as the primary communications path for their DCI-enabled terminals.
- **IP Cellular:** As part of DCI, 50% of Lottery retailers will also be provisioned with our latest cellular solution using 4G.
- **GOAL:** A highly flexible VPN communications solution, for the remaining 2% of your retailers in areas with challenging communications environments.

And, as mentioned previously, 50% of your retailer base will receive IGT's patented DCI solution, which brings together combinations of VSAT and IP Cellular technology. With DCI, if one network technology fails, the other immediately takes over. The following illustration shows the breakdown.

Figure 4.2.12 – 7:

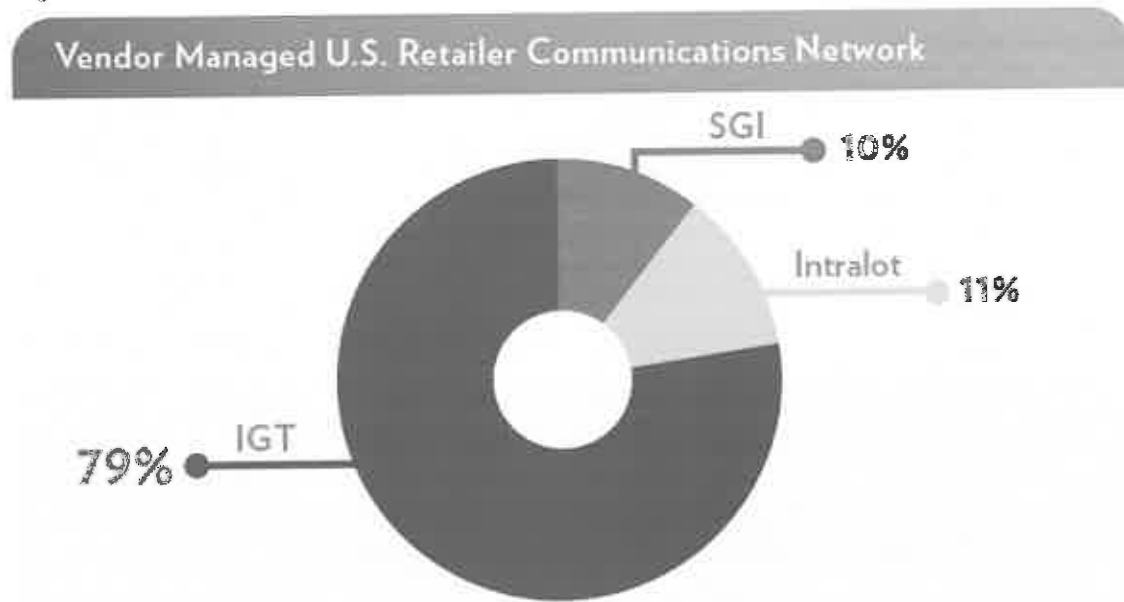




Overview of IGT's Proposed Communications Network Solution

No other gaming system provider has designed, installed, and managed more lottery networks, leveraged more diverse technology types, and served more lotteries and more retailers at the highest levels of availability than IGT.

Figure 4.2.12 - 8:



Selecting an experienced vendor with a history of delivering and managing large-scale redundant networks, as well as multiple redundant hubs, will ensure your retailers have the high-quality service they require and reduce the risk of lost revenue for the Lottery.

Our goal is to provide your retailers and players with the best possible gaming experience and help you grow your sales sustainably and responsibly for the long-term. To make that happen, we designed a communications network that is secure, reliable, and fault tolerant and takes into consideration West Virginia's diverse topology and unique weather conditions.

The Unpredictable Challenges of a Single-Cellular Solution

As cellular technology improves, so does its reliability. However, we've found that a single cellular solution still poses inherent difficulties and risks to retailer networks.

This past fall, several IGT customers using single cellular solutions experienced outages due to an unforeseen issue with a routine software update. Specifically, on the morning of Thursday, September 22, 2016, Verizon Wireless pushed out a software update to all of its cell sites. As an unexpected consequence, data messages of a particular size were lost. The problem was not identified or resolved by Verizon until the evening of September 23. Unfortunately, this issue impacted lottery transactions. Retailers using Verizon circuits across 21 states were inoperable for more than 36 hours. In New Jersey, 279 retailers using a cellular-only solution were unable to place transactions for two days.

This type of unpredictability with IP Cellular, coupled with weather-related issues that occasionally impact VSAT-only retailers, led us to offer the West Virginia Lottery 50% DCI, to ensure that your top retailers won't have to worry about the unexpected and that they can turn their focus to selling Lottery games without thinking twice about network availability.

A Customized Solution Comprising Leading Technologies

In addition to the communication network solutions described above, our offering includes:

- A fault-tolerant MPLS backbone.
- User Datagram Protocol/Internet Protocol (UDP/IP) Layer 3 protocol from the terminal to the host system (the Aurora Transaction Engine).
- An MPLS network backbone for WAN communication between WAN access points and the Aurora Transaction Engine.

Our network will support IP with sufficient bandwidth to ensure that Aurora meets all of the Lottery's business requirements and relevant performance criteria. We will design, implement, and operate the network in compliance with agreed-upon RFP specifications, including network monitoring, management, and reporting. We will monitor the network and proactively route data traffic to avoid outages.



Dual Comm Inside (DCI) for 50% of Your Retailers

With DCI, two separate technologies are used for each retailer. Specifically, Provider 1 will be our VSAT solution partner and Provider 2 will be a cellular wireless carrier. Carriers will be determined based on signal strength for each retailer. The failover/fallback routing function from one technology to the other will be provided internally by the IGT retailer terminal itself. The terminal's DCI failover logic will recognize any fault and automatically failover to the alternate communications device and network. Retailers will not be required to intervene and rarely notice a failover between devices.

DCI: Designed with Fault Tolerance in Mind

IGT has continually improved the quality and deployment of lottery networks worldwide over the last 35 years. Our patented DCI network solution is the culmination of this experience. Designed for maximum fault tolerance, it will provide the highest availability to your retail partners. DCI will provide these benefits:

- **No Single Point of Failure:** DCI-equipped retailers will be serviced by two parallel and independent communications solutions, ensuring no single point of failure. Failover to the secondary communication channel will occur seamlessly without intervention.
- **Maximized Uptime:** The DCI design will provide the Lottery with minimal downtime by avoiding communications disruptions due to an issue with a retailer's primary communications circuit.

Because the failover/fallback routing function is internal to the retailer terminal, there are no external routers or other appliances required at retail, enhancing retailer convenience and the Mean Time Between Failures (MTBF). Primary and secondary access devices are independent so that failures in either device are isolated from the other device. This approach avoids the vulnerabilities introduced by other solutions' funneling of communications channels and network devices through a single router (and thus a single point of failure).

In the case that a primary communications circuit should fail, all DCI retailers will seamlessly continue communications over the secondary wireless channel.

The Major Benefits of DCI

Figure 4.2.12 – 9:

Features and Benefits of DCI	
Feature	Benefit to the Lottery
Maximized Uptime: Uptime measurements for DCI stand at the industry's greatest	Provides significantly greater uptime than any single communications technology
Two Diversified Networks: Each DCI-equipped terminal will be connected to two live communications networks at all times	Even in the event of one network technology failure, the second System immediately takes over, and your retailers will continue selling tickets
Automatic Failover: Failover from the primary communications network to the secondary communications network is automatic	If the primary network technology suffers from downtime or degraded performance, the retailer will not have to call for service and, in fact, may not even realize the secondary network is transporting data
Single Point-of-Contact for Both Communications Networks: A single point of contact for all the Lottery's communications issues	Streamlines retailers' access to the resources who can help resolve their issues
Monitoring Tools: We provide a proactive and unified communications network design and enhanced monitoring tools	A single view of all networks and retailer availability
Experience: We are the Vendor that's most experienced in designing high-availability communications networks for diverse retailer bases	We will "get it right" the first time. Our design will be based on a thorough engineering study of the Lottery and on our technology expertise. We understand trouble spots and their solutions

The DCI Difference

The following table details the advantages of DCI over other Vendor solutions:

Figure 4.2.12 – 10:

DCI Compared to Alternative Solutions	
IGT's DCI Solution	Other Vendors' Solutions
Our DCI solution enables direct-to-terminal, last-mile connections. That allows nearly any two network technologies, carriers, and/or solutions to be combined, in parallel, to provide maximum network uptime – far exceeding the availability of each individual network type	Other solutions are limited by the capabilities of their external routers. Those routers also introduce another Single Point of Failure (SPOF) in the communication path, and this includes dual Subscriber Identification Module (SIM) wireless routers
DCI Versus Dual SIM	
Our DCI is independent of the communications device. Any failure of one of the two external communications devices does not affect the remaining device. Our solution has true hardware diversity with no SPOF	A dual SIM router has the routing logic and both wireless modems contained in a single communications device. A failure of either internal component will cause a total communications failure. Dual SIM is a complex, integrated solution, but it lacks hardware diversity and introduces a SPOF into the retailer communications network

When we provide our DCI solution, two separate providers and technologies are used. For example, Provider 1 could be VSAT. Provider 2 could be a 4G cellular carrier. Thus our solution provides carrier and technology redundancy

Dual SIM relies on a single wireless module and technology in the router for the entire solution. For example, wireless SIM 1 might be Sprint Code Division Multiple Access (CDMA) and SIM 2 Verizon – both using the same CDMA router electronics and at times even the same cell tower

Integrated Architecture with End-to-End Monitoring

Our primary-to-secondary network failover and fallback routing logic is managed through direct negotiations between the communications software client in the POS terminal and communications servers at the Lottery data center. These network health probes, decision making, and IP connections are intelligently negotiated and managed end-to-end within IGT's lottery client and server communications, and fully integrated within our Aurora Connect architecture

All other solutions make use of external routers connected to external modems or dual SIM wireless routers. These external routers have no way of knowing about the end-to-end traffic flow between the client and host applications and, therefore, make decisions based on simple ping-probes at the physical and network layers

No Single Point of Communications Hardware Failure

With IGT's industry-first DCI solution, the local failover/fallback routing function is provided internally by the IGT POS terminal, eliminating the need for an additional external router or other appliance at the retail location, reducing hardware complexity and retailer footprint while increasing the total System MTBF. Also, the primary and secondary network access devices and/or modems are fully independent, meaning they are not part of any single router or appliance. A failure in either device is isolated from the other. The IGT terminal's DCI failover logic will recognize any fault and automatically failover to the alternate communications device and network

The introduction of an additional router device in other solutions inherently introduces an additional SPOF, completely contrary to the problem that it is tasked to solve. All additional communications channels and network devices are funneled through and reliant upon this single device, making them vulnerable to any failure of this router. These additional devices increase the System complexity and complicate the remote management and monitoring capability, defeating the purpose

Simple Dual Communications Upgrade

All IGT POS terminals will be shipped "DCI-capable." Upgrading a terminal from a single communications solution to DCI is a simple matter to accomplish

Upgrading any competitive solutions from a single to dual communications method will require extensive additional equipment to be procured, installed, and configured

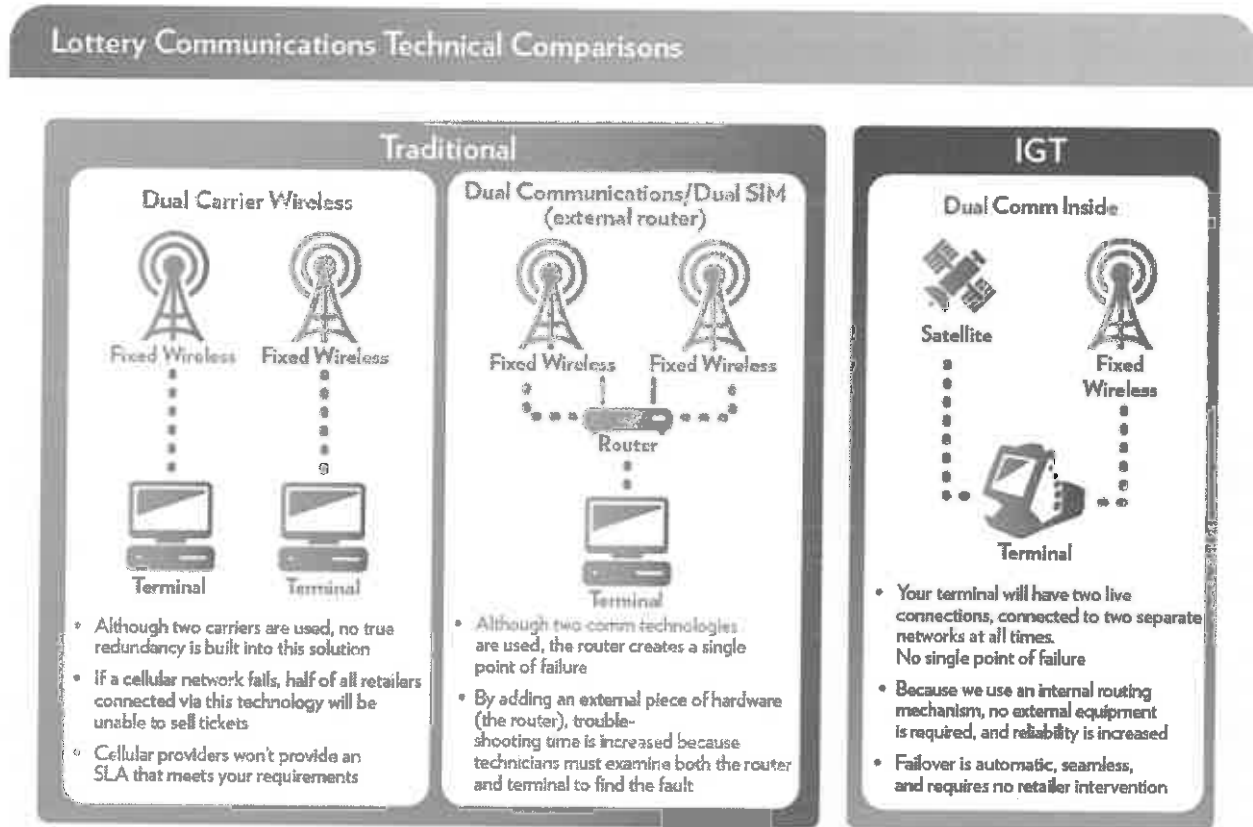
"Green" Solution

With an ever-increasing awareness and responsibility to environmental and Green initiatives, the DCI design requires no additional power or physical resources

Other solutions using external routers and devices come with an environmental burden of increased power consumption and carbon footprint

The following figure compares IGT's DCI solution to other "dual" solutions.

Figure 4.2.12 – 11:



A distinct advantage of our solution is that it will automatically switch to the alternate communications path without human interaction. Other solutions require retailer intervention or unreliable external routing appliances. DCI is patented and proprietary to IGT. It can be configured with different combinations of communications technologies and carriers and provides unmatched retailer connectivity.

The VSAT Portion of the Lottery Telecommunications Network

The VSAT portion of the network – as part of both DCI and as a stand-alone solution – is secure and reliable. Lotteries around the world have experienced the proven advantage of deploying VSAT networks.

Further, over the last 10 years, satellite technology has vastly improved. For the Contract period, IGT proposes:

- Installing our new and improved Indoor Units (IDUs), which are more effective in coding the satellite transmission and reception channels at all locations.
- Installing higher-power Outdoor Units (ODUs) at all locations. This builds upon our previous iterations by increasing the satellite uplink signal by a factor of 3dB which, in turn, increases availability.
- Calculating the dish size, VSAT power, and hub power budget using the industry-accepted Crane-Global Attenuation model to ensure appropriate fade margins.



- Using multiple satellites, evenly divided across the retailer base. This allows for more dish-pointing flexibility.
- Using two geographically separated redundant hubs to mitigate any weather, backhaul circuit, or catastrophic failures.

Increased Signal Strength

The new IDUs use Turbo-codes that increase the effective System gain over our previous IDUs by greater than 2.7dB, essentially reducing by nearly 50% the amount of necessary power for transmitting a signal. This improvement also doubles the range in which the signal can be received, thereby increasing network availability.

Unmatched Experience

While all Vendors have the capability to provide “point-to-point” communications, our engineers have designed WANs in diverse geographic areas and for diverse retailer types around the world. Our network design will provide the best-available online retailer network because it incorporates features that no other vendor or commodity VSAT uplink-service provider can match. In addition, other than electrical power, VSAT has no reliance on local infrastructure.

Our highly experienced team of engineers and technicians at the VSAT Network Operations Centers (NOCs) will be proactive in terms of risk management, network monitoring, and weather monitoring using a variety of industry-standard and customized tools.

Following a detailed analysis of communications technologies, service providers in West Virginia, and various network architectures, we chose the latest generation of our VSAT satellite system. Using multiple satellites and a new transmitter with a substantial increase in power will provide your retailers with robust connectivity. And our fully redundant links and hardware will eliminate SPOFs throughout your network.

Hub and Data Center Redundancy: Built upon the multi-satellite system redundancy, our data centers and hubs are all independent of each other.

Should a catastrophic satellite failure occur, we mitigate the possibility of losing the affected terminal population in many ways by offering:

- A secondary communications path (IP Cellular) via DCI for 50% of your retailers while the satellite failure is addressed.
- A multiple satellite solution with contingent capacity should we need to move some retailers from one satellite to another, allowing for quick disaster recovery.
- A strong partnership with our satellite service provider to assist with any needed migration between satellites.

We have performed satellite switches in non-emergency instances in four U.S. jurisdictions where we wanted to move a substantial number of retailers from one satellite to another to rebalance the network. In each case, the transition was rapid and without incident.

VSAT Equipment at Retailer Locations

VSAT, at the retailer location, is composed of an ODU, i.e., a satellite-dish antenna and associated transmitter and receiver electronics, and an IDU. They are connected by coaxial cable and the IDU connects to the terminal using industry-standard IIA/EIA-568-A or IIA/EIA-568-B cable.

For the ODU, we will continue our preferred practice of using pole mounts for retailers wherever possible. Unlike roof mounts, pole mounts offer easier and safer access to the dish for snow removal and will not add unnecessary weight to the retailer's rooftop.

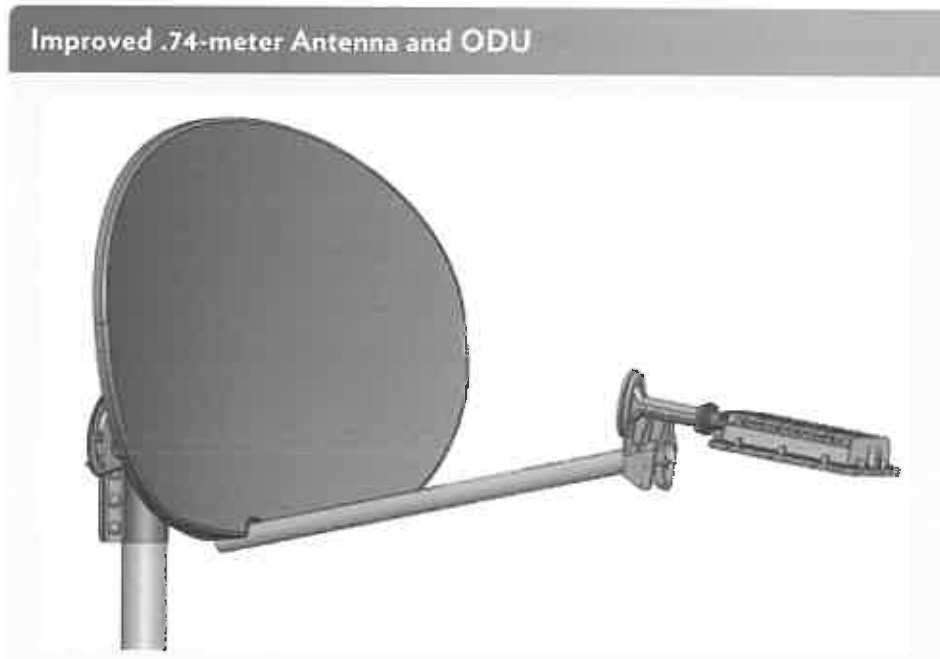
The ODU comprises:

- The .74-meter, hydrophobic-coated satellite dish antenna and support bracket that, together, sit on an area no more than four feet by four feet.
- A Low-Noise Block (LNB) that receives the satellite signals.
- A high-powered transmitter, improving upon Lottery retailers' current VSAT solution, that sends the uplink signals.
- Galvanized mounting brackets.

We engineered our new satellite antenna system with improved feed-arm mechanics and geometry to minimize the collection and buildup of snow and ice, thereby providing increased availability over previous designs during inclement winter weather.

Standard satellite-dish antenna mount options include the pole mount, non-penetrating roof mount, a wall mount, a no-hole pole, in-ground poles, and compression mounts. While the preferred mount is the pole mount, the actual mount is dependent on building construction and line-of-sight consideration. A VSAT site survey will detail which of these mounts will be used.

Figure 4.2.12 – 12:





The IDU consists of receiver, transmitter boards, and an interface to communicate with the online terminal. The IDU is often functionally compared to a modem and typically located within six feet of the lottery terminal. We will deploy the latest generation IDU, which sends and receives the uplink and downlink data using turbo-coding, an advanced signal encoding method that greatly increases the efficiency of transmission and reception channels, thereby improving overall availability.

The Inter Facilities Link (IFL) cable, the pair of coaxial cables running between the ODU and IDU, will be properly dressed and routed wherever possible through an existing waterproof building entrance. Any building penetration required for the IFL cable will be performed in the most professional manner with strict attention to waterproofing, grounding, and applicable building and safety codes.

The Cellular Fixed Wireless Portion of the DCI Network

IP Cellular will be used to back up 50% of your retailers with our DCI solution. We will use 3G or 4G technology with the carrier in each retail location selected on the basis of signal strength and reliable coverage. The fixed wireless technology will not be a typical “cellular” connection because the connections will be dedicated and data-only. This will provide high-bandwidth IP communications to your retailers to support your current level of business and facilitate future opportunities to establish new distribution channels and enhanced game offerings.

Cellular wireless networks provide high bandwidth and support for IP communications. We have successfully deployed thousands of terminals using cellular fixed wireless.

Benefits of Managed Cellular Service

Most modem manufacturers don't provide any operational support. In addition, because cellular networks (3G, 4G, etc.) have a relatively short technology lifespan (5-10 years), replacement wireless hardware hits its end-of-life in a relatively short time (as gauged against most lottery contract periods). Not only does our provider offer a fully Managed Service, but its warranty includes same or equivalent replacement of failed modems or alternate carrier modems for the entire term of service.

Providing cellular as a Managed Service offers these benefits:

- Modems, data plan, and operations are all included. (Past cell deployments have included various modems, several carrier plans, and IGT operations.)
- Includes end-to-end network and device monitoring, defined Quality of Service (QoS), a dedicated help desk, and 3-tier support 24/7/365.
- 24/7/365 monitoring and history identify signal-coverage and tower-congestion issues.
- Alternate carrier modems are deployed when coverage/congestion issues arise.
- Broadcast services eliminate the need for complex tunneling.
- Modems automatically switch from 4G to 3G and automatically switch frequency.
- Modem-provider standardization provides a quantity-cost-reduction opportunity.
- Managed Service helps mitigate cost increases.
- Warranty includes free swap of failed modems or alternate carriers for entire term of service.
- Provides VPN concentrators.
- Historical data, helpdesk, and retailer and engineering support.

These benefits, combined with 24/7 network monitoring and engineering support, make this Managed Service ideal for IGT and the Lottery.

Private Machine-to-Machine (M2M) Cellular Architecture

Although some competitors may suggest that they are assigned specific frequencies from wireless carriers, this in fact does not occur. There are no dedicated radio frequencies (RFs), exclusive channels, or allocated bandwidth assigned to any cellular user for lottery-specific data. The wireless connections we will use are carried over a private and secure M2M infrastructure (aka wireless realm) dedicated to the Lottery.

No cellular provider will sign on for any Service Level Agreement (SLA). Cellular providers prefer a Service Level Objective (SLO). There is no recourse for not achieving a customer's SLO; consequently, IGT takes a more fault-tolerant approach when implementing cellular deliveries. Our cellular implementations use multi-frequency, multi-band cellular modems, using the 3G frequency bands of 700 - 1900 MHz (Universal Mobile Telecommunications System [UTMS]/High Speed Packet Access [HSPA]/HSPA+, and Evolution Data Only [EVDO]) as well as the 4G frequency bands of 1700-2100-2500 Mhz (LTE). Not being locked into one band allows our modems to adapt to frequency changes should the cell tower get overloaded, interfered with, or just go down. Single-band modems have an issue with longevity. As legacy cellular technologies sunset (as we are seeing today with 2G networks and 3G projected in 2021), single-band modems become obsolete and require replacement.

The M2M data transport services provided by our wireless carriers are internal and private up to the gateway. The gateway is the point of demarcation between the carrier's network and IGT. We then make a private circuit connection between this gateway and both the PDC and BDC. This is the basis of IGT's private end-to-end M2M architecture. This is unlike other consumer circuits, which go through a shared infrastructure and a public gateway to the Internet.



Fixed Wireless vs. Mobile Wireless

While fixed and mobile wireless communication technologies operate in the same frequency ranges, fixed wireless is a more stable and lottery-ready solution. Mobile wireless is affected by many factors that make it more likely to degrade and become unstable. Benefits of fixed over mobile include the following:

- Modern fixed wireless networks use dedicated data-only channels, providing full data capacity independent of the volume of voice traffic.
- Unlike mobile wireless, there are no cell-tower handoffs in fixed wireless. The connection is persistent between the base station and wireless modem at the retail location.
- Signal strength is at a fixed and predictable level, not variable as in mobile wireless.
- Fixed wireless has a three-to-six-times better signal/noise performance ratio than mobile wireless.

The fixed wireless solution will support a private WAN connection into our primary and secondary hubs for connections between the wireless provider's network and the Lottery's host servers. WAN backhaul data is segregated based on a private Access Point Name (APN) for each IGT customer and provides guaranteed IP address pools assigned to our specific customers. The wireless provider's WAN connections provide routable, automatic failover between the PDC and BDC. Wireless modems are only allowed to connect to the private network after successfully passing authentication using IGT-managed individual device accounts. The wireless backhaul is secure, and non-Lottery traffic is segregated from Lottery traffic. For increased performance, the following wireless network features are permanently disabled: Internet access, text messaging, voice, roaming, and mobile-to-mobile traffic.

Further Security Features

Our cellular solution provides the following security features:

Network Transport Security

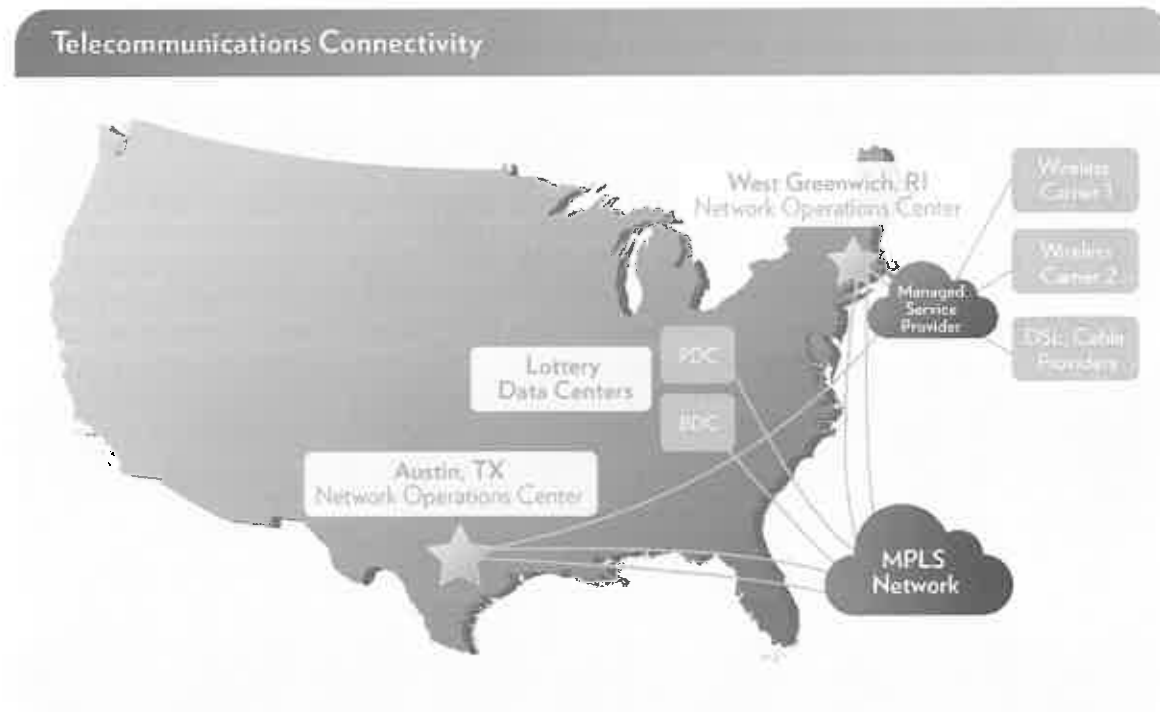
- End-to-end encryption at the network level: IPsec, VPN, with AES 256.
- All traffic is encrypted from routers to the data centers.
- Payment Card Industry Data Security Standards (PCI DSS) Level 1 service provider.
- Centralized data encryption management.

Physical Security

- **Tilt-Sensors:** Detects movement and tampering.
- **Battery Backup:** Preserves connection(s) when router loses power.
- **Global Positioning System (GPS):** Uses cell-tower triangulation to track device location.
- **Power Alerts:** Activated when a router loses power. Alerts are then sent to a pre-determined recipient list.
- **Cover Alarm:** Detects faceplate tampering. Automatically sends an alert upon detection.

The following diagram illustrates our VPN connections between the various carriers, IGT, and Lottery data centers.

Figure 4.2.12 – 13:



Built upon redundant cellular communications, the PDC and BDC systems and network hubs are independent of each other.

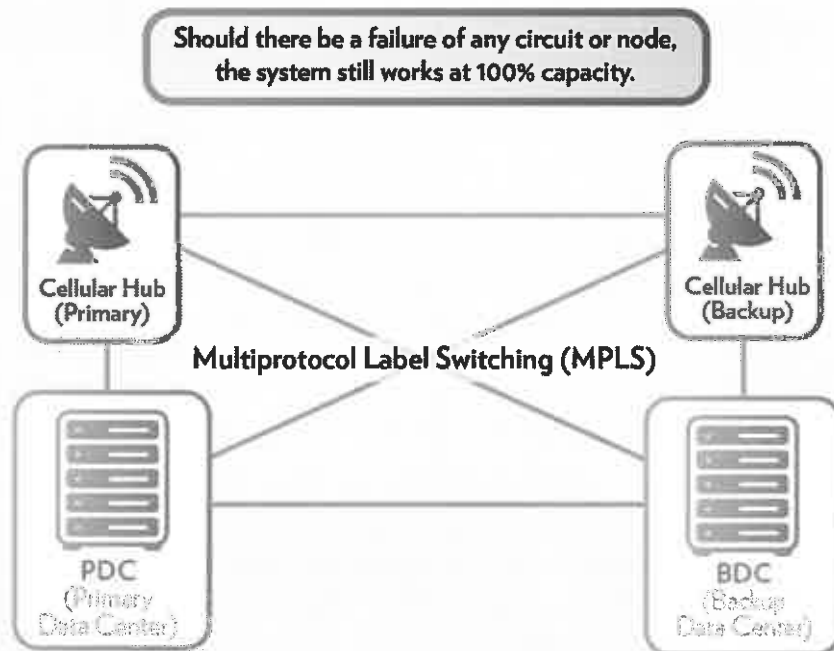
Technical Support Operations

With U.S.-based Technical Support Centers, IGT's managed service provider and partner offers 24/7/365 technical support services, including:

- Cellular connectivity verification.
- Installation coordination and router reconfigurations.
- Tiered technical support from installation through the life cycle.
- Proactive escalation procedures.
- RF engineering.
- Signal optimization.

Figure 4.2.12 – 14:

Redundant Cellular Hub Data Connections



Hub Diversity:
The hubs used in IGT's cellular solution are located in the U.S. and are geographically separated to ensure that weather-induced complications in one area of the country will not have an impact on both sites.

Private Cellular Architecture

The wireless connections that IGT deploys are carried over a private and secure M2M infrastructure (aka, wireless realm) that will be dedicated to the Lottery.

IGT takes a fault-tolerant approach when implementing cellular deliveries. Our cellular implementations use multi-frequency, multi-band cellular modems with:

- 4G frequency bands of 700, 800, 1700, 1900, 2100, 2300, and 2500 MHz – LTE.
- 3G frequency bands of 850, 1700, and 1900 MHz –UTMS/HSPA/HSPA+, and EVDO.

Not being locked into one band allows our modems to adapt to frequency changes should the cell tower get overloaded, interfered with, or, rarely, simply go down. Single-band modems have an issue with longevity. As legacy cellular technologies are sunset (as we are seeing today with 2G networks), any single-band modem becomes obsolete and requires replacement.

Gaming Over Any Link (GOAL) Technology

There are a few cases where either the cellular coverage is not sufficient, nor is it feasible to install a satellite dish, e.g., locations with line-of-sight obstructions from the dish to the three satellites (particularly in urban areas with high-rise buildings), with landlord restrictions, and with safety concerns (gas station canopies, for example). Our solution for the few retailers that can't be connected via wireless technologies (including VSAT or cellular) is known as the versatile GOAL technology.

GOAL is a transport-technology-agnostic VPN architecture that allows us to connect our terminals to any IP network. It can operate over MPLS, cable, Digital Subscriber Line (DSL), fiber. In West Virginia, we will implement GOAL using the most appropriate technology available at each required retailer location. Please note that the flexibility of GOAL will also allow us to use emerging technologies as they become commercially available, e.g., MetroWi-Fi, MetroEthernet, and future generation wireless, among others.

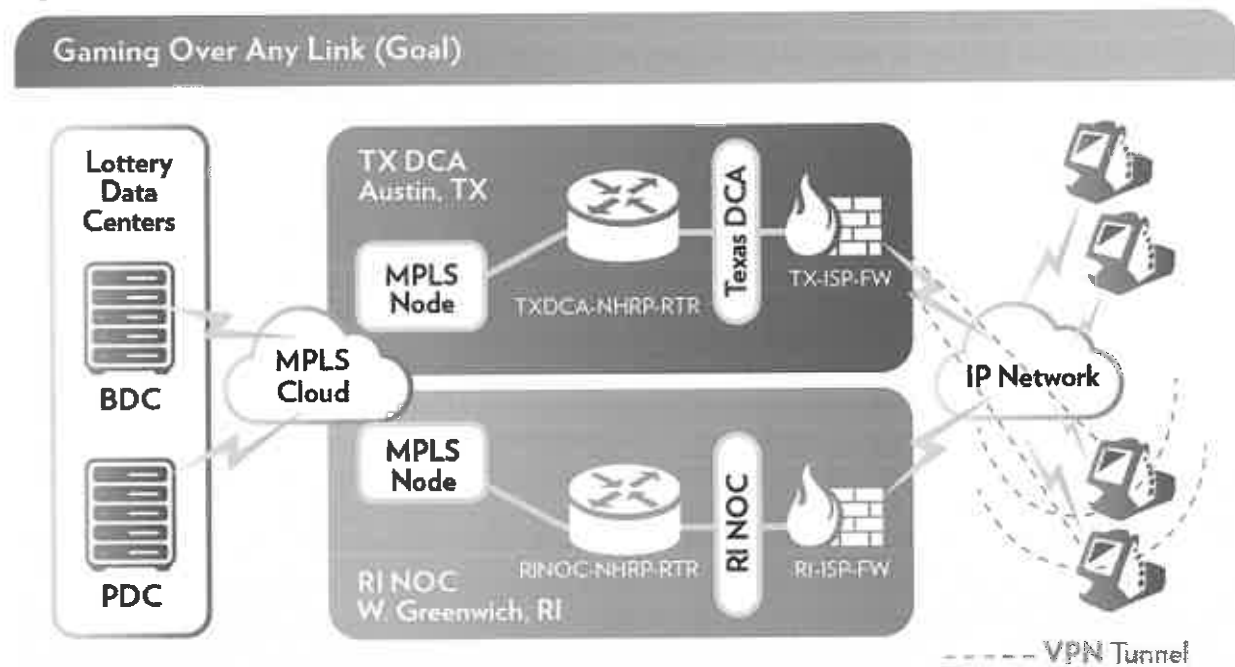
GOAL circuits will terminate on Carrier-Class VPN platforms at our IGT NOCs in Rhode Island and at the IGT Data Center of the Americas (DCA) in Texas, with redundant connections to your PDC and BDC.

GOAL is currently operational for a number of our customers. It provides the following benefits:

- **Future-Proof:** GOAL is our solution of choice to replace outdated technologies. It can operate over any IP-compliant network, current or future, including IP Version 6 (IPV6).
- **Security:** GOAL provides end-to-end secure tunneling from IGT terminals to the IGT PDC/BDC Virtual IP using an IPSec, AES-256 encrypted VPN connection.
- **Flexibility:** Our innovative architecture supports any IP network, allowing GOAL to be used over cellular fixed wireless, cable, DSL, fiber and other IP network technologies.
- **Management:** GOAL is a managed, end-to-end service with full network management System visibility and a guaranteed QoS.
- **Support:** 24/7 monitoring, management, technical, and live customer support.

The following figure provides a high-level view of the GOAL configuration.

Figure 4.2.12 – 15:



Network Risk Mitigation

IGT's network design for the Lottery mitigates the limitations and risks posed by each of the proposed communications technologies, such as unavailability of service in certain areas due to radio interference, adverse weather, variability in terms of latency or bandwidth, and failure of retailer clusters.

Figure 4.2.12 – 16:

Mitigation of Technology Limitations	
VSAT	
Known Limitation:	Mitigated by:
Intermittent or Localized VSAT Network Failure	For the 50% of your retailers outfitted with our DCI solution, VSAT failures of any magnitude – small or large-scale – will have no effect on retailers' ability to process transactions as the terminal will immediately and seamlessly transition to the IP Cellular communications path upon failure recognition
Failure of Satellite in Orbit (happened only once in history)	Retailers with VSAT will receive service from multiple satellites, and those within a single ZIP code will be assigned judiciously between these satellites so that, in the rare case of a satellite outage, only a small percentage of the retailers in that ZIP code will be affected
Blocked signal	The satellites are located at different azimuth directions. Should the signal from one satellite be blocked by a building or other obstruction, we will point the satellite dish in another direction and use one of the other satellites

VSAT	
Known Limitation	Mitigated by
Rain fade	The dish size, VSAT power, and hub power budget are calculated using the industry-accepted Crane-Global Attenuation model to ensure appropriate fade margins. With greater transmit power, twice the receive capability and improved dish mechanics, our new VSAT provides greater reliability and availability than previous systems. In addition, these improvements will ensure that intermittent weather outages will be less frequent and shorter

Cellular Fixed Wireless	
Known Limitation	Mitigated by
Signals gain and lose strength due to changes in location, weather, and other factors	The cellular fixed-wireless component will provide a much more reliable and stable network connection than mobile wireless
Networks operate on shared infrastructure	Within the wireless carrier's infrastructure, IGT uses a private APN or Realm ID, depending on which type of cellular provider we use. IGT is guaranteed a secure, cellular fixed-wireless network with a direct private connection to our network. There is no connection to the Internet. IGT's own authentication servers are also used for all cellular device access. Fixed wireless traffic is encrypted using the same AES that all Aurora CONNECT® (interface solution) traffic uses
Subject to slow-data rates; service degradation could lead to roaming charges	IGT's implementation of cellular fixed wireless is a data-only configuration. Roaming, voice, Internet, SMS, and other services are completely disabled, and the bandwidth provided is dedicated to lottery network traffic. Additionally, because of the fixed nature of the solution, signal strength is more constant and predictable than a typical consumer mobile experience. Last, advances in 4G and 3G wireless technologies, coupled with billions of dollars of network advancements and improvements, are providing service levels rivaling even the best wire-line networks

GOAL	
Known Limitation	Mitigated By
Relies on third-party carriers	GOAL is carrier-agnostic. Should one carrier or technology not be available, we have the option of switching to other carriers or technologies
Relies on third parties for provisioning	Due to the versatile nature of GOAL, we can source the connection through a number of IP network providers

Network Operations Center (NOC)	
Known Limitation	Mitigated by
Hub failure	Our fully redundant satellite hubs on both the east and west coasts will be connected by a private, fault-tolerant MPLS network to your PDC and BDC
Natural disaster	Two geographically diverse IGT NOCs – one in Texas and one in Rhode Island – mean that, if there are problems at one NOC, such as a natural disaster, we can switch to the other NOC, avoiding any service disruption. Both NOCs are "hot" and operational 24/7/365

Network Operations Center (NOC)	
Known Limitation	Mitigated by
Weather event	In the event that an unpredicted weather event occurs at the online satellite hub location, our network-operations procedures empower the on-shift communications technician to initiate a network services switch to the other satellite hub if the satellite carrier for the impacted hub or NOC is completely down for more than several seconds

Each data center will be connected via redundant, high-bandwidth MPLS links to ensure that all transactions are securely logged at both data centers.

Network Monitoring System (NMS)

The NMS is composed of enterprise-class network-management tools: IGT's Aurora CONNECT Admin, Hewlett Packard's Business Technology Optimization (BTO) suite, and a Cellular Network monitoring system from our managed cellular service provider. These tools will provide complete management, monitoring, control, and troubleshooting of the network, as well as extensive performance analysis and reporting.

Network Access Controls (NAC)

Our LAN management solution provides access to real-time and historical performance monitoring and fault management directly from a web browser. Web-enabled maps provide a real-time pictorial status of the network topology and offer the ability to click and drill into regions, departments, and devices.

Our solution monitors the data centers' LANs (routers, switches, firewalls) for:

- Availability.
- Network latency.
- Bandwidth use.
- Interface errors and discards.
- Volume usage.
- Node, interface, and volume status.
- Buffer usage and errors.

The comprehensive alert engine and event monitor help identify network problems, keeping outages and downtime to a minimum.

Network Monitoring Components

We have selected enterprise-class network-management tools to support your requirements and resolve complex problems. Our integrated NMS tools will perform network and protocol monitoring and analysis, as well as event recording. These tools will show the status of the network, including data communications, and the functioning of all network circuits used by the system. This capability determines whether a failure has occurred in the equipment at the data centers, within the wide area communications network, or at the retailer-terminal level.

Our proposed NMS tools include:

- **Aurora Connect Admin:** A browser-based application that collects transaction statistics and provides terminal status and configuration capability. For example, the Terminal Down screen provides a list of terminals that are not communicating with the host and tracks the amount of time a terminal has been out of service. Full details on Aurora Connect and Aurora Connect Admin can be found in Section 4.2.24, under the heading Aurora Connect.
- **Hewlett Packard BTO Network Node Manager (BTO NNM):** The most-comprehensive network-management solution available. Third-party evaluators rate BTO as a leading NMS performer.
- **Cellular Network Monitoring System:** A centralized management tool for your entire cellular device portfolio.

The Lottery will be provided with live fault and bandwidth management, including real-time alerts. These powerful tools can monitor thousands of interfaces and elements concurrently. At any given time, authorized operators will know the full status of the network, including automated audible and visual alarms from significant transmission failures or outages.

HP BTO Network Node Manager/HP BTO Operations

The BTO suite will provide the primary NMS management console for IGT network operations. BTO will gather Simple Network Management Protocol (SNMP) data directly from the terminals and network devices, including the subsystem managers. This software is coupled with the advanced-correlation, service-view concept and single-pane-of-glass presentation features of BTO Operations.

The BTO suite will serve as the primary NMS console for IGT network operations. The suite will provide complete monitoring, control, statistics, alarms and events, network configuration, and report generation of the network and devices, allowing the Lottery to:

- Automatically discover and map network devices, including retailer terminals and the gaming system, to show the status of the entire network.
- Collect and display key information on all devices to pinpoint problems and enable proactive troubleshooting.
- Support customized event-handling to trigger alarms and sort them by priority condition and service-driven impact, ensuring the most effective and efficient problem resolution.
- Correlate multiple alarms to pinpoint the source of the network issue quickly and accurately so that no time is wasted trying to discover the problem.
- Capture network and terminal-device information for use with inventory management.
- Compile historical information from network devices for trend analysis of performance and availability, thereby allowing unique and/or chronic problems to be identified.
- Export historical information into a database to enable access and customized reporting.

We also offer a high-level view of the network, which provides real-time Aurora Connect active terminal counts and the distribution of terminals by communications type.

View the End-to-End Topology

Our management system allows for advanced discovery and automatic mapping of network components. Within the UI, components are represented by different shapes. Various aspects of the network are depicted, including routers, firewalls, interface connectivity, and trunk connectivity.

On the management screen, different colors will be used to represent the different statuses of the network:

- Operation Unknown/Undetermined: Blue.
- Normal: Green.
- Minor/Marginal Alarm Present: Yellow.
- Critical Alarm Present: Red.

Traffic management and QoS reporting are important indicators of how well a network is operating. With BTO, the Lottery will have vital information concerning its network traffic. It will also have QoS reporting available. IGT will design the management system to automatically distribute standard reports to a predefined distribution list. Although these reports will contain relevant information for most standard requirements, IGT understands that other specific data may be necessary. Customized and ad hoc reports are available.

We can provide status and granular details of individual network interfaces. This information is used by Network Engineering to perform capacity evaluations and diagnostic troubleshooting.

Performance Dashboard

The performance dashboard/network operations interface screen provides a fast, high-level view of the network status. The management system can monitor the performance of the entire network and drill down in great detail to spot and solve any problem. In addition, alarm conditions can be set for network communications quality. For instance, a condition can be set to let us know beforehand if a retailer's site is due for preventative maintenance.

Our level of detailed monitoring allows for pinpointing a finite issue. This powerful monitoring capability is scaled up through the entire network. Therefore, we can quickly identify the status of all terminal communication devices, including cellular and VSAT, as well as monitor the overall health of the network. For example, specific, non-responding retailer terminals are listed in a message browser; the system presents intelligent, automatic terminal count monitoring. Through software algorithms, the system can detect an unexpected drop in the active retailer count, alert the user via an alarm, lock in the violated threshold, and then reset to normal condition when the issue clears.

Cellular Network Monitoring System

Our service provider's cellular network monitoring system provides centralized management for your entire cellular device portfolio. This intuitive, web-based UI is the window to your network. With real-time monitoring of every connection and device, the system offers insightful views, management capabilities, and customized reporting, including:

- **Device Status:** Up/down, device health, event log, asset tracking.
- **Over the Air (OTA) Updates** and remote router reconfiguration.
- **Administration:** Ordering, plan changes, trouble tickets.
- **Troubleshooting and Diagnostics:** Ping, traceroute, and firewall denials.
- **Real-time Maintenance Alerts:** Bandwidth limit, power, network outage.
- **Monitoring:** Signal strength, throughput, latency, availability, and temperature.
- **Reporting:** Installation, bandwidth usage, suspicious usages, and wireless metrics.

Networking Expertise

Our commitment to provide the highest-quality services is apparent in the experience and expertise of our workforce. Our engineering and support staff have years of experience deploying and supporting large data communications networks and are industry-certified. Network Engineers and Administrators have Cisco, Database 2, and other senior-level certifications.

The engineering and support staff at our NOC in Austin includes Subject Matter Experts (SMEs) in all disciplines of network technology. Our experienced engineers have in-depth knowledge of all aspects of data communications, including Ericsson Asynchronous Transfer Mode technology, IP-based Cisco networks, satellite operations, and software development and deployment. They are available to provide immediate real-time support to IGT's local site staff.

Network Design

The proposed network will deliver all retailer traffic to the PDC. When the BDC is the primary host, the communications network will deliver all retailer traffic to the BDC. IGT understands that we will be responsible for connecting the PDC/BDC to Lottery Headquarters facility for interface with Lottery's real-time ICS System. IGT will also secure the connection of management terminals from the PDC/BDC to Lottery Headquarters.

We will provide several types of telecommunications for use between the data centers and retailer locations and provide the necessary communications service between the data centers for coordination and recovery purposes.



The following nodes and network elements will be supported:

- Retailer network.
- Games management network.
- ICS network.
- Test network.
- Inter-site connections.
- Lottery systems.
- Data center LAN.

IGT understands that the Lottery expects that only one data center will actively host the draw-based gaming activities at a time. When the BDC is invoked, the network will permit the traffic to flow to the appropriate data center. IGT will provide the necessary communications service between its data centers for coordination and recovery purposes.

Retailer Network

Our proposed network design for the Lottery includes three highly reliable, high-performance technology solutions as previously described – IP VSAT satellite, DCI combining VSAT and IP Cellular, and GOAL – with a fault-tolerant MPLS backbone.

Games Management Network

Each data center contains the games management network and will be connected via redundant, high-bandwidth MPLS links to ensure that all transactions are logged at both data centers.

ICS Network

We will use a dedicated communications link to send transactions to the ICS computer in as close to real time as the ICS can receive them. The ICS will be recognized by all of the Aurora Transaction Engines. Transactions will be N-plexed and recorded first on the primary Aurora Transaction Engine. N-plexing is IGT's method of logging all gaming activity on multiple systems to achieve a fault-tolerant lottery system capable of processing hundreds of thousands of transactions per minute on a continuous basis and in a completely secure manner. Transactions will subsequently be sent over the secure, dedicated communications link to the ICS for independent processing.

Connectivity between the primary Aurora Transaction Engine and the ICS server is a one-way connection. Per MUSL rules, the primary Aurora Transaction Engine is not allowed to make any direct connections to the production ICS server(s). If the ICS server cannot make a connection with ICSLOG on the primary Aurora Transaction Engine, it should attempt to talk to the secondary Aurora Transaction Engine at the PDC.

If this process fails, connection is routed to the BDC, or spare Aurora Transaction Engine. The primary ICS should always attempt to route back to the primary Aurora Transaction Engine.

Test Network

IGT will procure, install, and manage the links and size to support the network, based on traffic levels. Our network will support secure, encrypted data communications and provide connectivity between all computer sites. Connectivity will include supplying a connection between the CAT systems and the Lottery's test network, which will consist of a high-speed private MPLS connection that will allow access to both the test and production environments, depending upon what is required to be reached at a given point. This will allow for full CAT and will facilitate getting tested releases moved into production efficiently when they are ready.

Inter-Site Connectivity

Our proposed communications network supports all computer sites for data transmission. It includes redundant communications lines between the PDC and BDC and the Lottery. Communications between the PDC and BDC are provided by redundant MPLS circuits to facilitate transaction logging between the two data centers. All data center aggregate circuits will include Telco cloud Point-Of-Presence (POP) diversity and, where possible, building-access diversity to maximize reliability and eliminate SPOFs within the network. These MPLS circuits will be provided in a Closed User Group (CUG) configuration for additional security and data segregation of all Lottery traffic. They allow for dynamic routing between all of our nodes for automatic failover between circuits.

Termination of these connections will occur with redundant routers at the PDC and BDC. These links and routers will be configured to allow for load balancing, resulting in optimized performance. Also, the routers will be programmed to prioritize traffic across the two links to specific data pathways, ensuring a balanced load of traffic across both links while providing complete redundancy in case of a link failure.

IGT will also provide connectivity of the PDC/BDC to the Lottery Headquarters facility for interface with the Lottery's real-time ICS. We will secure the connection of management terminals from the PDC/BDC to Lottery Headquarters.

Lottery Systems

The connection from your PDC in Charleston and your BDC in Bridgeport to your administrative network will be provided by MPLS WAN connections. IGT will procure, install, and manage the links and size to support the network, based on traffic levels. Our network will support a secure and encrypted data communications path and provide connectivity between all computer sites.



Data Center LAN

We will provide multiple LAN connections, dependent on our configuration, within the data centers. Each LAN is capable of supporting Virtual LANs (VLANs) to meet segregation and security needs. These VLANs and Access Control Lists (ACLs) are employed inside the Aurora Transaction Engine perimeter to ensure that access is permitted only as required and approved.

To connect to the Lottery's LAN, we provide redundant Gigabit Ethernet connections termination at the Lottery's preferred handoff location (usually Lottery HQ). These connections are connected to redundant IGT Cisco 2911 routers, each with Telco POP diverse private CUG MPLS circuits with dynamic routing support to ensure high availability to all IGT locations.

For a view of the network architecture proposed for the Lottery, please refer to the Exhibit **West Virginia Lottery Network Architecture**, which is located behind the Exhibits tab.

Retailer Trouble Reporting

To support the Lottery and its retailers, IGT staffs a help desk for retailer trouble calls; our technology-powered National Response Center (NRC) is comprised of three physical help desks located in the continental United States:

- Charleston, West Virginia.
- Providence, Rhode Island.
- Reno, Nevada.

Communications Services for Hotline and Dispatch

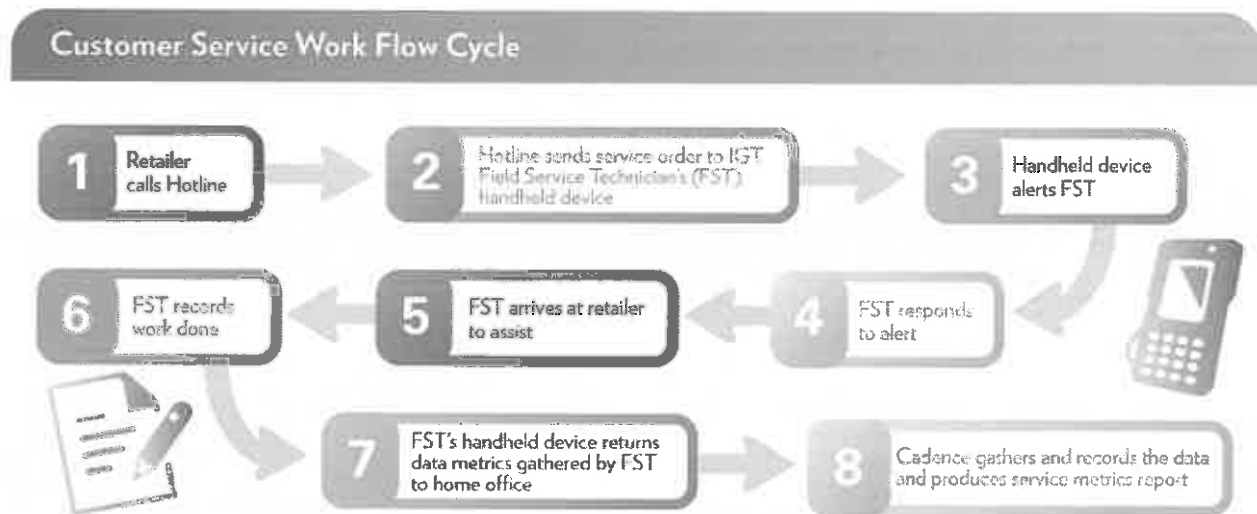
Our Real Time Management System, Cadence, is deployed in all IGT domestic locations as the HOTLINE and dispatch managing system to receive, update, and close service calls. This tool covers the life cycle of a retailer service call, spanning all retailer service disciplines, including:

- Hotline.
- Communications.
- Dispatch.
- Installations/removals/moves.
- Field service.
- Repair depot.



The workflow is depicted in the following figure.

Figure 4.2.12 – 17:



Monitoring Every Step: We time-stamp and monitor every step in the service-call work cycle to ensure that all work meets or exceeds maintenance expectations.

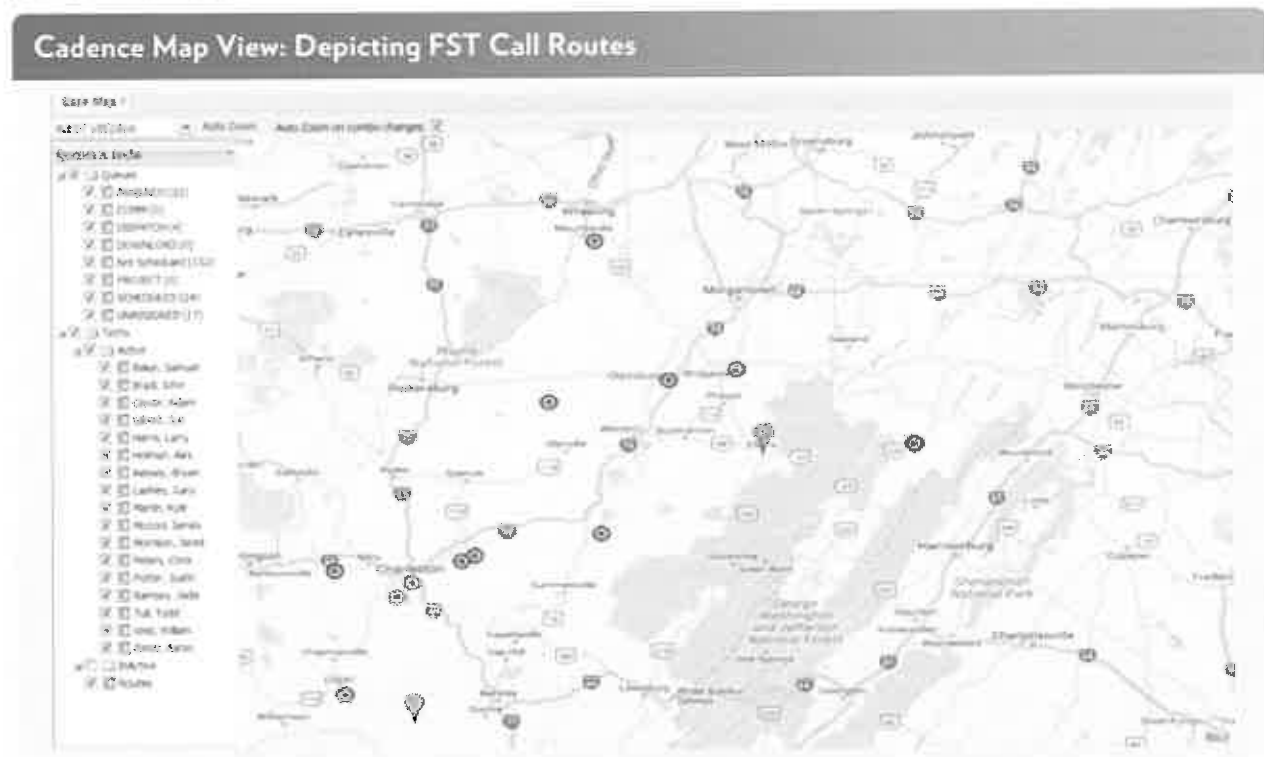
IGT's Field Services organization strives to ensure the efficient delivery of services to its customers. To accomplish this, Cadence uses site-specific metrics to assign each call to the best available FST. It uses advanced SMART technology delivering a level of automation that provides real time, intuitive dispatching of the optimal FST for each service call. This integrated tool enables retailer-focused service delivery, with the singular goal of customer satisfaction.

The *Real Time Dispatch Engine* selects the optimal FST for each service call based on:

- Location.
- Drive time.
- Workload.
- Call type.
- Service level.

In addition, local Field Service management can adjust the priority of any service visit due to the needs and requirements of the Lottery.

Figure 4.2.12 - 18:



For full details on the kinds of reports Cadence can produce, please refer to Attachment A, Section 4.2.35, System Management Applications.

Key Factors

Security

Our layered approach to security design ensures that *only* authorized users access the network and guarantees that *only* valid transactions are logged. Proactive network management, intrusion detection, and firewalls for stateful inspection of traffic, together, provide the base layer of our network security. “Stateful inspection” is a firewall architecture that works at the network layer. Stateful inspection at the firewalls lets only authorized traffic through to specified systems and peripherals on a network.

Intrusion Prevention System (IPS)/Intrusion Detection System (IDS)

Intrusion detection/prevention is the process of continuously monitoring the events occurring in a computer system or network for signs of intrusion, analyzing any attempts at intrusion that do occur, and reporting them. This process allows new security measures to be adopted to prevent attempts in the future, such as attempts to compromise the confidentiality, integrity, or availability of the network or system or bypass computer or network security mechanisms.

To monitor network access, we propose to use the extensive capabilities and features of next-generation firewalls, which includes integrated IPS functionality. We will surround the trusted zone of the data center network with a redundant pair of firewalls. The firewalls will form a data center security perimeter against the terminal network, as well as a second perimeter against back-office/operations systems and networks. These firewalls offer best-in-class firewall, application security and intrusion-prevention capabilities in a single, easy-to-deploy platform. They combine in-line intrusion prevention services with innovative technologies to improve accuracy. As a result, more threats are stopped without the risk of dropping legitimate network traffic. Through a series of innovative yet simple techniques, IGT will adapt the detection and response technologies of the next-generation firewalls' IPS configuration to the specific environment of the Lottery, providing analysis and mitigation that is tailored to protecting Lottery business.

The firewalls constantly update profiles or signatures of events that indicate a potential network intrusion. These events could include malicious packets potentially containing a virus or causing an abnormal action such as shunning and reset, which can cause a service interruption.

IGT will initially choose signatures that are common and atomic. Atomic signatures trigger on a single event and:

- They do not require the firewalls' IPS feature to maintain stateful information.
- The entire inspection can be effectively accomplished in high speed.
- Do not require any knowledge of past or future activities.

This allows any of the implemented firewalls to be configured to send a Transmission Control Protocol (TCP) reset and shun packet from the offending IP address to protect against any network attacks.

The firewalls are updated as new features or fixes are published after we fully test them within the Architectural Performance Lab (APL) at our Rhode Island facility. Once updates have been reviewed and approved by the Lottery, a scheduled update will be planned. These firewalls support IPV4 and IPV6.

Inbound IP packets that ingress the data center from the terminal network first traverse two enterprise-class edge routers. Behind the edge routers are two enterprise-class Gigabit Ethernet switches, fully redundant and trunked together. Immediately behind these switches are two next-generation firewalls (WAN firewalls) configured in an active failover setup. In case of failure or any anomaly situation, the secondary router, switch, or firewall will take over automatically from the primary in a manner that is virtually transparent to external connections, as the connections are passed between the two units.

WAN Firewall

The WAN firewall we propose to deploy is a platform that provides the next generation of security and VPN services for environments ranging from small- and medium-sized businesses to large enterprise networks. The WAN firewall serves as the data center security perimeter device that faces the terminal network. It offers a comprehensive portfolio of services that are configured to support the specific requirements of the Lottery for firewall, intrusion prevention, content security, and VPN services.



WAN Security Functions

In our communications network solution, a private WAN carries data traffic between the terminals and the central transaction processing systems. The following tools are used to protect the data during this transmission:

- Data encryption.
- Secure protocols.
- Secret and public key cryptography.
- Stateful firewalls.

Access Firewall

The proposed access firewall, which protects the data center systems from threats that might originate from external back-office/operations systems, is also a next-generation firewall.

User Access

Network access controls will allow routing of only those network services needed by authorized system hosts. System users will be afforded system access and assigned one-time login passwords, which they are forced to change upon login. Their access will be based on their job responsibilities, need to know, and least privilege access (they can access only those areas that apply to their business functions). Passwords may be changed by the individual user or, if necessary, by the System Administrator. Current passwords will not be displayed anywhere in the system. Further details on user access controls, network user access, access privilege levels, and more, please refer to Section 4.2.18, System Data and Security.

Network Device Hardening

System security relies on the configuration of the internal network firewall rules to limit access to only authorized systems.

- To prevent intrusion, we use a hardware network appliance (firewall) with stateful policies, which adhere to the principle of least privilege.
- Other hardening that takes place includes firewall management that is done through HTTPS and Secure Shell (SSH) while router and switch management is restricted to SSH. All other management protocols are blocked from the devices.
- All firewalls that protect the gaming systems employ the IPS with the latest signatures.

Network Log Management

We employ a centralized logging solution for all data center firewalls. The System Log (SYSLOG) application can retain these logs for up to two years.

Protection Against Other Possible Security Breaches

Denial of Service (DoS) and Other Attacks

IGT will protect the network and the Aurora Transaction Engines against DoS and other attacks through the following intrusion detection and prevention methods:

- To ensure that network and communications lines are secure from tampering or splicing, all cable runs will be through walls or other secure locations.
- Network routers and switches are protected from intrusion by means of address packet filtering. IDS/IPS events will be processed through the Aurora's SYSLOG server and filtered by critical events.
- All network equipment passwords will be under the control of appropriate management. All default Vendor passwords for this equipment will be changed, and the maintenance passwords escrowed with the communications manager.
- The IGT Communications and Information Technology (IT) departments maintain a log of periodic security checks stating the date of the check, which department performed it, what the check entailed, and what the findings were. Copies of these logs will be provided to the Lottery upon request.

Fault Recovery/Failover Procedures

The data transferred to and recorded at the BDC will always contain the most recent transactions, allowing an Aurora Transaction Engine at the BDC to become the new "secondary system" (or even the primary system) with no loss of data. This feature also enables a takeover by the BDC. Our retailer network will have a routing that is independent of the PDC so that the BDC will be fully functional without the PDC in place. Games administration functions will be available at the BDC, as well as remotely by communications from the PDC.

For a "fatal" failure in an online system at the PDC, whereby one system can no longer process draw-based transactions, operations personnel are not required to take any action whatsoever. Removal of the off-line computer from the online configuration occurs automatically (and essentially instantaneously) without operator intervention. The auto-failover is seamless, transparent to retailers, and results in no loss of sales or data. Full details of our fault recovery and failover procedures are in Section 4.2.22.1, System Failover.

System Availability

N-Plexing for High Availability and Fault Tolerance

The unique nature of a lottery (where uptime, security, and integrity are critical) requires a customized solution. Part of our customized solution for the Lottery is called “N-plexing,” where “N” represents the number of identical systems required to ensure fail-safe operations. N-plexing is a mission-critical feature that other replication or reprocessing approaches cannot equal. IGT invented N-plexing and still offers it today because it has significant benefits over other approaches to creating fault-tolerant systems.

Figure 4.2.12 – 19:

Features and Benefits of IGT's N-Plexing Technology	
N-Plexing Feature	Benefit to the Lottery
Primary and backup Aurora Transaction Engine operations are synchronized at all times	Each transaction is processed simultaneously and in real time by the primary and backup Aurora Transaction Engines, ensuring that Lottery functionality is maintained. This feature provides a risk mitigation benefit that shared systems (a clustered architecture) cannot provide
The Aurora Transaction Engines are constantly exercised during each day of operation	If a takeover occurs, there is no problem or lost transaction
Each system is capable of running the Lottery's transaction processing and each functions as a stand-alone system	This design currently provides 99.99% system availability for numerous lottery systems
There is no common point of failure (as there are in clustered systems)	This feature provides defense-in-depth against system or component failures

Loosely Coupled Systems

We design our systems to be loosely coupled via our N-plexing technology; the only connection between systems is an interprocessor LAN or WAN. In an N-plexed environment, the primary system sends the log of the transaction to each non-primary system, which then processes the transaction, updating its own data using its own separate memory.

For example, a typical site failure could be the result of a phone company backhaul outage that causes one of the systems of the N-plexed configuration to perform a hard shutdown. Since the lottery data residing in the primary system is continuously shared in a real-time manner with all of the other systems, there is no loss of lottery functionality even if the primary system shuts down. The remaining two systems will continue to function normally until power is restored to the affected system. Even if both systems at the PDC fail simultaneously, the alternate system at the BDC will continue to function and provide a full data restore to the shutdown system when phone service is restored to the PDC systems. This process is fully automated; it will be transparent to lottery staff, retailers, and players.

All Aurora Transaction Engines in our system configuration simultaneously log and process all transactions to multiple, independent journal files. Each Aurora Transaction Engine has an MJF and a BJF that mirrors the contents of the MJF. The MJF and BJF are stored on separate physical disks on each Aurora Transaction Engine. If gaming is restarted after an interruption, only the transactions recorded on the MJF since the last checkpoint will need to be reprocessed; files are kept current and in synchronization with the MJF. “Aurora Transaction Engine with N-plexing” provides a highly reliable solution for maintaining synchronized data files across a gaming system. This approach provides the following features and benefits:

- The local and remote Aurora Transaction Engines are always synchronized, so each transaction is processed in real time by all Aurora Transaction Engine systems and logged on those systems, providing multiple levels of assurance of data integrity.
- The Aurora Transaction Engines are constantly exercised during the day, so there is little likelihood of a problem with the system going undetected.
- Each Aurora Transaction Engine is capable of running the Lottery’s transaction processing functions independently.

Unlike in clustered systems, IGT’s N-plexing configuration ensures that there is no common point of failure (shared data storage disks). This provides defense-in-depth against system or component failures. Additionally, the auto-balancing feature checks and verifies that lottery data matches across all systems within the configuration, which provides yet another assurance that the data is accurate and in balance.

Checkpointing

The Aurora Transaction Engine periodically writes all of its key lottery summary data, maintained in memory, to disk. This process is called checkpointing. All essential data, which includes counts and amounts for all financial transactions, is checkpointed by product. (There are numerous products on the Aurora Transaction Engine.) There are many checkpoints, and each occurs, typically, every 10 to 20 minutes. As part of checkpointing, the memory data structures of each of the non-primary systems are compared to that of the primary system at the time the primary’s checkpointed data is sent to the non-primary systems. If the memory data structures are identical, then all of the systems are synchronized. These checkpoints establish a point of reference for restarting the system, should that become necessary.

The non-primary systems process transactions as they are received from the primary system and balance with the primary system at every checkpoint. If there is a problem with any non-primary system, it will show up during processing rather than afterward or when a failover occurs. We will catch potential issues that could harm the Lottery before they happen.



Incident Management

IGT's incident management process guides the individuals responsible for creating, completing, and submitting incident reports for their respective business units worldwide. This process is used to report and escalate incidents associated with a specific product and obtain the necessary technical expertise to resolve those incidents in a timely manner.

Escalation Procedures with External Communications Carriers

For retailers that are serviced through common carriers, we will follow that carrier's escalation procedure. The following is an outline of a common carrier's escalation procedures.

Level-Three Outage

Description

This type of outage affects a single site.

Example

Service at a site is not restored within the time required; a trouble ticket is opened.

Escalation Requirements

If service has not been restored to the operational thresholds required by IGT, the common carrier will contact the following personnel:

- The common carrier's Senior QA technician.
- The common carrier's Program Manager (PM).

If service is not restored within six hours, the outage will be escalated to:

- The common carrier's Director of Field Service.
- The common carrier's Network Monitoring Center Supervisor.

If service is not restored within the following 24-hour period, the outage will be escalated to:

- The common carrier's Network Monitoring Center Director.
- The common carrier's Customer Service and Support Director.

Status Updates

Hourly.

It should be noted that IGT prides itself on being proactive, resulting in infrequent escalations and, in sum, a more reliable and robust network.

4.2.24

System Hardware and Software

Vendor's proposal should include a detailed overview of the System design, operations, and functions with respect to existing production operations. Vendor should describe its capability, capacity, plans, management tools, and procedures for developing, providing testing, modifying, upgrading, and supporting hardware and software during the Contract.

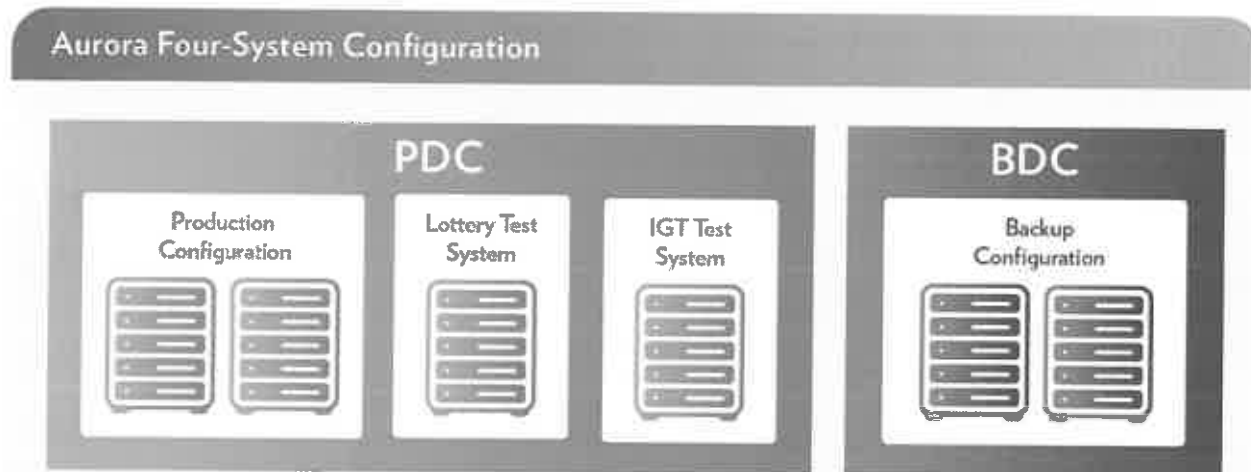
To develop our offering for the West Virginia Lottery, we examined all of your requirements and objectives. We then designed an architecture to meet current requirements and future needs. We propose a full duplex-production environment for both data centers; it includes a redundant hardware configuration for all IGT servers, including those supporting back-office applications.

As stated, our proposed central system configuration (shown in the next figure) includes four independent Aurora Transaction Engines:

- Two at the PDC, which will be housed in IGT's data center in Charleston, West Virginia.
- Two at the BDC, housed in our data center in Bridgeport, West Virginia.

We will also include a dedicated Lottery CAT System located at the PDC, which can be accessed by authorized Lottery staff from your CAT lab. Also, IGT will have second test system at our PDC for IGT's testing. This system can be made available to the Lottery when simultaneous testing efforts are required.

Figure 4.2.12 – 20:



Data Stream Maintained: The redundancy of the Aurora Transaction Engine (central system) configuration is an optimal solution for securing data. At the same time, it's flexible, supporting opportunities for growth.

The redundant configuration of the four Aurora Transaction Engine systems across the PDC and BDC will support all game types and game administration functionality for draw, monitor, and instant ticket scratch-off games. The Aurora Transaction Engines will be networked for high-availability processing and storage redundancy. A component failure in one Aurora Transaction Engine will not cause a failure in another.



To ensure high-performance, minimize service interruptions, and prevent loss or corruption of data from a hardware or software failure and loss of processing capability from a component failure, we will provide fail-safe operation and fault-tolerant hardware and software at the PDC and BDC. All transactions processed by the Aurora system will be recorded on the two systems in the PDC and the two systems in the BDC, at all times. When necessary, switching from the primary Aurora Transaction Engine to the secondary at the PDC will occur instantaneously and seamlessly. Switching between the PDC location and BDC location for transaction processing can be performed seamlessly as well when necessary.

System Architecture

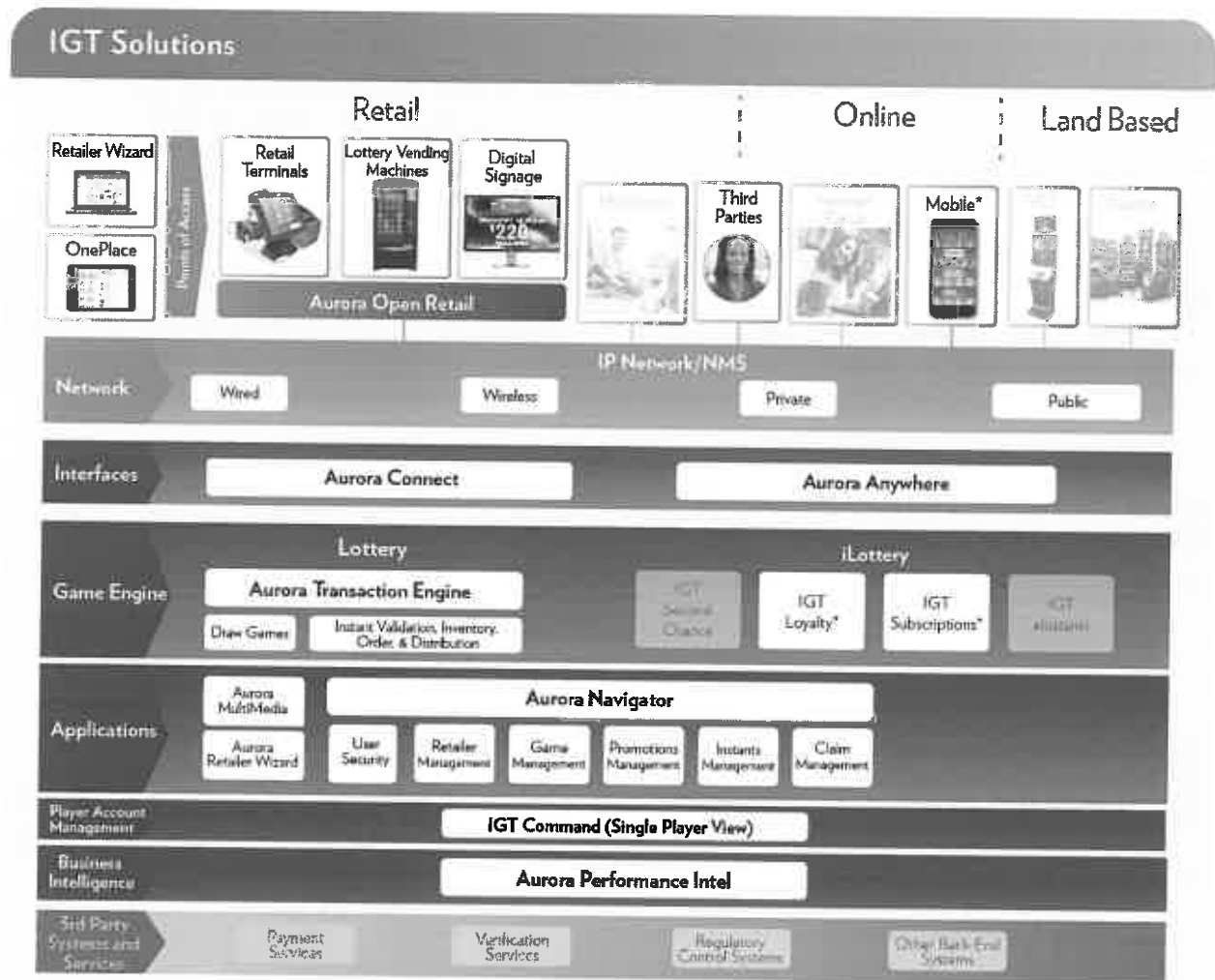
IGT has integrated its proven lottery transaction-processing capability with an enterprise architecture approach. The proposed Aurora solution has been developed with a focus on functionality, performance, reliability, flexibility, expansion capabilities, and ease of use.

Aurora is based upon open IP standards. It adheres to Java Enterprise Edition (Java EE) specifications for all middleware applications. Because of the wide adoption of the latest generation of the Java EE software standard and our proposed solution is based on open IP standards, Java EE software standards, and modern HTML 5-based user interfaces, the Lottery will be provided with a more reliable, maintainable system than might be available with other system solutions.

The modular and scalable architecture of Aurora enables the addition of new modules, features, and functionality to deliver and support new sales channels and gaming opportunities. Aurora does more than keep pace with industry requirements – it provides the pathway to the future while maximizing uptime and maintaining data security and integrity.

The following graphic is an Aurora high-level architecture component diagram that shows much of the baseline Aurora functionality.

Figure 4.2.12 – 21:



*Not included in the base price proposal.

Note: This diagram represents the full suite of potential features and components available on the Aurora platform. Based on the Lottery's RFP requirements for a Gaming System, those items not greyed out are part of the base offer.

Based on more than 35 years of worldwide lottery experience, the Aurora system will provide the Lottery with full redundancy against failures and performance degradation, safeguarding Lottery operations with minimal service disruption and no loss or corruption of data in the event of hardware, software, or network problems or failures.

The proposed Aurora system is configured with hardware, software, and all other equipment and technology necessary to support your business applications. The Aurora central system configuration consists of four fault-tolerant, fully redundant Aurora Transaction Engines networked across the PDC and BDC.

Aurora Virtual Solution

IGT designed Aurora with the assumption that the solution must grow and adapt to new technologies as they emerge. Having an open and flexible solution is essential in adapting your business to changing market requirements. One way in which we accomplish that is with an infrastructure that is virtualized. Virtualization provides enhanced flexibility and growth potential because computing resources, such as additional servers, can be created without actually procuring new hardware.

Aurora comprises different application components that are built for taking full advantage of a virtualized infrastructure that supports vertical and horizontal scaling. The fully virtualized deployment infrastructure that IGT proposes for the Lottery uses the VMware technology on Lenovo/IBM ESX servers. This combination allows us to scale the infrastructure resource allocation and use across the applications and application servers.

This technology has gained wide acceptance across industries because it provides significant flexibility in terms of allocating computing resources – Central Processing Unit (CPU), memory, and storage – across many servers. This technology will allow the Lottery to configure additional servers for future unforeseen needs without having to procure additional hardware.

Each data center will be a mirror image of each other. Within a data center, we have full server redundancy. The following servers will be enveloped and duplicated in our Virtual Server environments:

- Aurora Transaction Engine servers.
- Aurora Connect (host-terminal interface) and Aurora MultiMedia servers.
- Middleware and Portal, Web, and Application (PWA) servers.
- An Aurora Performance Intel (business intelligence/reporting) server.
- Database servers.
- Aurora Anywhere servers.
- Aurora Player Direct servers for your player database to support subscriptions.
- File Transfer Protocol (FTP) servers.
- Email servers.

IGT's gaming host uses IGT's proprietary implementation of system resource allocation and resource use technology that ensures best scaling and performance output against demand. The solution has its built-in rules and a bootstrapping mechanism to meet the increasing resource demand, and it is proven on the field for all lottery customers across the world. From an infrastructure point of view, this gaming host deployment is fully virtualized through VMware – achieving vertical scaling as resource demand increases.

To future proof the Lottery's technology, Aurora is scalable by adding servers and, upon that, by adding virtual servers to provide the extra capacity as needed:

- Using the product VMware, multiple "virtual servers" are created on each central Aurora (ESX) server. The virtual servers can be created and/or deleted while the system is operational with no effect on any function other than the specific application allocated to the modified virtual server. This capability provides a whole new range of flexibility in terms of configuring and managing gaming functions.
- Virtualization reduces the total number of hardware components in the Lottery's full system solution. The proposed configuration efficiently uses the physical servers, and IGT will size the hardware requirements to take advantage of virtualization's flexibility, while providing more processing power to accommodate peak demands and future growth.
- At the application server level, which most of the back-office components run on, the JBoss clusters configured to encompass the PDC and BDC ensure that the loads are distributed in the most optimal way to the different nodes. The horizontal scaling is easily achieved by adding more virtualized nodes to this server cluster seamlessly without any impact on business continuity.

We will tailor Aurora to meet the business needs and rules of the Lottery related to games, retailers, and promotions, and accounting system changes will not need re-engineering; instead, changes will be configurable through system management parameters for draw-based game and instant ticket scratch-off game support. Due to the length of the Contract, we anticipate that changes to the system will become necessary as the Lottery grows its business. IGT is prepared to meet any changes as needed.

Storage Redundancy

To ensure that our databases in the PDC are kept up to date in real time, our high-availability database domain employs IBM's Tivoli System Automation (TSA) and DB2's High Availability Disaster Recovery (HADR) technologies.

- TSA manages failover between the two database server nodes (active and passive) located within the PDC.
- To handle a failure of both database server nodes in the PDC, the BDC is ready to take over due to HADR data replication from PDC to BDC.

Use of these two technologies, coupled with our N-plexing technology, will meet your requirements for high-availability processing and storage redundancy.

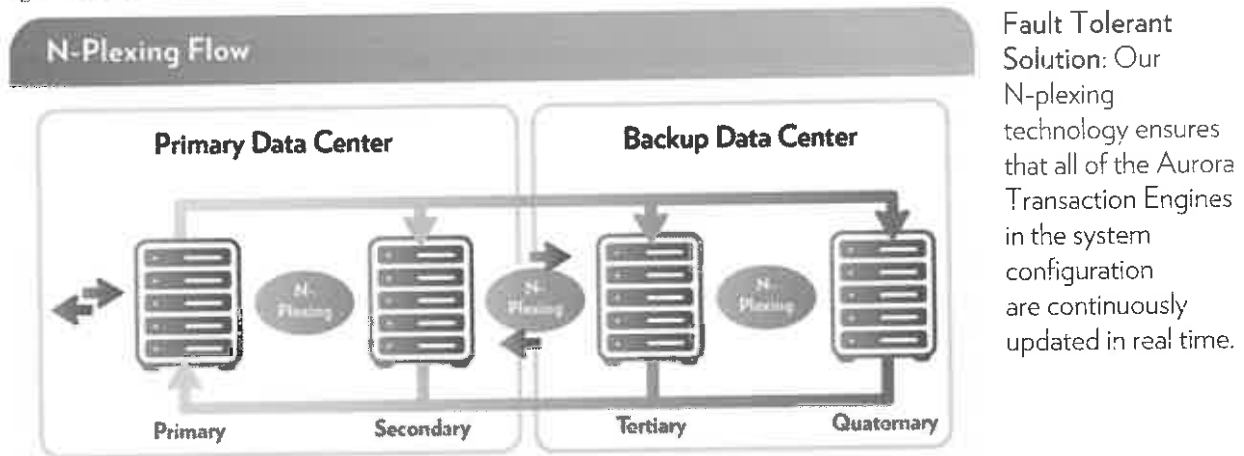
- Should an active database server fail, TSA will detect this event and immediately move the database resource group over to the second database server, which then assumes the "active" role.
- If the entire PDC were to fail, operations would switch over to the BDC, which is kept synchronized with the PDC by HADR. The operations staff will swing the terminal network from the PDC to the BDC through Aurora Connect's administrative UI (Aurora Connect Admin). Once completed, all transactions from the field will automatically route to the BDC.

N-Plexing for High Availability and Fault Tolerance

For the greatest system integrity and availability, our systems employ N-plexing. N-plexing is an IGT-invented method of logging all gaming activity on multiple systems to achieve a fault-tolerant lottery system capable of processing hundreds of thousands of transactions per minute on a continuous basis and in a completely secure manner.

In an N-plexed gaming system, when switchover is required from the primary to the secondary Aurora Transaction Engine, it is done in real time automatically while the gaming system remains fully functional. As noted previously, no operator intervention is necessary.

Figure 4.2.12 – 22:



N-plexing ensures that the Aurora system is always available to players and that transaction-data integrity and security are always maintained. It has significant benefits over other approaches to creating fault-tolerant systems.

Figure 4.2.12 – 23:

Features and Benefits of IGT's N-Plexing Technology	
N-Plexing Feature	Benefit to the West Virginia Lottery
Primary and backup Aurora Transaction Engine operations are synchronized at all times	Each transaction is processed simultaneously and in real time by the primary and backup Aurora Transaction Engines, ensuring that lottery functionality is maintained
The Aurora Transaction Engines are constantly exercised during each day of operation	If a takeover occurs, there is no problem or lost transaction
Each system is capable of running the Lottery's transaction processing and each functions as a stand-alone system	This design currently provides 99.99% system availability for numerous lottery systems
There is no common point of failure	This feature provides defense-in-depth against system or component failures

Red Hat Linux 64-Bit Operating System Software

We offer Red Hat Linux as the OS software for the Aurora Transaction Engine on the Lenovo/IBM x3650 M5 servers (using Intel Processors). Linux features a powerful, 64-bit computing capability fully supported by Lenovo/IBM on its server family. With Linux as the OS, the Lottery will enjoy the benefits of the industry-leading open source OS: flexibility, reliability, and broad-based support.

The Lottery will not only have Linux as the OS for the Aurora Transaction Engines, but it will also have a single (and unified) Linux OS across all of the major components of the Aurora: the POS devices, communications front-end servers, middleware servers, and the Transaction Engines. A single, unified OS across all of the components will streamline software upgrades, security patch management, and training.

Using Linux across the major components of Aurora also allows IGT to unify the powerful Reliability, Availability, and Serviceability (RAS) features that the Lenovo/IBM Linux strategy offers. The Lottery will have all of these advantages with our single, unified OS approach.

Aurora's Flexible Design

Aurora's modular design, open architecture, and "loose coupling" are geared toward adaptability, enabling the Lottery to meet growth opportunities over the long term. Note that "loose coupling" is an attribute achieved by designing interfaces across modules or components to reduce their interdependencies. This design reduces the risk that changes within one component will create unanticipated changes within other components. In addition, this approach specifically increases flexibility to add or replace modules without impacting other components of the system.

The following list presents some of the benefits of the flexible and scalable Aurora system:

- Ability to "swap out" and upgrade hardware and software components.
- Open standards, i.e., industry-recognized, scalable architectures.
- Standard protocols for increased integration opportunities.
- No reengineering of the system architecture every few years.
- Sized to accommodate for today and tomorrow.
- System configuration that enables growth.
- Highest system security and integrity today and tomorrow.
- Architecture that exceeds lottery industry standard audits.

Aurora has well-documented product definitions and future roadmaps – something that IGT can provide through its software specialists – and the R&D investment IGT makes in enhancing the core Aurora software product.

IGT is committed to driving business by bringing games to market faster; Aurora can adapt quickly to changing market conditions. A highly configurable system, combined with an extensive games library, results in faster time to market and lower risk in terms of the overall implementation. Our goal is to quickly on-board new games and game enhancements so the Lottery can maximize the opportunities that come its way to increase sales.



Operations and Functions

How the System Achieves High Performance

Manageability and Security

Powerful systems management features simplify local and remote management of the Lenovo/IBM x3650 M5 server. The server includes:

- Integrated Management Module II (IMM2) to monitor server availability and perform remote management.
- Integrated industry-standard Unified Extensible Firmware Interface (UEFI) enables improved setup, configuration, and updates, and simplifies error handling.
- Two integrated Trusted Platform Modules enable advanced cryptographic functionality such as digital signatures and remote attestation.
- Industry-standard AES New Instructions support for faster, stronger encryption.
- Intel Execute Disable Bit functionality to help prevent certain classes of malicious buffer overflow attacks when combined with a supported OS.
- Intel Trusted Execution Technology for enhanced security through hardware-based resistance to malicious software attacks, allowing an application to run in its own isolated space, protected from all other software running on a system.

Automated Balancing

To ensure transaction integrity, IGT's Aurora Transaction Engine periodically writes its entire key lottery summary data, maintained in memory, to disk – the checkpointing process. All essential data, which includes counts and amounts for all financial transactions, is checkpointed by product (game). (There are numerous products on the Aurora Transaction Engine.) There are many checkpoints, and as part of checkpointing, the memory data structures of each of the non-primary Transaction Engines are compared to that of the primary Transaction Engine at the time the primary's checkpointed data is sent to the non-primary Transaction Engines. If the memory data structures are identical, then all of the Aurora Transactions Engines are in synchronization. These checkpoints not only provide balancing between the four systems, but also they establish a point of reference for restarting Aurora, should that become necessary.

The non-primary systems process transactions as they are received from the primary system and balance with the primary system at every checkpoint. If there is a problem with any non-primary system, it will show up during processing rather than afterward or when a failover occurs. We will catch potential issues that could harm the Lottery before they happen.

Auto-balancing compares the data from the different data sources across the primary, secondary, and backup systems and provides results that are viewable using the Game Manager and BI Suite features of the Aurora system.

Aurora Operations Automation

Today's IT environments are getting more complex and expensive to run, and IGT's are no exception, with many interconnected systems and enterprise-wide applications that operate 24/7/365 around the globe. IGT's Aurora Operations Automation (Ops Automation) helps manage this challenge.

The Ops Automation includes a dashboard (UI) that provides IGT staff with a consolidated view of automated activities, including file transfers. Ops Automation is used to increase processing performance, reduce manual operator processing tasks, provide processing status information, enable proactive monitoring, and promote situational awareness in order to reduce risks and provide better service levels. Ops Automation extends to both mission-critical and tactical areas, such as day-to-day, repetitive tasks with predictable processing patterns. It simplifies an operator's workload by streamlining activities that make sense to streamline and reducing human variability, while keeping the operator informed of the status of expected outcomes.

The new, automated features and functions (at the data center) include, for example:

- Automatic end-of-day processing that includes balancing.
- Automated interface file transfers.
- Daily operations workflow tasks and associated verifications.
- Greater use of checksums to verify Aurora-installed software. Checksums confirm that the software has not changed from the previous day by comparing the daily checksum for each executable file to the previous day's checksum.
- Automated creation and transfer of nightly reports and files.
- Alerts regarding the health of the system.

Key data is concisely presented to allow at-a-glance monitoring of present and future events (as well as browsing of completed events). Further details on a specific activity are just a click away.

In Aurora Ops Automation, a Workflow Job consists of one or more tasks that an Operator regularly performs, such as nightly or daily backups. All aspects of Workflow Job instances are tracked, including verification plan arrangements. Operations staff members have a complete view of planned Workflow Jobs and individual Task details on the dashboard. Workflow Job definitions are configuration-driven and can be prebuilt according to the Lottery's needs and then made available for production use.

The dashboard includes intervention controls for the Job and Task level – including Hold, Resume, Skip, Rerun, as well as canceling a running Task – centrally administered for any server involved with automation.

West Virginia Lottery Operations Automation

The major areas of applied Ops Automation include Managed File Transfers, Managed Workflows, and Health Monitoring.



Managed File Transfers

The Managed File Transfer automation solution includes an event-driven ability to act on files as soon as they are ready. When a file of interest is closed by its authoring application, the “close event” triggers file-transfer processing. Event-based transfers avoid the latencies incurred by time-based transfers and also adapt well in test environments where application business cycles are typically accelerated.

Managed Workflows

Many of the daily operations procedures formerly run interactively by operations staff can now be outfitted with Managed Workflow automation. This standardizes each operational flow, reducing processing time and procedural errors. Each Workflow Job consists of one or more Tasks, each reflecting a well-defined step from an Operations procedure, along with any choreographed task dependencies.

Health System Monitoring – IBM Tivoli

Ops Automation incorporates the IBM Tivoli monitoring station to centrally monitor the health of servers and applications. Tivoli is designed to show system, server, and database performance snapshots along with reporting histories for possible investigations into anomalies and performance metrics. Since including Tivoli in our solution, we have implemented it at more than 14 lottery jurisdictions across the globe. It has proven to efficiently monitor lottery production systems.

Tivoli alerts operations and second-tier support resources of potential issues or incidents based on configurable thresholds and SNMP traps that are programmed into the host products and then sent over to Tivoli to alert the staff. Tivoli includes out-of-the-box agents to gather information on vitals such as the OS, storage, CPU, temperatures, as well as SNMP event collectors to poll application health. IGT also imbeds traps in the software, which Tivoli captures and reports on critical application health.

The SNMP trap notifications are received by the Tivoli SNMP Trap listener for display and are also forwarded to configurable email distribution lists for attention and resolution.

Tivoli provides agentless monitoring and infrastructure component management. It can be configured to notify specific users when certain events are triggered, such as Disk Space Utilization and Transaction Management system status.

Other Tivoli components include a VMware Agent that communicates with the Virtual Center appliance to gather events and the health state of the Aurora Connect servers and guest VMs. All collected data, such as trend analysis, can be warehoused for historical purposes.

Aurora Connect

Aurora Connect is a highly secure, high-volume, open-standards IP network interface (i.e., the IGT front-end communications processor) that connects a multitude of sales channels, such as IGT’s proposed Altura Flex terminals, to the Aurora Transaction Engine. IGT’s Aurora Connect will comfortably support the Lottery’s network. For example, in Rhode Island, Aurora Connect supports 1,220 terminals, and in the Kentucky, 3,240 terminals.

Principal features of Aurora Connect are:

- Aurora Connect includes the Aurora Connect server(s) and Aurora Connect Admin, a web application that provides administration and management support for the Aurora Connect servers.
- Aurora Connect servers add to the flexibility and speed of the Aurora solution and decrease complexity and risk:
 - The virtual Aurora Connect servers can be horizontally scaled with no feasible limit.
 - Each Aurora Connect server is configured to be fully redundant.
- Aurora Connect also includes expansion capabilities.

The following table highlights many of the benefits of our Aurora Connect solution.

Figure 4.2.12 – 24:

Aurora Connect: Simple, Secure, and Value-Driven	
Value of IGT's Aurora Connect Solution	
Terminal Management	Aurora Connect can: <ul style="list-style-type: none"> • Report the accurate status of the terminals dynamically • Collect and report the statistics for an individual terminal or all terminals dynamically • Report the health of the terminal network • Troubleshoot terminal communication issues • Manage nearly every aspect of terminals (adding, removing, enabling/disabling, resetting, etc.), and we monitor information for each terminal (up or down, response times, etc.)
Network Management	<ul style="list-style-type: none"> • Aurora Connect is Wide Area Network (WAN)-technology-independent (i.e., can run with Cellular, VSAT, etc.)
Seamless System Enhancements	<ul style="list-style-type: none"> • Aurora Connect can be upgraded on our proposed System without the need for a major conversion. This modularity ensures long-term support on a variety of industry-leading platforms
Proven Technology	Aurora Connect is based on IGT's 20+ years of experience building real-time system interfaces for online transaction processing systems and is currently operating in more than 95 jurisdictions worldwide
Easy-to-Use	Easy-to-navigate web-based UIs are designed for maximum usability and for easier management and monitoring of POS terminals

Aurora Connect can be seen as an intermediary network device between your WAN and LAN devices. It supports and exchanges messaging services between POS clients and their designated primary Aurora Transaction Engine. We achieve this message-exchange service functionality via a customized back-end application and configuration management services screens provided by the Aurora Connect Admin UI.

In addition to transaction routing, Aurora Connect monitors and manages IP networks and POS terminals via the Aurora Connect Admin UI. It also provides failover, full redundancy of critical components and applications, and application and file download services.

In addition to connecting to a multitude of sales channels, Aurora Connect can operate with any number of physical communications technologies to meet your changing needs.

Simply stated, Aurora Connect is a future-proof and robust solution for retailer-terminal-to-central-system connectivity for the proposed Contract period and beyond.

Procedures for Developing, Providing Testing, Modifying, Upgrading, and Supporting Hardware and Software During the Contract

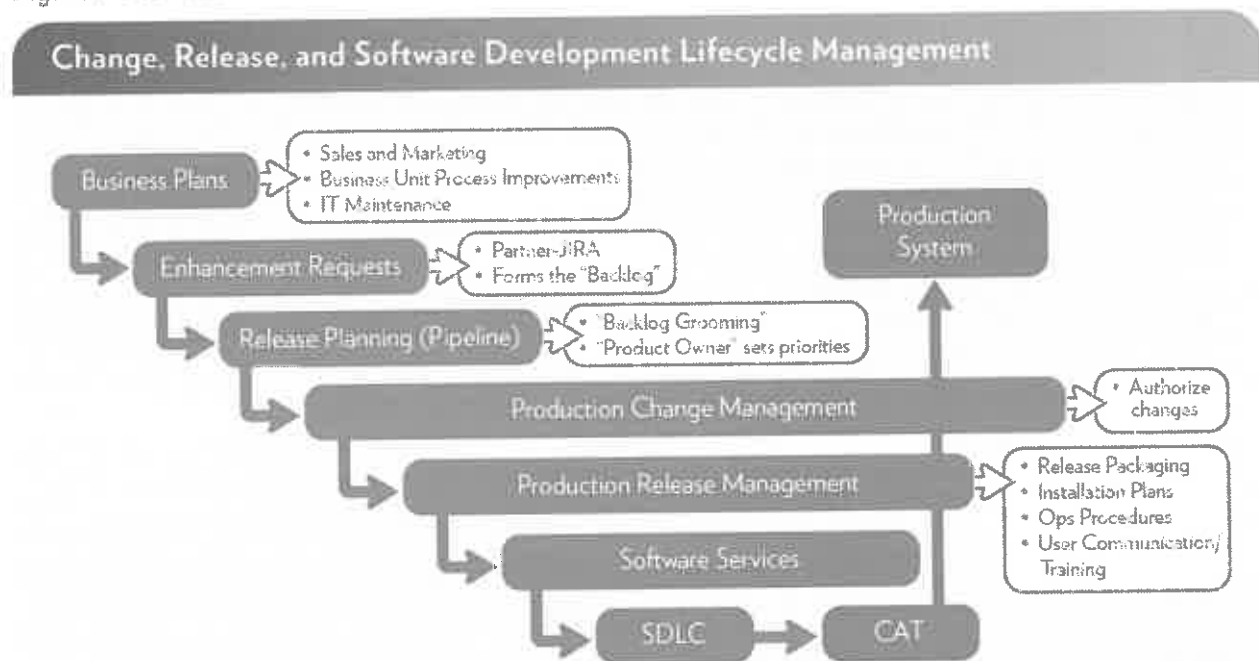
Commitment to Software Excellence

IGT is committed to providing the highest-quality service and software to the Lottery. We are best positioned to provide the capability, capacity, management tool, and procedures for partnering with you throughout the life of the next Contract.

Through 35+ years of experience, IGT's methodology has become a "tried and tested" approach. Over the years, we have incorporated certain Agile principles into our method that strengthen it, allowing us to be confident that we will deliver to the Lottery on time and with superior quality. In this modified Waterfall approach, planning and requirements development are accomplished upfront and baselined.

We recommend defining the above processes to adhere to the framework depicted in the following figure (Ongoing Operations: Pipeline Planning, Change/Release Management, and Software Services), but to not preclude the use of any specific SDLC methodology principle or practice.

Figure 4.2.12 – 25:



Please refer to the heading "Modifications of System Software or Applications" for a detailed description of our Software Development Life Cycle process.

IGT's Change Management Approach

IGT will provide strict performance according to the principles of configuration and change management for any change (hardware, network, software, documentation, technical manuals, specifications, program source and object code, etc.) to production. IGT has more than 35 years of experience with more than 70 customers around the world, specifically handling Production System Change Control and Configuration Management. We have found that the proper combination of people, processes, and tools are required to maintain System Change Control and Configuration Management for today's complex lottery and gaming systems.

To ensure our System Change Control and Configuration Management protects the integrity of our customers' systems, IGT has adopted best practices from the Information Technology Infrastructure Library (ITIL), and the ISO/International Electrotechnical Commission (IEC), specifically ISO/IEC 27001:2005. This large body of reference, combined with the strength of our people, will guarantee that your new system will be governed by disciplined change and configuration management principles.

IGT will fully test all changes to systems, network devices, and applications in a test environment following standard QA best practices. When we have satisfactorily completed testing, the Lottery will have an opportunity to test on its dedicated testing system. We will require your acceptance and approval prior to implementation into any production environment. Once deployed, all systems, production, backup, QA, etc., will receive the upgrades necessary to ensure consistency and compatibility.

IGT will provide release notes for all software changes that characterize the planned changes. The software changes will be incorporated into a completely defined release package. Release notes shall include, but not be limited to, version number, files affected, CR identifiers, and change descriptions.

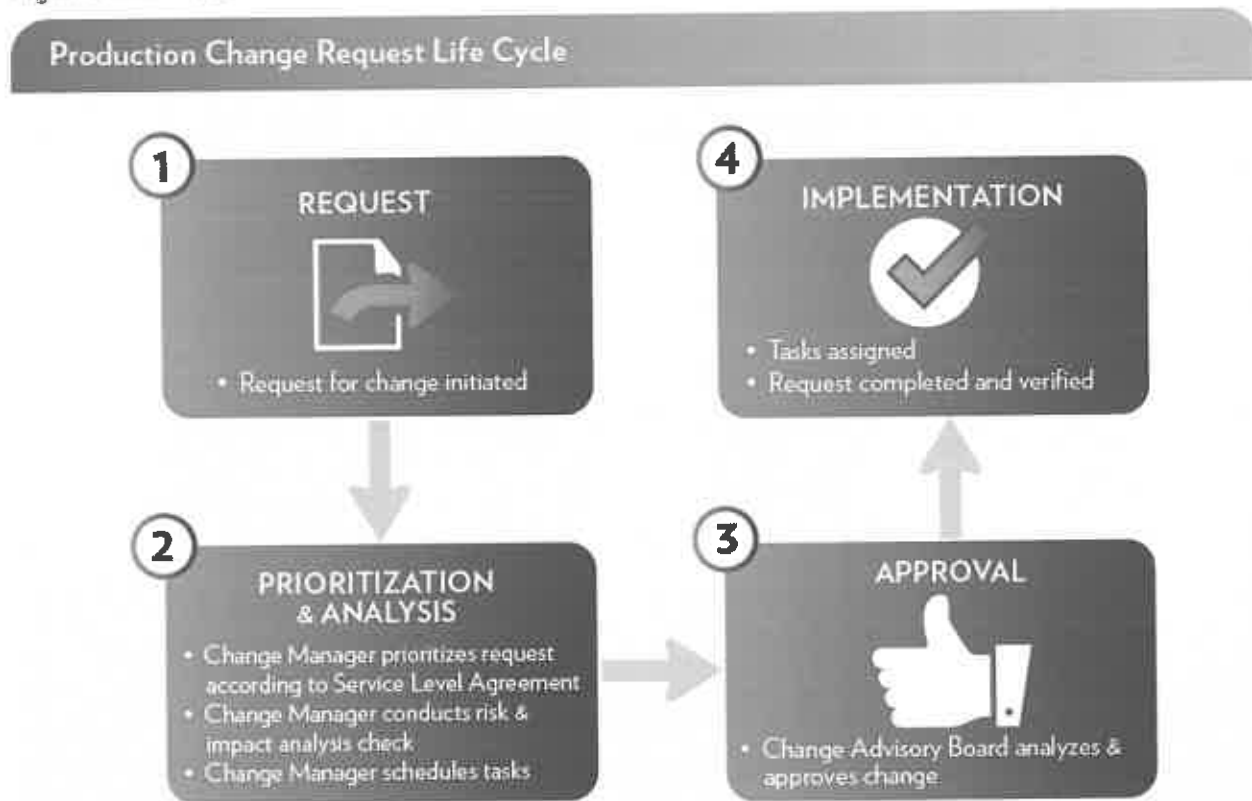
Managing Changes to the Lottery's Production Environment

Our Production Change Management approach is designed to identify, evaluate, and negate the risks inherent in moving a very technical environment forward to meet business needs. With our approach, all changes to production system software are initiated by formal request. We recommend continuing with this approach of providing you with release notes and our RFC for your approval of any change to production whether hardware or software. Once approved, the RFC will be posted to our internal Forward Schedule of Change (FSC) utility. Posting to the FSC allows us to avoid resource conflict and sequencing problems. Upon completion of the production install, all changes are subject to a post implementation review to expose areas of possible improvement.

Production Change Management Process is owned and managed by IGT's Operational Governance team within our Data Center of the Americas (DCA), located in Austin, Texas.

The following figure details IGT's integrated process of change and configuration management, which is designed to minimize risk and assure a coordinated, transparent approach.

Figure 4.2.12 – 26:



Standardized Process: Defined change control and configuration management practices speed the software elevation process and scheduled releases.

Change Management activities commence during the Release Planning and proceed in parallel with the Release Management activity, with the final validation and authorization for production installation occurring upon successful completion of the Lottery's software QA testing and Installation Dry Runs. This ensures that timely production installs will meet the Lottery's business objectives.

A Change Manager, a role that may be filled by various individuals from our Operations or Technology teams depending on the scope and type of release, is assigned to marshal the change through the CR life cycle to ensure, through procedural and system controls, that only approved changes, on an approved schedule, can be made. We will provide reports to the Lottery to review change-management activities.

All changes are recorded in the change-management system. For example:

- The scope of service and infrastructure changes is defined and documented.
- All CRs are recorded and classified (e.g., urgent, emergency, major, minor, etc.).
- CRs are assessed for their risk, impact, and business benefit.
- Changes are accompanied by an approach for reversing unsuccessful changes.
- Changes are approved, checked, and implemented in a controlled manner.
- All implemented changes are monitored and reviewed for success and post-implementation actions.

- The authorization and implementation of emergency changes are controlled consistent with the change-management policy.
- Existing, previously established implementation dates are used as the basis for change and release scheduling.
- A schedule that contains details of all the changes approved for implementation and their proposed implementation dates is maintained and communicated to relevant parties.
- Change records are regularly analyzed to detect increasing levels of changes, frequently recurring change types, and emerging trends.
- The results and conclusions drawn from analyzing change records are recorded.

Throughout the change-management process, actions for improvement will be identified, recorded, and put into a plan for improving the service.

Managing Software Changes

Software changes to your new Aurora could be at your fingertips! Currently, our local site BA processes these requests on your behalf; however, a different approach you may consider is for authorized Lottery personnel to have access to our Partner-JIRA application so that can enter and track software requests – putting you in control of requests for software enhancement. By allowing Lottery personnel to enter their requests directly into Partner-JIRA, we will capture information directly from the source so that we can efficiently assess, plan, and deliver according to the user's expectations. If the Lottery chooses this approach, we will provide added value by continuing to have our BA complete enhancement requests through Partner-JIRA after receiving the request from the Lottery.

The PMBOK and CMMI-DEV Level 3 Advantage

Implementing a successful business plan during the course of game launches, game changes, and upgrades to existing functionality (all provided with a quality-service approach) is a vital part of a lottery's continued integrity and growth. To achieve this goal, IGT pursues and achieves certification with some of the most stringent processes-and-standards groups in the world. IGT uses these processes to ensure that software enhancements to the Lottery's system, whether new games, changes, upgrades, or maintenance releases, are ready and correct long before they are deployed in a production environment.

Software change-management processes and procedures ensure that the integrity of the delivered software is maintained throughout the services project life cycle. At IGT, we recognize that Change Management is crucial to project success and a fundamental part of all project methodologies.

Please refer to the exhibit **PMBOK Model for Quality Management**, which is located behind the Exhibits tab.

IGT's Release Management Process

Release management (the process of planning, building, testing, and deploying hardware and software) includes version control and software storage. We designed our release management process to minimize the number of incidents caused by changes in production environments by:

- Planning the rollout of software.
- Designing and implementing procedures for the distribution and installation of changes to the IT systems.
- Effectively communicating and managing expectations during the planning and rollout of new releases.
- Controlling the distribution and installation of changes to the IT systems.

Strong Configuration and Release Management

Our software-services approach requires equally strong configuration and release-management practices, especially when multiple code-lines are required for concurrent and parallel efforts to achieve long-term and short-term business objectives.

Strong configuration and release management starts with having our people trained and experienced to handle even the most dynamic situation. We draw on our many years of CMMI experience to ensure our people have the processes in place for configuration and release management in order to handle these highly complex delivery environments. Because this aspect of our service is so critical, we have regular compliance checks and audits to safeguard the code that drives your business. We further back our people by providing them with the tools identified in the following table.

Figure 4.2.12 – 37:

Tools Used for Software Development	
Tool	Purpose
Dynamic Object-Oriented Requirements System (DOORS®)	A requirements management application for optimizing requirements communication, collaboration, and verification
JIRA™ (includes Partner-JIRA)	An issue-tracking and workflow tool from Atlassian. Along with the “out-of-the-box” built-in issue and work flow, IGT has developed its own custom workflows for enhancements and software requirements. JIRA also supports plug-in tools to facilitate Agile Project Management, e.g., Greenhopper™ (an Agile project management tool used for software development)
Quality Center™	QM software offered by the HP Software Division of Hewlett-Packard with many capabilities acquired from the acquisition of the Mercury Interactive Corporation

Tool	Purpose
Multi-Point Integrator	An IGT-developed tool that automates the integration of requirement artifacts from DOORS to JIRA to Quality Center. For example, content or status changes of requirements are automatically displayed in JIRA and Quality Center; development status, release, and test considerations are automatically pushed to Quality Center, thereby giving us a fully integrated suite of best-in-class tools for managing the software-development life cycle. The Multi-Point Integrator also includes a data warehouse component that pulls all of the data from the three tools to support reporting on different levels, e.g., high-level project status, burn-down and burn-up charts, defect find/fix/close rates, team productivity, etc.
Subversion	An open source version-control system founded in 2000 by CollabNet, Inc. Provides true atomic operations; maintains versioning for directories, renames, and file metadata; users can move and/or copy entire directory-trees very quickly while retaining full revision history
GIT	Repository and repository management for source code as well as all build/deploy rules
Red Hat Network Satellite (RHNS)	RHNS keeps server profiles by using standardized software channels. All packages including applications will be distributed using RHNS
RHNS - NEXUS PRO	Nexus is used to keep all artifacts required by maven (scripting tool) to build applications
PUPPET	PUPPET is used for automated operating system configuration, middleware delivery and configuration, and software installation
JENKINS	JENKINS is used as an orchestrator to trigger all builds and installations
VAGRANT	VAGRANT is used to distribute Virtual Machine images to developer boxes to support local builds and deployment before code is submitted into the code repository

IGT will also maintain the third-party hardware and software elements of Aurora with “supported releases” from the manufacturers. This includes, but is not limited to, software for networks and devices, configurations, reporting software, management systems, data warehouse systems, business intelligence, and hardware diagnostics and other tools.

Software Engineering Practices

The Vendor response should also include sufficient detail to demonstrate its software engineering practices, hardware production practices, and any other recognized quality practice standards relating to hardware and software development and support.

Solution Quality: System-Engineering Approach

IGT’s approach to technical deliveries stems from a system-engineering perspective and commences with the documentation of an Execution Strategy. This document outlines the proposed execution strategy for the project. The document addresses the execution in terms of:

- **Technology Scope and Architecture:** Sets the base for planning, solution quality management, and technical leadership.
- **Key Dependencies:** Which project dependencies present the most risk to project execution?
- **Risk Management:** Given scope, design challenges, and key dependencies, what are the major risks to manage?
- **Solution Quality Summary:** Lays the foundation for the project quality-management plan.

- **Design Considerations:** What aspects of the job require special attention with regard to design?
- **Technical Project Planning:** Provides guidance to team leaders regarding assumptions, planning, and status tracking.
- **Technical Leadership Structure:** Given the information contained herein, how should the technical leadership team be structured?

Because lottery clients are different, so too are the systems deployed to support their businesses. Consequently, projects differ, and we consider these differences uniquely for each client. The framework is consistent, but the details vary. The Execution Strategy ensures the Software Development Life Cycle (SDLC) team is synchronized to the priorities and objectives of the project so that each technical discipline within the SDLC can develop and execute its discipline-specific plans.

IGT Technology Professionals

Many professionals on our software team are leaders in the field, with formal training at respected colleges and universities and industry certifications through organizations such as Project Management Professionals (PMP) and Scrum Alliance as well as industry leaders such as Microsoft, Sun, and IBM.

In our quest to be the leading technology provider in the lottery industry, we constantly assess our skills and capabilities to provide up-to-date, cutting-edge methodologies for delivering software.

Our technology hubs – distributed across the globe – are staffed by professionals who have the skills, training, and certifications to meet the challenge of constantly evolving lottery technologies. The following figure details the scope of our technological support.

Figure 4.2.12 – 28:

Technology on a Global Scale	
Skill Levels	Our experienced product management and technology professionals have worked in every type of lottery environment, from high-volume U.S. lotteries to international jurisdictions that support interactive gaming via mobile devices and the Internet. As an organization, IGT is certified in a number of industry standards for software delivery and quality. The principles embodied in these standards form the basis for the policies, processes, and practices that we use on a daily basis to fulfill our obligations as the lottery industry's leading technology Vendor
Headcounts	More than 3,400 IGT technology professionals worldwide
Locations	IGT's newly centralized, one-million-square foot manufacturing facility is in Reno, Nevada. We also have technology personnel at various locations throughout the world, including technology hubs in West Greenwich, Rhode Island; Austin, Texas; Moncton, Canada; Rome, Italy; Warsaw, Poland; Barcelona, Spain; Chennai and Hyderabad, India
Certifications	We have practitioners certified in Six Sigma, Project Management Institute (PMI), ScrumMaster and Product Owner from Scrum Alliance, the International Consortium of Agile Certified Professionals (ICP), and ITIL Practitioner, Sun Certified JAVA Programmer and Web Component Developer, International Software Testing Qualifications Board – Foundation level and Certified Software Tester (CSTE), and ESI International Business Analysis Certification from George Washington University

Certifications – Setting the Standard

IGT is certified in all pertinent industry standards for software delivery and quality. That enables us to meet the Lottery's requirements using the principles embodied in these standards – the policies, processes, and practices that make us the lottery industry's leading technology Vendor.

NASPL Certification

The NASPL Standards Initiative (NSI) is a collaborative effort with participation from lotteries, retailers, and lottery suppliers. These stakeholders work together to develop standards, best practices, and certification programs that benefit the lottery industry.

IGT has achieved certification in the two areas of QA best practices applicable to Vendors – Requirements Definition and Development Process – from the NSI Certification Program operated by the Open Group. These certifications confirm that IGT meets NASPL's documented conformance requirements for those best practices or technical standards.

IGT is an active member and leader within NSI and will continue to enthusiastically support the program. Our participation in and commitment to projects involving NASPL retailers and the Standards Group of the Petroleum Convenience Alliance for Technical Standards (PCATS) will provide support for the Lottery's own efforts in this area.

In regards to Lottery Acceptance Testing, we adhere to the lottery industry's best practices as described in the NSI Best Practice for Quality Assurance of Product Development in the lottery industry – specifically, the NSI Acceptance Testing Best Practice. This best practice provides a set of processes and procedures that addresses QA requirements throughout the hardware and software production cycle, from requirements specification through design, implementation, and testing to acceptance and deployment.

NSI has defined the scope of this best practice generally enough for many software and hardware production environments while addressing several QA aspects that are specific to the lottery industry. It consists of:

- **Requirements Definition:** The requirements for the system or system components must be defined, documented, agreed upon, and approved by both the service providers and the customer. IGT will work with the Lottery to follow this process in order specify the correct information and reach all necessary agreements.
- **Development Process:** IGT uses a development process that covers design, implementation, testing, problem tracking and resolution, change control management, and release and installation. The process incorporates documentation and approval phases.
- **Customer Acceptance Testing (CAT):** IGT follows a defined acceptance testing process and plan that is typically agreed upon during requirements definition and carried out in a controlled environment during CAT.

NSI's suggested method for creating an Acceptance Test Plan includes:

- **Analyzing** the product to be tested (in this case the system conversion), including performing a risk analysis.
- **Determining** a testing strategy.
- **Identifying** entry, suspension, resumption, and acceptance criteria.

Industry Certifications

The following list further highlights our extensive certifications.

- **Capability Maturity Model Integration (CMMI):** For life cycle software services.
- **Project Management Body of Knowledge (PMBOK):** For Project Quality Management.
- **International Organization for Standardization (ISO) 9001 and 9126 Fundamentals:** For Quality Planning, Assurance, and Control processes and procedures.
- **ISO/IEC 27001:2013:** Comprises information security standards published jointly by the ISO and IEC. Specifies requirements for establishing, implementing, operating, monitoring, reviewing, maintaining, and improving a documented Information Security Management System (ISMS) within the context of the organization's overall business risks.
- **World Lottery Association (WLA) Security Control Standard: 2012 (SCS: 2012):** For information security practices within the framework of the lottery industry. WLA's comprehensive certification is more rigorous than our ISO certification for Information Security Management. It extends beyond the scope of ISO 27001.

Modifications of System Software or Applications

Modifications of System Software or Applications: The Vendor's response should describe how it proposes to manage implementation of new applications, modify software or System programs, and identify updates to install that includes how Vendor plans to assess Lottery requests to recommend which should be actionable and the appropriate priority.

It is essential that IGT implement an industry-standard life cycle methodology that clearly addresses the Lottery's specific business requirements. Your business plan – game launches, game changes, upgrades to existing functionality, top-quality service – is a vital part of your continued public service and responsible growth. That is why our life cycle methodologies are designed from the business users' experience. This approach gives all parties valuable feedback to be used as a project moves forward and ensures that we stay focused on assessing the quality and status of enhancements to your new system from your end business users' perspective.

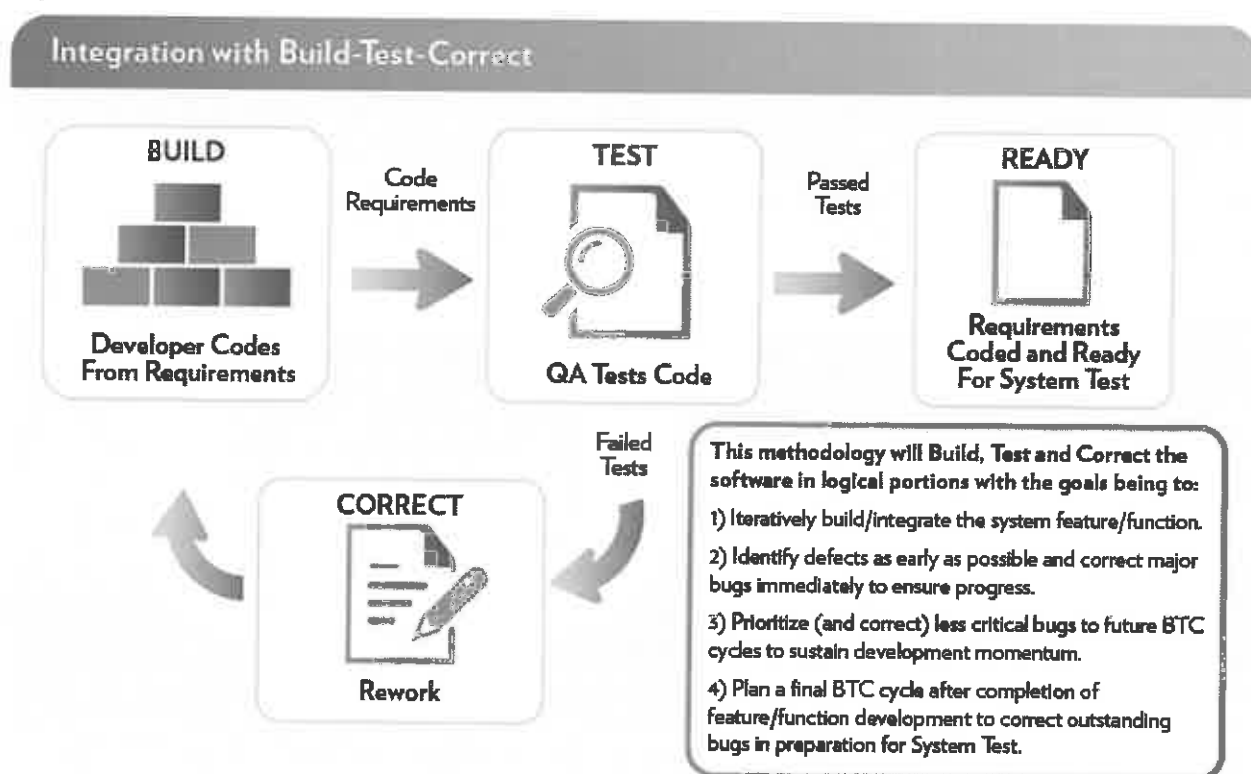
IGT has the capacity and capability to provide quality system software and support and look forward to helping you reach your goals in ways that strengthen your good name.

Software Development Life Cycle (SDLC)

IGT's approach to software and quality engineering is based on our SDLC approach, which incorporates requirements, systems engineering and architecture, and software development, design, and quality from the Integrated Delivery Model (IDM) framework for repeatable success.

One of the critical components of the SDLC, as it relates to software development and quality engineering, is our Build-Test-Correct (BTC) methodology. BTC is an iterative approach to creating software in cycles. It allows us to measure progress across the planned software development schedule and verify it against the approved business requirements to correct defects as early in development as possible. As a best practices approach, we typically configure and enhance the more complex areas of the system in the earlier BTCs. The next figure depicts the iterative BTC software development process.

Figure 4.2.12 – 29:



Integration and Testing: BTC is an approach to creating software that's designed to ensure we meet your requirements and eliminate defects as quickly as possible.

For maintenance and enhancement of software, we recommend that the IGT software services development process begins by documenting external and internal business requirement requests through Partner-JIRA. Partner-JIRA is the tool used to submit and manage an upgrade or enhancement request. As mentioned earlier, it can also be provided to authorize Lottery personnel to engage in this process themselves if the Lottery wishes to take that approach.



To ensure a common understanding of the request by the local IGT team and the Lottery, the following activities take place for each software request submitted prior to planning releases and beginning any software modification:

- Each request is logged and tracked electronically from submission to completion.
- An impact/risk analysis is conducted to evaluate the scope and implications of the proposed change.
- Acceptance criteria is captured to aid in the understanding of the request.
- Alternative solutions are considered, a final recommendation is made, and the priority level is assigned in conjunction with the Lottery.

Prior to an upgrade or enhancement being planned to a release and implementation starting, we require approval from the Lottery. We will implement our approach for planning, developing, and releasing software according to your priorities. Our primary goal is to provide you with ongoing delivery of useful software.

Software requests – including all required data exports and any new reports and modifications to existing reports – form the “pipeline” of the software services that we deliver. One of the improvements that the Partner-JIRA tool offers is the ability to capture vital information along with the software request. Information obtained directly from your business users, e.g., in the form of User Stories (i.e., descriptive narratives, in the business language of users, that captures what users do or need to do as part of their job) accelerates the delivery process. Capturing acceptance criteria right up front from the business user also aids the team in delivering high-quality software. This approach often eliminates the need for additional requirements documentation if the User Story is sufficiently clear and the acceptance criteria is unambiguous to the user as well as the team.

The Partner-JIRA tool also allows us to collaborate with you to prioritize the pipeline to deliver software services that meet your business priorities. We call these prioritization sessions Release Planning. During Release Planning, we work with you to lock down the enhancements in the upcoming software batch release and tentatively schedule those enhancements that will be included in subsequent releases.

Release Planning

At any time, the Lottery and IGT can view the backlog and the status of all items in the backlog through the Partner-JIRA’s real-time window. To ensure the backlog is always up to date, continual Lottery involvement and collaboration among all team members is essential.

Checkpoints are established throughout the process. Checkpoints help determine if an enhancement is sufficiently described within the User Story or, alternatively, if additional work is required to break down the enhancement further. Additional work may involve specification workshops with business users, prototypes, and/or high-level designs. The goal of the additional work is to have a clear understanding of the request so that we can properly assess the impact to your system and deliver to your satisfaction. Taking this just-in-time approach to documentation eliminates the waste of unnecessary documentation.

Identifying Updates to Install

The following describes how IGT plans to assess Lottery requests to recommend which should be actionable and the appropriate priority.

IGT's Patch Management Team (PMT), working closely with the local Operations team, has the overall responsibility of monitoring vulnerability databases for predefined software profiles or identifying needed patches and updates using automatic or manual scanning tools.

An initial assessment is performed by the PMT and reported to the Information Security (InfoSec) Group on a weekly basis, or as quickly as possible if a new vulnerability has been initially assessed as critical.

Once Lottery-approved, the PMT only downloads software patches, fixes, and updates from trusted and recognized sources approved by the InfoSec Group. All patch software that comes with a digital signature must have its digital signature positively verified prior to being installed.

During this phase, the PMT performs a thorough analysis with the collaboration of the InfoSec Group. The result of this analysis provides enough information to assign a level of criticality and urgency in the deployment of a patch.

Patches are assigned the following levels of criticality:

- **Critical:** The exploitation of this type of vulnerability may lead to the data breach or compromise of a critical network or system component and/or a script is available in the public domain to exploit the vulnerability.
- **Moderate:** The exploitation of this type of vulnerability may lead to the compromise of a noncritical component when an exploit is available in the public domain or the compromise of a critical component only when combined with vulnerability and no script is available in the public domain.
- **Low:** The exploitation of this type of vulnerability may lead to the compromise of a noncritical component and no script is available in the public domain.

The criticality level also takes into account the criticality level assigned by the provider or vulnerability database, the value of the data stored on the asset, as well as the business impact if such vulnerability is exploited.

The urgency of deployment takes into account the following criteria:

- The system component is a desktop/workstation or server.
- The network or system component is part of the intranet or extranet.
- The network or system component is facing a public or (semi-) private network.
- The network or system component is used for production operations. When a patch or update is deemed necessary for deployment, the PMT opens a Global Request for Software Services (RFSS).

Deployment

The deployment of a patch, fix, or update depends on its criticality as well as its urgency. Before deploying a patch, fix, or update on a network or system component, the PMT uses the production change-management process and ensures the following:

- It knows how to undo the change (back out or contingency plan).
- It communicates the requirement that a backup has been tested and is available before patching.
- Each component has documentation, including a list of applications running on it and a patch history.
- The patch, fix, or update has been approved and acknowledged in the change control process, including customer approvals as necessary.
- All patches, fixes, or updates will be tested on the test system before applying to the production environment whenever possible.

The Vendor should provide configuration block diagrams down to the component level for System hardware. Each hardware component's manufacturer and model number should be identified. Each third-party software component's supplier should be identified and the release numbers should be provided or it will be assumed that it is the latest release at the time of conversion. Deviations from standard hardware and software products are to be disclosed and an explanation provided by the Vendor.

Configuration Block Diagram

Please refer to the Exhibit entitled **Configuration Block Diagram**, which is located behind the Exhibits tab.

4.2.25

System Performance

Vendor should describe its response time for the transactions described below. Faster response times are desirable. Additional information should be provided in Vendor's proposal detailing its plan for satisfying these times and the process required to perform each transaction in compliance with the specifications of this RFP.

Our response times for transactions are detailed below. All transaction times are *equal to or better than* those listed in the requirement.

Each single play [single panel] ticket should be produced in no more than four seconds from completion of data entry.

Single-Play Ticket Transaction Time



EXCEEDS

We will exceed this RFP requirement. The new system will produce single-play tickets with an individual transaction time in less than three (3) seconds from completion of data entry to the availability of the ticket for the retailer. We will be pleased to show you this functionality during the benchmark.

The terminal incorporates diagnostic software that can be enabled to support accurate measurement of send-to-cut times within the terminal. We will be happy to demonstrate with a stopwatch in conjunction with the more accurate, internal-timing feature.

Variable length, multiple wager [up to 10 panels] tickets are to be produced in no more than six seconds after completion of data entry.

Multiple-Wager Tickets Transaction Time

We will exceed this requirement by taking less than five (5) seconds of transaction time from the completion of data entry to the availability of the ticket for the retailer for variable length or multi-wager tickets. We will be pleased to demonstrate this functionality during the benchmark.

All other transactions (e.g. instant pack authorizations, winning ticket validations, cancels and brief on-line and instant ticket reports, etc.) are to be designed so that they are produced within six seconds after completion of data entry. Please describe response times for transactions required for System operations described in this RFP and the processes Vendor plans to implement for completion of each task.

All Other Transaction Times

The upgraded system will produce all other transaction types and reports that include instant pack transactions, winning ticket validations, cancels, and brief draw and instant ticket reports in less than five (5) seconds after completion of data entry ("Send" is pressed) to availability of the ticket or report to the retailer, exceeding the requirement. We will be pleased to show you this functionality during the benchmark.

IGT understands and acknowledges that the stated response time specifications are considered met and will be considered satisfied under the Contract if greater than 99.9% percent of the transactions of particular types comply with the specifications. We further understand and acknowledge that if System Performance standards are not met, then the applicable liquidated damages may apply.

4.2.26 Privileged Validation Hardware and Software

The Vendor should describe how the validation activities will occur at Lottery offices and the System processes required for compliance with RFP specifications. Vendor should deliver six privileged validation stations and install each separately at Lottery approved locations. The Vendor should provide and install one terminal capable of report functions but not capable of validation or ticket sales at Lottery headquarters.

Privileged validation functions may be performed on validation terminals similar to retailer terminals or by software on authorized Lottery management workstations (PCs provided by the Lottery).

IGT will deliver six privileged validation stations and install each separately at Lottery-approved locations. We will provide and install one terminal capable of report functions but not capable of validation or ticket sales at Lottery headquarters.

Privileged validation functions will be performed on validation terminals similar to retailer terminals or by software on authorized Lottery management workstations (PCs provided by the Lottery).

IGT proposes Aurora Claims and Payment for claims processing at all of your claim centers. Your end users will access CAP via the PC in the claim center.

Aurora Claims and Payments (CAP)

Aurora CAP is the integrated back-office solution for managing players' claims, payments, and annuities; writing checks; and reporting payment information for winning tickets for draw-based and instant ticket scratch-off games. It presents a single view of players' CAP history, including their associated claims, payments, and annuities. Aurora CAP validates winning tickets, processes claims, and generates payments for winning draw-based and instant ticket scratch-off games. It also supports paying other State agencies for debt withholdings. Only authorized financial personnel have access to perform sensitive procedures; strict security standards are always followed.

Managing Claims

Aurora CAP supports the management of a claim throughout its life: creation, approval, and payment. Claimant or payee information is stored separately from claim information, allowing authorized users to search for a claimant's information while processing a claim and viewing previous claims made by that claimant. The user can also add new or modify existing claimants.

Regular claims are supported for valid winning tickets that have not been validated previously. Exception claims are supported for tickets that have already been validated in the system or tickets that have problems, such as white-out or signature mismatch. Aurora can build ticket results for tickets that do not return valid results on an exception claim.



Cash prizes are paid through a check or an Electronic Funds Transfer (EFT) transaction. Depending on the prize winnings, Aurora may generate one or more claim payments per claimant. In general, Aurora generates one payment for all cash winnings of a claimant. Similarly, it generates one payment for all non-cash winnings.

When processing a winning ticket for payment, Aurora CAP calculates and withholds the appropriate federal and state taxes, debt setoffs, and other designated amounts. It captures and prints claimant information required for IRS reporting. It performs a real-time inquiry to the Aurora Transaction Engine and is configured with local, state, and federal tax percentages to accommodate automatic tax withholding based on configurable prize thresholds and withholding limits. It also records the winner's name, address, and related information for reporting of prizes over the reporting threshold.

Claimant data is retained in Aurora for occasions when a player wins additional large prizes in the future. The process is faster since the person's player record is already in the system.

4.2.26.1 Check Writers

The Vendor should supply, install, and maintain up to six check writers and all check writing software. Check writer software is integrated with the System and provides validation and check writing applications at Lottery offices. EFT transactions are to be transferred to the winner's bank account and payment transaction recorded in the System.

IGT will supply, install, and maintain six check writers and all check-writing software. Check writer software will be integrated with the system and provide validation and check-writing applications at Lottery offices.

EFT Transfers

Electronic Funds Transfer (EFT) transactions will be transferred to the winner's bank account and recorded in the System. Aurora can create two types of claim payments: cash prize and merchandise (non-cash prize). Cash prizes are paid through either a check or an EFT transaction. Depending on the prize winnings, Aurora can generate one or more claim payments per claimant. In general, however, Aurora generates one payment for all cash winnings of a claimant.

4.2.26.2

Check Writing/EFT Prize Payment Accounting and Reporting

Vendor's proposal should describe its solution for check writer and prize payment tasks related to accounting and reporting. The Vendor should describe how its proposed Solution performs the following tasks as well as how its solution satisfies the following specifications:

- *Voids and reissues checks when required and update the correction in all proper accounting channels, including check registry and reports;*
 - *Allows for interim daily reporting of check printing at each location, organized by each user generating checks;*
 - *Provides preliminary detail reports for verification before interface to the Lottery's financial accounting system;*
 - *Provides various sales and management reports related to winning numbers, instant tickets and other gaming activity;*
 - *Provides a listing Of outstanding checks with any exceptions noted by the processing of a cleared check tape supplied by the Lottery's bank; and*
 - *Provides and produce IRS 1099 information for the current and preceding five years.*
-

IGT's Aurora system will support the check-writing functions of the Lottery. Check generation will be strictly controlled and limited to authorized Lottery personnel. In addition to the high level of security related to applications and user authorization, the Aurora CAP functionality allows for management terminals that originate check-generation requests to pass additional security verifications based on separate identification protocols.

The Aurora CAP application leverages the draw-based style of products and the instant ticket scratch-off game products for ticket validations and integrates with the rest of the Aurora suite of gaming System applications. Only authorized financial personnel may have access to Aurora CAP to perform sensitive procedures; strict security standards are always followed. Appropriate user permissions for Aurora CAP can be defined by the Lottery.

In processing a winning ticket for payment, Aurora CAP will calculate and withhold federal and state taxes and other designated amounts, as defined by the Lottery. Aurora CAP captures and prints claimant information required for IRS reporting (i.e., W2Gs). This process includes appropriate documents for each winner of a combined prize of \$600 and greater. Documents will be stored electronically and accessible by the Lottery for reprint on demand.

Aurora is configured with local, state, and federal tax percentages to accommodate automatic tax withholding based on configurable prize thresholds and withholding limits. In addition, the prize payment functionality can check Social Security Numbers to determine if they match any of those in a file provided by the Lottery or any other agency identified by the Lottery. If payments are in arrears, the prize payment (or part of it) can be held. For example, Lottery winnings can be intercepted and used to pay past-due child support debts if a parent wins \$500 or more from the Lottery. We will work with the Lottery to support this and other similar collection activities.



Voids and Reissues Checks

Aurora voids and reissues checks when required and updates the correction in all proper accounting channels, including check registry and reports. In addition, in an effort to minimize fraud, the System verifies banking transactions via regularly scheduled and ad hoc reports on payment activities such as EFTs and issued checks.

Please note that the majority of voided and reissued checks within the validations department are due to address changes or lost checks. The proposed Aurora solution will update the player record with any address changes during a void and reissue. This will include updating the W-2G and 1099 records, thereby ensuring the Lottery that its players receive the correct tax forms in a timely fashion.

Age Verification

IGT takes preventing underage gambling seriously. As discussed in Section 4.4.2.1, Optical Reader, we can enable the Flex terminal (including those assigned to the Lottery for administrative functions) through our 2D image barcode reader to verify customer age and ID. The barcode reader(s) uses an advanced 2D imager that can read today's as well as future barcodes. West Virginia driver's licenses contain PDF417 barcodes, which are standard barcodes read by all IGT 2D readers. The algorithm designed to do this only looks at the person's age – it does not store or capture any other personal information ensuring data privacy is maintained. Once the license is scanned, the terminal displays a message with the age of the customer.

Interim Daily Reporting

CAP allows interim daily reporting of check printing at each location, organized by each user generating checks. Reports related to claims, claimants, prizes paid, taxes withheld, form type, and other gaming activities are available. We will work with you to define and execute which specific sales and management reports are available. If desired, CAP generates a bank interface file so that your bank can be updated throughout the day with check-writing activity.

Preliminary Detail Reports

The system will provide preliminary detail reports for verification before interface to the Lottery's financial accounting system. Any data that is captured into Aurora CAP can be extracted into interface files, including the following:

- Payment type and amount.
- Check number, date, and amount.
- Withholding amount.
- Tax ID information.
- Player information.

IGT produces these interfaces for many of its customers and a variety of financial accounting systems. We will work with you to ensure our interface file meets the requirements of your specific accounting system and further define how you will use this solution.

Sales and Management Reports

Aurora will provide various sales and management reports related to winning numbers, instant ticket scratch-off games and other gaming activities. Reports related to claims, claimants, prizes paid, taxes withheld, form type and other gaming activities are available. We will work with the Lottery to define and execute which specific sales and management reports will be available.

For additional reporting information please refer to Section 4.3, Reports and Interfaces.

Outstanding Checks

The system will provide a listing of outstanding checks with any exceptions noted by the processing of a cleared check tape supplied by the Lottery's bank.

1099 Information

Aurora Navigator Back-Office will provide all of the functionality, including files and forms that the Lottery needs for state and federal tax reporting purposes. IGT's Aurora accounting application collects financial data on an ongoing basis.

On a quarterly schedule, IGT runs a process to create and transfer the retailer financial interface file to the tax system. The following transaction types are collected:

- Commissions.
- Tax-only Adjustments.

For the 1099 process, the new system will provide and produce IRS 1099 information for the current and preceding five years.

4.2.27

Draw Game Software Security and Control Features

Vendor should propose solutions for the following security and control features and describe how it will satisfy the Lottery's specification. Any additional functionalities or enhancements should be included and noted.

All game processing activities and transactions are securely logged immediately across multiple disks – the Master Journal File (MJF) and then the Backup Journal File (BJF) as well as the games' Product Transaction Master (PTM) – on each Aurora Transaction Engine operating in the central-system configuration.

As noted in Section 4.2.17, System Logging, each MJF contains a real-time, time-stamped (to the nearest hundredth of a second) sequence of all System transactions. These include sales, rejects, cancels, payouts, validations, validation attempts, other play-related transactions, any other retailer terminal commands, application error conditions, and any commands issued from the game-management applications.

All transactions are also sent to the connected ICS in near real time. In addition to these redundancy mechanisms, all job-console entries, error conditions, and major system-level events are logged in the standard system log.



Control Features

As noted in Section 4.2.15.1, Management Application Features and Capabilities, Aurora Navigator, the User Interface (UI) to the back-office applications, will provide an authorized user access to controlling a retailer's ability to perform gaming functions.

For example, it will:

- Set up a retailer's privilege to control games and their associated liabilities.
- Monitor and manage System activity related to games, transaction processing, draw processing, and terminal administration.

Aurora Navigator includes a comprehensive set of gaming data and management screens that are available on demand in real time.

Aurora Navigator:

- Provides a range of features and capabilities to balance and reconcile draw-based games; it also provides audit trails and reporting capabilities.
- Allows authorized users to shut off and resume sales and validations for each game (including draw-based games), independently, in real time, for the entire network. Authorized users can also suspend other functions, such as cancellations, for each game independently.
- Provides the ability to suspend functions at the clerk, retailer, and terminal levels. For example, a function could be suspended for one clerk while other users of that same terminal continue to use that function. This feature provides retailers with the type of management flexibility they are looking for.

Additional Functionalities – Operations Menu Environment

The IGT solution to operational security on the IBM systems is the operations menu environment, which is a collection of character cell-based menus and Operating System (OS) scripts. The menus provide all of the functionality required by Operations staff. An individual's access to the various menu options is provided through configurable parameters in Aurora. Aurora User Security allows individual user accounts to be created for all users who require system access. Users are granted different levels of access based on their roles and group memberships.

IGT's N-plexing Advantage

For the highest level of integrity and maximum availability, our Aurora Transaction Engines employ our unique N-plexing technology. N-plexing is a method of managing multiple transaction-processing systems and achieving a high-volume, fault-tolerant lottery System that is capable of processing hundreds of thousands of transactions per minute in a completely secure manner. N-plexing ensures that Aurora is always available to players and transaction-data integrity and security are maintained. In our N-plexed central-system configuration, when switchover is required from the primary to the secondary central System (i.e., the Aurora Transaction Engine), it is automatic and in real time, and Aurora remains fully functional. No operator intervention is necessary.

4.2.28

Dynamic Pools

Vendor must maintain dynamic pools for current draw and dollar summaries for all plays for all future draws on sale. The Vendor must also maintain dynamic pools for current draw and future draws for the numbers-type games. The total dollars played by game by play type must be maintained for future draws. The current day's pool must include all current day's sales as well as advance day sales for that draw. Vendor should provide a pool file with 100% integrity that can be used to determine the official number of winners.

For all matrix-type games, IGT will maintain dynamic pools for the current draw and dollar summaries for all plays for all future draws on sale. We will also maintain dynamic pools for current and future draws for numbers-type games as well as the total dollars played by game and by play type for all future and past draws. The current draw pools will include all current and advance day sales for that draw. Aurora uses a winner count process that runs immediately after the winning numbers have been entered into the System. This process reads and examines each wager placed for the draw, identifying its winning status. From this process, we can provide an official number of winners with 100% integrity.

4.2.29

Concurrent Draws

The Vendor should propose a method of conducting computerized draws for all games addressing the issue of concurrent draws (i.e. Travel Keno and other draw games simultaneously or nearly the same time). The Vendor must provide automated and physically secured RNG software to select game drawing numbers. Should the Lottery offer additional games that require RNG equipment or programs for drawings, the Vendor is responsible for providing such items.

IGT fully supports the functionality detailed in this requirement, we also understand that, should the Lottery offer additional games that require Random Number Generator (RNG) equipment or programs for drawings, we will provide such items. Our solution is described below.



Aurora FlexDraw

Aurora FlexDraw is IGT's automated RNG and physically secured RNG software solution for all Lottery draw-based or monitor games, including lotto, keno, raffles, and numbers.

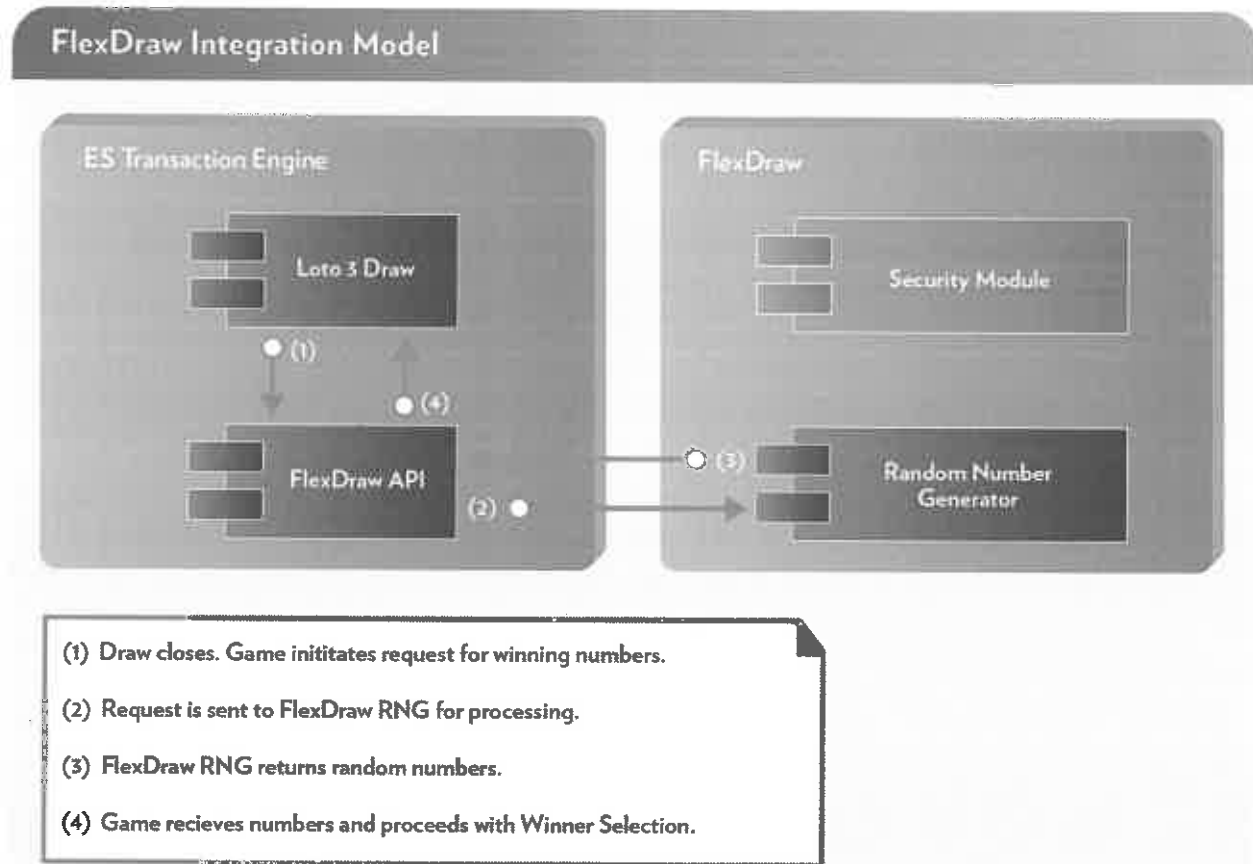
FlexDraw can accommodate a broad range of games with a variety of matrices. Each time a set of winning numbers is needed for a particular game, the central System will send a request to FlexDraw to generate a random set of winning numbers. These requests can be sent at any time throughout the day. There are no limitations on the number of games or daily drawings. FlexDraw is able to support drawings occurring at the same time. This true random proprietary solution will support game matrices today and into the future.

Full System Integration

Aurora FlexDraw is completely integrated with the central gaming System, a design that ensures smooth functionality between the games and the RNG. Once wagers are closed and the RNG has picked the winning numbers, the central gaming System performs the winner selection based on the values it received from the RNG.

The following figure illustrates the system integration of Aurora FlexDraw. Additional information regarding Aurora FlexDraw is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclosure Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant harm to IGT and its stakeholders.

Figure 4.2.2.6 – 1:



As shown in the preceding figure, Aurora FlexDraw exposes a proprietary and secured Application Programming Interface (API) that is used by the central System to request the winning numbers according to a set of parameters that are part of the call. The call and the response are registered in one of the System logs created for audit purposes.

This process can be fully automated or require a human confirmation to initiate the draw, depending on business requirements. For example, a Keno game would be completely automated without any human intervention.

Although FlexDraw is integrated with the central System, it is actually completely game independent. It responds to each request for a set of random numbers, in a format appropriate to the request. Thus, FlexDraw is very flexible and can support additional games when needed.

An Auditable, Certifiable Solution

The winning numbers Aurora FlexDraw generates are auditable. Technical Systems Testing (TST), a third-party testing facility, has independently certified Aurora FlexDraw for randomness. In addition, TST and FishNet Security, another third-party security solutions provider, have audited Aurora FlexDraw for system hardening, which helps minimize security vulnerabilities.



The Aurora FlexDraw product release has been certified for true randomness by Gaming Laboratories International (GLI) and can be certified specifically for the Lottery by GLI or other qualified test service providers.

FlexDraw Advantage

Benefits of Aurora FlexDraw include:

- **Complete System Integration:** FlexDraw fully integrates with the central gaming System to ensure seamless operation between the games and the RNG.
- **Full Auditability:** Generated winning numbers are auditable to ensure correct and fair operation.
- **Solid Security:** FlexDraw protects generated random numbers, restricts logical access to the console, and logs user input. The solution also can be employed in a fault-tolerant, redundant configuration.
- **Cost-Effectiveness and Flexibility:** FlexDraw is designed for long-term deployment lasting the length of the contract. It requires minimal support and no software development to support new game matrices. Flexibility is achieved by the “game-agnostic” design of the FlexDraw RNG algorithm itself and the modern API provided by FlexDraw toward the game engine.

4.2.30

Game Closing, Drawing and Cashing

The Vendor should describe the process of closing games, conducting game drawings, entry of winning numbers, and readiness to pay winning tickets within each inherent time window. The Lottery intends to maintain or minimize the time window between close of games, drawings, and the ability to pay winning tickets. Vendor should include its plans to perform the specified tasks related to game closing, draws, and cashing and auditing of the same.

The time window between the close of a draw game and that game’s drawing cannot exceed 10 minutes for proprietary WV Lottery games and 20 minutes for multi-state games. Validation of fixed payout game tiers occur no less than 10 minutes from drawing time. Instant validations are available during System operating hours.

System audit files are “closed” at draw game sales conclusion and a new file is initiated. The audit files are provided to the Lottery within five minutes following the close of sales for any game, and prior to the drawing for that game. A final audit file for the day is provided to Lottery personnel immediately after close of the System each operational day. Vendor should provide the Lottery with log files in ASCII text format by providing any software necessary to interpret or decrypt proprietary or unique file formats.

Aurora will comply with the time window specifications of the Lottery’s current and future draw games for closing games, conducting game drawings, entering winning numbers, and readiness to pay winning tickets.

Aurora can address all game types. Aurora will support fixed payout validations well within ten (10) minutes of the drawing time. The time window between the close of a game and that game’s drawing will not exceed current time windows. This includes 20 minutes for MUSL games.

Figure 4.2.2.6 – 2:

Game Window Close and Drawing	
Function/Game	Time Window in Minutes
Fixed pay-out validations	10
MUSL games	20

Minimizing the Time Window

IGT supports fixed payout validations within seconds in many jurisdictions. For annuity games, prizes become cashable within seconds of being entered. In addition, you can easily adjust the schedule of these activities through Aurora Game Manager, if necessary. This applies to all numbers and matrix-type games.

The high-speed Aurora Transaction Engine is designed to be efficient and minimize the processing time for each step of the drawing procedure. For example, it ensures instantaneous status changes on a per-game basis for:

- Disallowing wagering.
- Suspending wagering for all draws.
- Closing the current draw.
- Initiating draw break, if applicable.
- Restarting sales for the next draw.
- Resuming wagering for the next and subsequent draws.
- Broadcasting terminal parameters and retailer notifications, as necessary.

In any draw process, the task that carries the longest processing time is counting winning tickets. This task is always dependent on the sales volume; of course, the process takes longer on higher jackpot days than on days when the jackpots are not high. However, the Aurora Transaction Engine can complete the count of winning tickets in as little as a few seconds.

Closing Games

The Aurora Transaction Engine will automatically close a game, without operator intervention, at a specified time before the drawing. This process is parameter-driven and can be modified should you decide to extend a game's sales period.

Conducting Game Draws and Entering Winning Numbers

Once a game has attained the appropriate status, i.e., "closed," and before the drawing is set to the "pay" status, an authorized user accesses the Enter Winning Numbers screen for the game through the Aurora Navigator User Interface (UI) to enter the winning numbers. This functionality is available immediately after the game closes.

The winning numbers are then verified by a different authorized user who enters the winning numbers through the Verify Winning Numbers screen.



As stated, with Aurora, an authorized user can enter the winning numbers through the Winning Numbers Entry screen at the PDC while another authorized user verifies the winning numbers at a second workstation/PC (via the Winning Numbers Verification screen) located elsewhere. If the numbers do not match, the users are notified and, within 10 seconds, the process is repeated. All attempts to enter and verify numbers are logged to the system, regardless of whether the attempt is successful or not.

Readiness to Pay Winning Tickets

The Aurora Transaction Engine has a quick “disk selection of winners” feature. With this feature, we identify winners using a winner-count process, which runs immediately after the entry and verification of the winning numbers. The process is designed to scan through the draw files to perform a quick selection of winners. After the Lottery enters and verifies the prize amounts, the system can begin issuing payouts within five minutes.

Audit Files

Because the ICS receives a copy of all transactions in near real time, it can also process the transactions, build the game, and calculate draw totals as they occur. The near-real-time feed we are offering will also include periodic checkpoints with significant totals. These allow the ICS to ensure the ICS file is complete and verify the integrity of the transactions it has received.

Aurora Performance Intel includes near-real-time data for all Aurora Navigator Back-Office applications. Performance Intel provides authorized staff with insights needed to make smarter business decisions throughout the day.

We will provide the Lottery with:

- A daily final audit file, immediately after the close of the Lottery gaming System.
- Audit files, including reports and data extracts, within five minutes following the close of sales for a game and prior to the drawing for that game.
- Final reports and data extracts, which will be made available to the Lottery immediately after close of the Lottery Gaming System each day.

We will provide the Lottery with any software necessary to interpret or decrypt any proprietary or unique transaction log (audit) record formats resulting in American Standard Code for Information Interchange (ASCII) text and extractable data. We will work closely with the Lottery to ensure that any proprietary record formats of the Aurora System can be decrypted and interpreted as necessary. At the same time, we will maintain an agreed-upon level of security surrounding confidential data and winning ticket information.

4.2.31

Pari-Mutuel Games

The Lottery has no pari-mutuel payout games at this time. However, dual entries of prize amounts and jackpot amounts for pari-mutuel games are to be included in the System. Vendor should include any proposals for introducing pari-mutuel games and describe any pari-mutuel games it supports in other jurisdictions and how the games have enhanced sales.

Dual Entries

Aurora's enhanced functionality supports dual entry of winning numbers drawn, as well as prize and jackpot amounts. All attempts to enter this information, whether successful or not, are logged, including user identification (ID). Unsuccessful attempts will result in restarting from the beginning. We will monitor, track and supply reports of all entry attempts, as required by the Lottery. It is important to note that each attempt is also logged to the Master Journal File (MJF) and transferred to the ICS.

We recognize the importance of dual-manual entry of winning numbers as a critical tool in protecting the Lottery. While this function was initially developed to ensure that no one person had control or had the ability to commit fraud, it also provides an additional layer of protection for the Lottery due to any single incident of operator error that could potentially impact players.

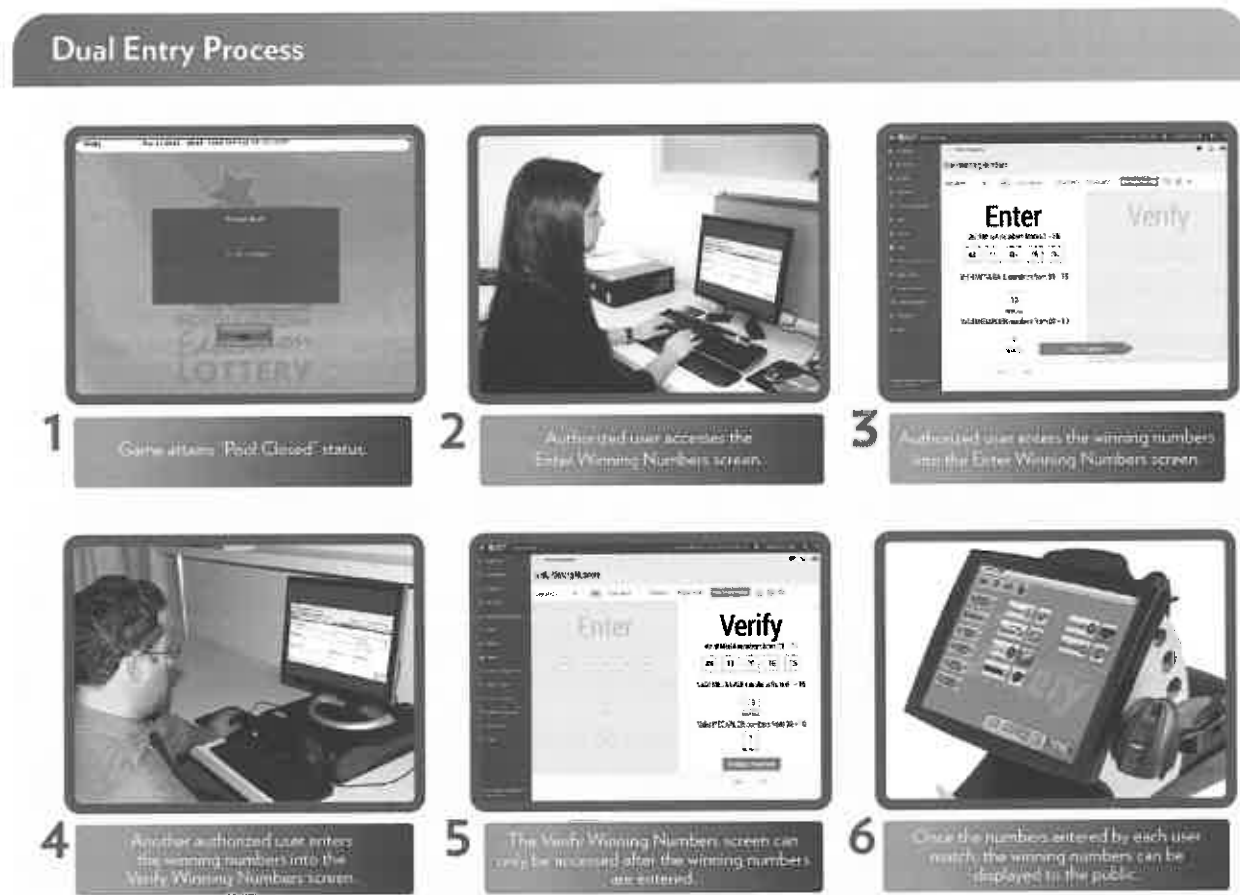
Aurora enforces dual-manual entry through two different application screens in Aurora. One of the entries will be performed using a dedicated Lottery management terminal. To further ensure the integrity and security of this process, access to the two separate screens can be configured to require two different users to log in. With Aurora, it is possible to define privileges to ensure separate users are performing each function independently. Finally, the dual-entry process can be done from separate physical locations, providing another check and balance for both control and accuracy of key entry of winning numbers.

Once a draw attains the appropriate status (e.g., draw closed) and before the draw is set such that all divisions are payable:

- An authorized user accesses the Enter Winning Numbers screen in Aurora for the game (as shown in the photo in the following figure).
- The authorized user enters the winning numbers:
 - Aurora will not allow the first authorized user to access any other screen, following the first successful entry of winning numbers. Only the second unique user will be able to access the second screen to independently enter the winning numbers to verify the numbers entered in the first, successful attempt.
- A different authorized user then enters the winning numbers on the Verify Winning Numbers screen in Aurora. This second screen can be accessed only after the winning numbers have been entered on the first screen.

The winning numbers on both screens must match before the draw close process can continue.

Figure 4.2.2.6 – 3:



Ensuring Accuracy, Integrity, and Security: Checks and balances within the dual-manual-entry process will provide an added layer of authentication to ensure the integrity of the Lottery.

If the numbers entered on the two independent screens do not match, both users are notified and the process must be repeated. All attempts are logged, regardless of whether or not they are successful. Entry screens of successful attempts can be automatically printed and a file created and delivered to the Lottery for updating other systems.

Pari-mutuel Games – SuperCash!

In Wisconsin, the SuperCash! Game offers a \$350,000 non-rolling top prize. Because SuperCash! sales are not driven by jackpot fluctuations, it presents a unique challenge and opportunity. Players choose 6 different numbers from 1 to 39. Minimum play is two panels for \$1. The game becomes pari-mutuel if more than 20 people hit the jackpot, and \$7,000,000 is shared equally among winning plays.

The game enhanced sales by adding a mid-tier jackpot game that managed liabilities through the pari-mutuel framework. The game has steadily represented approximately \$25 million in annual revenue (approximately 10% of draw game sales) for the Wisconsin Lottery over the past five years.

4.2.32 Instant Ticket Game Operations

Vendor response should describe its solution for instant ticket operations and, specifically, how the System will handle instant game orders, order confirmation, game receipt, game activation, validation, pack validation status, pack sell-through, settlement, inventory, reports, and terminal setup and controls.

Response Note: Vendor's proposal must address its games library and the ability to expand beyond traditional games and play options.

The System provides receiving reports and inventory management for all inventory movement from the Vendor warehouse. Vendor should describe its proposed solution for performing the following tasks and services, which may include utilizing third party systems designed for inventory management or asset tracking. Response should include proposed plans for accomplishing the inventory and reporting functions required by the Lottery and specified in this section.

The System supports Field Marketing and Sales Representative instant ticket inventory management transactions at retailer locations through the terminal and the Field Marketing and Sales Representative portable or handheld device. System provides receipts for instant ticket deliveries and returns eliminating the use of manual forms. Provide retailer accounting and inventory on a shift and daily basis.

The System should be configured so that it recognizes and records a minimum of 15 pack status classifications that include: instant ticket receiving, ordering, order confirmation, activation, validation, pack validation status, pack sell-through, settlement, and inventory. Reports, terminal setup, and controls are supported by the System.

The System should allow a retailer to activate a pack of tickets for validation and security purposes. Operations on packs and tickets depend on a rules-based security grid that defines acceptable status changes which are to be recognized, tracked, and processed by the System. The grid's rules are developed jointly with the Lottery. The Lottery reserves the right to change these processes in part or full during the life of the Contract.

The Vendor should supply, maintain, and configure the instant ticket accounting and management software to provide the following minimum functions related to inventory and tracking tickets on the System:

- *Track retailer pack inventory and sales history;*
- *Monitor inventory status, pack status, status elapsed time, and pack percent of validations (by game per retail location and total summary of inventory by retailer):*
 - *Change status of tickets or packs in bulk (i.e. by instant game number, by date scanned, and by partial pack); and*
 - *Allocate different quantities based on price point and on individual retailer or chain needs,*
- *The System generates auto-orders for shipment based on inventory turnover at the retailer locations. Auto-order is set up to allow usage only on certain games and on a retailer-by-retailer basis. Auto-order parameters are able to be canceled or adjusted;*
- *The System provides same day order fulfillment by Telemarketing, Field Marketing & Sales Representatives, and directly from retailers in the same day and then allows automatic orders with stock depletion;*

Response Note: The specifications detailed in this section are of particular interest to the Lottery because inventory and ticket tracking features were limited by the specifications provided for the current System contract. Therefore, a recognized need exists for the tasks and features described above, and Vendor should propose and recommend solutions as well as describe how each proposed system or plan works that includes highlighting the best features and any limitations with each proposal.



IGT's proposed solution for the secure operation and control of the West Virginia Lottery's instant ticket scratch-off game program is our Aurora Instant Processing System (IPS) software. Aurora IPS, in combination with other elements of our proposed Aurora lottery gaming System, will monitor, authorize and control instant ticket scratch-off game orders, order confirmations, game receipts, game activations, validations, pack validation statuses, pack sell-through, settlements, inventory, reports, and terminal setups and controls.

IGT's game library extends beyond traditional lotto, numbers and keno games, and the current play options of those games in West Virginia. Please see Section 4.6.10, Research and Strategic Development, for a discussion of the games and play options that are available to the Lottery with our proposed Aurora lottery gaming System. Please also see Section 4.2.31, Pari-Mutuel Games; Section 4.2.40, Repeat Plays; and Section 4.2.41, Combo Play, for additional information.

Overview of Aurora IPS

Aurora IPS is a comprehensive, end-to-end solution providing all of the functionality required to manage an instant ticket scratch-off game program. Aurora IPS is an integrated component of the Aurora System. Aurora IPS offers many benefits to the Lottery. Specific features and benefits include (but are not limited to) those listed in the following table:

Figure 4.2.32 – i:

Aurora IPS Features and Lottery Benefits	
Aurora IPS Feature	Benefit to the Lottery
Single point of data entry for all instant ticket scratch-off game parameters, including those relating to warehousing, telemarketing, and distribution	Any information required for operation of the IPS System can be provided in real time, streamlining operations
Support for 400 instant ticket scratch-off games simultaneously	The System allows the Lottery extra time to reconcile closed games
Data collection beginning at the outset of a game and throughout its life cycle	Complete game data, combined with additional sales data, will enable superior analysis of game performance, thereby providing the Lottery with better information to make more informed decisions about current and future games
Proven and effective approaches for keyless validation	It reduces the retailer labor associated with instant ticket scratch-off game validation – with full security
User and group security-level access to instant ticket scratch-off game administration and reporting	The Lottery has complete control of user privileges down to the field level on any screen within any function for any individual
Flexible validation and settlement criteria available by retailer	The System offers flexibility in terms of retailer compensation and support for multiple business models simultaneously

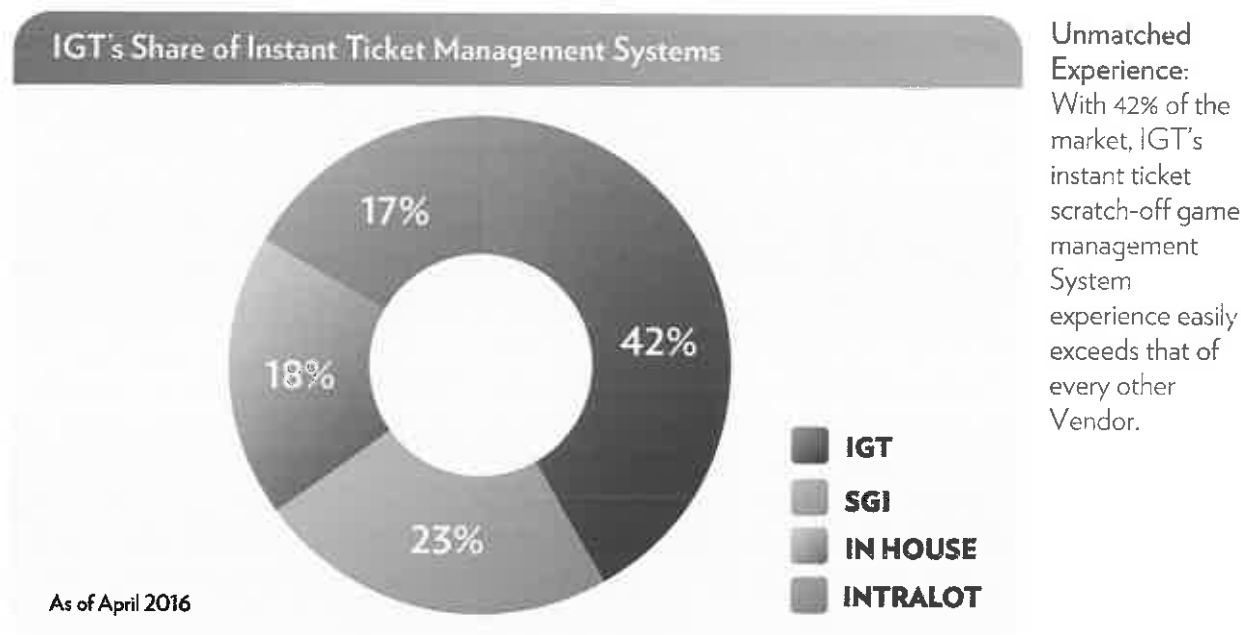
Unmatched Experience

The Lottery knows the importance of having its instant ticket scratch-off game program supported by a System that is *robust* and *reliable*. But today, robustness and reliability are not enough. A System's *built-in flexibility* to adapt to the changing retail environment is just as important. Our new Aurora system has all three of these characteristics.

From Texas to Trinidad, from New York to New Zealand, and from California to Rhode Island, IGT Systems manage and process millions of instant ticket scratch-off game transactions every day. Our current system has supported the Lottery securely and reliably throughout the current Contract. As we do for the Lottery, we also staff and operate telemarketing, warehousing, distribution, and field sales programs for a number of leading lotteries in the U.S. and internationally.

Our hands-on experience has helped us design the exceptional functionality included in Aurora IPS, and is presented here for your consideration:

Figure 4.2.32 – 2:



IGT is the leading supplier of instant ticket scratch-off game management Systems in the U.S. and around the world. Twenty-one of the 46 U.S. lotteries with an instant ticket scratch-off game program use an IGT instant ticket management System.



As shown in the following table, more than 45 lotteries worldwide use IGT instant ticket scratch-off game management Systems:

Figure 4.2.32 – 3:

IGT's Instant Ticket Scratch-off Game Management System Customers	
U.S. Customers	
Arizona	North Carolina
California	Oregon
Florida	Rhode Island
Georgia	Tennessee
Illinois	Texas
Indiana	Virginia
Michigan	Washington
Missouri	West Virginia
Nebraska	Wisconsin
New Jersey	U.S. Virgin Islands
New York	
International Customers	
Anguilla	Luxembourg
Antigua	Mexico
Barbados	New Zealand
Belgium	Poland
China (Beijing)	Portugal
Czech Republic	Slovakia
Finland	Spain (ONCE)
Germany (Saxony)	St. Kitts
Germany (Thüringen)	St. Maarten
Germany (WestLotto)	Switzerland (Loterie Romande)
Israel	Trinidad
Jamaica	United Kingdom (Camelot)
Lithuania	

Aurora IPS provides detailed accounting for each game. It tracks the ownership and location of each pack of tickets and each ticket in each pack. Screens and reports are available that show the quantity and value of inventory in Lottery-approved status designations and locations and the retail value of that inventory.

Loading Game Inventory and Validation Records

Aurora IPS supports the loading of new game inventory and validation information for each individual instant ticket scratch-off game. The System has been configured to accept this data using Secure File Transfer Protocol (SFTP) or CD-ROM.

As indicated in Section 4.2.12, Instant Game Operations, our system will work with tickets from all of the companies, including our own, that supply instant ticket scratch-off game tickets to North American Association of State and Provincial Lotteries (NASPL) lotteries today.

The factory supplies three data files for each instant ticket scratch-off game:

- An inventory file.
- A low-tier validation file.
- A combined mid- and high-tier validation file.

Aurora IPS performs preliminary checks of the files before loading the game information into the System. This phase, called the “verify” phase, produces a report that will allow our staff to compare the game information in the files to the documentation provided by the ticket factory and Working Papers for the game. Once the game data has been verified and the Lottery has completed its tests on the Customer Acceptance Testing (CAT) system, the loading process is completed. This process enables a new game to be loaded quickly.

Additional amounts of game inventory and related validation information for reorders of popular games may be loaded at any time. In these situations, Aurora IPS will check the information provided in the new files against what is currently loaded on the System in order to prevent inconsistencies in the game parameters. The appended inventory and validation information becomes available for use and sale immediately after it is loaded onto the System.

The System also allows authorized users to enter game parameters manually. Any change to a game parameter is a transaction so there is a permanent record of the change in the Master Journal File (MJF).

Designated Lottery staff will enter all game activity dates, such as Product Available dates, Distribution dates, and Validation dates manually.

Monitor and Record Changes in Pack Status

Aurora IPS will enable the Lottery to manage and account for all instant ticket scratch-off games, from receipt at the warehouse to shipment to activation to settlement (or to return, reconciliation, and destruction). Stolen, Damaged, and all other statuses are supported to simplify the security, control, and management of the instant ticket scratch-off game program.

Security Grid

All IGT instant ticket scratch-off game management Systems, including Aurora IPS, use rules-based security grids that define acceptable status changes for operations involving packs of tickets (and individual tickets as appropriate) as the basis for monitoring and controlling instant ticket scratch-off game programs. We are prepared to implement all of the current rules and statuses in the new Aurora system and/or modify any of the rules that the Lottery wants to change, and add or remove any statuses during conversion.



Pack Status

Aurora IPS maintains inventory data on every pack of instant ticket scratch-off game tickets in every game loaded on the system. This data includes the status and location of every pack. Aurora monitors changes to the status of each pack (and partial packs, as appropriate) based upon the Lottery-approved security grid. Aurora security controls preclude anyone from making an unauthorized status change. All improper transaction attempts will be reported on the Security (Exception) Log and recorded in the Master Journal File (MJF). The MJF is a permanent, non-changeable record of all transaction requests and transactions received by the Aurora System. It ensures that the Lottery can manage and maintain a secure program.

With the Aurora System, authorized Lottery and IGT staff will be able to view the inventory of instant ticket scratch-off game tickets and the status of each pack at any Lottery-authorized location (e.g., at the warehouse, at Lottery Headquarters and claim centers, in transit to a retailer, at a retailer, or with any of our Field Marketing and Sales Representatives [FMSRs]). The status and location of a pack also indicates the ownership of that pack at that moment in time, based upon the Lottery's business rules. Aurora IPS provides Inventory Summary reports and screens showing the status of the inventory in each individual game.

The data on the screens and Inventory Summary reports represents real-time snapshots of the status of the inventory. Authorized staff will be able to look at the history of all of the inventory transactions associated with a specific pack including partial portions of a pack (if appropriate) from any instant ticket scratch-off game.

While not anticipated to be necessary in West Virginia, the Aurora system can support multiple physical and logical warehouses and limit the activities at each warehouse.

Retailers can use their new Altura® Flex terminal to view a listing of the packs of tickets assigned to them, together with the status of those packs, by selecting the Detailed Inventory report from the Reports menu on their terminals.

While these reports and screens provide snapshot information and/or the complete transaction history of a pack, our System also provides the ability to look at the status of a pack during a designated period. Aurora allows transaction-level data to be reviewed through the Performance Intel reporting package by date range, among other parameters. The ability to examine transaction-level data easily will be beneficial to the Lottery's security team.

Pack History

Our System permits authorized staff to view the history of all transactions related to an individual pack because every transaction is recorded by the system. With Aurora IPS, there is no limit to the number of transactions that a pack can go through and no limit to how many transactions can be viewed. The history will also indicate if any partial pack transactions, such as parts of a pack being marked as Stolen, Missing, or Returned, have occurred.

Recording Inventory Transactions Using Barcode Scanning

IGT designed Aurora IPS to use the barcode number scanning to support the operation of a lottery's instant ticket scratch-off game program, including pack handling and validation. Specifically, Aurora relies on the unique identification of each ticket in each game represented in one or more barcodes printed on each ticket.

For most transactions associated with the movement of instant ticket scratch-off game inventory, an IGT employee or Lottery retailer will scan a visible barcode printed on one of the tickets in a pack to identify the pack to Aurora. In these transactions, Aurora usually looks for the game and pack number found in the barcode.

For instant ticket scratch-off game validations and the processing of partial pack returns, IGT configured Aurora to accept the ticket number included in the barcode in addition to the game and pack number in order to identify the ticket (or tickets) to Aurora.

The Altura Flex terminal includes the ability for a retailer or Lottery employee to manually enter any data that is included in the visible barcode. While the need for the manual entry of ticket ID data is rare today (given the terminal 2D barcode reader), our terminals and Aurora are ready should the need arise.

Security and Reporting Features for Stolen, Missing, or Undelivered Packs

Aurora IPS includes special security and reporting features related to stolen, missing and un-delivered packs of instant ticket scratch-off game tickets.

Aurora will be configured with Lottery-approved business rules that only allow winning tickets to be approved for payment if they pass a series of security status checks. These checks include confirmation that the ticket is from a pack that has been activated by the assigned retailer and placed on sale.

This feature prevents winning tickets from a pack that a retailer has not yet activated, tickets with an FMSR, tickets in transit to a retailer, and tickets in the warehouse from being approved for prize payment.

Stolen Tickets

If tickets are stolen from a retailer, the retailer is required to call the Hotline number to report the incident. Our Hotline team members notify Lottery Security so that they can change the status of any packs of tickets that are reported as stolen to "Stolen." Like the current system, Aurora will immediately reject any attempt to validate any winning ticket from a pack whose status has been changed to "Stolen."

If retailers have kept good records of their sales of instant ticket scratch-off game tickets by ticket number, your security staff can mark the unsold portion of the pack as Stolen, allowing winning tickets from the "sold" portion of the pack to be authorized for prize payment without issue. Designated Lottery staff will refine the range of tickets that were stolen from activated and settled packs by reviewing the validations from the packs in question.

The Aurora system will automatically settle the packs and invoice the retailer for the portion of the pack that was not marked as Stolen. This automatic accounting simplifies the process for the retailer and the Lottery.



When tickets are reported as Stolen, an authorized user can start an investigation into the incident by assigning it a case number within Aurora IPS. As the investigation proceeds, findings can be entered and the issue tracked under the assigned case number.

If the stolen tickets are recovered, the status of the tickets can be changed back to their previous status by designated Lottery staff.

Undelivered Packs

If UPS cannot deliver a package or a package is refused, UPS will return the package to IGT's warehouse. Our staff will verify the contents of the package. They will change the status of the packs from "Confirmed" and assigned to the retailer to "Available" in the warehouse. This will allow these packs to be used to fill other orders.

Controlling Inventory at Retailer Locations

Aurora IPS, in combination with our proposed retailer terminals, will meet all of your requirements for controlling instant ticket inventory transactions at retailers. Aurora IPS supports all classic retailer inventory management and control transactions, including:

- Activating packs when placing them on sale.
- Manual settlement of packs as needed before the Lottery's standard settlement rules cause a pack to settle automatically.
- Ordering of tickets and consumables using the retailer terminal (if implemented).
- Validating instant tickets.
- While not used in West Virginia today, the System can be configured to allow retailers to acknowledging delivery of instant ticket scratch-off game shipments.

Aurora IPS provides all of the functionality available in our current Enterprise Series (ES) system along with two major enhancements:

- Advanced predictive ordering algorithms incorporated in the Tel-Sell software to provide retailer-specific recommended orders based upon the retailer's sales experience, on-hand inventory, and Lottery sales objectives. The recommended order information will also be available to our FMSRs on Aurora OnePlace, their new Sales Force Automation tool.
- Support for ticket-by-ticket accounting (if implemented).

In addition, Aurora IPS can be configured to record the sales of instant tickets to players.

Further, the new predictive ordering algorithms in Aurora OrderStar's Tel-Sell software will provide our Tel-Sell clerks with refined recommended orders for each retailer. Over time, this software will reduce the level of returns from individual retailers. Our FMSRs will also be able to take advantage of Aurora OrderStar's predictive ordering algorithm when entering orders on Aurora OnePlace, their new Sales Force Automation tool.

Sales Representative Inventory Management Activities

Aurora IPS controls the inventory transactions that our FMSRs, acting on your behalf, can perform using retailer terminals.

Returns and Transfers

IGT configured Aurora IPS to allow FMSRs to process returns of both full and partial packs at retailer terminals. In addition, by supporting the use of trunk stock by FMSRs, IPS enables FMSRs to re-issue full packs in their possession to retailers that have an immediate need for additional inventory. With Aurora IPS, returns and transfers are easy to execute; no manual forms are necessary when an FMSR performs either function. Furthermore, returned or transferred packs and tickets are secure.

While in the possession of an FMSR, no inventory is eligible for validation even if from a formerly Active pack. When an FMSR processes a full pack return on a retailer's terminal, the packs are automatically placed in a status assigned to the FMSR, which makes any winning tickets from the pack ineligible to be validated.

To execute a return or transfer packs, an FMSR simply accesses a special menu on the retailer terminal after logging onto the terminal and performs various instant ticket inventory functions, just as they do today.

When a return is transacted or a pack is transferred, Aurora IPS instructs the terminal to produce two receipts: one for the retailer and another for the FMSR. When a retailer views (and prints if desired) any of the various instant ticket inventory and status reports available, the reports will indicate those packs (and partial packs, as appropriate) that have been returned. Retailers who receive a pack or packs of tickets that were transferred by their FMSR will see an increase in the number of packs in their on-hand inventory count.

We have designed Aurora IPS so that authorized users have immediate access to real-time information on the current status of every pack of tickets, just like the current system. This includes full and partial packs in the possession of an FMSR. IPS tracks every ticket in every pack in every game and displays information at the ticket level for exception statuses such as Missing, Stolen, and Returned.

FMSR Transactions by Authorized Staff

Aurora IPS is typically configured to allow authorized staff to transfer inventory to and from an FMSR electronically. Aurora IPS also allows authorized staff to transfer inventory between two FMSRs (typically in response to a phone call). In these situations, the software allows the staff to transfer either individual packs of tickets or full cartons (as received from the instant ticket factory). This feature can be especially helpful if a large quantity of packs from a single game is to be transferred. It may rarely be needed, but it does serve as another example of how IGT has equipped IPS with the flexibility to deal with unusual situations with full security and accountability right from the start.

Returns from Terminated Retailers

FMSRs will be able to collect full and partial packs of tickets from terminated retailers and return them to the warehouse in two ways: (1) using the retailer's terminal (if it is still active) or (2) having an authorized staff member transfer the inventory to the FMSR in response to a phone call, as they can today. Upon receipt at the warehouse, the inventory is then transferred from the FMSR to the warehouse. Full packs of tickets from active games will be available for re-assignment to orders from other retailers. Partial packs will be held in a secure area of our warehouse pending reconciliation of the game after it is closed.

FMSR Transaction Inquiries and Control

All transactions performed by an FMSR using a retailer's terminal are recorded in the Master Journal File (MJF) of the Aurora Transaction Engine in the same manner as every other transaction in the Aurora System. The Aurora reporting module, Performance Intel, significantly accelerates and simplifies querying the MJF. It enables authorized staff to view historic FMSR transactions in minutes, even those occurring many months in the past.

Being able to limit what transactions an FMSR can perform, combined with the ability to monitor what inventory is in the possession of an FMSR, will give you complete control over this portion of your instant ticket inventory.

Pack Delivery to Retailers

IGT proposes to configure the new System like the current System such that all packs shipped from our warehouse to individual retailers are in the Confirmed status. This allows retailers to place new packs of tickets on sale quickly because retailers only need to "Activate" a pack to place it on sale.

IGT understands that the Lottery's accounting department wants to book the sale of a pack at the time it was shipped. Therefore, for accounting purposes, the sale is booked when it is shipped, the pack leaves the warehouse in a Confirmed status, and then the pack settles 30 days later. We acknowledge that this method has limited much of the analytics available to the Marketing Department when these pack statuses were removed. In addition, this method has put a wedge between the Lottery's Accounting and Marketing Department. IGT proposes to work with the Lottery to solve this problem by allowing the Lottery to book a sale when the pack is shipped, yet still provide the pack movements and statuses offered for security and analytics purposes.

Should the Lottery elect, during the new Contract, to modify how it classifies inventory, Aurora has the capability to ship tickets to retailers so that they must acknowledge receipt of a ticket shipment by scanning a confirmation barcode printed on the packing list that accompanies each shipment from our warehouse.

Partial Pack Returns – Simplified Process

In our latest installations, we have configured IPS to allow FMSRs to scan the inventory barcodes of the first ticket in the portion of the pack being returned and the last ticket. This speeds up the partial pack return process for both the FMSR and the retailer.

Special Feature: One-Step Process for Partial Pack Returns

With Aurora, partial packs can be processed as “Returned – Partial” *without* first manually settling the pack! Aurora IPS will automatically settle the pack and credit the retailer’s account for the tickets being returned. This is a real timesaver compared to older systems that required a two-step approach.

Of course, if a pack was previously settled (such as by a chain) this is not an issue. Aurora IPS takes care of the accounting automatically, according to the Lottery’s business rules.

Capability for Retailers to Process Returns Directly

With Aurora IPS, retailers could be allowed to bypass their FMSR and process returns directly in specific instances, such as when a particular instant ticket scratch-off game has ended or in an emergency closure of a game. In these instances, a retailer would use the same process an FMSR uses. Access to this functionality would be for limited time periods; at other times, retailers would not be able to access the function. This feature shows the flexibility of Aurora IPS even though the Lottery may elect not to deploy the functionality.

Currently, we understand that retailers do not process returns. Instead, they contact their FMSR, Tel-Sell, or the local warehouse to inform IGT of the returns. They then give the pack(s) to the FMSR who contacts Pick and Pack. Next, Pick and Pack removes the pack from the retailer and assigns it to the FMSR. The FMSR can then either resell the pack or return it to the warehouse. If the Lottery wishes, IGT will be pleased to discuss with you how this process can be improved.

Further, the FMSRs do not generally need to contact Pick and Pack. They can return the pack through the retailer terminal process and the pack then goes into the FMSR trunk stock. They then have the flexibility to sell it to another retailer or return it to the warehouse where it can be sold/shipped to any retailer.

The benefit of performing any necessary accounting transactions immediately when a return is processed on the retailer’s terminal is that it makes it easier for retailers to reconcile their weekly invoices. The New Jersey Lottery and its retailers have used this approach for processing returns for more than 20 years with great success. In that state, the Lottery ends the sales of instant ticket scratch-off games on a quarterly basis. Retailers are notified that they have a “window” (typically 45 days) in which to process returns, and they are provided a list of the games, which can be returned. Retailers are invoiced for any tickets they do not return from these games at the end of the return window.



Pack Activation

Aurora IPS allows retailers to activate individual packs of tickets when they are ready to start selling them. This is one feature of the system that allows the Lottery to control which packs are eligible for validation.

Auto-Activation

Aurora IPS can be configured to support “auto-activation” of ticket packs. A few lotteries have had us configure their IPS System to activate a pack of tickets automatically when the first low-tier winning ticket is cashed at the retailer to which the pack is assigned.

The advantage of auto-activation is that it reduces the number of problem situations wherein a player tries to cash a ticket from a pack that the retailer failed to activate. The Hoosier Lottery (Indiana) and Rhode Island Lottery are examples of lotteries that benefit from auto-activation.

Specific Requirements Indicated in the RFP

In the following pages, IGT addresses the specific requirements indicated by the Lottery in the RFP.

Receiving Reports and Inventory Management

Aurora IPS will provide receiving and inventory management reports for all inventory movement from our warehouse as described earlier. Our System will provide authorized staff easy access to real-time inventory information in the warehouse, at individual retailers, and with individual FMSRs. System reports can be viewed on an employee’s work computer and printed, if needed.

As a shipment of tickets is received, the warehouse staff will scan incoming deliveries to properly account for inventory on hand.

Field Marketing and Sales Representative Inventory Transactions

Aurora IPS will allow FMSRs to perform inventory transactions at retailer locations using the retailer’s lottery terminal as they do today. This includes processing full and partial pack returns and transferring any trunk stock in their possession to retailers. With our System, no manual forms are required to perform these transactions. When processing a return, our new System, like the current System, will be configured to produce two receipts, one for the retailer and one for the FMSR. The System can also issue receipts for inventory that an FMSR transfers to a retailer.

We can configure our proposed sales force automation device to record confirmations of returns electronically.

OnePlace provides sales information in a way that allows FMSRs to instantly know if sales for each product line (sales data to retailers by game, game type, etc.) are trending up or down by using color-coded arrows with percentage increase or decrease indicators. It also records confirmation of returns electronically. Additional information about OnePlace is provided in Section 4.6.8, Field Marketing and Sales, and 4.6.9, Field Marketing and Sales Reports.

Shift Accounting

Most retailers and chains have processes in place to reconcile their instant ticket inventory with their cash drawers. The problem is that these processes are manual. IGT's patented instant ticket Balancing Tool automates these calculations.

IGT recognizes that, even with our tool, the process of shift and day accounting is challenging. We are making a significant investment to improve the usability of this tool. The first installation of our enhanced tool is scheduled to be in use by Q3 2017.

At the end of each shift, or the end of the day, a retailer, using the external barcode reader on the new Altura terminal, scans the next ticket's barcode number (on the back of the ticket) of each instant ticket on sale. Our application then calculates the number of tickets sold for each game. Retailer and clerks won't need to manually record the ticket number or perform any manual calculations.

The terminal can print a report indicating the number of tickets sold by game name and/or by price point during that period (shift or day). This report is used to reconcile the store's cash drawer, reducing the time required for sales clerks to perform both end-of-shift and end-of-day reconciliations by approximately 50%, in addition to improving the accuracy of the process.

SmartCount is being used on a limited basis in Minnesota and New Jersey.

Supported Inventory Statuses

Our Aurora system will recognize and record a minimum of 15 pack status classifications, including, but not limited to: receiving, ordering, order confirmation, activation, validation, pack validation status, pack sell-through, settlement, inventory, missing, stolen, damaged, and Guaranteed Low-End Prize Structure (GLEPS) Test. IGT is fully prepared to implement all of the current pack status classifications and add additional classifications.

Retailers will be able to view (and print, when necessary) a series of inventory and sales reports on their new Lottery terminals, as they can today. With our proposed new retailer website, retailers will be able to view additional information about their businesses well beyond the reports available from their Lottery terminals.

Like the current System, the Aurora System will allow authorized staff to configure terminal setup controls for individual retailers. Authorized staff will be able to view, modify and generate a variety of sales, marketing, and security reports for the business as a whole and for each major product category using Aurora Performance Intel.

Aurora Performance Intel allows lotteries to gain easy access to critical information to help you manage your business, such as:

- How many retailers are selling the new game?
- What are the average sales per retailer of each game?
- Which retailers are not selling game "X" (instant ticket or draw game)?
- Which retailers had more than "X" non-winning instant ticket validation attempts yesterday?
Last week?



Aurora Performance Intel is discussed in more detail in Section 4.3, Reports and Interfaces.

Managing the FMSR program for five U.S. lotteries (Illinois, Indiana, Nebraska, New Jersey, and Texas), in addition to your lottery, has helped us realize the critical need to give FMSRs timely information to help them work with retailers to grow sales and proceeds for the Lottery. This recognition led to our acquisition of Hudson Alley. With Hudson Alley, now part of IGT, we are able to integrate critical data from the Aurora system's data warehouses to OnePlace tablets for our FMSRs, our proposed retailer website, and the benefit of the Lottery.

OnePlace is not a one-way communication tool. With OnePlace, our FMSRs can place orders directly in the Aurora System for retailers, and we can conduct mini-surveys, quickly rolling up data daily as the FMSRs travel their territory in addition to downloading multiple analytical sales reports. This tool also allows us to update important information used in our predictive order calculation easily. The ability of OnePlace to take pictures and videos and email them will be helpful in resolving issues in a timely manner.

Pack Activation for Validation and Security Purposes

As indicated earlier, all operations on packs and tickets managed by our Aurora system depend upon a rules-based security grid, which IGT will develop jointly with the Lottery. We recommend implementing all of the current rules unless there are some that the Lottery wants to remove or modify. IGT understands and acknowledges that the Lottery may need to add, delete or modify, in whole or in part, the security grid during the life of the new Contract.

Instant Ticket Accounting and Management Software Functionality

Throughout this section of our proposal, IGT has described the accounting and management capabilities of our Aurora IPS software, which we will supply, configure, and maintain if the Lottery elects to retain our services for the new Contract period.

The functionality of our new software is very similar to that of our current System, with major improvements in the areas of:

- Telemarketing, which now includes advanced predictive order calculations for each retailer.
- Integration of the advanced predictive order calculations with OnePlace, our planned sales force automation platform and tablets.
- Terminal ordering.
- Sales reporting, analytics, and visualization.

Many other improvements in the underlying technologies that support the Aurora System and Aurora IPS are discussed in Section 4.2.32, Instant Ticket Game Operations. Combined with the other elements of our proposed Aurora system, including but not limited to, Aurora Performance Intel and Retailer Management, our new system will:

- Track retailer pack inventory and sales history.
- Monitor inventory status, individual pack statuses, elapsed status time, and percent of validation per pack including by game per retailer location and total summary of inventory by retailer, as appropriate, including:
 - Changing the status of tickets or packs in bulk (i.e., by instant ticket scratch-off game number, by date scanned and by partial pack).
 - Allocating different quantities based on price point and individual retailer or chain needs.
- Generate auto-orders for shipment based on inventory turnover at each retailer location:
 - For designated games.
 - For designated retailers on a retailer-by-retailer basis.
 - With the ability to cancel or adjust auto-ordering parameters.
- Provide same-day order fulfillment for orders generated by our Telemarketing team, FMSRs using the OrderPad sales force automation tool, and terminal ordering:
 - Terminal orders and FMSR orders will need to be entered by 4:00 pm in order to ensure shipment the same day, like telemarketing orders today.
 - Automatic ordering with stock depletion.

Game Replenishment/Auto Reorder

Aurora IPS includes IGT's Aurora OrderStar predictive ordering software. This software supports game replenishment, including Auto Reorders to ensure retailers always have the right instant ticket scratch-off game inventory for their locations.

While only Georgia, Indiana, California, Missouri, and Washington have our latest predictive ordering capability, IGT has offered telemarketing and replenishment ordering software since 1992.

Predictive Ordering

IGT's Aurora OrderStar uses a sophisticated series of formulas designed to generate Suggested Orders that will help retailers maximize their sales based upon their recent history and the Lottery's sales focus. They are predictive formulas, influenced by the input order of multiple attributes, with validations being the primary, but not sole, attribute used in generating the Suggested Order for each game. The effectiveness of our predictive ordering software for the California, Hoosier (Indiana), Georgia, Washington and Missouri lotteries, as described in Section 4.6.3, Telemarketing, is strong testimony for the appropriateness of our formulas and the attributes we use to create each Suggested Order.



Initial Allocations for New Games

IGT's Aurora IPS includes our Initial Distribution module for the automatic generation of orders. Designed to generate orders for the launch of new games, it can also generate orders for a specific game for all retailers at once **at any time** without affecting other re-ordering methods.

Initial Distribution has three options for automatically creating orders:

- **Referenced Product:** This method allows you to choose a similar game and create orders based on each retailer's sales experience with that reference game. The reference game can be selected because it has the same price as the new game, the same play style, the same theme, or all of these attributes. More than one game can be used as the reference simultaneously. In addition, you can specify how many and which weeks of sales history to use in creating the recommended order.
- **Fixed Quantity:** You can choose a fixed quantity of tickets for all retailers.
- **Ad Hoc:** You can provide the system with a file containing the retailer number, the game number, and a quantity of packs for each retailer. This method is the most flexible. It allows you to use any method to determine the appropriate quantity of tickets for distribution to each retailer. Various ways of analyzing sales or inventory levels can be used to determine the desired quantity.

Aurora IPS allows multiple games to be included on a single Initial Distribution order. Lotteries regularly use the system to generate launch allocations for three, four, or five games simultaneously.

The software ensures that only retailers who are active receive an order. In addition, when used to generate orders to launch a new game, the software automatically excludes those retailers who have opted out of receiving new game distributions automatically. It allows the Lottery to create Initial Distribution orders quickly, in minutes or hours rather than taking days to negotiate orders for new games with each retailer or the FMSRs.

Warehouse Operations

IGT's Aurora IPS software supports Warehouse Operations and includes our robust Pick and Pack System. In addition to our team in West Virginia, the Arizona, California, Georgia, Indiana, Michigan, Nebraska, New Jersey, New York, North Carolina, Oregon, Texas, Virginia, Washington State and Wisconsin Lottery warehouse teams have used our Pick and Pack process to fill orders for many years.

Please see Section 4.6.7, Warehousing and Distribution, for additional information on our warehousing and distribution program. Our system will allow our team to ship orders entered by 4:00 pm, no matter how they are entered, the same day.

Validation

IGT's proposed Aurora IPS will support the secure validation of instant tickets in real time at all West Virginia retailer sites through our proposed retailer terminals. Aurora will process instant ticket scratch-off games produced by any firm the Lottery selects to supply instant tickets.

Aurora IPS ensures the secure, one-time-only payment authorization of winning instant tickets. IGT's IPS Systems supports the management of validation records for hundreds of instant ticket scratch-off games for lotteries yearly. When a player presents an apparent winning instant ticket to a retailer, the retailer will process the validation request using our proposed retailer terminal.

Aurora IPS then checks validation files to determine whether the ticket is a winner and, if so, the amount won. The system returns a "pay/no-pay/claim" message, with an additional message such as "Already paid by you" or "File claim," as appropriate, back to the requesting terminal, and with an indication of the winning amount, if applicable. All of your current terminal messages can easily be implemented in our proposed System. However, if the Lottery wants to update any of the messages, the conversion is a great time for doing just that. The Lottery has final approval of the content of all of these messages.

Since these transactions are processed in real time, terminal reports for the current day and week-to-date will immediately reflect successful validations. When a winning ticket is authorized for payment, the validation record with Aurora IPS is marked/flagged as "Paid." In the unlikely event that the ticket is presented at another retailer (or even the original validating retailer), the System will send the message "Previously Paid" to the terminal, ensuring that all winning tickets presented for validation are paid just once.

Aurora will allow "cross-validation;" that is, winning instant tickets can be validated at any retailer terminal in the Lottery network, regardless of where they were purchased, subject only to the Lottery's cashing-limit rules. The new System, like the current System, also supports multiple cashing limits based on prize amounts. The Lottery's current cashing limits are easily supported.

4.2.33 Promotion Functions

The Vendor should describe a broad range of promotion fluctuations that are generated and/or integrated with the terminal(s), System, and other Lottery platforms to enhance sales and provide additional value to the player. Vendor should describe the flexibility and security features for such promotions.

Response Note: The Lottery has not maximized promotional capabilities and opportunities available in the industry, and recognizes the importance of expanding this functionality with the new System. Vendors should describe any new or additional promotional opportunities and how each has enhanced sales in other jurisdictions that are not included in the Lottery's specifications. Estimated timeframes for development and implementation should be noted in proposal.

Maximizing Promotion Opportunities

The West Virginia Lottery sees great opportunities from promotions during the coming Contract to enhance sales, playership, and the play experience. You want your System to offer the flexibility and agility to select a promotion and know that your Vendor can deliver that promotion to your retailers and players within the designated time frame.

“With approximately 80% of your sales currently coming from chain stores, the Lottery can achieve substantial playership and sales goals with targeted chain-only promotions. IGT's system will put the capability to develop such promotions at the Lottery's fingertips.”

We recognize the importance of ensuring that any promotion types you require are fully tested during conversion and available to you at start-up, and we will work with you to create that list during requirements documentation. In

addition, we understand that potential promotions have sometimes been at odds with the Lottery's accounting procedures. We invite collaboration in requirements gathering and testing for all required promotions to ensure transparency and the assurance that your desired promotions are accounted for.



IGT brings several benefits to help the Lottery make the most of this important element of its marketing plan:

- **An evolved and flexible system:** IGT's Aurora System, detailed throughout Section 4.2, contains an enhanced promotions module. Aurora Promotions features a broad range of functions and features for promotion development.
- **Lessons learned in West Virginia and elsewhere:** Customer feedback drives many of the changes and improvements in our products and services. In applying the lessons learned, we have expanded testing to include both customer-required and additional promotion types during the conversion period. The Lottery will be assured that all promotions that are relevant to its business will be fully tested and will be ready for launch at Go Live. By doing so, we will alleviate the concerns of promotions not working correctly on the first day and level-setting expectations.
- **Understanding your promotion challenges:** We will engage and involve the Lottery's accounting team in all promotion testing to ensure that promotion reports and interfaces contain all necessary information.
- **Deep Promotions Experience:** We collaborate with our customers to develop promotion plans and develop and launch the right promotion on the right game at the right time. This section defines our wide range of available promotions, including and beyond those you require in the RFP, our creative approach to executing within your required promotion types, and presents numerous examples and the results they achieved for our customers.

These benefits and more will provide the Lottery with a new and clear view into its promotions program and into IGT's actions and support of your program. We are committed to helping you maximize the success of your promotions and collaborating with you with the utmost transparency.

We will be accountable to the Lottery – personally and through promotions reporting, as detailed in Section 4.2.34, Promotion Accounting and Reporting, for planning, implementing, and tracking promotion results to ensure you are meeting your objectives.

Additional information, in the form of screenshots, is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclosure Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant harm to IGT and its stakeholders.

Evolution of Promotions System

The design of our Aurora System will alleviate any concerns about promotions. Any promotion the Lottery may choose to run, from day one, will be available and launch successfully.

New User-Appreciated Functionality for Improved Promotions Support

- Upon selecting the Promotions option, the authorized user will first arrive at a Promotions landing page that lists all active promotions.
 - Authorized users may search for any promotion using criteria such as active, inactive, or ended.
 - Authorized users may search for any promotion (active, future, or past) using a variety of search fields such as promo ID, promotion type, and date range.
 - While on the Promotions Landing page, a user may select the Promotion ID from the Active Promotions list or from any search result list to see promotion details related to the Promotion selected.
 - The user may clone an existing promotion with just a few key clicks, resulting in fewer errors (rename the promotion, make a few changes, and good to go).
 - New Promotions include the ability to configure different time ranges (start time/end time) for each day of the week that the promotion is set to run, so on Monday the Promotion could start at one time and on Tuesday it could start at a different time.
-

Overview of IGT's Broad Range of Promotion Functions

IGT's experience with terminal promotions spans the majority of our U.S. and international customers. That experience is only enhanced with Aurora, which will soon be "live" in neighboring states (Virginia, North Carolina). Through Aurora, IGT offers a robust promotions package with a simple interface and a variety of options for pinpointing promotions to specific audiences, combined with business intelligence tools that refine your promotions even further. Features that once required software batch installation to implement are now standard in the baseline product and will be specified and delivered for start-up.

Promotional offers, events, and partnerships are important tools to attract consumer attention and build brand relevance and appeal. That effort takes a giant leap forward with our latest Aurora System, which contains a suite of the full spectrum of promotions that will facilitate and support the Lottery's plans to reach new and current players alike.

IGT can offer the Lottery the following:

- A new Promotions solution with powerful new features that will enable you to quickly and efficiently develop and launch statewide and local promotions by selecting parameters in a simple User Interface (UI).
- Local site study, supported by corporate resources, of the local market to obtain input from IGT's corporate marketing analysts to provide critical data that the Lottery can use for planning and implementing promotions.
- The ability and willingness to engage contractors and third-party vendors with whom you or we already have a working relationship. This will develop complementary functionality that enhances your capability to drive promotional and cross-promotional opportunities that meet the needs of your retailers and player segments (including light, lapsed, and non-players).



We will deliver this improved promotions support – and the exact promotions you desire – by meeting with the Lottery during the requirements-gathering portion of the conversion to discuss current and future promotion plans. Together, we will convert these to promotional parameters that will be tested prior to launch. After launch, we will involve your technical team and ours with the business teams that study consumer research, create new promotional objectives, and convert them to future promotional features.

The range of promotions that IGT offers – exceeding the ones that your RFP requires – will give the Lottery great flexibility to strategically select particular promotions to achieve specific playership, sales, and revenue goals. In our experience, we find that among lotteries that use large numbers of game promotions, there is a direct correlation between the number of promotions they run and their compound annual growth rate (CAGR) for non-monitor draw games. Our customers have relied on our promotions software to achieve some of the highest CAGRs in the industry.

Designing Promotions

In our new promotions System, the Lottery will enjoy additional variety and innovation that it can apply to its program. This will enhance the play experience for existing players and stimulate trial among player segments identified in your 2015 research, including the “In it for the big win,” “Lottery advocates,” and the “All ins,” as well as those who are not yet core players. In addition, we will help you develop promotions that retain frequent players and attract occasional players more often by facilitating their play and stimulating interest in portfolio offerings and, thus, expanding customer loyalty.

In support of your strategic and marketing plans, we will provide our experience in designing and implementing promotions that reward a range of consumer behaviors, including:

- Encouraging players to buy a wider range of products.
- Encouraging players to try a new feature on an existing product.
- Rewarding regular players of a product.
- Enhancing the value of a non-winning ticket.
- Rewarding retailers for encouraging purchase of a new product.

We will help you develop and execute the types of promotions you want, from statewide, regional, and chain-specific to the individual retailer level. In concert with the elements of our proposed System, equipment, and marketing plan, we will support the Lottery’s promotions with coordinated messaging to generate consumer participation across the retailer network.

Performance assessment is related to promotions goals, such as redemption rates, sales lift over base, or participation rates by consumer segments.

Creating and Analyzing Promotions

Our corporate marketing team has extensive experience creating and analyzing promotions with lottery teams and developing retailer incentive programs and special events. This group has worked with lotteries around the world building promotions that drive sustainable sales growth for lotteries' good causes.

In New Jersey, the marketing team combined player promotions with retailer incentives to support the launch of Cash4Life, a new draw game that averaged \$0.20 weekly per-capita sales in the year after launch. These included:

- Buy 1, Get 1 free coupon.
- A series of street team promotions, with Lottery tents at popular summer events such as the Seafood Festival in Belmar and the Freedom Fest in Long Beach Island.
- An Ask for the Sale incentive for players and retailers, with 50 free play coupons to give away per store when sales associates neglected to ask players to try the game.
- A series of Every Nth vouchers for retailer entries into contest drawings.

We will deliver this improved promotions support by devoting meetings with the Lottery to current and future promotion plans, the first during conversion requirements-gathering. Together, we will convert these plans to promotional parameters that we can test prior to launch. After launch, we will involve your technical team and ours with the business teams that study consumer research, create new promotional objectives, and convert them to future promotional features.

Among lotteries that choose to use large numbers of game promotions, there is a direct correlation between the number of promotions they run and their CAGR for non-monitor draw games. IGT customers have relied on promotions software and support to achieve some of the highest CAGRs in the industry. We expect to help you achieve the same result in West Virginia.

Security Features

The Lottery's promotions will leverage the same level of security as the System that runs the games and accounting. For example, the source code is inside Aurora Promotions and leverages the same security measures as the Transaction Engine. Also, transactions, such as a Buy X, Get Y promotion, will be treated the same as any wager and be protected by the same security measures. It also provides user security in the form of authorizations. The system can be set up so that only Lottery- or IGT-authorized users can access or use the promotions module for promotion set up and launch.

Promotional System

Promotion functions are modular and parameter driven, and programmed functions requiring software changes are not acceptable for performance of the duties required by this RFP for promotions.

Promotions are configured with start and stop dates and times as well as permit real time start and stop. New promotion functions are developed and implemented by the Vendor upon the request of the Lottery within 60 days of the Lottery's initial request. Any programming errors should be resolved within two weeks.

Promotion functions are to be configurable for all retailers, individual retailers, chains, individual terminal type, geographic area, city, zip code, county, or Sales Representative region. In addition to targeted sales promotions, the System should be capable of executing multiple promotions defined by the Lottery for different games, the same game, and at the same time. Priority values are assigned to any conflicting active promotions in order to determine which promotion(s) qualify.

Flexibility and time to market are two key benefits the Lottery will enjoy from IGT's Aurora Promotions System module. It contains all of the parameters the Lottery needs to maximize the use of promotions through customization and can help the Lottery launch new promotions quickly – sometimes within 24 hours.

Our goal is to provide you with the tools to create promotions that will effectively engage player segments and provide a healthy return on your investment. With approximately 80% of your sales currently coming from chain stores, the Lottery can achieve substantial playership and sales goals with targeted chain-only promotions. IGT's System will put the capability to develop such promotions at your fingertips.

We will support the Lottery in increasing its use of promotions, including developing new promotion functions within 60 days of the Lottery's request and resolving any programming errors within two weeks.

The following pages detail the features of Aurora Promotions. In addition to the benefits highlighted earlier in this section, the System meets and exceeds the Lottery's requirements as it reflects improvements based on your feedback:

- All promotion functions in the System are parameter-driven. Because all relevant promotion types will be tested prior to conversion, your ability to design and launch any available promotion will not require software changes.
- The system will enable all promotions to be configured with start and stop dates and permit real-time starts and stops. IGT will develop and implement any Lottery-requested promotion functions within 60 days of the initial request. In the unlikely event of programming errors, IGT will resolved them within two weeks.
- All promotion types, including those required in the RFP and the additional types we describe later in this section, are fully and easily configurable for all retailers, individual retailers, chains, individual terminal type, geographic area, city, zip code, county, and Sales Representative region. The system will support targeted sales promotions as well as multiple promotions for different games and/or the same game at the same time. A key feature of Aurora Promotions is the capability it provides to the Lottery to assign priority values to properly determine which promotion qualifies in the event of conflicting active promotional offers.

The setup and testing of promotions before you bring them to market are as important as the solution. We will contribute to promotion testing without taking extra days to launch. We know that both the quality and functionality of the promotion and its time to market are critically important to its success.

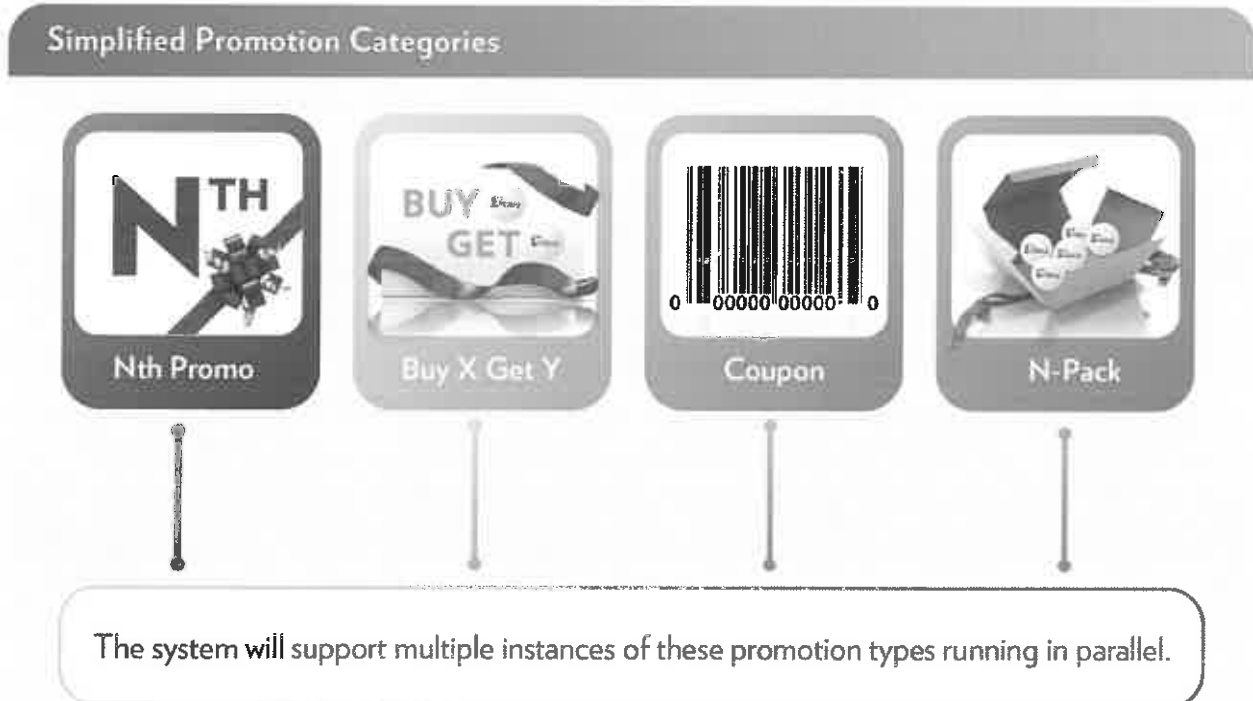
System Support for Promotions

Your IGT system will fully and flexibly support promotions via our latest, most evolved promotions component, Aurora Promotions. This function within the system will fully support your promotional plans and simplify the ways in which you view, create, and introduce your existing and new promotions going forward.

The System's highlights are enhancements above and beyond the current system and include the following features:

- **Easy to Navigate:** With a newly evolved UI, the Aurora Promotions landing page provides a glimpse of existing promotions and gives users a multi-tab workflow that enables them to work at their own pace.
- **Simplified Promotion Categories:** Of all the possible types and configurations in the promotions universe, our experience tells us that they can be run through just four main promotion categories, thus simplifying configurations for users.

Figure 4.2.33 – 1:





Simplification, flexibility, and capability define the hallmarks of the IGT system that will support your promotions. The Lottery will appreciate the system's additional benefits, including the capability to build upon past promotions to create new ones and to custom-configure timing for your promotions.

Through an enhanced, user-friendly UI, Aurora Promotions will make promotion setup and launch quick and easy. We can help you maximize the benefits of promotions with our System's flexible capabilities and collective promotions know-how. The ability to run these promotions will be available to you at start-up.

While the basic idea for a promotion is usually very simple, the actual attributes under which the promotion operates can be very complex. Aurora Promotions enables hundreds of promotions by classifying different attributes as follows:

- Promotion Types.
- Promotion Prizes.
- Promotion Criteria.
- Promotion Text.
- Promotion Participation.

Aurora contains a newly enhanced promotions component. It is flexible, scalable, and feature-rich to enable a wide variety of terminal, game, and retailer promotions to drive consumer engagement, with a number of enhancements.

Its capabilities can also assist the Lottery in targeting certain regions, trade styles, or player groups in its promotion design and execution.

As important as the solution are the setup and testing of promotions before bringing them to market. We contribute to promotion testing without taking extra days to launch because we know that the quality and functionality of the promotion and its time to market are critically important to its success.

Our solution can run many kinds of promotions in an intuitive, user-friendly manner. It allows promotions for any draw-based or instant ticket scratch-off game that the Lottery provides. We can work with you to plan, create, and execute successful promotions, from researching the initial idea to planning and implementing the promotion with retailers. We also know that your sales and marketing staff are integral to the promotion implementation process at the retail location.

Aurora Promotions also offers activity tracking and reporting capabilities, which enable us to evaluate promotion results and recommend new promotions. While a promotion is running, and after it has run its course, the System can provide the reports and statistical information to determine its success.

By design, and based on global experience, we have built into Aurora Promotions an extensive array of parameters that we have found that lotteries need most; in these cases, *no software changes are required*. In fact, quick and easy promotion setup is a primary capability of Aurora Promotions. It will accommodate your current promotions and help you develop and implement new ones that use media-driven concepts, second chance drawings, raffles, bonus draws, and cross-promotions.

Promotions can be set up with little notice; they need only be created one day in advance of the first day of the promotion. This will give the Lottery the ability to run promotions on the fly, based on certain conditions – for example, run a Multi-State Lottery Association (MUSL) game promotion the morning after a large jackpot is hit to sustain player interest at low jackpot levels.

Aurora Promotions will enhance the ease of use of the current promotions module and provide the following additional benefits:

- It supports draw game promotions and co-promotions that offer incentives to motivate non-players and loyal lottery players to play.
- It enables lottery users to efficiently build promotions based on specific criteria.
- It allows lotteries to create promotions that are statewide, regional, by independent retailer, corporate chain store-specific, or a combination of retailers.
- The System assigns a unique promotional ID for every promotion in the gaming System.
- The System separately tracks instant scratch-off game tickets used for promotions from those distributed by normal/retail processes for the same game.
- The Promotions application supports each draw game, including the type you require as part of promotional planning as well as additional promotions that we identify later in this section.
- The System supports prizes of cash or merchandise, or both.

Aurora Promotions is highly configurable, which means that the Lottery's marketing staff or any authorized user can implement promotions quickly and easily. In minutes, and without the need for any IGT intervention, the Lottery can have a promotion for the entire retailer network set up and ready to launch.

On the Aurora Navigator home page, in the Promotions box, authorized users click Create Promo. On the Promotion Overview page, they then enter the applicable information. Creating a promotion in Aurora Promotions requires minimal navigation because each page is available as a tab.

When authorized users fill in or select the information for each field on each tab, they have just created the promotion and can then enable it.

Whether updating an existing promotion with new dates, changing a promotion completely using a variety of configurable characteristics, or setting up an entirely new promotion, the Aurora Promotions application makes the task simple.

Promotion Grouping

Aurora Promotions will enable targeted promotions to virtually any group defined by the Lottery. The Aurora Promotions module also offers a vast array of promotion types, e.g., those designed to introduce players to new games and those that inform players about new ways to play existing games.

Promotional management includes:

- Targeted delivery – deliver to all retailers or specific groups.
- Highly customizable promotion attributes – types, prizes, criteria, text, and participation.
- Leveraging of promotion “best practices.”

With Aurora Promotions, the Lottery can create custom groups for targeted promotions with a simple parameter screen. Our parameter-controlled interface affords optimum flexibility in terms of promotion and message creation for targeted marketing purposes. For example, the Lottery can easily tailor promotions with an individual chain, such as Go-Mart (103 locations) or Little General (107 locations), West Virginia’s most prevalent and Lottery-friendly chains, to reinforce the ability to help the chain include Lottery games as part of its rewards program and customer-acquisition activities.

Within Aurora Navigator authorized users can create retailer groups through predefined criteria, such as zip code, business class, FMSR, and a specific game – for example, all retailers who sell draw, numbers, or instant ticket scratch-off game products.

Groups can also be created by manually assigning retailer numbers to the group. With Aurora Promotions, the Lottery can truly refine groups so that promotions reach targeted players.

Once a group is created, authorized users in Aurora Promotions can assign a promotion to that group only. This function can be used to:

- Create groups for product placement, such as launching a new game in a specific market segment.
- Run a promotion, such as Buy X Get Y, in a target retail group, such as retailers in a specific geographical region or chain.
- As a significant enhancement, apply groups to Aurora MultiMedia shows, given appropriate planning, with targeted advertising pages to support specific group delivery of promotions.

The group options can include trade style (using Standard Industrial Classification [SIC] codes), corporate account, zip code, sales region, terminal type, and sales level, or any other custom grouping of retailers. These groups can be used for many purposes, such as promotions, messaging, and email groups.

Once data is captured, our system enables two types of groups:

- **Static:** Any collection of retailers grouped together that do not share a common data element.
- **Dynamic:** A collection of retailers with common data elements such as zip code or chain ID, such that when a new retailer gets approved to sell Lottery tickets that share the same data field (such as zip code or chain ID), it *dynamically* becomes added to the group.

At this time, to our knowledge, IGT is the only Vendor with such proven capabilities and extensive experience in providing true promotion grouping across so many jurisdictions.

Grouping a Benefit in Grocers and Chains



Washington's Lottery has benefited from the custom grouping functionality by offering lottery terminal-printed raffle vouchers as part of a promotion at Safeway stores exclusively. Washington's Lottery also runs other chain-specific promotions, including a recent Sun & Sand Safeway promotion. This promotion enabled Safeway customers to Buy X, Get Y, with a voucher prize to mail in for a chance to win a vacation package.

An additional example includes the Fred Meyer "On the Spot" promotion, which only allows Fred Meyer Altura® and self-service terminals to participate. In this promotion, Washington's Lottery used the Every Nth promotion feature, in which every

15th \$10 draw ticket provided a coupon good for a \$50 Fred Meyer gift card.

Promotions entered through Aurora will enable the Lottery to run promotions similar to these. Promotions can also be prioritized.



Supporting Your Priority Promotions

Our system has the ability to set a priority for a promotion so the system will default to the promotion with the highest priority. This will enable the Lottery to have long-running promotions take a back seat to promotions that it

wanted to run for shorter, more time-sensitive periods, such as on weekends, during seasonal sporting events, etc. The Florida Lottery used this functionality during its 2013 "Florida Lotto Love" promotion, featuring a Buy X, Get Y promotion running (Priority 50) as well as an Every Nth Coupon promotion (Priority 75). Since the Every Nth promo had a higher priority, the system defaulted to that promotion.

Promotion Filters and Triggers

Aurora Promotions offers several filters and triggers (such as every Nth ticket, buy X get Y, and buy Y get Y) that allow a user to receive a promotional incentive, such as a free play ticket.

The System supports issuing free Easy Picks (where the System picks the player's numbers), as well as single-board or multi-board plays for any and all games, at various dollar amounts, or any combination thereof, for coupon redemption.

The System can provide a coupon or additional ticket for every Nth ticket and award a prize to a customer who buys a specified ticket that happens to be the designated Nth ticket purchased System-wide.



The System allows discounts to be enabled/disabled just as any promotion or trigger for coupons and promotions can be. The System generates reports on discount quantity and dollar amounts separate from the number of plays. We provided this functionality in California, Missouri, New York, and Louisiana.

IGT worked with the Wisconsin Lottery to offer a free play promotion on the Wisconsin Megabucks game. During the promotional period, which it called MegaPlay Days, players who purchased Megabucks tickets valued at \$5 or greater received a bonus ticket with two additional plays for the following draw.

In summary, IGT's Aurora Promotions will provide the Lottery with enhanced functionality and flexibility as well as the transparency and accountability necessary to maximize the effectiveness of your promotions. Aurora Promotions has completely simplified the promotion process and incorporated innovative functions that will enhance and speed promotion setup and launch – all further facilitating the Lottery's promotions program.

Proposed Promotions Solution

Vendor's proposal should describe its solution for promotions, specifically, providing promotion functions that include but are not limited to:

- *Instant or draw game purchase or validation used to trigger a promotional event (BUY X, GET Y) by game, play type, play amount, purchase amount, and/or multidraw count issuing a free ticket for the same or another instant or draw game (with amount and specifications changeable and determined by the Lottery), a coupon ticket, a serialized second chance ticket, or an entry slip ticket;*
- *Variable ticket count used to trigger a promotional event (Nth ticket) by game, play type, play amount, purchase amount, and/or multi-draw count issuing a free play ticket (mirrors original wager or Lottery a coupon ticket, a serialized second chance ticket, or an entry-slip ticket);*
- *Prize percentage increase or manual increase by game and/or prize level for specified winning wagers which may or may not include drawing an additional winning number or set Of winning numbers;*
- *Multiplier function permitting an additional wager for a chance to multiply base prizes for each drawing (e.g. Travel Keno with Bonus);*
- *Multiple drawings for the same game within one day (day/night) with the same play for both drawings;*
- *Multi-game easy pick ("Sampler") producing two or more plays for different games and may or may not include a discounted play, and*
- *Additional wager whereby a player has the option to play additional randomly selected numbers ("Spiel") than the regularly drawn numbers.*

Messaging on original trigger ticket must be variable and used to alert the player and the retailer that an additional play, coupon, or ticket has been issued.

We look forward to collaborating with the Lottery on its promotional program. Our solution goes beyond the systems and the types of promotions we can make available to you. It also includes expert support in promotional planning, including the following basic steps:

- **Analyze:** We will work with you to conduct pre- and post-sales analysis of particular promotions in particular time periods. This enables us to compare sales of the game during the promotion to sales during non-promotion periods. The following figure shows an example of such an analysis of a Red Ball promotion from four customer sites.

Figure 4.2.33 – 2:

Successful Red Ball Promotions in Peer States			
Jurisdiction	Promotion Name	Game	Sales Impact
Virginia	Pick 3 Fun Ball Payback	Pick 3	1.84%
Ohio	Pick 3 Red Ball	Pick 3	10.55%

- **Collect:** In addition to analyzing your promotions, we will gather information from our database of promotions conducted among our customers. By doing so, we can analyze the success of certain promotions in other jurisdictions.
- **Recommend:** Our evaluations will determine if we recommend particular promotions to you based on their success in other jurisdictions. Success in one place does not guarantee success in another place. We will recommend that the Lottery adapt only those promotions that are relevant to your player segments, games, and overall business.

Our overall approach to promotional planning will be based on what's important to you, including, for example:

- FMSR program.
- Grouping promotions.
- FMSR tracking.

Throughout the Contract period, we will look forward to bringing product and promotional initiatives to the Lottery's attention for your consideration. We prefer to base our discussions on actionable data, which we will share with you at scheduled meetings and as warranted.

West Virginia Lottery-Required Promotion Types

IGT's system includes all of the promotion types required by the Lottery. The following pages define how these promotion types appear in the System, describe the promotion, and provide examples of how they have successfully enhanced sales for our customers. We direct your attention to the promotions that were conducted in collaboration with chain stores. Given that 80% of your sales are generated through chain stores, IGT recommends and can provide chain-only promotions as a potential strategy for your promotions program.

Subsequent pages identify additional promotion types that IGT will make available to the Lottery. We reiterate that each of these promotion types, if desired by the Lottery at requirements gathering, will be fully developed and tested during the conversion process. This will ensure that all desired promotions will be available from day one of the new Contract.

Buy X, Get Y

Buy X, Get Y is the most prevalent promotion found in marketing plans. It can be created and presented in numerous ways to achieve desired player attraction and engagement goals. The Lottery can also use promotions as a way to co-promote products with its retailers and with other consumer goods providers.

Buy X, Get Y is defined as the ability to base the “X” on a transaction cost versus ticket cost and play type. This promotion uses the appeal of popular products to encourage trial of new and lesser-known products. It can encompass numerous configurations, including players who purchase X draws of a specific game and receive Y draws/boards of the same or different game free, at a discount, as a second chance prize and more. It can also reward higher than average price per ticket.

The following IGT examples fall under the Buy X, Get Y category of promotions. We note in the examples if they are also referred to by another name.

Traditional Buy X, Get Y

Figure 4.2.33 – 3:



Sales increased 12.1% comparing the 13 weeks pre-launch to the 8 weeks throughout the promotion.

Cash Prize

Cash Prize promotion is a Buy X, Get Y promotion that awards monetary prizes during the promotional period based on the Lottery's criteria, such as Nth player receives \$X instantly.

Figure 4.2.33 – 4:

Cash Prize Rhode Island



From June 1-14, all players spending \$10 or more on a single Lucky for Life ticket will have the chance to win \$100 INSTANTLY at the terminal.

A trailer ticket will print from the terminal. The player must then bring the ticket to the RI Lottery headquarters to redeem the prize. All players who redeem their prize will also be entered into a drawing to win one of 5 \$1,000 second-chance prizes!


Sales increased 20.8% during the two promotional weeks (comparing 13 weeks pre-launch) and 5.0% comparing 13 weeks pre-launch to 10 weeks post-launch (most recent week available).

Serialized Coupon

With a serialized coupon, a promotion produces a bonus cash voucher which can then be redeemed for cash, a free ticket, or a specific lottery or non-lottery product. It can also apply to coupons generated on a corporate retailer's mobile app.

Figure 4.2.33 – 5:

Coupon: New Jersey



CELEBRATE TODAY!

June 1 - June 14

Buy \$4+ of **CASH4LIFE**,
get \$1 off coupon for
Powerball with Power Play
Quick Pick!

The New Jersey Lottery is celebrating its first anniversary of its Cash4Life game this June! Players spending \$4 or more on a single Cash4Life ticket during the promo period will receive:

- June 1-14: \$1 coupon for Powerball with Power Play
- June 14-28: \$1 coupon for Mega Millions with Megaplier

More than 4.1 million coupons – 4,121,554 to be exact – were produced with an overall redemption rate of 58%. Sales during the promotion increased nearly 2%, while in previous weeks they had been declining at about 2% per week.

Via Aurora Promotions, the System will also validate Lottery-sponsored coupons and promotional items and provide System-generated barcode numbers to the Lottery for printed or electronic coupons.

Raffle

A raffle is a Buy X, Get Y promotion type that awards a raffle ticket redeemable for a non-lottery product.

Figure 4.2.33 – 6:


Raffle Promo (Rhode Island)

☆☆☆

Get a Lucky Raffle ticket when
you purchase \$8 or more on
1 Lucky for Life Ticket

March 16-March 30, 2014

Top Prize \$400



Lucky Raffle!

Promotion Dates:
March 16 – March 30, 2014

Get a 'Lucky Raffle Ticket'
for a chance to win \$400
when you spend \$8 or more
on 1 Lucky for Life Ticket!

PLAY DAILY
to get entered
into each drawing.

Winning Raffle Numbers will be
posted on this page (scroll
down) by 10am the next day.
Results for Friday, Saturday
and Sunday will be posted on
Monday.

'Lucky Raffle Ticket'
required to claim prize.

Raffle tickets are good for only
one drawing to play every day!

Sales were up 6.1% when comparing 13 weeks pre-promotion to the two weeks during the promotion. Weekly sales averaged \$128,755 for the two weeks.

Second Chance

A second-chance promotion is a Buy X, Get Y promotion type in which non-winning tickets can be entered into an additional drawing; typically, the player enters a code via the lottery's website.

Hoosier Millionaire Tickets



The promotion generated 518,772 total entries.

Every Nth

An Every Nth promotion involves a ticket that issues a prize to a customer who buys a specified ticket that happens to be the designated Nth ticket purchased at a terminal. The following are both examples of a successful Every Nth promotion.

Gift Card Giveaway

Figure 4.2.33 – 7:



Washington's Lottery hosted two concurrent co-op promotions with two of the state's largest chains. In Albertsons locations, all players spending \$5 or more on a single Mega Millions ticket had the chance to win a \$50 Albertsons gift card; every 60th player received a voucher for a gift card.

Two hundred and two (202) gift card vouchers were awarded at Albertsons locations, with 186 redeemed for a 92% redemption rate.



Bonus Cash

In Missouri, the Lottery created an Every Nth promotion on its Pick 3 Bonus Bucks game.

A numbered raffle ticket followed every \$1 or greater Pick 3 single-ticket purchase for that day's draw (midday or evening).

Once a week during the four-week promotion, a drawing was held for the raffle numbers issued that week. At each weekly drawing, the Lottery awarded:

- \$2,500 CASH (16 total prizes) at each of the four weekly drawings, four prizes of \$2,500 were awarded.
- \$10,000 CASH! (4 total prizes) At each of the four weekly drawings, one prize of \$10,000 was awarded.

At the final drawing on March 1, one grand prize of \$50,000 was randomly selected among ALL of the raffle numbers issued during the entire promotion, giving players two chances to win cash during the raffle drawings for each qualifying purchase.

Eligible players also won \$10 instantly during the raffle promotion.

- More than 350 times per day, a "Bonus Cash" voucher printed with a minimum \$1 Pick 3 ticket purchase for the current or same-day draw, good for an instant \$10.
- The terminal played a special tune and the Vacuum Fluorescent Display (VFD) sign flashed a "You've won \$10!" message to alert players that they won.
- Every player who purchased a qualifying Pick 3 ticket received either a raffle ticket for the designated drawings OR a Bonus Cash voucher for a \$10 instant prize.

As a second example, we provide a description of the Club Keno Playmaker bonus Raffle and Bonus Cash Promotion, in which players could win \$7, \$3 or \$2 INSTANTLY whenever they play Club Keno, with an average of 1,500 instant cash winners awarded every day during the promotion. At random intervals, a Bonus Cash voucher will follow a Club Keno purchase for the current drawing. A special tune will play on the terminal, and the Bonus Cash voucher will print from the terminal immediately after the Club Keno purchase.

Prize Percentage Increase

A prize percentage increase is a promotion through which, for a predetermined promotional period, such as “Happy Hour,” the System allows winning tickets to award increased prizes (by X%) for all tickets or tickets meeting certain draw, board, or winning division requirements.

IGT customers have used this promotional feature, including the Arizona, California, Florida, Georgia, Kansas, Michigan, Minnesota, Missouri, New York, North Carolina, Oregon, Rhode Island, Tennessee, Virginia, and Wisconsin Lotteries. We highlight the following success stories from New York and Michigan. This promotion can also be called a Markup Prize promotion.

Figure 4.2.33 – 8:

Markup: New York



FEBRUARY BONUS DAYS



BONUS TUESDAYS

600-1 PAYOUT

Every Tuesday in February, regular prizes on the **NUMBERS** midday and evening draws will increase by at least 20%.

INSTANT WIN AND WING NOT INCLUDED IN THIS PROMOTION



BONUS WEDNESDAYS

6000-1 PAYOUT

Every Wednesday in February, regular prizes on the **WIN 4** midday and evening draws will increase by at least 20%.

INSTANT WIN AND NUMBERS NOT INCLUDED IN THIS PROMOTION

Throughout February, all prizes on midday/evening Numbers tickets sold on Tuesdays and Win 4 tickets sold on Wednesdays increased by at least 20%!

Comparing 13 weeks pre- and post-promotion launch, sales of Numbers and Win 4 were up 3.4% and 5.5%, respectively.

Figure 4.2.33 – 9:

Sample Bonus Payoff Promotion

Michigan Doubler Days



HOW TO PLAY

From now until April 2nd, random Club Keno tickets will be printed with a DOUBLER message (see image to the left). Any Club Keno prizes won on these tickets will be doubled. If a player purchases a multi-draw ticket with a DOUBLER message, all winnings accrued in all drawings on that ticket are doubled.

Club Keno tickets must be valid winners to be eligible for the doubler winnings.

A DOUBLER message itself does not denote a win.

The DOUBLER applies to all Club Keno base game and Kicker prizes. Jack prizes are not eligible for this promotion.

Multiplier

In a multiplier promotion, the Lottery will pull another number – and signify it as a bonus, or pull a multiplier at the beginning of the game – for an additional dollar.

Figure 4.2.33 – 10:



The Wisconsin Lottery provided a Lightning Ball promotion on Megabucks, in which every Nth ticket was a lightning ticket, received a lightning ball number, and the Lottery added a prize level for Megabucks. For example, if players matched 5/6 plus the Lightning Ball, they won a prize. The jackpot could only be won for matching 6/6. Results included:

- Megabucks:
 - Promotional sales up 15%.
 - Post promotional sales down 4% (two months).
- Badger5:
 - Promotional sales up 17%.
 - Post promotional sales up 5% (three months).

An additional multiplier example can be found in Georgia, which ran a Super Bowl Keno Bonus Hours promotion. In this promotion, the Lottery offered 30% higher payouts on all winning Keno tickets during particular two-hour intervals on three dates leading up to and including Super Bowl Sunday.

Multiple Drawings

Multiple drawings are a popular promotional feature that we run with more than half of our customers – it's effective for jurisdictions in states where such drawings are permitted.

Typically, lotteries add draws on a permanent basis through the Aurora Transaction Engine and its product-management application. Examples of this include adding midday draw sales for a game that had previously been drawn only at night or adding a Sunday draw. The included software module has the capability to vary draws to create drawing events. The software (whether Transaction Engine or Promotions module) allows you to make temporary or permanent changes to the number of drawings per day. We can vary the number of draws per game, number of draws per week, and the day on which drawings are held. Some lotteries will move the draw date for certain games to accommodate major holidays (Christmas, for example).

Aurora enables those types of events.

Figure 4.2.33 – 11:



On March 31, 2008, the North Carolina Education Lottery (NCEL) added a second daily draw to its Pick 3 game. Following the success of adding a second daily draw to its Pick 3 game, a draw was added to Pick 4.

Comparing 13-week pre/post transition, Pick 3 sales increased 22.5%; this positive effect was magnified as time went on, with the spike increasing to 53.4% comparing the 52 weeks pre/post transition.

The Pick 4 transition saw an even greater immediate effect of the additional draw; sales were up 46.6% (13 weeks pre/post) and continued to climb throughout the year, with a 56.4% increase comparing the 52 weeks pre/post.

Sampler

The “N-Pack” promotion functionality allows a user to identify “N” number of games to include in a sampler promotion. A discount (or free ticket) can be applied to the bundle of tickets. The discount or free ticket is applied to the last ticket configured in the N-Pack. This is a multi-game Easy Pick (random generation), whereby the system automatically generates additional plays, either with or without a premium. We have worked with many customers, including Florida, Nebraska, Arizona, and Minnesota, and highlight a sampler promotion from Wisconsin in the following example.

Figure 4.2.33 – 12:

Sample Sampler Ticket Promotion

Wisconsin: Lucky 7

LUCKY 7

7 GAMES.
7 DOLLARS.



- For \$7, a player will receive a Quick Pick for seven lotto games for the next drawing of Powerball, Mega Millions, Megabucks, SuperCash!, Badger 5, Pick 3 and Pick 4
- The \$7 is for a \$2 wager on Powerball; \$1 wagers on Mega Millions, Megabucks, SuperCash!, and Badger 5; and \$.50 box plays on Pick 3 and Pick 4

Spiel

EZMatch is a game add-on that can be used as a promotional feature on a daily game. The add-on gives players a chance to instantly win up to a particular amount of cash. By adding EZMatch to a base game for \$1, players can achieve a 1 in 5.1 chance to win a cash prize (typically from \$2-\$500) that can be redeemed instantly, just by matching the EZMatch numbers to their game numbers. Our South Dakota customer experienced a 44% increase in sales from the EZMatch enhancement. EZMatch sales are incremental and have caused a large increase in base wager spending.

Messaging on the original trigger ticket can be configured to be variable and will be used to alert the player and the retailer that an additional play, coupon, or ticket has been issued.

Additional Available Promotions


Free Play

Aurora Promotions offers several filters and triggers (such as every Nth ticket, buy X get Y, and buy Y get Y) that allow a user to receive a free play ticket. The amount and specifications of the free play will be changeable and determined by the Lottery at start-up and during the promotion. The System supports issuing free Easy Picks, single-board or multi-board plays for any and all games or any combination for coupon redemption

Figure 4.2.33 – 13:

Sample Free Play Promotion

North Carolina 1-Off Giveaway



- Throughout the entire month of March, any player who purchases a Pick 3 or Pick 4 ticket has the chance to instantly win a **FREE 1-Off ticket**
- The ticket is printed directly from the terminal at the time of purchase

Sales of Pick 3 and Pick 4 increased by 2.3% and 6.1%, respectively, comparing the 13 weeks pre-promotion to the five weeks throughout March.

Cross-Promotion

Aurora will support promotions between products that allow for discounts (e.g., buy “X” amount of Game A and get “Y” amount of Game B free). This function will be tested and operational at Go-Live. This particular cross-promotion depicts what we call a Partner Prize or Partner Play, a Buy X, Get Y promotion in which the purchase of a Lottery ticket generates a voucher for a free item in the store. To ensure this meets with the Lottery’s accounting rules, we will work with your retailers, including corporate chains, to provide such special incentives to your players.

Figure 4.2.33 – 14:



Available at all 16 rest stops along the New Jersey Turnpike and Garden State Parkway, the New Jersey Lottery offered a free 25 oz. Arctic Sol Water for all players spending \$5 or more on a single Mega Millions ticket.

By week 10 of the program (13 weeks overall), 5,078 of 9,214 issued coupons had been redeemed, for a 55% overall redemption rate.

This promotion type can also work in reverse, with the purchase of a non-lottery item providing the opportunity to get a free lottery ticket.

Both draw and instant ticket scratch-off game products may be cross-promoted in combinations (namely draw-to-draw and instant scratch-off ticket-to-draw). Understanding from our lessons learned in West Virginia that your desired promotions require testing during conversion, we assure the Lottery that our system will support draw games as prizes for instant ticket scratch-off games. The Missouri Lottery launched \$5 Powerball and Mega Millions instant ticket scratch-off tickets designed to create synergies between the classic draw games and the instant ticket scratch-off portfolio.

Should West Virginia opt for this opportunity, it can help to attract draw-game players to your instant ticket scratch-off games and vice versa.

Figure 4.2.33 – 15:



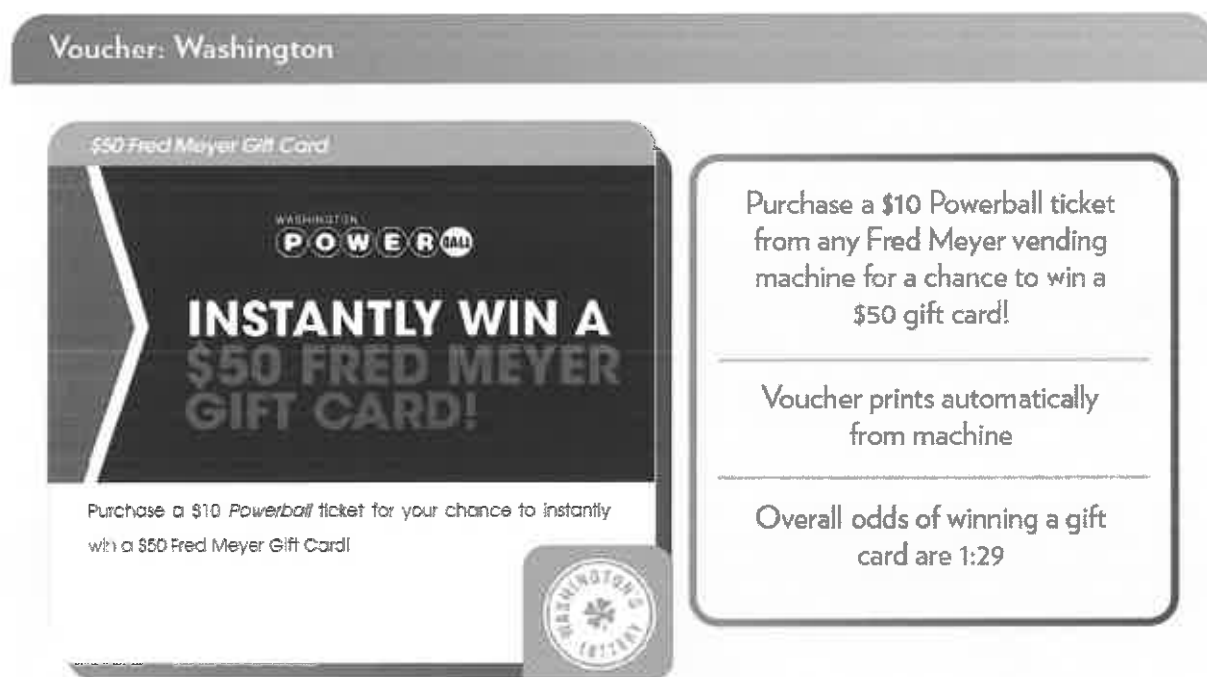
The first release of the ticket, launched in May 2013, indexed at 143 against all other \$5 games. The second release, launched in April 2014, indexed at 172 against all other \$5 games.

This strategy can also be used to leverage strong awareness of in-state games such as Cash 25.

Voucher

A voucher promotion awards a voucher redeemable for a non-lottery product in exchange for a particular lottery purchase. Our customer in Washington runs a monthly promotion specific to its corporate chains. The retailer, in turn, supports the program by offering the non-lottery product – in this case, a gift card. This specific voucher program combines the characteristics of both a Buy X, Get Y and an Every Nth promotion.

Figure 4.2.33 – 16:



Washington's Lottery hosted two concurrent co-op promotions with two of the state's largest chains. In one, in Fred Meyer locations, players spending \$10 or more on a single Powerball ticket had the chance to win a \$50 Fred Meyer gift card; every 30th player received a voucher for a gift card.


Three hundred fifty-two (352) vouchers were awarded at Fred Meyer locations, with 322 redeemed for an astounding 91% redemption rate.

Payout on Two Sets of Winning Numbers

IGT has worked with many lotteries to execute this type of promotion, including Kentucky, Michigan, New York, and Virginia. Aurora allows for the drawing of two winning numbers (set of winning numbers). The second set of numbers is considered a bonus payout.

Figure 4.2.33 – 17:

Payout on Two Sets of Winning Numbers



**WHEN THE GREEN BALL
POPS UP, YOU GET A
SECOND CHANCE TO WIN!**

AVAILABLE ON MIDDAY AND EVENING DRAWS



[LEARN MORE](#)

**March 23
THROUGH
April 5**

Go Green with Green Ball! Available March 23 - April 5!

When the Green Ball is drawn, a second set of Pick-3 numbers will be drawn for an additional chance to win.

Watch the Pick-3 Green Ball drawing on the Watch Drawing tab or by tuning into the evening drawings on channels PHL 17 and PIX 11 at approximately 7:58 p.m.

TWICE DAILY

PICK 3 BRINGS YOU FUN, EXCITEMENT AND PRIZES.

Sales of Pick 3 during the promotion were up 11.9%, comparing the 13-week period prior. Comparing 13 weeks pre/post promo, sales were up 6.8%.

Available Game Promotions

Discounting

Discounts plays can be provided on specified games. Discounts can be offered automatically or with a coupon. We understand the challenge of accounting for free tickets, in that the Lottery has not run raffle promotions. We will work with the Lottery to solve this accounting issue should you require discounting promotions in your coming Contract.

Figure 4.2.33 – 18:



The Michigan Lottery offered a \$5 discount off the \$50 price of its \$2,000,000 Super Raffle IV ticket on the first 50,000 tickets sold. 250,000 tickets were available for purchase overall.

The 50,000 discounted tickets sold out in less than two weeks; \$2.03 million and \$1.09 million worth of tickets were sold in its first two weeks on the market. Overall, 215,596 total raffle tickets were sold, producing \$10.8 million in sales.

Match X of Y

In this type of promotion, the Lottery adds a temporary extra winning level (division).

Figure 4.2.33 – 19:

Match X of Y: New York Bonus Lotto Week



The poster features the New York Lottery logo at the top left. The main title is "BONUS NEW YORK LOTTO WEEK" with "Valid for two Lotto drawings" below it. A large vertical "MARCH" is on the left. The "BONUS MONTH WEEK 3" is at the bottom left. The "NEW YORK LOTTO" logo is at the bottom center. A table titled "Bonus Promotion Prize Levels" is in the center.

Match	Expected Prize Amount
6	JACKPOT
5 + Bonus	\$103,448
5	\$1,509
BONUS 4 + Bonus	\$149
4	\$27
BONUS 3 + Bonus	\$17
3	\$1
BONUS 2 + Bonus	\$1

In addition to all the regular Lotto prizes, now match the Lotto Bonus Ball and two, three or four of the Lotto winning numbers to win one of the Bonus Prize Levels.

The New York Lottery hosted a “Bonus Lotto Week” that added three prize tiers to the standard Lotto matrix: Match 2, 3, or 4 + the Bonus Ball to win a Bonus Prize.

Sales during Bonus Lotto week were \$3.841 million with a \$13/\$14 million jackpot, compared to \$3.823 million with a \$15.2/\$16.5 million jackpot the week after. With 55,866 additional winners, 40.7% of all players who won a prize during Bonus Week won a Bonus Prize that wouldn’t usually have been paid out!

Web Codes Promotion

For several types of promotions or promotional features, IGT can print a specific web code on the game ticket.

Figure 4.2.33 – 20:

Sample Web Codes Promotion

Missouri: Second Change of a Lifetime



**ENTER NON-WINNING
SCRATCHERS AND
DRAW GAME TICKETS
FOR YOUR CHANCE TO WIN!**

- All summer long, players can enter **ALL** non-winning scratchers and draw game tickets online for the chance to win the trip of a lifetime, including airfare, accommodations, ground transportation, and \$2,000 spending cash. Three lucky winners will choose among:
- CMA Awards: Nashville, TN • South by Southwest: Austin, TX • Bonnaroo Festival: Manchester, TN
- Coachella Festival: Indio, CA • Stagecoach Festival: Indio, CA
- And 30 more winners will receive \$1,000 cash!

IGT recently started similar promotions in California on a Super Lotto second chance promotion, and in Indiana on Lotto.

Kicker

A kicker promotion enables players to win an additional prize by matching their selected numbers either forward or in reverse order. It is typically played for an additional \$1 on a classic lotto or numbers game.

Figure 4.2.33 – 21:

Sample Kicker Promotion

Daily 4
June 1-30

←
STRAIGHT

→
BACK

BONUS

Match your straight bet
**IN REVERSE
and WIN!**

You Play	Lottery Draws	You WIN!
1-2-3-4	4-3-2-1	\$1,000

DOUBLES
Your Chance
to Win Cash!

1-Off bets are not eligible for this promotion.

During the Michigan Lottery's Daily 4 Doubler promotion, Daily 4 saw an average weekly sales lift of 2% compared to the 13 weeks prior.

Variable Commission Rates

For certain draw and instant ticket scratch-off products, defined by the Lottery, commission rates may be set differently from the default value. For certain retailers or retailer subsets, commission rates may be temporarily or permanently set differently from the default, as defined by the Lottery. Through Aurora administrative screens, retailers can be defined as having a different commission class from the default. Commission classes are initially defined in the System specifications, and additional classes can be added to the System as required. Commission rates may be set for one or more days, or any portion of a day.

Some lotteries have used temporary increases in retailer commission rates to build a strong foundation for new game launches. Using Aurora Promotions to make such temporary commission changes quickly and easily on the System gives lotteries a great tool to foster retailer attention to new games. By the time the commission bonus expires, players have adopted the routine of playing the game

Figure 4.2.33 – 22:

Sample Variable Commission Rates Promotion

Texas Pick 3 Retailer Cash Incentive Program



Pick 3[®] Retailer Cash Incentive Promotion
MARCH 8 – APRIL 18, 2015

Earn 15% on Every Pick 3 Sale over Target*

Target

- * Earn 15% on every Pick 3 sale over your Target* sales for standard commission + 10% Pick 3 Retailer Cash Incentive Promotion payment.
- * Your Target is your Average Weekly Pick 3 sales for 4 to 5 weeks Sunday, November 23, 2014 – Saturday, January 3, 2015 x 6 weeks (number of Pick 3 weeks to determine) + 5% Target = (Avg Weekly Pick 3 Sales x 6) + 5%

Eligibility

- * To participate in the Pick 3 Cash Incentive Promotion, a retailer must have Pick 3 sales during all 6 weeks of the Target period (Sunday, November 23, 2014 – Saturday, January 3, 2015).
- * A retailer who started selling lottery after November 29, 2014, is not eligible for participation in the promotion.
- * A retailer must be in Active status on April 18, 2015, to be eligible for payment.

Tracking Sales

- * A Pick 3 Retailer Cash Incentive Promotion report will NOT be available for tracking your status.
- * Use the Internal Daily Sales report to track your Pick 3 sales and record your progress on the tracking sheet on the back of this flyer.

Flexibility: Statewide to Single Store

Our new Promotions module is agile and parameter-driven. If the Lottery wants to turn on certain promotions for chain stores or provide a promotion to specific zip codes, etc., our system makes selective grouping available. IGT pioneered the algorithm that gives lotteries the capability to deliver this feature. Aurora includes a complete, parameter-controlled mechanism to afford the Lottery optimum flexibility in terms of promotion and message creation for regional or otherwise targeted marketing purposes.

Within Aurora's Promotions module, authorized users can create retailer groups through predefined criteria, such as zip code, business class, region, territory, or specific game. Groups can also be created by manually assigning retailer numbers to the group.

We acknowledge the Lottery's currently offered promotion types and assure the Lottery that our System will support them. For example, the proposed Flex terminal will provide a button that will enable initiation of a specified promotion, such as terminal-based game bundles. The System will track how many times each button is pushed and which sample games came out of the terminal. All such transactions are tracked through Aurora Performance Intel.

In summary, IGT is positioned better than ever to provide the level of support for increasing and enhancing your promotional program. In addition to having a wide range of promotion types available and long experience helping customers with successful promotions, we offer a system that makes it fast, easy, and transparent to set up and launch promotions. We will be accountable to the Lottery for every promotion. Those you desire for your next Contract will be available, beginning on day one of the new Contract, and we will work with you to build your program to maximize sales and revenues.

4.2.34

Promotion Accounting and Reporting

The System should support promotions and tasks related to promotions and should be configured to perform operational tasks, accounting, and reporting functions necessary for all promotions. Additional specifications for defining promotions and other System requirements for promotion operations, accounting, and reporting are included below and should be described in Vendor's proposal.

Proving the Worth of Your Promotions

Across the lottery and consumer product industries, it has historically been difficult to provide the worth – or return on investment (ROI) – for promotions. IGT acknowledges the importance of measuring ROI for promotional dollars. We will provide sales reports that will allow the Lottery to measure before and after a promotion is run. The evolved business intelligence system that underpins promotion accounting and reporting has been developed with IGT customer marketing directors, from Georgia, North Carolina, and elsewhere, assuring the Lottery of support and services that are customer-approved and appropriate to the task.

* Promotion transactions are uniquely identified and associated with proper game(s) accounting to record counts, discounts, credits, bonuses, commissions, and other promotional activities so they may be distinguished from standard counts, discounts, credits, bonuses, commissions, and other activities that are not of a promotional nature. Retailer commission and bonuses for cashing or issuing a promotion ticket will be varied and paid on a per promotion basis and tracked independently as well as summarily. The System produces promotion summary and transaction reports defining outstanding liabilities and claimed amounts. These reports are available through management workstations, standard terminals, self-service terminals, Field Marketing and Sales Representative devices, and integrated into all standard reports;

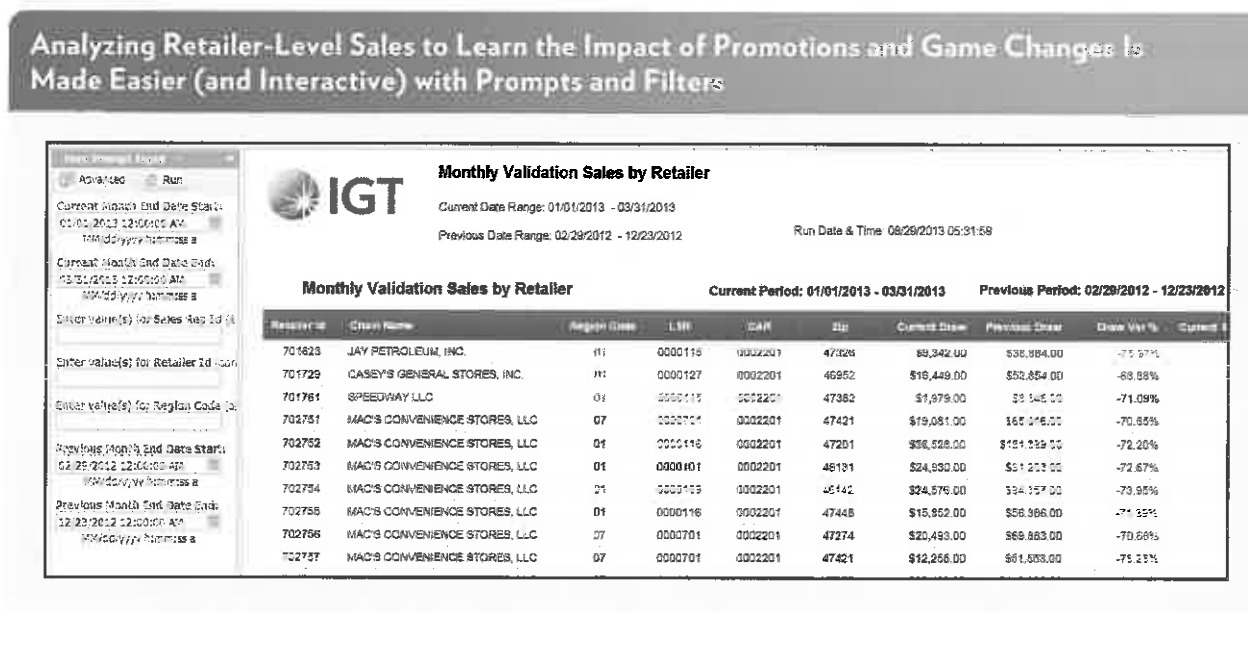
Analysis Options: Effectiveness of Game Changes, Promotions, etc.

New games, core games, and the associated game promotions provide the main areas of inventory and sales analysis of instant scratch-off ticket game promotions. Draw games and promotions rely on sales data to validate performance.

For example, leveraging Performance Intel's Scratch Tickets performance module, \$2 price-point games can be analyzed by varying dimensions (sales rep or district manager), historical trend, and business type to narrow the focus of poor Year-Over-Year (YOY) sales.

Promotions are critical to selling, upselling, or cross-selling games, or simply creating game awareness. To see if your promotions investment is working (having the intended impact on sales), Aurora Performance Intel can provide a variety of reporting and analysis options. Tracking sales of any demographic – and drilling down to retailers, chains, or selected segments of retailers or chains by relevant time dimensions, game or game categories, and the associated DMs – can help you better understand your promotions and provide the insight needed to adjust future promotions. One sample report shows draw games sales by retailer. Filters and prompts can be added or changed for the appropriate drill-down and analysis relevant to the promotion or game change. Prompts and filters are available in all reports and data visualizations in Aurora Performance Intel. Looking at any time period affords a user control over the relevant time period of game sales that can be associated with a game change or a promotion.

Figure 4.2.33 – 23:



Another example shows a rates-of-sale dashboard that includes links to tabular reports of selected instant ticket scratch-off games. These metrics may point towards the need for a new promotion if the rate is low, replacing those games, or simply improving game penetration of those games.

Track and Provide Reports on Specific Sales or Promotional Thresholds

Goals, thresholds, and benchmarks make business intelligence and analytics relevant, and relative in many cases, as opposed to time comparisons, averages, and other descriptive statistics. Aurora Performance Intel allows goals to be added and, optimally, will work with feeds from our Aurora Transaction Engine administrative applications to manage and control lottery-fed thresholds, goals, and benchmarks. Some information, in particular thresholds and benchmarks, can not only be part of Aurora Performance Intel but also be adjusted to empower the user to play “what-if” analyses and adjust a threshold with an input control.

Penetration rates are a good example of a variable that can impact instant scratch-off ticket game sales. In California, a sales-rep incentive program to increase game penetration helped enable a multi-million dollar increase in weekly sales state-wide. An example of a tracking and “what-if” mechanism to analyze instant scratch-off ticket game penetration is an adjustable penetration rate threshold that adjusts the level of game penetration and the traffic-lighted gradient colors of penetration (green is good, over the established threshold).

Information to Adjust Retailer Commissions or Pay Retailer Bonuses

Historical analysis of sales and cashes, tracking the level of winners across retailers and districts, and other data-driven insights are instrumental in adjusting the sales and cashing commissions and bonuses for retailers from store winners to ensure retailers are engaged and motivated and want to be Lottery retailers.

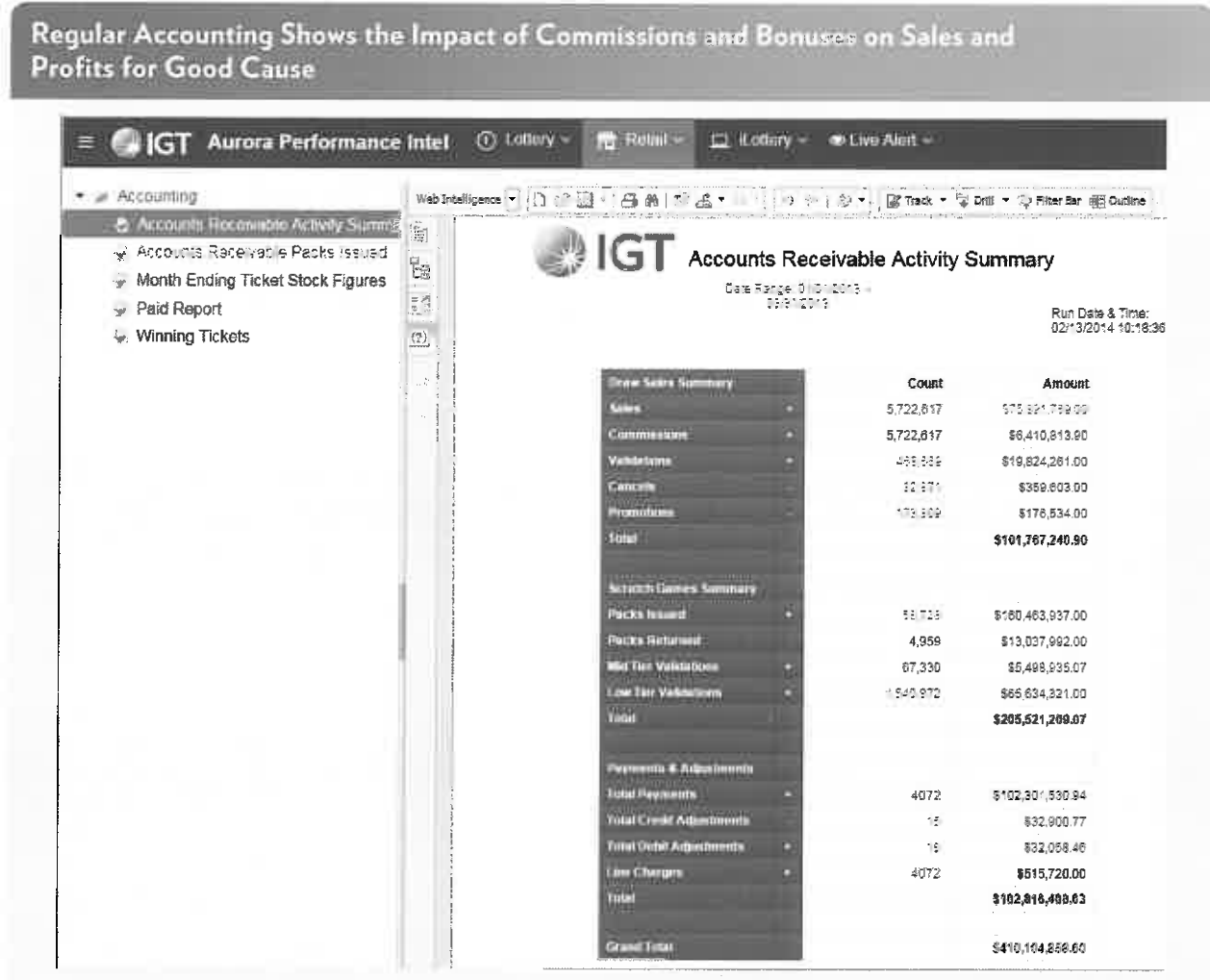
The program structure must be set and adjusted appropriately to grow sales and entice new retailers.

The right business intelligence and analytics, which are available from Aurora Performance Intel, will make sure that the right level of retailer profits can be attained to grow the Lottery’s retailer base. Aurora Performance Intel can provide a depth of longitudinal and even real-time reporting to meet the analytical need to adjust retailer commissions and bonuses.

Historical retailer earnings and sales can impact decisions on commissions and bonus rates.

Reviews of accounting and finance reports, payouts, and sales show the impact of commissions, promotions, and bonus decisions on the growth in Lottery retailers and new retailers. The following Aurora Performance Intel report shows detailed accounting that includes commissions relative to the other ingredients of a financial statement to show a bottom-line profit.

Figure 4.2.33 – 24:



*Redemptions are limited per promotion to create a "While Supplies Last" event:

IGT's System will accommodate reports on redemptions as limited per promotion to create a "While Supplies Last" event. We can work with the Lottery to change a parameter to sell up to a certain dollar amount or a certain number of tickets. The promotion could include messaging to consumers that indicates there are a limited number (while supplies last) of tickets. With Aurora Promotions, the Lottery can easily set any appropriate threshold for the promotion.



Operational aspects of both standalone and multi-jurisdictional raffle games with tickets and numerical sequencing generated and tracked by the System both within a given parameter of volume and with an administrative cut-off. Comprehensive reporting for the issuance of raffle tickets, including but not limited to: place and time of sale, number per day, and per game:

** An audible and visual security alert feature indicating trigger ticket cancellations at any retailer location in excess of set of parameters; and*

IGT's System will provide an audible and visual security alert feature to indicate trigger ticket cancellations at any retail location in excess of set parameters.

** The Lottery may employ System generated and third-party external coupons to trigger a System promotional event. Coupons will be serialized, have a unique identifier, and use standard-use barcodes to redeem and track each coupon individually and associate with the resulting ticket(s).*

Via Aurora Promotions, the System will validate Lottery-sponsored or third-party coupons and/or promotional items to trigger a promotional event. The coupons will be serialized, with unique identifiers, and use standard barcodes to redeem and track each coupon individually and associate it with the resulting ticket(s). The System will generate barcode numbers for printed or electronic coupons.

4.2.35 System Management Applications

Software provided by the Vendor that resides on these workstations must be compatible with all current versions of Windows Operating Systems, including versions of Internet Explorer and other third party browser vendors, including Firefox, Chrome and others. Additional specifications related to Management applications and management workstations are provided in this section.

The software that IGT will provide to the Lottery that resides on these workstations will be compatible with all current versions of Windows Operating Systems. This includes versions of Internet Explorer and other third-party browser vendors, including Firefox, Chrome, and others. Additional specifications related to management applications and management workstations are provided in this section.

With the new solution, the Lottery can upgrade to the latest version(s) of whatever browser it is using during the life of this Contract. All of the UIs for our new Aurora product line are designed to be browser agnostic and tested against current versions of Internet Explorer (currently IE11), Firefox, and Chrome. We want to assure the Lottery that we will support any mainstream browser it chooses to use.

Lottery end users will access all system applications through Aurora Navigator. Aurora Navigator is browser agnostic and presents screens via an intuitive HTML 5 UI.

4.2.35.1

Workstation Reports

System Interfaces and sends files to and from Lottery workstations. Users are able to abort a report, the running of a report and printing of a report or graphic with minimal system run-time.

IGT acknowledges the System will interface and send files to and from Lottery workstations. We further acknowledge that users will be able to abort a report, the running of a report, and printing of a report or graphic with minimal System run-time. IGT's Aurora lottery gaming system will provide this same functionality. Please see the information provided about IGT's Aurora Performance Intel solution in Section 4.3, Reports and Interfaces.

4.2.35.2

Validation Workstation

Application should allow a user to assign retailer commission rates and bonus rates that are date sensitive and vary by retailer license type and game. All rates, rate changes, and their effective periods are recorded and used by the System to calculate retailer commission amounts and bonus amounts.

Aurora Retailer Manager will allow an authorized user to assign retailer commission rates and bonus rates that are date sensitive and vary by retailer license type and game. All rates, rate changes, and their effective periods will be recorded and used by the Aurora System to calculate retailer commission and bonus amounts.

For certain draw and instant ticket scratch-off game products, defined by the Lottery, commission rates may be set differently from the default value. For certain retailers or retailer subsets, commission rates may temporarily or permanently be set differently from the default, as defined by the Lottery. Through Aurora administrative screens, retailers can be defined as having a different commission class from the default. Commission classes are initially defined in Aurora specifications, and additional classes can be added to Aurora as required.

Commission rates are date sensitive and can vary by retailer license type and game and may be set for one or more days, or any portion of a day. Some lotteries have used temporary increases in retailer commission rates to build a strong foundation for new game launches. Using Aurora Promotions to make such temporary commission changes quickly and easily on Aurora gives lotteries a great tool to foster retailer attention to new games. By the time the commission bonus expires, players have adopted the routine of playing the game.

4.2.35.3

Hotline Reports

Authorized users are to receive Hotline call summaries and resolution records in real time that are categorized by individual retailers, call type, solution, and individual respondent responsible for resolving the issue.

Vendor should describe its Management Applications and proposed management application software solution to perform all tasks specified in Section 4 and all terms and conditions of this RFP. Reporting and interfaces that allow files to be sent from management workstations or management applications should be described in detail in the Vendor's response.

With IGT's solution, authorized users will receive Hotline call summaries and resolution records in real time that are categorized by individual retailers, call type, solution, and individual respondent responsible for resolving the issue.

The Management Applications and proposed management application software solution to perform all tasks specified in Section 4 and all terms and conditions of this RFP include Aurora Navigator and our reporting solution, Aurora Performance Intel. Information about Aurora Navigator is provided at the beginning of Section 4.2, System, and in particular under the heading Aurora Navigator Back-Office. Aurora Performance Intel is described in Section 4.3, Reports and Interfaces. Reporting functionality and associated interfaces will allow files to be sent from management workstations or management applications, as described in Section 4.3, Reports and Interfaces.

In the following paragraphs IGT describes its Management Applications and proposed management application software solution to perform all tasks specified in Section 4 and all terms and conditions of this RFP. The reporting and interfaces that allow files to be sent from management workstations or management applications are described in detail below.

IGT's Cadence/Service Management Tool (SMT) System tracks all statistics relating to both call center and field service performance. The System includes a log of all maintenance activities. The statistics are presented in reports that we use to improve our service. As a result of our long history providing retailer hotline services to lottery customers worldwide, our Cadence tool provides a robust suite of reports. The reports have been continually enhanced over the years based on customer feedback and the needs of the local site-management team.

Cadence provides many reports that allow authorized Lottery users to view all of the activity related to retailer calls and solutions. They include the following:

- The date and time of the original call.
- The identification of the retailer and the NRC associate.
- The general nature of the retailer's call.
- The date and time of the FST dispatch.
- The date and time of problem resolution.
- What the FST found upon inspection.
- Any relevant retailer, FST, and/or associate comments.

In addition, all of the calls between retailers and NRC associates are recorded. Recordings will be made available to the Lottery upon request.

We use this information to identify the severity of each call and those regions that may require an evaluation to improve service.

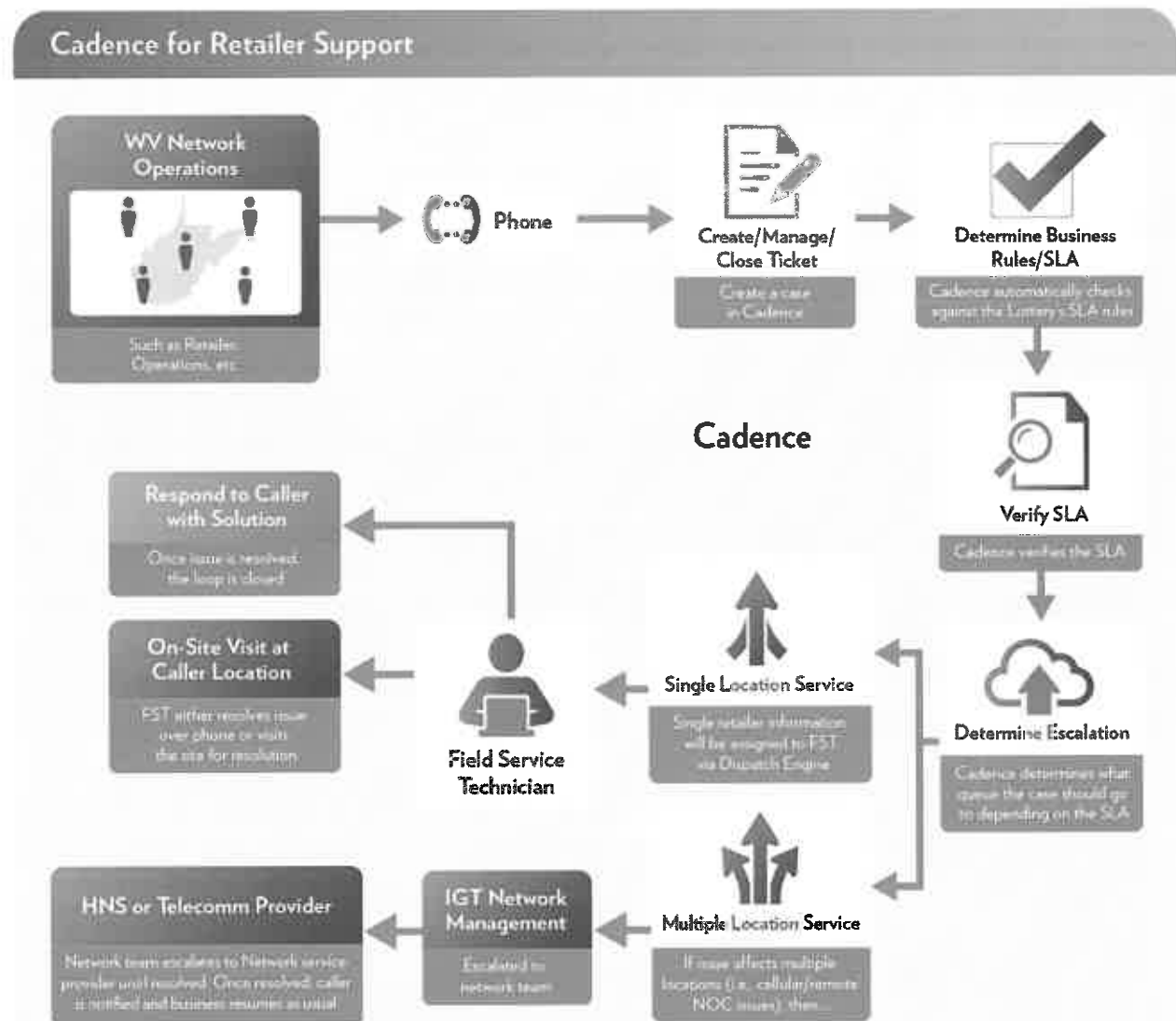
Via their desktop, NRC associates also have real-time access to view detailed communication status. Other real time diagnostic information displayed includes, but is not limited to, sign-on/sign-off status and information covering the last 25 terminal transactions.

Our Cadence/SMT system has the ability to assign a problem type and resolution code and provide useful reports for review. We can also track the original assigned problem and the final problem code that we assign in the field.

Tracking Performance Improves Retailer Support

Every interaction with a retailer is logged in Cadence. NRC associates track every issue to resolution and continually add updates to the case as they occur. Our associates can set a Priority status to urgent issues, indicate a need for a call back, and review past interactions to make sure the Lottery's retailers are taken care of properly. Cadence also allows IGT to quickly identify trends and perform historical analyses, to provide ongoing improvement and problem solving.

Figure 4.2.33 – 25:



Tracking Support History: Cadence allows associates, working across all service channels, to easily track a retailer's support history to provide efficient and timely service.

Ensuring the Quality of Our Call Center Service

The NRC's Quality Assurance (QA) team uses world-class tools to manage performance. The QA team reviews a random sample of calls each month for every NRC associate and works closely with NRC call center supervisors, training staff, knowledge management resources, and the leadership team to identify trends and opportunities for improvement. The QA team also responds to any direct requests for call recordings and research and provides a thorough analysis of an interaction and recommends steps to determine root cause and mitigate any potential issues.

Statistical Hotline Activity Reports

According to IGT's standard reporting configuration, the Cisco Voice over Internet Protocol (VoIP) phone system will provide the Lottery and IGT with statistical reports weekly, monthly, and on-demand. The metrics measured will include:

- Calls received.
- Calls answered.
- Percent of calls that queued.
- Average answer time.
- Number/time of abandoned calls.
- Percent of abandoned calls and average abandon time.
- Average and total hold time.
- A variety of other call management statistics.

4.2.36

Retailer and Licensing Function

Retailer management actions on the System are effective in real-time without batch processing and they create an audit trail of the changes made, the date of the change, and the user who made the change to a retailer terminal. Any actions taken reside on the System for 365 days following the occurrence.

The Vendor should describe the process for converting the existing retailer files to the new System, and identify any constraints. The Vendor should describe how information is collected, maintained and reported for retailer and owner licensing with Lottery and Vendor procedures and roles. The Vendor should include the processes for updating retailer status, licensing new retailers, annual relicensing, changing of ownership, adding and deleting terminals, and calculating and suspending fees. System allows authorized user(s) to define, enable and/or disable any retailer terminal.

IGT acknowledges that retailer management applications on the System are effective in real-time without batch processing, and they create an audit trail of the changes made, the date of the change, and the user who made the change to a retailer terminal. We further acknowledge that any actions taken reside on the System for 365 days. As described in the following paragraphs, IGT's Aurora Retailer Manager will provide this same functionality required by the Lottery plus a lot more. All historical retailer data will be included in the conversion process with no constraints.

Aurora Retailer Manager

Aurora Retailer Manager will allow the Lottery to manage all aspects of a retailer's business. It provides automated management of the complete life cycle of retail locations, retail owners, clerks, and terminals. Retailer information is logged automatically and on-demand and visible for authorized front and back-office users.

Aurora Retailer Manager provides these benefits to the Lottery:

- One complete, integrated set of retailer-management back-office functions across all Lottery products.
- Streamlined retailer application work flow that supports retailer expansion.
- End-to-end management of the retailer life cycle (including recruitment, contracting, licensing, financials, and decommissioning).
- New, efficient data entry capabilities to save time: enter data once and make use of it multiple times; new auto-correct capabilities.
- A complete audit trail that corresponds to retailer activity and includes a comment utility.
- Changes that are recorded and can be viewed in the retailer's history.
- Automation of the Lottery's retailer-licensing processes, shortening the time it takes to bring a retailer online and start selling.

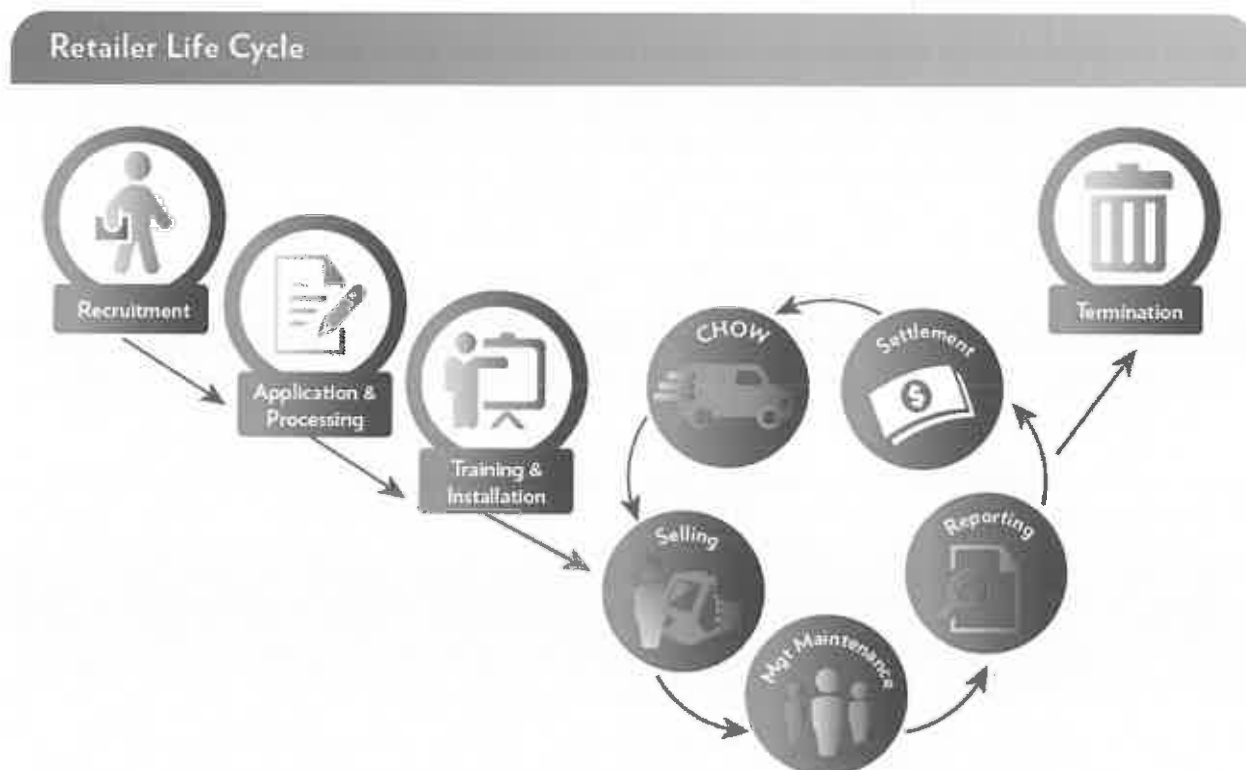
Retailer Application Management and Licensing

IGT's Aurora Retailer Manager application will meet the Lottery's requirements for retailer application management and licensing, plus additional retailer life-cycle management functionality. Aurora Retailer Manager will make all application processes faster and easier for the Lottery and its retailers.

Introduction to Aurora Retailer Manager

The Aurora Retailer Manager application enables licensing, automated coordination, control, monitoring, management of all of the locations, devices, and activities of your retailers through their entire retailer life cycle, as shown in the following illustration.

Figure 4.2.33 – 26:



Aurora Retailer Manager will provide the Lottery with many benefits. For example, it will:

- Bring new retailers online faster and more easily by accelerating the application process.
- Support simple and complex retailer relationships.
- Reduce labor and time associated with Changes of Ownership (CHOWs), e.g., automatic transfer of terminals to a new retailer; no field service visit is needed.
- Allow administration of draw and instant ticket scratch-off game in one integrated module.
- Support adjustment entries on individual retailers and chain heads or chain subordinates.
- Include comprehensive search capabilities.
- Allow view/management of privileges for a terminal at a granular level.
- Provide complete retailer history for analysis and informed decision-making.
- Provide one unified, historic record for each retailer, from initial licensing to termination.

Aurora Retailer Licensing Improvements That Make a Difference

Aurora Retailer Manager can enhance your already-strong relationship with your retailer partners, bringing them online faster via new functionality that drives your application and licensing process.

Retailer licensing benefits include:

- A new wizard specific to the Lottery's application and licensing process accelerates bringing a retailer from initial data entry to actually selling tickets.
- Lottery users can partially complete an application and continue at a later time.
- Application entry, even with missing required data, does not impede the progress of the licensing process. Compliance check processing and application entry can occur simultaneously, speeding up the entire licensing process.
- The new architecture allows for a very flexible model to extend and capture various data elements in an application or for a retailer.

In addition to the new retailer licensing solution, the entire Retailer Manager UI has been redesigned to be browser and device-independent, giving your authorized users flexibility in terms of the browsers that they can use.

Aurora Retailer Manager manages the retailer's life cycle including changes to retail locations, terminals, and sales associates.

Aurora Retailer Manager will enable the Lottery to manage all licensing and account-management functions, including sales accounting, sales commissions, validation commissions, bonuses, and other forms of retailer compensation for the life of a retailer's business. Retailer Manager also provides complete control over all retailer data. In short, it is the primary data source for all retailer information.

Aurora Retailer Manager will also satisfy requirements related to account management functions including adjustments, sales accounting, sales commissions, validation commissions, bonuses, and any other form of retailer compensation. Specific Aurora Retailer Manager elements are described in the following subsections.

Retailer Data

Aurora Retailer Manager is a flexible tool set. It supports a comprehensive retailer database and is central to games-management functions. Retailer Manager provides access to current retailer information. Its database will contain all known information about your retailers, including, but not limited to:

- Retailer names and addresses (physical, mailing, and shipping).
- Days and hours of store operation.
- Billing data (weekly invoices showing sales, validations, cancellations, commissions, and amount due), with select fields encrypted for the highest levels of data security and integrity.
- Products sold and product privileges.
- Sales representative assignments including route assignments and retailer associations.
- Retailer status (active, inactive, or terminated) and history (when was the last status change, who changed it, etc.).
- Retailer relationships (independent, multiple terminals under one retailer number, chain subordinate or chain head, and in the case of a CHOW, tracking of the previous retailer number).
- Various codes that define the retailer (Standard Industrial Classification [SIC], chain codes, geo-codes, county, district, etc.).
- Retailer group assignments.

Aurora Retailer Manager will be your one stop for all necessary retailer data – data that is current, accurate, accessible, and secure. With a single source of data that is backed up nightly and can be accessed only by authorized individuals approved by the Lottery, the Lottery will have peace of mind.

Retailer Key Personnel

Aurora Retailer Manager supports the entry of detail data for all owners. Additional personal data for location contacts (i.e., retailer or a specific Sales Representative) is also captured.

Information captured for each owner includes:

- Name.
- Title.
- Address.
- Phone contact information (home, fax, cell, and pager).
- Date of birth.
- Alias(es).
- Driver's license number.
- ID number.
- Gender.
- Percent of ownership (for a multiple ownership retailer).
- Contact identifier (primary and secondary).



The Lottery can search the information by name (first or last), owner ID, driver's license ID, or any field that the Lottery wishes to set up as a searchable field.

Retailer Tax Accounting/1099 Information

For the 1099 process, Aurora will gather required tax information (tax ID, tax name, and ownership type) that is used to process 1099 and other tax documents by the accounting application.

Change of Ownership (CHOW) Process

With the development of Aurora Navigator Back-Office, several back-office solutions have been enhanced to significantly improve the user experience and productivity. The CHOW process is one of them. Within the Retailer Manager application, we've added functionality to drive the process. It ensures all steps are handled and visible by the user. This automated procedure will relieve Lottery personnel of time-consuming manual effort.

The new and improved CHOW process will make it easier for authorized staff to make required retailer changes, as detailed below:

- The user is guided through the CHOW process in the form of the step-by-step process, providing visual feedback at any given time throughout the process.
- Forms include collapsible accordions to optimize screen size and reduce key clicks.
- Users can now easily toggle between old and new retailer location information.
- Transfer of inventory and assets is now configurable based on site policy (e.g., automatic transfer of all packs or just partial packs or manual transfer via Sales Rep).
- Steps remaining for successful completion of the CHOW are displayed to the user with links to the appropriate page.
- Upon the death of an owner, a new owner can be added to the existing retailer without the need for a CHOW if the Tax ID and banking information do not change. New owner compliance checks need to be completed, but the sales will not be stopped.

Tracking for Retailer Changes

Aurora Retailer Manager provides complete history tracking for *all* changes made to each retailer's master file and accounting files. Whether changing a status, applying an adjustment, or simply adding a comment, the retailer record retains the details. Users can search and view all historical changes. Displays and reports show past changes and file status.

The record will show the date and type of the change, the user who changed it, and a description of what was done to the retailer record, as shown below.

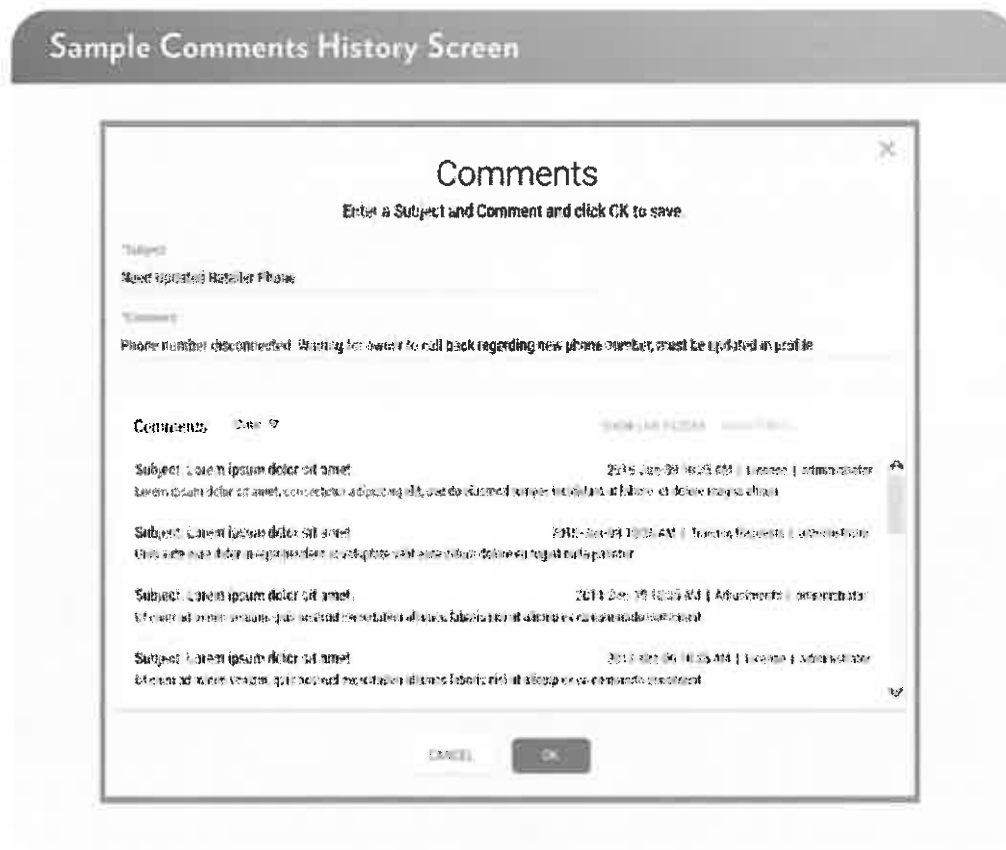
Figure 4.2.33 – 27:



Complete History Tracking: Aurora Navigator Back-Office enables authorized Lottery users to easily track the location history of retailers.

In addition, Aurora provides Retailer Manager functionality to view and update comments and events for each location. These comments, along with the Audit History, become an essential tool to manage retailer relationships effectively.

Figure 4.2.33 – 28:



Complete Record of Details: Aurora Retailer Manager provides the functionality to view and update comments, events, and data changes for each location.

The Aurora Retailer Manager application will allow Lottery personnel with the proper authority and/or authorization to update information about each retailer. The Lottery will use the Aurora User Security application to set authorization levels for each System user.

4.2.37

Third-Party Agreements and System Interfacing

Describe how your System can provide for interfacing with third-party systems or software at the request of the Lottery for any games or game concepts.

Aurora's Support of New Games and Game Concepts

IGT's designed its Aurora solution to interface with third-party systems and accommodate present and future capacity for multiple sales channels – from traditional retail to the interactive channel. Aurora will support all new, enhanced, or revised games the Lottery wishes to offer, all with no additional software hours to add a new game and with shorter launch times.

Our proposed Aurora solution has substantial capacity to accommodate as many new draw-based games as you wish to offer and simplifies the process of adding new games or game enhancements. You can leverage the best and most relevant content from anywhere in the market and tailor it to each existing and future sales channel, Aurora features:

- An open, Service-Oriented Architecture (SOA) that enables a more streamlined integration process with any third-party system by making Aurora's Application Programming Interfaces (APIs) available to third parties so they can customize their solutions to interface with Aurora – all under strict control and subject to Lottery approval.
- Built-in capability to interface easily with third parties. The APIs are standardized across delivery channels, so the Lottery will experience maximum reusability and faster time to market when adding new channels.
- Agile software development practices to deliver quality games to market faster, simplify promotion categories and development, and speed promotion launch. Our goal will always be to quickly onboard new games and game enhancements to present players with a refreshed portfolio and immediately generate additional sales. Aurora is a highly configurable system that easily accepts and manages new games. As a result, the Lottery will appreciate greater speed to market as well as low-risk implementation of new games.

Companies worldwide are moving toward an API method of integrating system-to-system interfaces. Aurora is architected around APIs. We have more APIs – indicating a standard way of being open – than any other vendor. For example, with APIs, once you've added a new sales channel, complexities decrease when you add the next. APIs enable us to securely and seamlessly integrate with third-party solution providers. With IGT, openness is guaranteed because of our technology and architecture choices.

Aurora's architecture ensures speed-to-market when adding new channels and systems, even third-party systems and channels, without the burden of having to make extensive changes to the central System or management Systems (as was required in the past). Moreover, Aurora enables a single-player view across those channels so that lottery managers can track players and learn all about them, communicate with them, and give them value wherever and whenever they play.



To prepare and future-proof the Lottery's System, IGT has adopted Information Technology (IT) and industry-wide standards for messaging formats, such as eXtensible Markup Language (XML), Representational State Transfer (REST) service API protocol, and Java Script Object Notation (JSON) encoding. This is our assurance to the Lottery that, as new channels become available, IGT is prepared for any future interface and data exchange requirements.

Additional information, in the form of screenshots, is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclosure Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant harm to IGT and its stakeholders.

Aurora Anywhere Maximizes Third-Party Compatibility

The proposed Aurora System is fully integrated and will support the sale of all current Lottery games, as well as any future game innovations you may choose to add. In addition, Aurora will operate efficiently and dependably and allow for future growth and ease of integration with third-party applications and/or hardware.

Consumer preferences and shopping behaviors are constantly evolving – including how and where Lottery gaming is consumed. To meet consumer wishes, IGT's Aurora Anywhere enables Lottery gaming to take place on POSs far beyond traditional in-store terminals. Aurora Anywhere is the industry's leading API gateway solution, not only enabling alternative sales channels, but also the integration of third-party game engines.



Aurora Anywhere is the industry's leading multi-channel gateway solution.

The technology that underpins this new paradigm is the API. Aurora Anywhere opens the door to this technology with a secure, scalable, and developer-friendly path into adding new sales channels and game engines. Aurora Anywhere offers quick, easy access to a lottery system anywhere there's a web browser or digital channel. So for every new smart device in the

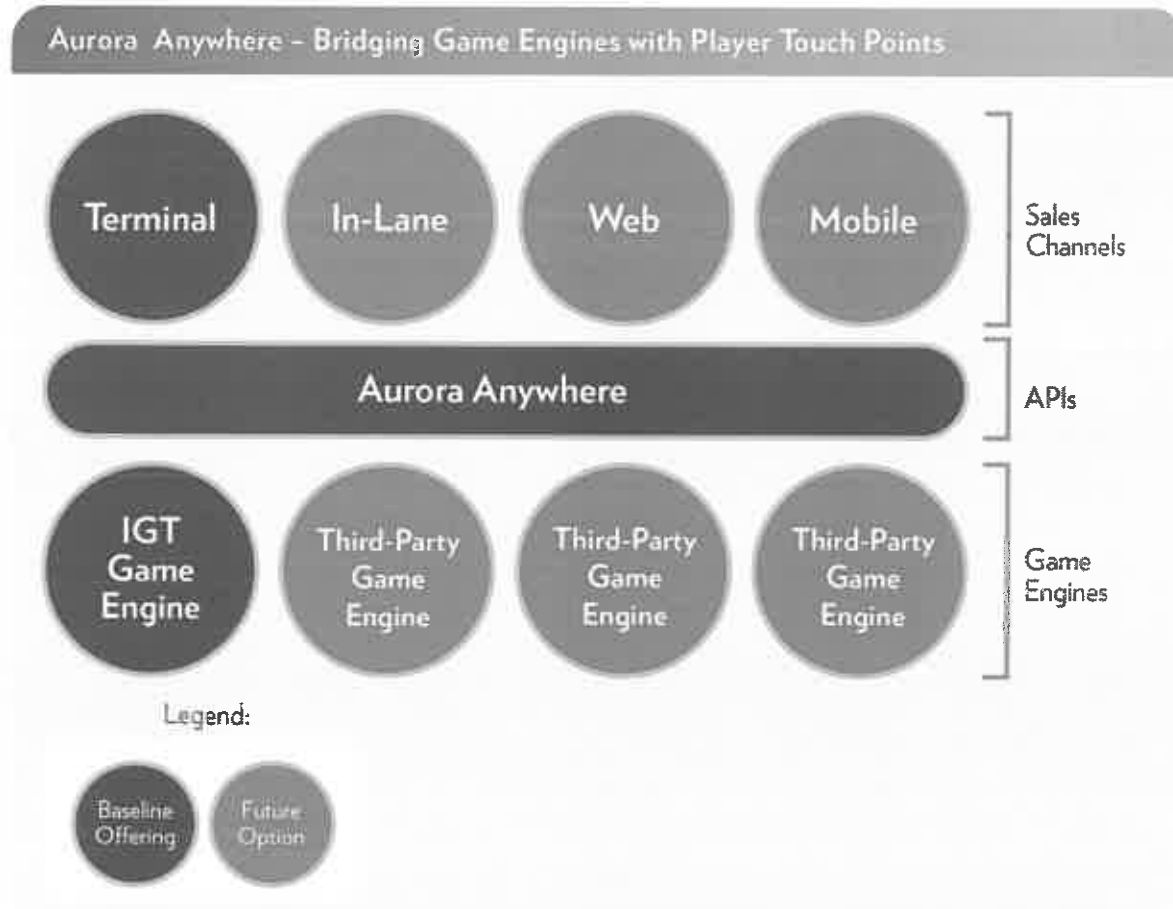
future, Aurora Anywhere will be there to link it to the Lottery. It's all made possible by APIs that provide interfaces over the Internet in a format that is consumable by most modern connected devices. In addition to lotteries being able to expand their service offerings to multiple connected consumer devices, they can even expand to existing service points at retail locations.

Third-party games live in the same ecosystem as IGT's game engine, and they will have access to the same retailer management services as IGT's own games. Each third-party game engine is, however, required to implement its own game management UI for running the games. Given the open architecture of the Aurora solution, third-party game engines have full access to the sales channels available to IGT's games.

Because APIs are standardized across delivery channels, lotteries using Aurora Anywhere get maximum reusability and faster time to market when adding new channels. A new channel – mobile ticket checking, for example – just needs to plug in to the existing APIs to access existing Lottery functionality.

The following figure graphically represents how Aurora Anywhere acts as a broker between players and game engines.

Figure 4.2.33 – 29:



Third-Party Interfaces

IGT has interfaced with the equipment and systems of a number of other gaming vendors for many years. These implementations include, but are not limited to:

- ICS-provider systems, such as Spectra, Elsym, and assorted state systems.
- Third-party instant ticket scratch-off game systems such as those in Kentucky, Minnesota, and South Dakota.
- Third-party lottery POS devices such as those in Indiana, Missouri, and California.
- Third-party tools such as:
 - Linq3.
 - Hudson Alley, now part of IGT, which includes the Order Pad and OnePlace solutions.
 - Lapis-Gem Intelligence.
 - Diamond Games.
- Third-party data warehouses such as those in Virginia.

Other Vendors' Systems

Leveraging the SOA approach and achieving interoperability within IGT and third-party applications, we have proven technology that allows foreign terminal devices to be incorporated into the proposed System/network configuration.

This includes the ability of our System to connect other providers' terminals, self-service devices, or devices not specifically defined at this time.

We provide a common interface for accessing host services; it is loosely coupled so it can interact with different versions of host and client applications with no or minimal code changes. It is platform-neutral, so it easily integrates with third-party products and adheres to industry standards. For example, IGT has experience running its lottery terminal application on another Vendor's lottery terminal. We completed a major conversion in Indiana with the Hoosier Lottery, where an IGT application was installed on a Scientific Games terminal.

Responsibility for Configuration and Testing

Complete System interfacing and testing are to be provided by the Vendor and configured with the ICS, remote-back up system, hardware and software components, and all other related functions and reports. Vendor provides, configures, and performs testing on the System of third-party games and game concepts at no additional cost to the Lottery. The Lottery reviews and approves any System changes prior to implementation. Vendor should work with the Lottery and third-party to establish commercially reasonable timelines. Vendor should implement System interfacing within the timelines that are mutually agreed upon by all parties.

IGT understands and acknowledges that:

- Complete System interfacing and testing are to be provided by IGT and configured with the ICS, remote-back up System, hardware and software components, and all other related functions and reports.
- IGT will provide, configure, and perform testing on the System of third-party games and game concepts at no additional cost to the Lottery.
- The Lottery reviews and approves any System changes prior to implementation.
- IGT will work with the Lottery and relevant third-parties to establish commercially reasonable timelines.
- IGT will implement System interfacing within the timelines that are mutually agreed upon by all parties.

Acquisition and Financial Obligation

Vendor will acquire any additional hardware, software, and intellectual property rights to support any changes to the Lottery's product offering, unless otherwise directed by the Lottery. The Lottery assumes financial obligation directly related to third-party intellectual property and components specifically required for such acquisition.

IGT understands and acknowledges that:

- IGT will acquire any additional hardware, software, and intellectual property rights to support any changes to the Lottery's product offering, unless otherwise directed by the Lottery.
- The Lottery assumes financial obligation directly related to third-party intellectual property and components specifically required for such acquisition.

4.2.38

Ticket Security

The Vendor should provide ticket stock security features and describe proposed methods for utilizing these features to investigate ticket validity and verify damaged and altered tickets.

Retailer terminals must generate a hash number or code, aside from the System-logged transaction serial number, that can be used to link winning tickets to selling terminals; approach proposed must be acceptable to MUSL. Bidder should describe how the System may eliminate the requirement/need to pick-up ticket stock and other paper slips or forms from the Retailer. The Vendor must provide any hardware and software necessary for Lottery security to decrypt any transaction designed for use by Lottery Security who will control and manage any such application.

IGT Ticket Stock Security Features and Methods

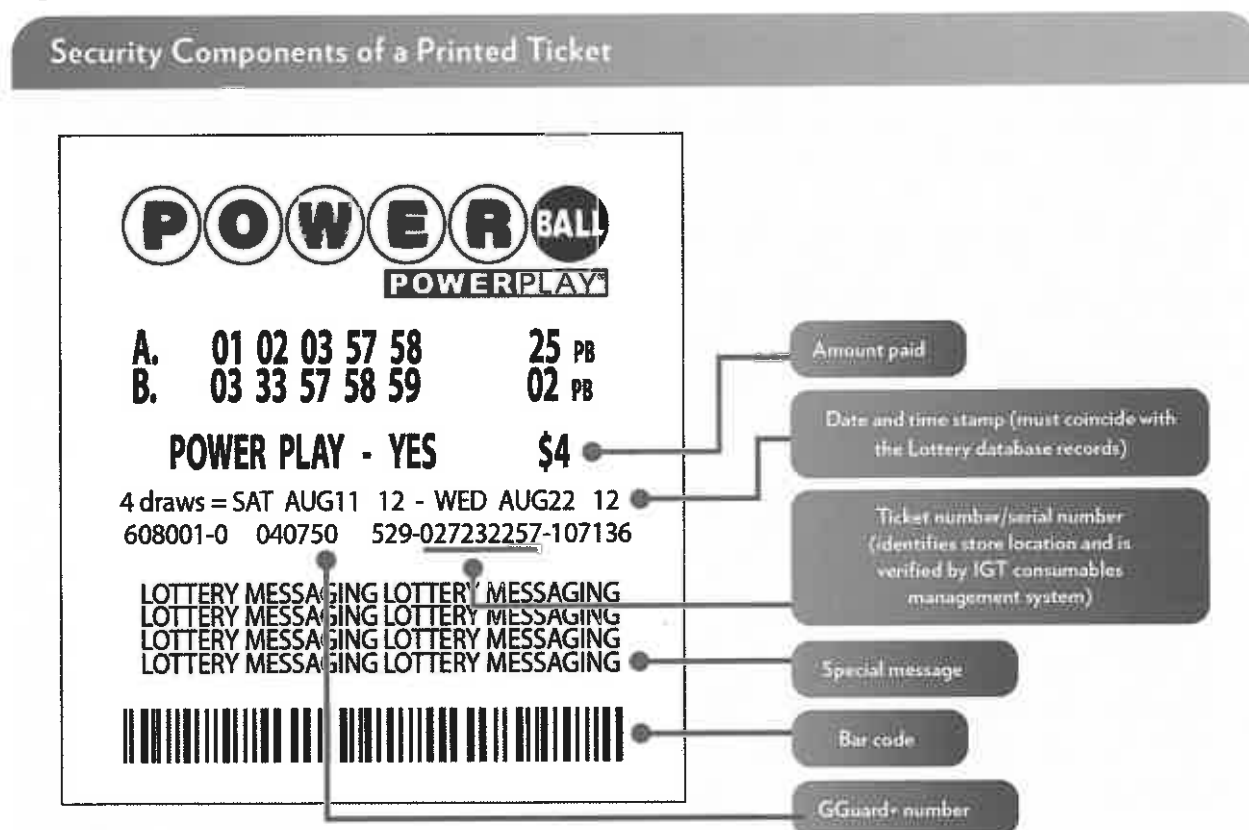
IGT will provide the Lottery with MUSL-approved ticket stock. In addition, Aurora provides several features and methods for investigating and verifying damaged or altered draw-based game tickets. These methods include the use of security features that are either built into the ticket stock or applied to the ticket during transaction processing:

- **Ultraviolet (UV) Inks:** We preprint graphics (or text) in UV inks, invisible to the human eye, on our draw-based game tickets to detect fraudulent claims. This feature allows us to confirm the authenticity of the ticket stock and, thus, a claim. There are two ways we can confirm the ticket stock is ours:
 - Our security department, through the use of a black light, can obtain a visual image of the UV ink.
 - A third-party forensics lab can authenticate the ticket stock by confirming the UV security imprint in addition to any attempts to alter the ticket.
- **Preprinted Ticket Serial Number:** We have a serial number preprinted on the back of our ticket stock rolls. This number enables us to track where and when a ticket was distributed so that we can determine if the ticket is fraudulent, or is not linking to the retailer to which it was assigned. A claimant's date and location of purchase (tracked with this serial number) must reconcile with our database records before the claimant's ticket is considered legitimate and eligible for payout.

- **External Transaction Serial Number:** The external serial number uniquely identifies a gaming transaction. This number is a combination of three other numbers and is encrypted using an IGT proprietary algorithm. This number is printed on the draw-based game ticket at the POS.
- **GGuard Plus Number:** This is an encrypted number generated from the Aurora Transaction Engine that unambiguously verifies ticket validity.
- **Retailer Identification Number:** Every retailer has a unique identification number that can be verified when a ticket is presented for validation.
- **Barcode:** Each ticket has a barcode; the unique external transaction serial number is part of the barcode.
- **Special Paper Stock:** A unique paper stock is used for draw-based game tickets; this specialized thermal paper can be identified forensically to ensure it is the actual stock used by the Lottery.

The following figure details the various components of an IGT draw-based game ticket.

Figure 4.2.33 – 30:



The proposed system exceeds the NCSC standards of C2.

Ticket Security Number

Before producing a draw-based game ticket, wagers are logged on both the primary and backup Aurora Transaction Engines. A proprietary security number generated by the terminal provides a means to verify the validity of a winning ticket separate from the Aurora Transaction Engine. Finally, secure production, storage, and distribution of draw-based game tickets are ensured through our automated tracking procedures.

The Lottery's retailer terminals will generate a hashed number or code that is used to link winning tickets to the selling terminals. This number/code is aside from the logged transaction serial number. The proposed dual-security approach will be acceptable to MUSL and any multi-jurisdictional associations of which the Lottery becomes a member.

The application provided will be under the Lottery's physical and operational control. IGT will provide the hardware and software necessary for Lottery Security to decrypt any transaction designed for use by Lottery Security who will control and manage any such application. This method will mean that retailers will not have to save sign-on slips or other materials. It also will preclude IGT staff from decrypting the dual security number.

The only time ticket stock will be "picked up" from a retailer is if:

- The retailer closes completely (with no CHOW).
- Some or all of the ticket stock had been damaged.
- A retailer calls to request that we take some inventory back (i.e., a small storage area).

With IGT's solution, the collection of sign-on slips will no longer be required.

The Consumables Management System (CMS) tracks ticket stock from the time we receive it to the time it ends up at a retailer. Even for CHOW, we simply transfer ownership of the ticket stock from the old retailer to the new one without having to physically go there and pull cartons out only to have to go back and re-supply the new retailer. Tracking is maintained, and the old retailer number is tracked under the new retailer according to MUSL rules.

Ticket Stock Tracking and Security

To maintain ticket-stock tracking and security, we developed the CMS for tracking the location of a pallet, carton, roll, or individual ticket from manufacture and delivery to when it is potentially returned or destroyed. Since individual units of ticket stock are uniquely identifiable, our solution provides a more detailed level of tracking.

IGT will provide hardware and software necessary to store, maintain, inquire of, or interpret information from the ticket-stock tracking system. And we will provide backup for this capability at the remote BDC. We will ensure that ticket-stock tracking information is delivered directly to Lottery Security from the ticket-stock printer using a method of secure electronic delivery

Exceeding MUSL Guidelines

Our ticket-stock inventory system will exceed the minimum MUSL security requirements in the following ways:

- We capture all ticket-stock information from the time we physically receive it in our CMS System database.
- Any carton received gets a status, which typically starts with Available.
- All cartons shipped to retailers are assigned to those retailers immediately.
- All cartons are assigned to FSTs or Sales Reps once they leave the warehouse.
- In some sites where we use United Parcel Service (UPS), we use a Quantum View feature that confirms receipt of ticket stock at the retailer location every day. This becomes a record in the CMS system where we can physically determine that a package was received at the location and who signed for it.
- In the event of a returned package, we scan the barcode label on the ticket-stock carton and assign a Returned status, which updates the retailer inventory, and only then can a carton be returned to inventory and placed back in Available status.
- We only return full cartons back to inventory.
- Any partial rolls are returned and held in a separate caged area, and only after a lottery's security team has confirmed and logged the roll numbers are the rolls then destroyed securely and logged as Destroyed.

We welcome a review of the tracking system.

Ticket Stock Protection Process

Our role in protecting the Lottery's ticket stock begins when we select a company to handle printing and distribution. Our contractors are experienced and meet all MUSL standards for ticket-stock printing, handling, and management. Furthermore, their facilities must meet the highest standards for security. For example, physical security measures – such as locks and gates over the dock doors, as well as intrusion detection and alarm systems – are in place to ensure that only authorized individuals can enter the facility and gain access to restricted space.

A Comprehensive Reporting Solution

Our ticket-stock tracking system's standardized and specialized reports add a powerful dimension to tracking. The system generates operational and management reports in either summary or detail format, enabling ticket-stock inventory to be organized and analyzed.

The System's stock tracking provides numerous on-screen reports. For example, users can run Locate Ticket Stock reports to determine if the stock is in a specific location, damaged, stolen, in transit between locations, issued to a distribution representative, or to a retailer. Or users can generate reports to locate and verify an individual ticket-stock serial number (the number preprinted on the back of the stock) when high-tier winners are identified. Users enter the Vendor ID, stream code, and individual serial number, and the System responds with the location details of that serial number.

These reports can search for an entire skid of ticket stock, a carton, a roll, or even a single ticket. The tracking system retains historical data online. The maximum data retention timeframe varies among jurisdictions, depending on available disk space and performance criteria.

The following is a list of available on-screen reports:

- **Locate Ticket Stock:** Performs a lookup for a particular carton, roll, or ticket to see where that item is currently located.
- **Retailer Delivery History – Ticket Stock:** Displays the delivery history for a specified retailer.
- **Ticket Stock Inventory:** Displays current inventory levels for selected criteria. The following are available search criteria:
 - Summary by Location.
 - All Representatives.
 - Individual Representative.
 - Summary by Zone.
 - Individual Retailer.
- **Individual Representative:** Displays ticket stock inventory levels for the selected Sales Representative.
- **Summary by Zone:** Displays ticket stock inventory-level summaries based on the zone to which retailers are assigned.
- **Individual Retailer:** Displays ticket stock inventory levels for a specified retailer.
- **Retailer Delivery History – Supplies:** Shows the history of supplies delivered to a specific retailer.
- **Supply Inventory Summary:** Displays current supply inventory levels for the selected criteria. The following are the available search criteria:
 - All Locations.
 - One Location.
 - Individual Retailer.
 - All Representatives.
 - Individual Representative.
 - Summary by Zone.
- **All Locations:** Allows users to see a summary of supply inventory levels for each storage location.
- **One Location:** Allows users to see a summary of supply inventory levels for a particular storage location.
- **Individual Retailer:** Displays supply inventory levels for the specified retailer.
- **All Representatives:** Allows users to see a summary of supply inventory levels across all representatives.
- **Individual Representative:** Displays the supply inventory levels for the selected representative.
- **Summary by Zone:** Displays supply inventory level summaries based on the zone that retailers are assigned to.
- **Delivery History – Ticket Stock:** Displays ticket stock delivery records for the specified ticket-stock roll.

4.2.39

Offsite Data Storage

Use of secure offsite storage for critical files, software, and backup data is subject to Lottery approval and should be noted in the Vendor's response as applicable if proposed.

Subject to Lottery approval, IGT will store backup copies of all critical files, software, and backup data required to support a full System recovery without loss or corruption of data by maintaining it in a secure location that is remote from the PDC and BDC. We will transfer all backup media from site to site under the strictest security controls, including the use of locked transport boxes.

Our central Aurora Performance Intel Data Warehouse leverages the latest data management and performance capabilities to optimize both data storage and data retrieval from our data repositories. The ability to manage and store years of online data with optimal retrieval times has been propelled with the introduction of advanced software and hardware improvements. Performance Intel leverages the latest "Columnar" database technology, which results in greater compression and performance, allowing end-users to query years of transactional data with optimal performance.

This approach leverages our recognized security best practices. Our Security Plan details the following data backup features:

- Backup media is maintained in accordance with each customers' data retention requirements. An automated Tape Library System is housed in a separate cage within the Charleston PDC. This robotic library houses media designated by barcode for each customer. The data is backed up to the media without human intervention. Additional separation of duties and security of your data is enhanced by reducing the number of team members who have access to the Tape Library cage to administrator-level personnel only. Periodically, the PDC and off-site data storage will be audited to ensure the integrity of the historical data.
- The Bridgeport BDC site also houses an automated Tape Library. Backups are performed in the same manner.
- Media is stored at a secure, third-party off-site facility to provide additional confidence that IGT has the capability to completely restore any day's System activity for the duration of your retention requirement. Iron Mountain picks up the media daily and transports it in locked containers, each of which must be signed in/out and inventoried. Our off-site storage also protects your data in the event of a disaster and is a critical part of our Disaster Recovery Plan.
- The backup media is tested monthly to ensure the media and data integrity.

4.2.40

Repeat Plays

Describe how your system can provide the capability to scan a ticket from a previous drawing and issue a new ticket with the same numbers and play ("Play It Again" Feature).

The baseline Aurora system has functionality called Play It Again where the serial number of the issued ticket links to the board information and duration of the original ticket. Play It Again allows players to play their last wager again, quickly and easily. By scanning the original wager's barcode with the barcode reader, the retailer duplicates the player's wager information for the next scheduled drawing. With Play It Again, retailers do not have to enter new numbers manually, and players do not need new play slips.

4.2.41

Combo Play

Describe how your system can be designed with an option to automatically generate all combinations of any number selection requested by a player purchasing Daily 3 or Daily 4 tickets ("Combo Play").

Our proposed Aurora system supports the Daily Numbers games as offered today by the Lottery. Each wager played contains a wager type. As part of the wager information sent to the central System, the terminal will send the board data, wager amount, and wager type. Wager types supported include Straight, Box, Combo, Wheel, Front 3, Back 3, Front Pair, and Back Pair.

Combo Wager Types

We define a Combo wager type where a player wins if the selected numbers match the winning numbers in exact order or any order. This is essentially a Straight/Box. We provide Combo wager type games in the following jurisdictions: Georgia, New York, Virginia, Florida, Indiana, Kentucky, Missouri, Nebraska, Tennessee, and Texas.

Wheel Wager Types

A wager is defined as a Wheel wager type when every combination of the numbers selected are played as a straight. The ticket cost is determined by the play amount and possible number of combinations. For example, if a player selects a Wheel wager with the numbers 1234, the system recognizes this one wager as 24 straight wagers. Wager cost will be 24 multiplied by amount played.

IGT supports Wheel wager types in New Jersey, Michigan, and Indiana.

4.3 Reports and Interfaces

Reports and Interfaces should be designed and implemented to support current requirements with the flexibility to create new reports and interfaces to meet future needs for all users. Please describe your plans to achieve the goals related to REPORTS AND INTERFACES. (Section 4.3)

In the following sections and subsections, we describe how the reporting capabilities of the new Aurora™ system will provide the functionality the West Virginia Lottery needs to most efficiently perform its work – saving time and money. Our solution is user-friendly and intuitive, and provides data-driven insights historically, daily, and in real time as required to enhance the Lottery's productivity with timely information.

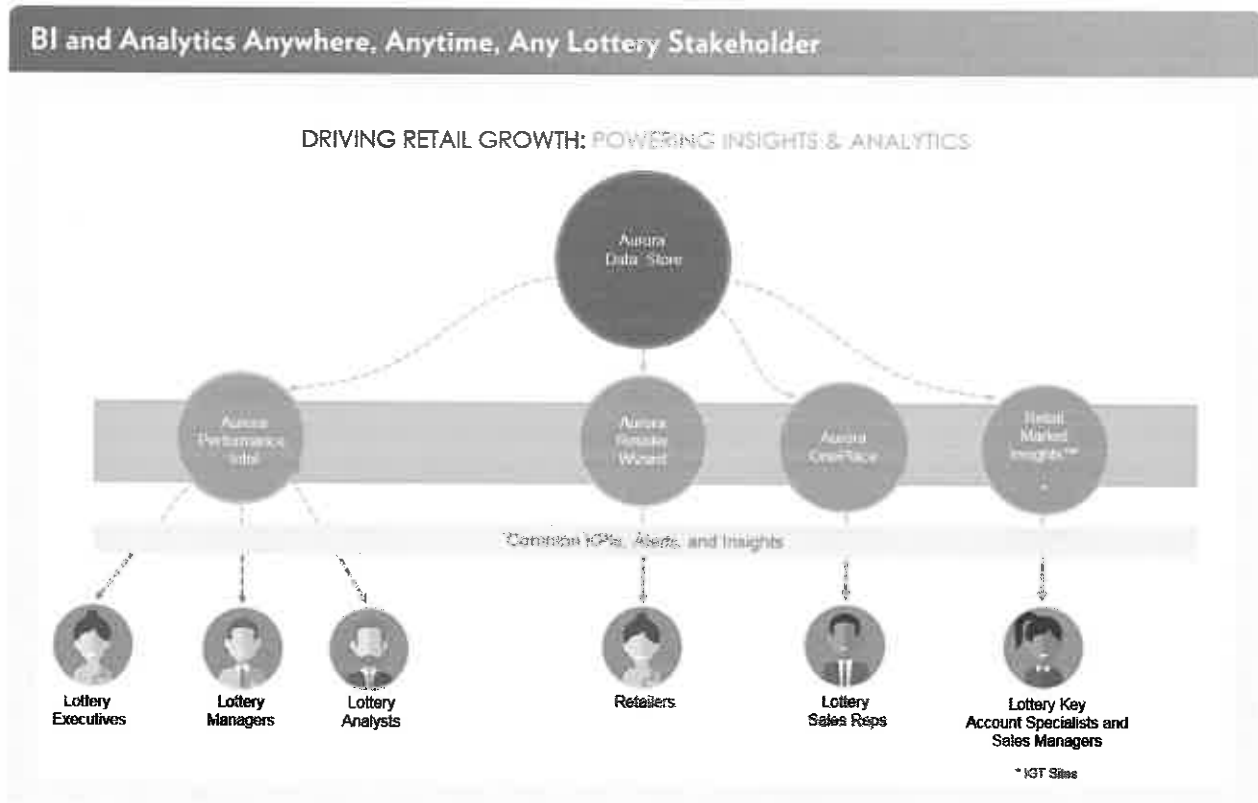
A number of enhancements have been made to the reports and interface files developed in the new Aurora system. We not only used customer insights to develop enhancements to reports, but continue to refine reporting functionality to find new and better ways of delivering the information our customers need to manage their business objectives.

Additional information, in the form of screenshots, is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclosure Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant harm to IGT and its stakeholders.

Complementary Business Intelligence ("BI") and Analytics Tools

Only IGT offers a synchronized suite of complementary products that leverage consistent customer insights and analytics across all lottery stakeholders to drive sales. These powerful tools deliver proven, actionable content based on lottery customer feedback as well as our own experience managing lotteries, retailer networks, and lottery sales forces in multiple jurisdictions worldwide.

Figure 4.3 – 1:



Key Differentiator: Common analytics and data across information access tools for all lottery stakeholders is a key differentiator offered by IGT. Your retailer, Field Marketing and Sales Representative (FMSR), and lottery managers and analysts are always looking at comparable information from a common data point of truth.

The following are key components of our offering to the West Virginia Lottery:

- Aurora Performance Intel:** Our proposed solution to provide the Lottery with comprehensive lottery BI and analytics. Performance Intel's central data warehouse is a key data source for IGT's complementary sales force automation, retailer website, and exclusive market insights product solutions. Aurora Performance Intel is a comprehensive, one-stop solution for data-driven decision making for every user. Performance Intel informs lottery users with at-a-glance, visual analytics that are complemented with in-depth reporting and analysis features. A thorough review of Performance Intel can be found in the next section of this proposal.
- Aurora OnePlace:** IGT's Aurora OnePlace, from IGT's recent acquisition of Hudson Alley Software, is our field-proven lottery Sales Force Automation (SFA) solution that will be fully integrated with our other systems, applications, and the Performance Intel data warehouse that we are offering to the Lottery. A full description of OnePlace is found in Section 4.6.8, Field Marketing and Sales.

Aurora OnePlace

IGT's recent acquisition of Hudson Alley Software, Inc. has brought the best SFA platform and most experienced SFA team in the lottery industry to IGT. We are offering Aurora OnePlace, which will be integrated into our Aurora System.

Aurora OnePlace:

- Optimizes retailer visits with at-a-glance information that includes up-to-date inventory and performance measures.
 - Manages and organizes communications and activities with retailers using task management capabilities and an alerts feature that pinpoints inventory or performance issues.
 - Helps recruit retailers more effectively and efficiently.
-
- **Aurora Retailer Wizard:** Retailer Wizard, IGT's retailer website, is truly a self-service solution that provides retailers with virtually everything they need to develop and better understand their lottery business. Aurora Retailer Wizard will complement the efforts of our FMSRs and facilitate retailer management while helping grow Lottery sales and keep updated information at your retailers' fingertips. eLearning tools for Lottery staff, retailers, and clerks alike is readily available through IGT's Lottery Learning Link that is also accessible through Retailer Wizard. More details about Retailer Wizard can be found in Section 4.7.1, Retailer Website, of this proposal.
 - **Retail Market Insights (RMI):** RMI includes a collaborative of U.S. lotteries to provide cross-jurisdictional lottery retail sales analytics. RMI is the first lottery database to bring the power of Big Data analytics to U.S. lotteries. RMI combines retailer information and sales data from lotteries across the U.S. This data will help your marketing and sales team identify opportunities for growth and generate data-driven presentations to help drive decisions for chain prospects in demonstrating the likely impact of lottery on their businesses. The West Virginia Lottery is currently an RMI participant.

Other Avenues of Reporting

Additional avenues of reporting include terminal reports that a retailer can get directly from the Lottery terminal or that a Lottery employee can access via the user friendly, web-enabled interface of Aurora Navigator's Retailer Management component. Aurora Navigator also provides additional reporting options that include standard (Host) reports that provide daily and weekly operational reporting, and reports from Aurora Navigator's Accounting components that include Claims and Payments (CAP), and Instant Ticket Scratch-off Game Inventory.

Accounting Feeds

IGT will provide appropriate data transfers and near real-time exchanges of information between the proposed lottery system and the Lottery's accounting systems. IGT has extensive experience providing data in any required format or via automated data integration processes to best meet the rigor and data precision required by the Lottery's accounting system. This information is detailed later in this section in Section 4.3.2, Accounting Interface.

4.3.1 Business Intelligence ("BI")

The Vendor's System interfaces with a web-based tool with a reporting functionality that includes data mining techniques, business performance management, predictive analysis, data relationship patterns, associations, and other information needed by the Lottery. This tool collects data from multiple sources (i.e. System operations, retailer website, Hotline, etc.). The BI tool is designed to be able to transform raw data into meaningful and useful information for reporting, statistics, promotional, marketing, strategic planning, and other analysis purposes. The System is configured in a redundant manner and location for allowing continuous access by the Lottery through an easy-to-use graphical user interface ("GUI"). This interface is used to access information based on access rights with a comprehensive set of reports, dashboard, and other information made available to authorized Lottery staff. The BI includes a mechanism to schedule and deliver (by email) required reports to designated users. Such functionality may include online inquiries of selected information, graphic displays on workstations, printed graphic displays, or any other output options.

IGT has reviewed and acknowledges the information provided by the Lottery regarding the functionality of the BI application that the Lottery currently has. Our new Aurora Performance Intel solution will provide the same functionality you have described plus much, much more, as presented throughout this section.

Providing actionable, data-driven insights and enabling access to timely information to help improve the West Virginia Lottery's performance is imperative in today's lottery industry.

Our current partnership and years of experience working directly with the West Virginia Lottery underscores the need to improve upon timely report delivery and easy access to the exact data content needed for reporting and analysis that have been pain points for the Lottery. IGT's current business intelligence product support model includes new and enhanced business processes that will bolster a collaborative requirements process (detailed later in this proposal response) to deliver our latest business intelligence and reporting products in an expeditious manner.

In addition, and in light of known historical challenges as your lottery partner, we have made the following improvements:

1. Strengthened our on-site (Tier-1) business intelligence and reporting support with Shane Durham's expertise and strong relationship with the Lottery.



Shane Durham,
our Tier 1 support
person for the Lottery

2. Added a Tier-3 support team that includes Scott Gaus, who provides the Lottery with additional intel as an accessible lottery business intelligence and reporting expert.



Scott Gaus,
our Tier-3 support
person for the Lottery

3. Invested several million dollars, over the past four (4) years, in our Business Intelligence (BI) product that now includes a separate, 12-person R&D team that works closely with our dedicated BI delivery and site teams.
4. Leveraged knowledge sharing and experience with lotteries across the U.S. to help create more valuable, targeted baseline product content for the West Virginia Lottery.
5. Completed and implemented a business process-improvement effort that resulted in a revamped business intelligence and reporting delivery and support process. This includes up-front classroom training and a rigorous, collaborative requirements process with lottery stakeholders that will also provide authorized Lottery users access to their existing sales and finance reports to create a truly one-stop shop for lottery reporting.
6. Improved training, mentoring, documentation, and other on-site delivery efforts to ensure the West Virginia Lottery has the appropriate level of support and direct access to the reports and data it needs to succeed, plus an expeditious change process when help is needed to change or create reports.



Overview of Aurora Performance Intel

Aurora Performance Intel – The Foundation for Intelligent Decision-Making

IGT is excited about its new Aurora Performance Intel business intelligence and analytics product solution. Not only have we refined and optimized Performance Intel's central data warehouse for improved query performance and data availability, but Aurora Performance Intel now includes real-time and visual analytics. Performance Intel informs lottery users with at-a-glance, visual analytics that are complemented with in-depth reporting and analysis features. Other new capabilities and baseline content are sure to help the West Virginia Lottery leverage data-driven, actionable insights. Aurora Performance Intel is accessed through Aurora Navigator, IGT's back-office solution access point.



Aurora Performance Intel is a comprehensive, one-stop solution for data-driven decision making for every user at the Lottery. It includes retail sales and marketing users as well as iMarketing insights that range from web analytics and usage metrics regarding your player's portal to the impact from retailer and consumer interactions with the Lottery's social media channels. Even better, Performance Intel is ready for any future Internet-related lottery capabilities.

Figure 4.3 – 2:



Optimizing lottery performance through actionable insights is the essence of Aurora Performance Intel. It delivers insights that show targeted areas of Lottery performance, enabling Lottery personnel to direct resources to solving inventory and product distribution problems, and to take advantage of opportunities to improve the sale of Lottery products.



The essence of business intelligence is to look at trends and patterns that can lead to more in-depth analysis of Lottery performance issues, e.g., sales trending below goals or poor penetration of new instant ticket scratch-off games. Aurora Performance Intel provides that foundational business intelligence capability, taking these types of analyses way beyond simply bean counting by creating pre-defined measures and metrics that are complemented by more interactive, visual analytics, and real-time data analysis capabilities.

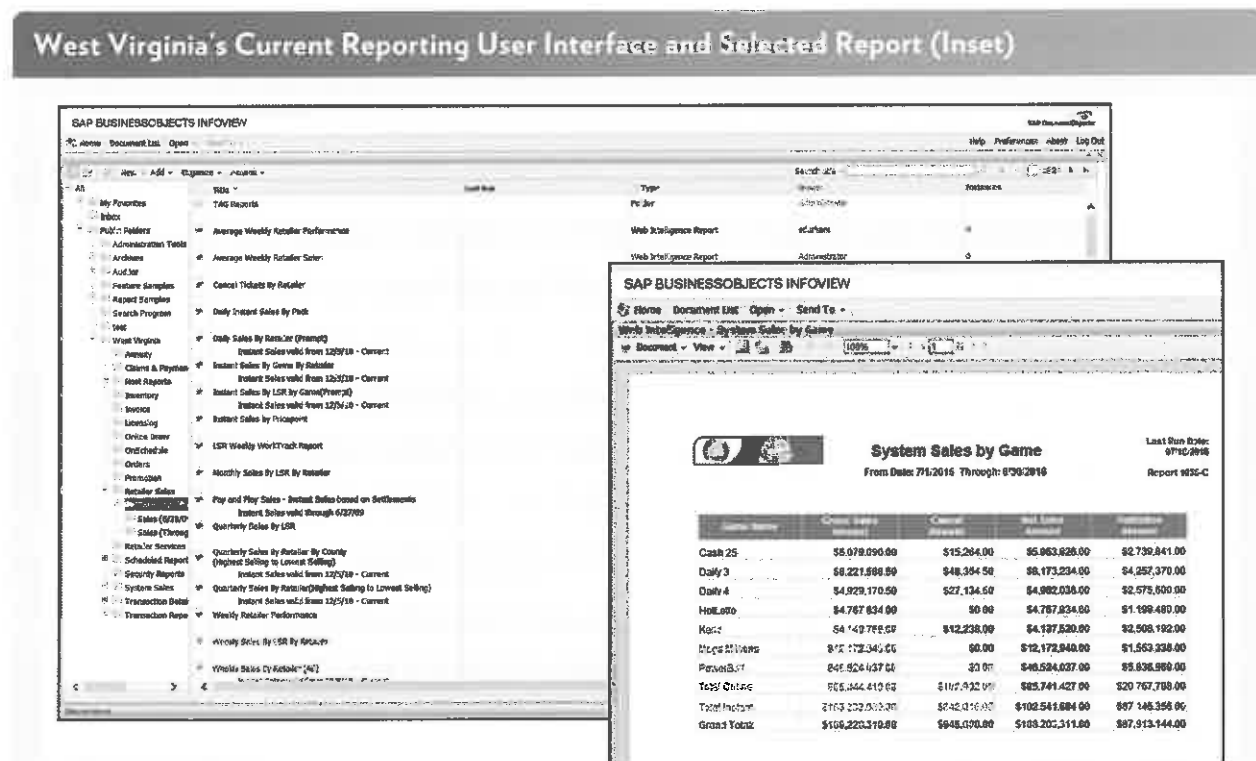
A key enhancement to Performance Intel is its interactive, highly visual dashboards that provide easy data discovery. A user can easily pinpoint sales trend performance by price point, business type, region, district, or even by FMSR. Performance Intel's instant ticket scratch-off game dashboard, for example, shows multiple widgets that visually portray various performance metrics (such as sales or game penetration) at varying levels of aggregation and percent changes from a prior period. Simply clicking one of two bar charts that visually portray sales by district, price point, or business type will immediately re-render the dashboard's computations with re-computed trend lines and totals. This is for those selected filters, e.g., sales district, \$1 games, \$2 games, and convenience stores only.

Descriptive statistics combined with Aurora Performance Intel's reporting and data visualization technologies and database-management capability enable lottery users to gain significantly more insights and rapid responses to performance issues or optimization opportunities.

Performance Intel's intuitive, web-based user interface includes interactive dashboards and reports that measure and track performance of every lottery product line and channel and can be accessed by anyone, anytime.

Your “current” IGT business intelligence and reporting system primarily generates tabular reports from SAP’s BusinessObjects InfoView (Web Intelligence) software, as shown in in the following figure.

Figure 4.3 – 3:

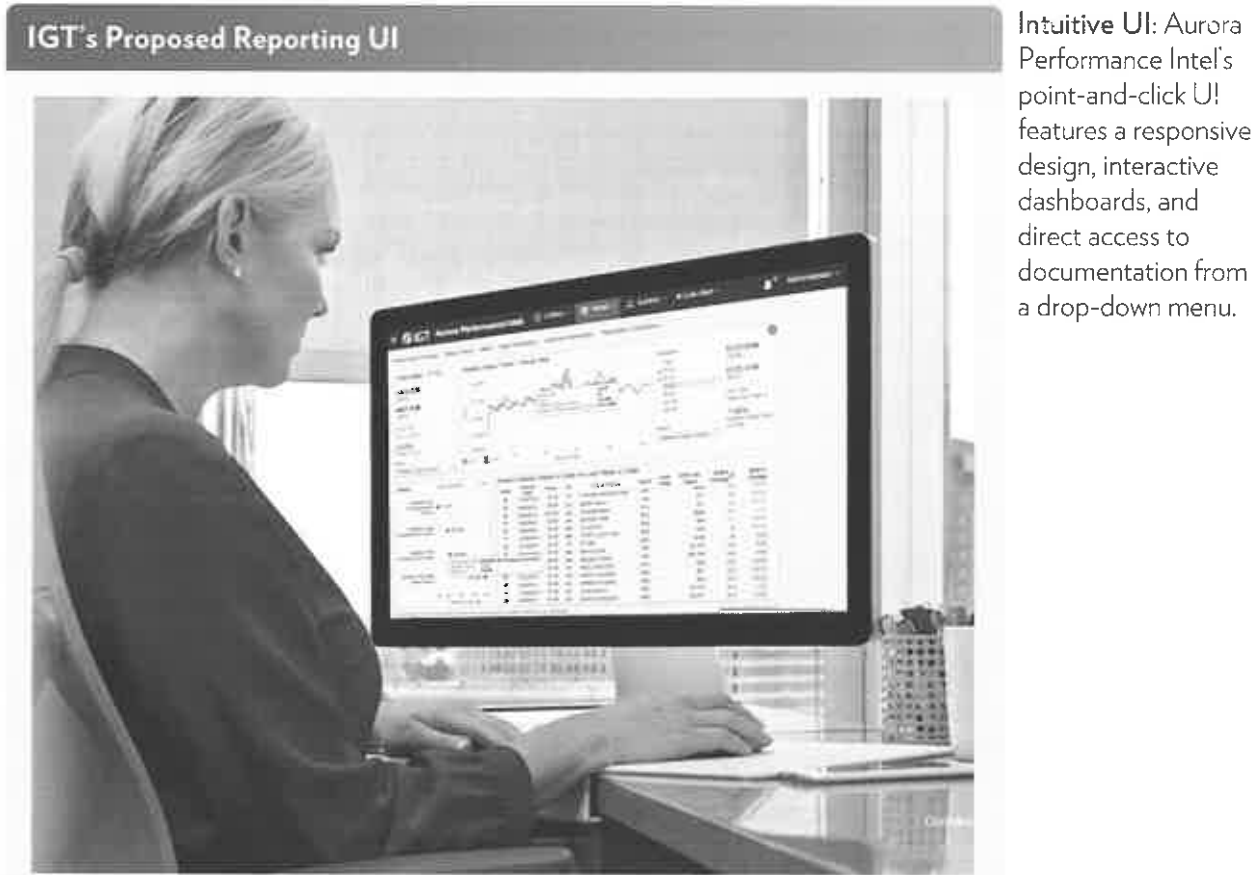


Current Solution: SAP includes Ad-Hoc Query Data Universes and folder access to canned reports.

In comparison, the new Performance Intel solution’s reports are greatly enhanced with valuable information. The new, intuitive Aurora Performance Intel User Interface (UI) provides point-and-click tabs and menu selections to quickly get to the report you want. Integrated help features that include video tutorials, universe guides, data dictionaries, and a user’s guide are only a click away. Access to Ad-Hoc queries and report creation is also a hot link from this central user interface.

The following figure is a sample screenshot that shows the type of reports provided with the new Aurora Performance Intel solution.

Figure 4.3 – 4:



Lottery performance is improved with Performance Intel by providing a one-stop, easy-to-access source of actionable insights and oversight, so everyone at the Lottery can make smarter, strategic, and tactical business decisions throughout the day.

One-stop BI and analytics means Performance Intel consolidates and organizes data collected across IGT systems and relevant third-party systems. It then overlays this comprehensive, central data warehouse with feature-rich data visualization and enterprise business intelligence and analytics software, combining Tableau's top-rated data visualization capabilities with SAP's BusinessObjects' enterprise reporting and robust query software.

The solution offers your staff easier access to data and intelligence by leveraging an updated, intuitive user interface and a larger, more cross-functional data set for insights into all areas of your lottery organization.

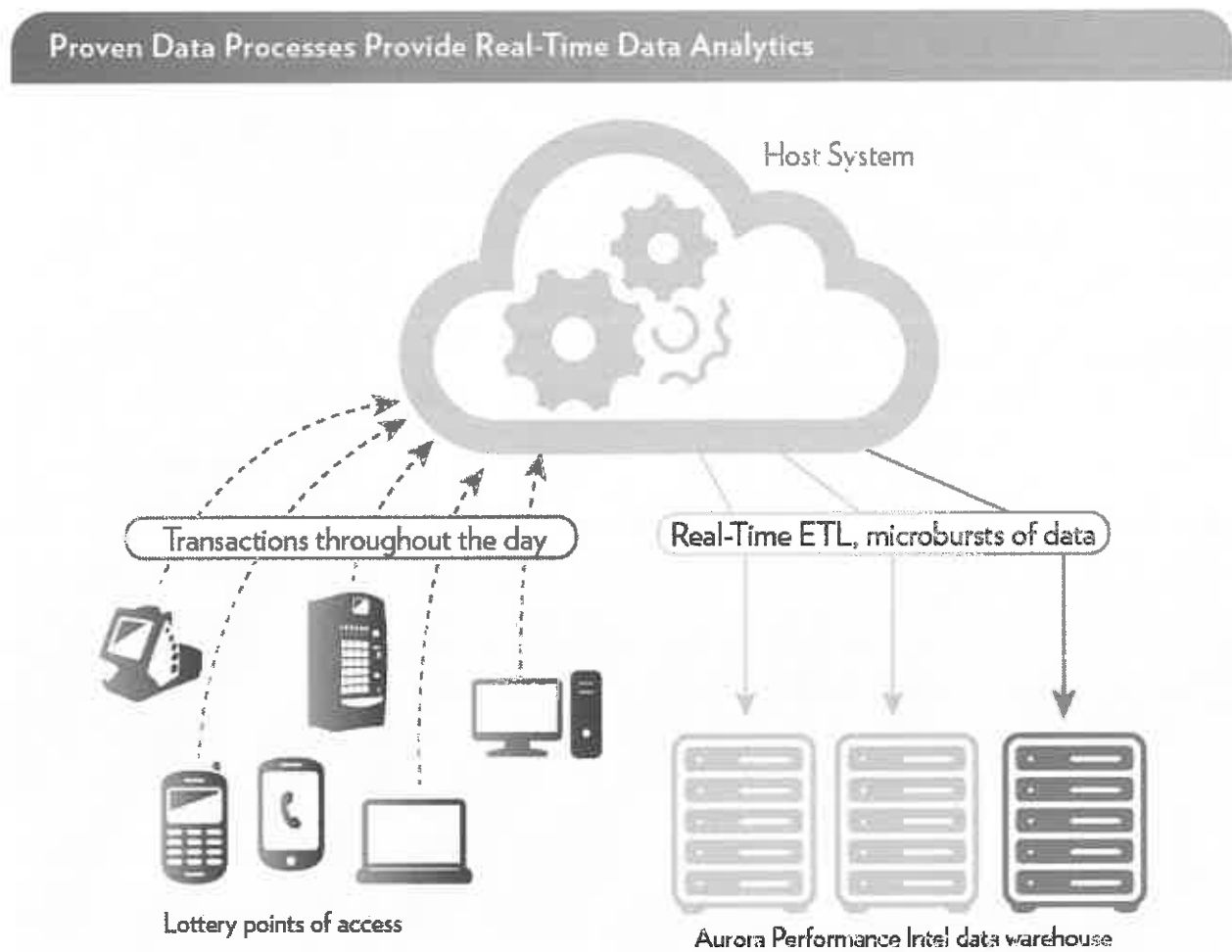
Aurora Performance Intel will provide the Lottery's managers and analysts with a comprehensive system that enables oversight and actionable insights into your Lottery's performance. This is accomplished by providing expert baseline content in addition to lottery-driven requirements, capabilities that improve the ease of use and access to information, and collaboration that ensures the West Virginia Lottery's reporting and analysis needs are met across stakeholders. Delivery and support processes include appropriate training and continuous knowledge sharing of industry best practices and new ideas.

These three essential elements of a top-notch lottery business intelligence system are described in more detail below:

Content

- Establishment of a well-designed, tightly integrated, central data warehouse that includes a complete set of data from all relevant lottery and third-party data sources.
- Available analytics modules of predefined, configurable baseline reports and dashboards based on industry experience and expertise. These modules include, for example, Self-Service Terminal (SST) Analytics, Instant Ticket Scratch-off Game Performance, and Fraud Detection.
- Provision of system reports, dashboards, and a well-organized, business-friendly semantic layer to access more granular data through the Performance Intel Ad-Hoc module.
- Varying levels of data periodicity including real-time analytics.
- Database and application documentation that includes data universe guides and underlying data warehouse data dictionaries, database design documentation (i.e., Entity Relationship Diagrams), video training, and a comprehensive users' guide.

Figure 4.3 – 5:



Extended Analytics Capabilities: Real-time analytics is provided for Fraud Detection and SST analytics currently in Performance Intel, but can also be extended to other lottery functional areas of analysis as required.

Capabilities

- A web-based, intuitive UI leveraging a flexible design to enable self-service use.
- Dynamic, interactive tabular reports, dashboards that include geomaps, and business graphics with dynamic prompts and filters underscore the ease of use of visual analytics.
- Direct access to guides and tutorials from a one-stop shop UI.
- Advanced data visualizations and dashboards for easy and fast data discovery.
- Full access to all of your data using an Ad-Hoc Users module that leverages point-and-click features to query data and create or change reports.

Collaboration

- A delivery process that includes a requirements effort that elicits business needs from all Lottery stakeholders based on a “one-size-does-not-fit-all” Lottery system.
- Inclusion of upfront training, mentoring during implementation, and a support system that ensures that quick fixes and changes can be made expeditiously, overcoming some current challenges.
- Feedback and knowledge sharing from IGT’s more than 35 customers and sites using business intelligence, plus new ideas from IGT market research and marketing analytics teams, e.g., our efforts working with a consortium of U.S. lotteries (Retail Market Insights or RMI™) to provide a broad view of retail chain and trade type performance and enable same-store sales optimization and chain expansion.

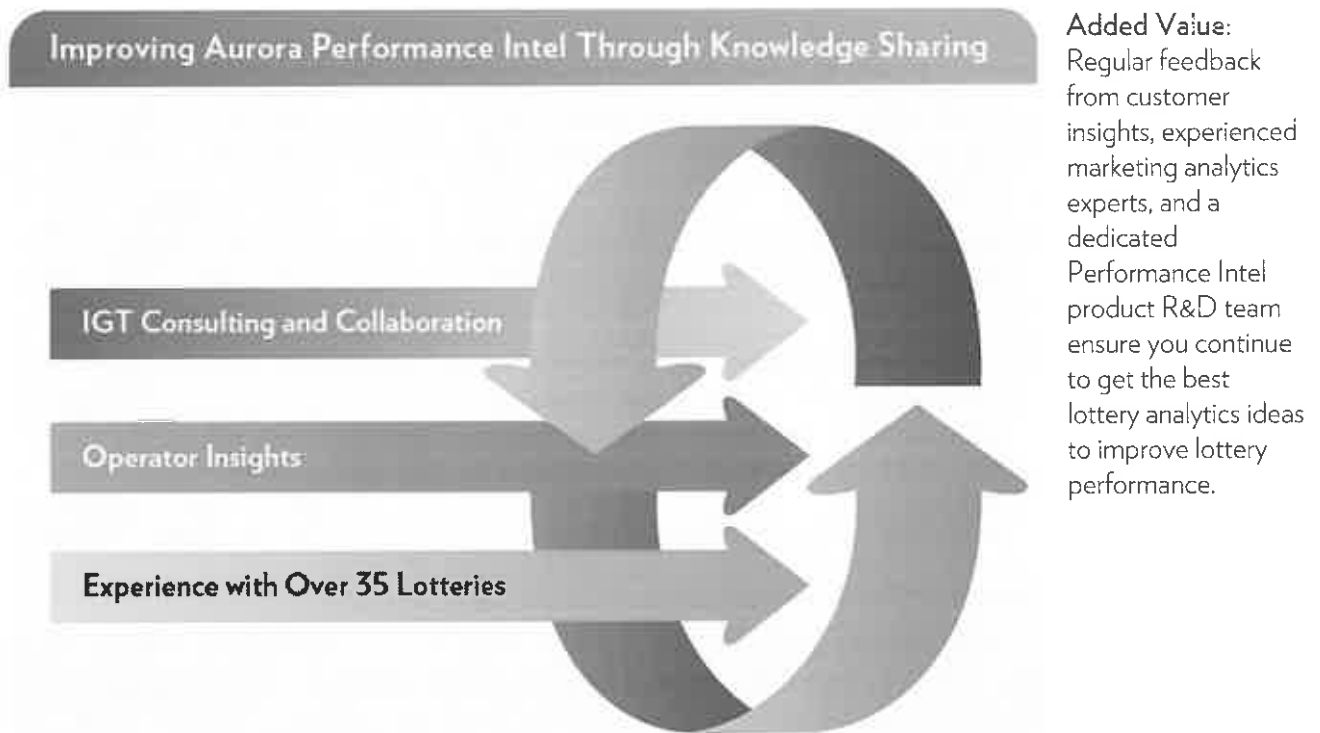
Other aspects of our Aurora Performance Intel offering that distinguishes IGT include:

- **Field-tested and proven** in more than 35 jurisdictions worldwide that use IGT BI capabilities and content. Thus, the Lottery will have the advantage of the insights and “best-of” analytics that IGT has gained from these experiences.

Of particular value are the insights we have acquired as a technology and services partner or operator in 23 U.S. states. In some of these instances, we have not just developed and implemented Aurora Performance Intel – we are using it ourselves, which gives us an exceptional understanding of its management and decision-making functionality. We constantly integrate new capabilities and analytics content to ensure that Aurora Performance Intel best practices evolve just as the lottery industry evolves.

- **Knowledge-sharing** across our consulting, Aurora Performance Intel support, and dedicated Product R&D teams. This will provide additional value to the Lottery’s Aurora Performance Intel implementation and ongoing reporting needs. The comprehensive marketing-consulting efforts in which IGT engages with other jurisdictions – and the new understanding and ideas we come away with – are regularly discussed among our corporate and on-site marketing and business intelligence analysts. This regular feedback ensures that the best ideas from our consulting experience and cultivated best-of-lottery performance measures, along with your own analysis-based insights and actions, can be used to monitor, measure, and take action to improve the Lottery’s performance.

Figure 4.3 – 6:



- **Support of retailer best practices:** Aurora Performance Intel provides reports that identify opportunities for improving retail sales. Authorized users can access specific reports to identify retailers who are not using best practices to manage their instant ticket scratch-off games and work with them to implement best practices to optimize sales. Draw-based game performance and liability information is readily available by chain or by retailer.
- **Ability to gain further retailer insights:** IGT's efforts to expand the Lottery's ability to gain further retailer insights includes new retailer metrics, benchmarks, and measures to improve the growth of lottery retailers with targeted marketing analytics.
- **Improved ability to analyze the instant ticket scratch-off games product category:** This feature will enable your business users to better manage inventory at the pack and partial-pack levels, and report on winners. They will also be able to analyze sales by region, trade style, retailer, game theme, and other game attributes.
- **Two user modules:** Aurora Performance Intel also provides two user modules. The Business Users module provides quick access to pre-defined but highly interactive dashboards and reports that will be available to the majority of authorized West Virginia Lottery users. The Ad-Hoc Users Module allows a more limited pool of data-savvy users (note that we offer detailed, multi-day classroom data universe training and access to a video library of lottery ad-hoc analysis and report creation scenarios) to query data down to the transaction level, create new reports, or change existing report templates.

- **Collaborative reporting requirements process:** A key element of the collaboration element is Aurora Performance Intel's refined and enhanced requirements processes used to meet and exceed the Lottery's reporting needs. IGT's "one-size-does-not-fit-all" model of delivering Aurora Performance Intel with an in-depth, collaborative requirements effort and associated detailed documentation and training process ensures adoption and use of this powerful business intelligence and analytics capability prior to Go Live, helping the Lottery maximize profits and become even more efficient.

The Lottery's stakeholders – including retailers, players, beneficiaries, and policymakers – demand accountability from the Lottery. Likewise, the Lottery demands the highest levels of reporting accuracy and transparency from its suppliers. IGT will correct and ensure that all management and administrative reports are accurate and impactful, enabling the Lottery to continue effectively managing its business and maintaining its positive reputation with all stakeholders. IGT will make sure all user reports are traceable to your unique set of requirements to ensure there are no reporting gaps that the Lottery may have experienced in the past. This includes a rigorous testing process to ensure a smooth conversion.

Executive Dashboards and Visual Analytics

Visual analytics and at-a-glance executive dashboards are key leading-edge practices and technologies used by our Performance Intel product solution to improve usability and the ability for users to quickly react to information. Users are more productive because they process information faster when it is visual.

"Visualization works from a human perspective because we respond to and process visual data better than any other type of data. In fact, the human brain processes images 60,000 times faster than text, and 90 percent of information transmitted to the brain is visual."

Source: <http://www.t-sciences.com/news/humans-process-visual-data-better>

Sales dashboards provide at-a-glance views of performance. Visual Analytics, combined with interactive dashboards, create improved adoption and ease of analysis to gain insights into the Lottery's performance. IGT would be pleased to show these sales dashboards at a presentation or at the benchmark.

Dashboards that are part of Performance Intel's Business Users Module will allow Lottery managers and analysts to quickly identify sales trends and details by game, price point, district, region, or retailer to provide data drill-down analysis in addition to trend analysis. For example, executive-level dashboards quickly show at-a-glance comparisons and trends. In one example, overall sales metrics and trends are compared to Gross Gaming Yield (which shows relative profits by backing out actual payouts) to show evidence of the balance or imbalance of low- and high-tiered prize structures and the projections on which prize structures were based.



Business Users Module Overview

Aurora Performance Intel's Business Users module provides an intuitive, point-and-click, web-based UI with functional lottery tabs and menus of selectable reports. It includes advanced visualizations, dynamic dashboards, and integrated geomapping.

Access to Performance Intel's UI is access-controlled from Aurora's central system user access management tool (Aurora User Security), and further managed for each Performance Intel user at the functional report category and even down to the report level as required for users who have a need to know.

Baseline content and access to documentation, tutorials, and the Ad-Hoc module (for deeper, more granular data inquiries or report creation) are accessible from the Business Users module. Training is key to adoption and use of these powerful dashboards and reports that will lead to data-driven decisions to improve performance. Video training showing how to use these data is only a click away.

Draw-Based Game and Instant Ticket Scratch-Off Game Reports

Draw-Based Game Performance

Draw-based games make up a significant portion of the Lottery's revenue, and maximizing big jackpot sales and managing payouts and liabilities are critical elements towards maximizing profits.

Draw-based games analytics and reporting are supported by Aurora's Performance Intel. The following figures provide examples of measuring sales to goals and show a more detailed report that provides information about payouts and liabilities. Prompts and input controls allow filtering by game(s) or other drill-down and filtering criteria, and user prompts provide "what-if" analysis regarding any potential payout adjustments.

Figure 4.3 – 7:

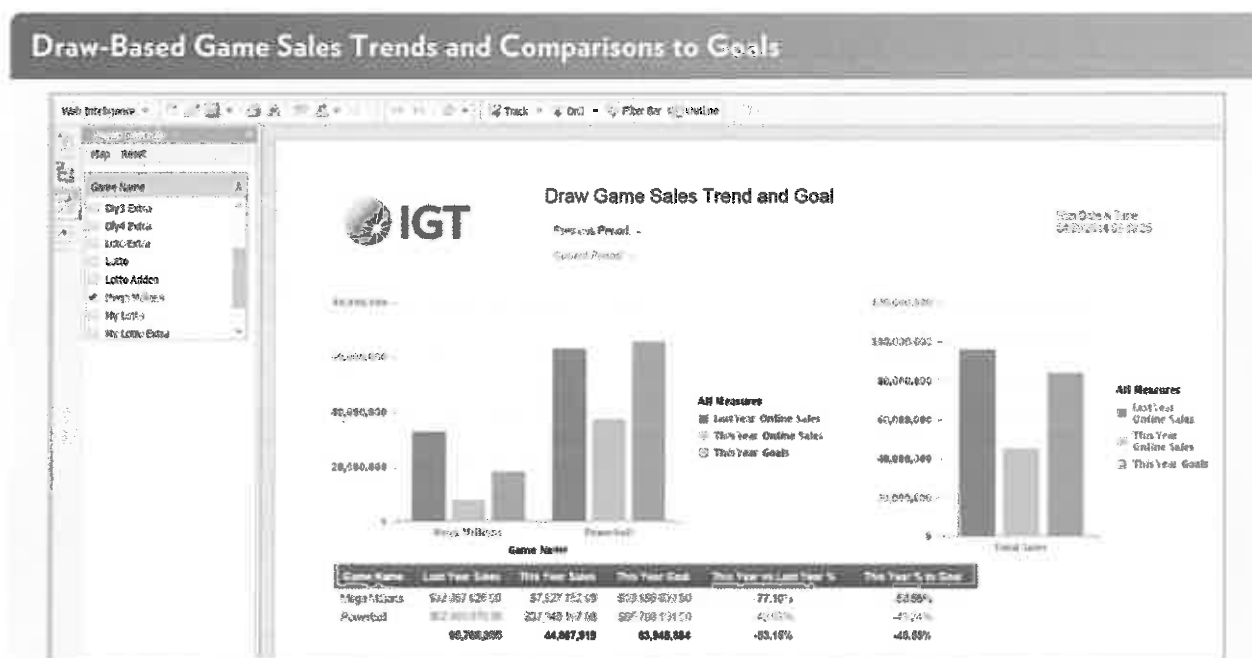
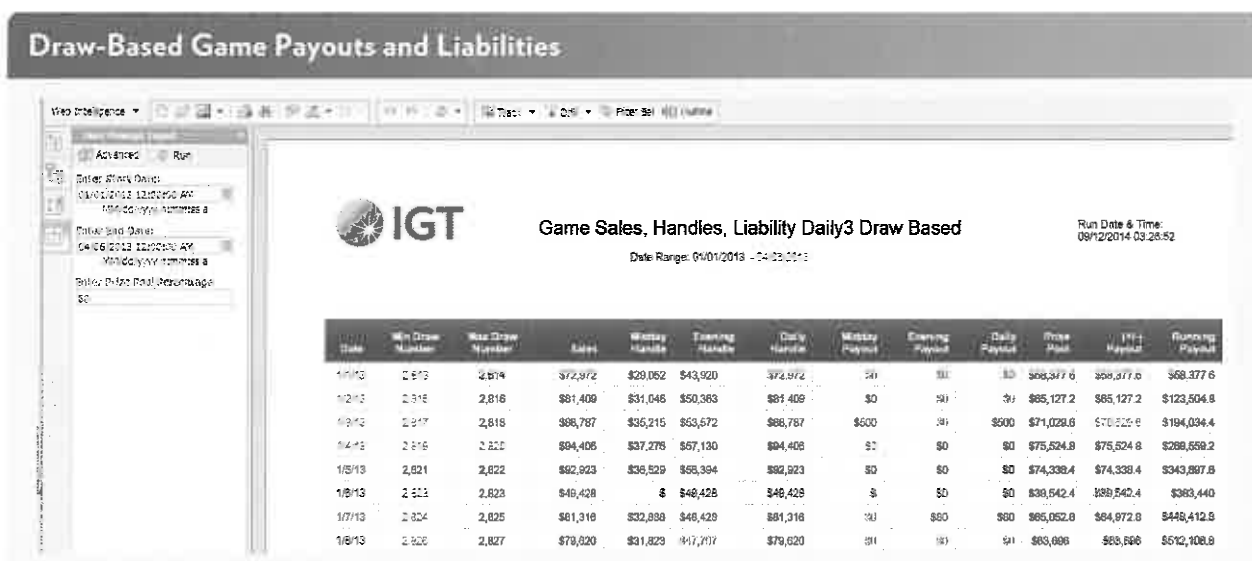


Figure 4.3 – 8:

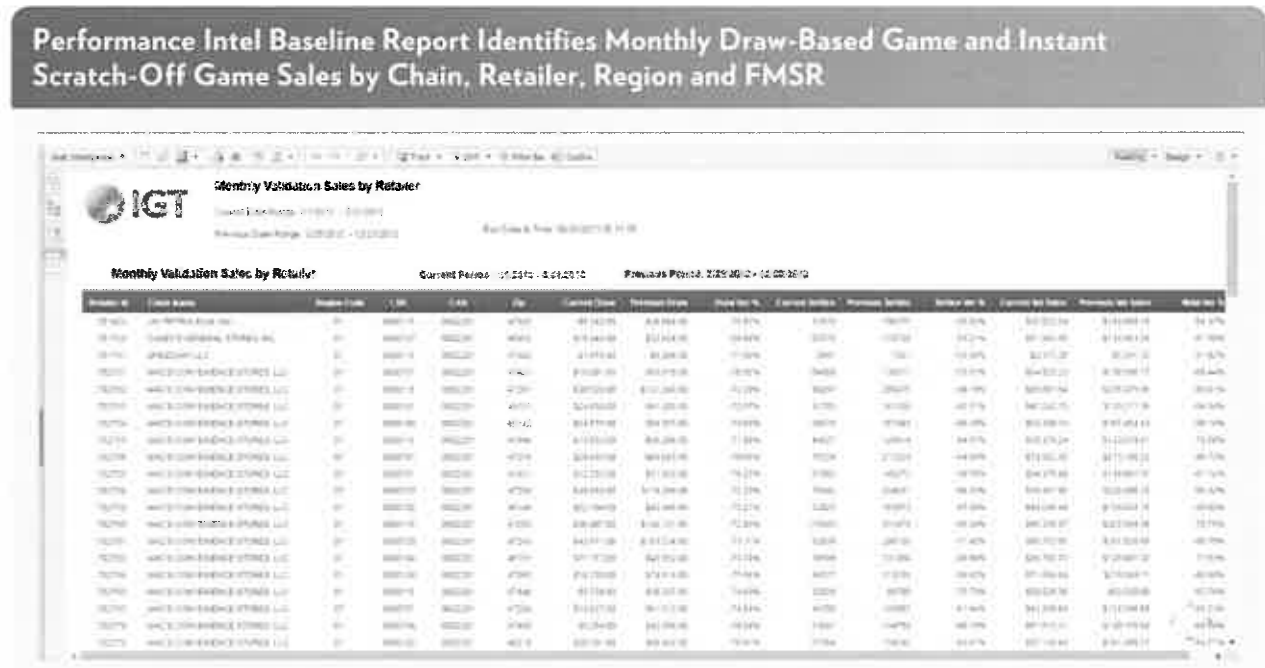


Draw-based game reporting and analytics can be drilled down to the retailer level, as depicted in the following tabular report examples:

Figure 4.3 – 9:



Figure 4.3 – 10:



Aurora Performance Intel's Ad-Hoc Users module will allow Lottery staff the ability to query data, create reports, and change existing reports to meet any level of draw-based games reporting and analysis. For example, an ad-hoc query comparing and reflecting draw-based sales and commissions' amounts by retailer can be quickly generated by selecting from data objects that are organized in a business-friendly semantic layer that includes data universes and classes of data objects within an easy-to-use query panel.

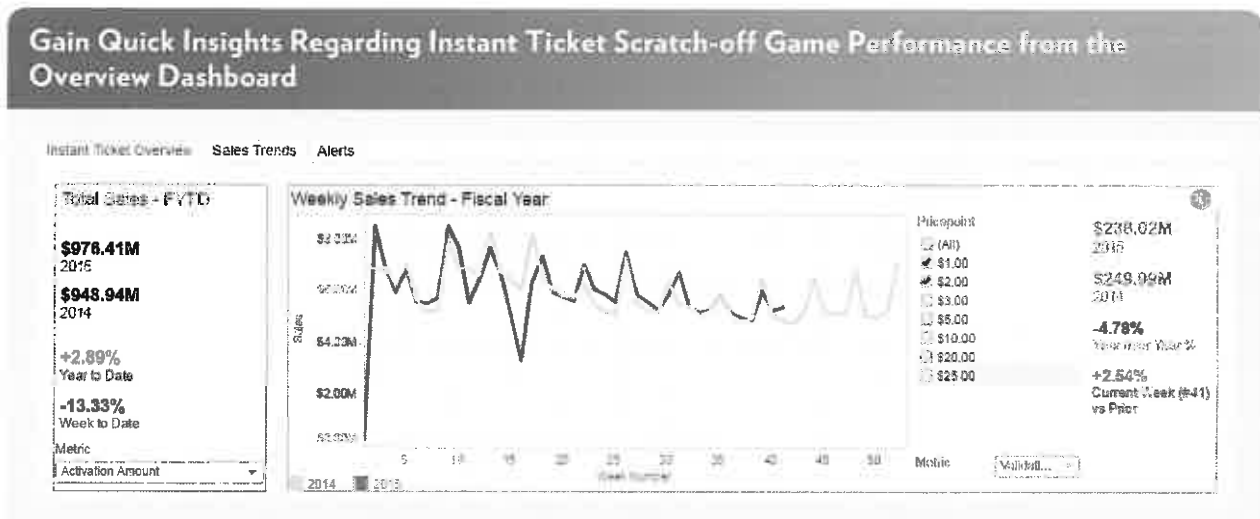
Instant Ticket Scratch-off Game Performance

Analyzing sales and inventory-optimization metrics can help improve the Lottery's instant ticket scratch-off game sales (which fell by just more than 2% over FY2014). IGT also continues to leverage knowledge sharing and best practices to optimize ticket sales. IGT's supporting analytics services, national workgroups, and product R&D teams continuously work together to improve instant ticket scratch-off game sales with analytics tied to IGT's instant ticket optimization strategies.

Aurora Performance Intel's Instant Tickets Performance module provides two (2) dashboards that each include sub-dashboards and underlying tabular data, providing even deeper knowledge of instant ticket scratch-off game performance.

The first dashboard provides an overview of instant ticket scratch-off games for executives, managers, and analysts to gain quick insights. This dashboard is partially depicted below with sub-dashboard selection tabs at the top:

Figure 4.3 – 11:



The Sales Trends sub-dashboard begins to drill down to a second level, giving you a deeper dive of the statewide sales that you've seen on the Overview tab. The Sales Trends dashboard is a terrific tool to begin to drill down on sales details that may lead you to weaknesses in your retailer network or sales network that may need to be addressed.

The Alerts sub-dashboard tracks key alerts regarding top Instant Ticket Scratch-Off Game Key Performance Indicators (KPIs) that are collected and analyzed historically to target locations with habitual patterns of poor inventory management. Alerts bring to the attention of lottery staff actionable conditions that drive real results if addressed in a timely manner. Alerts are retailer-specific and address specific best practices where a retailer may have a weakness that you want to address. Like most of our dashboards, measures can also be aggregated and filtered at regional, district, FMSR, and Tel-Sell Representative levels to gain insight, take action, and communicate issues at those levels of detail.

The next dashboard focuses on daily and historical instant ticket scratch-off game penetration analyses plus historical trends and comparisons of games at varying levels of aggregation to support strategic and tactical decisions. Any date can be analyzed for any geographic entity, or by inside sales (Tel-Sell) and field FMSRs regarding instant ticket scratch-off game penetration. “What-if” analysis is accommodated by adjusting the color-coded game penetration thresholds/goals to determine the level of game penetration that should be attained by FMSRs.

A lottery’s management team really needs know about two types of penetration in the marketplace: activation of new games at retail in that all-important first week of distribution and game penetration of all other games in the marketplace. Selecting New Games Activation in the Daily Penetration sub-dashboard allows users to see the percent of retailers in the retailer network that have activated a pack of each new game during the first week of distribution. This is updated daily the first week after a launch of a new game.

Selecting (Regular) Game Penetration shows ALL of the games in the marketplace. Regular penetration differs from the New Game Activation in that the Regular Game Penetration measures the % of retailers that actually have a game on the counter and selling.

The remaining two game penetration sub-dashboards provide an historical view of sales and associated snapshots of game penetration leveraging interactive visual analytics. Knowing the historical penetration rate of a game is important, but even more important is measuring that penetration rate each day, over time, and comparing it to the game sales over that same time period. Comparing the penetration rate to sales tells us whether that game is still in demand in the marketplace or that customers are losing interest and the game is nearing the end of its life cycle. This is a vital tool when trying to decide which games to include in a planogram, for example. Lotteries need a picture of games that the public actually has the opportunity to purchase; it’s not useful to count retailers that simply have packs of tickets in the safe.

Stale inventory is another example of Performance Intel’s out-of-the-box baseline content, and includes drill-down capabilities at the region, FMSR, and individual retailer levels. Stale inventory has to be replaced immediately with better-performing games to optimize sales.

Marketing Reports and Interfaces

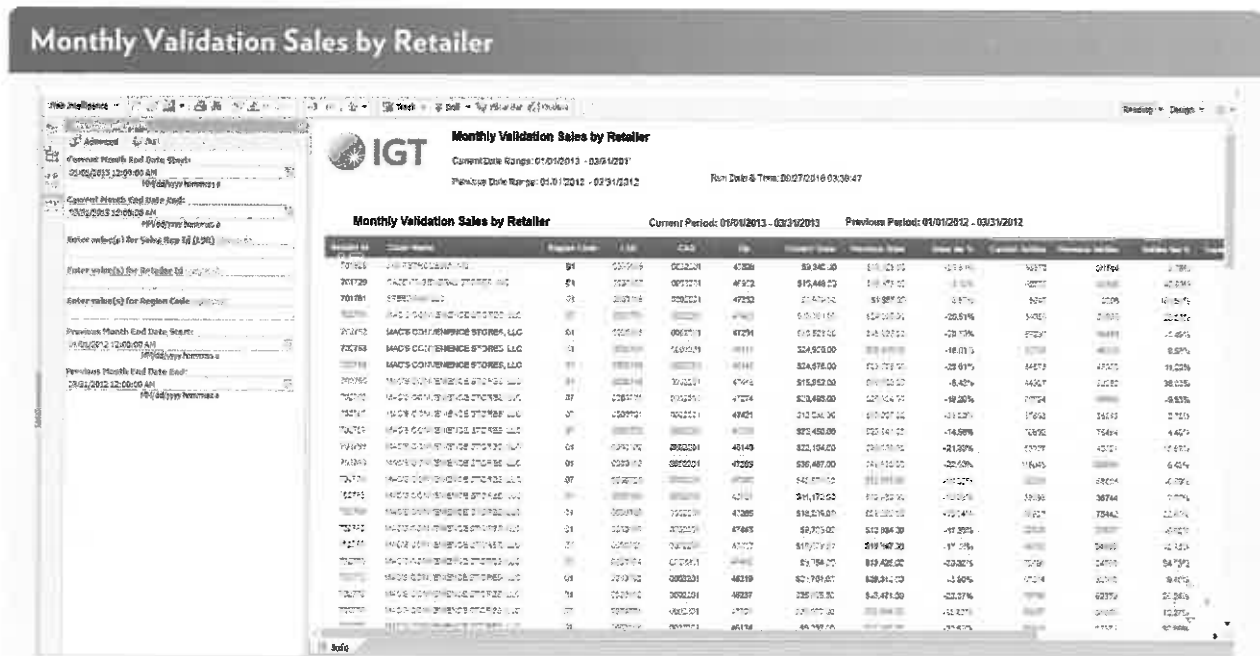
Aurora Performance Intel fully supports marketing reports other than standard system (Host) reports for business users. It also provides an ad-hoc user interface to query data, create reports, or extract data to be used for other marketing analyses. The Performance Intel presentation layer is tied to the Performance Intel data warehouse. Baseline reports and dashboards include advanced data visualizations and geo-maps.

IGT understands the importance of this information to the Lottery, and will make marketing reports a high priority. During our requirements-gathering process, we will identify the marketing reports that are desired by the West Virginia Lottery early on to ensure these reports will be available at Go Live. Much of our baseline content that was discussed in the previous section will also help meet your marketing reporting needs, covering instant ticket scratch-off and draw-based game sales by retailer, by chain, and system wide.

Because the Performance Intel data warehouse collects all game transaction details, it can provide both detailed and aggregate reporting with sales and validations – *and* identify free plays, coupons, Easy Picks, manual entries, play slip entries, multi-board wagers, multi-dollar wagers, and add-ons/multipliers for any given period.

Detailed monthly sales data by retailer is shown in the following figure. This also shows prompts that can be built-in to adjust the date range or look at selected retailers or FMSRs.

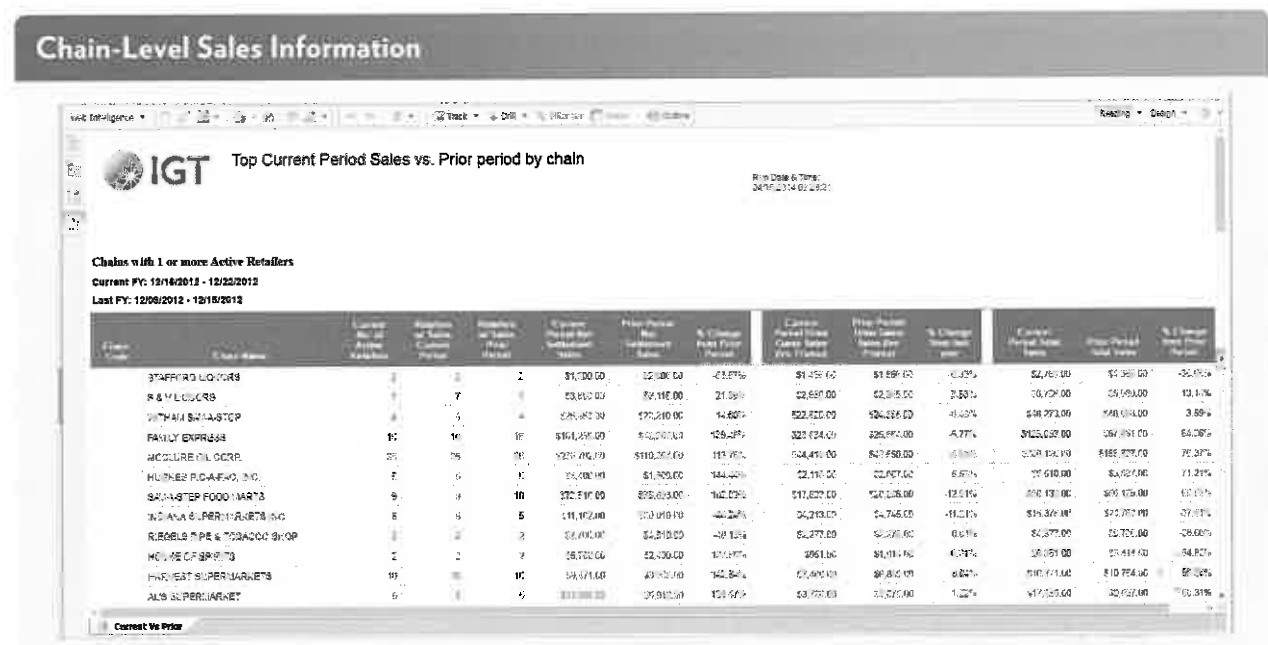
Figure 4.3 – 12:



Other examples show system-wide trend and comparative analysis of instant ticket scratch-off games as reflected previously with regard to the daily and historical game penetration analysis dashboards. The reports include another dashboard that was derived from collaborating with IGT's Same Store Sales analytics team. It visually portrays game penetration relative to sales to a best fit trend line, plus additional visual analytics regarding rates of sales for each game.

Sales data by chain is easily accessible for the Lottery's marketing team to identify top sales chains and chains that may need some more marketing support to increase sales, as shown in the following example:

Figure 4.3 – 13:



Winner Awareness by Retailer and Chain

Lottery managers and analysts can get more details about a selected chain or retailer with Performance Intel's Retailer 360. This module includes metrics such as rankings and information about winners by location for the selected retailer and nearby lottery retailers based on a selected distance range of neighboring lottery retailers to compare relative performance.

The preceding paragraphs discuss much of Performance Intel's baseline content, which will enable the West Virginia Lottery to analyze and identify sales, instant ticket scratch-off game inventory, and marketing efforts to ensure positive sales growth. We understand how critical security and brand integrity are to every Lottery's success. The next section identifies potentially fraudulent activities that can be identified with analytics and reporting. We can also monitor any identified locations in real time to build a case that enables authorities to investigate and take action on suspicious activities.



Fraud Detection and LiveAlert

IGT's Fraud Detection module includes a date- and filter-driven analytics package that can be used as a lottery analytics module to augment your current fraud detection capabilities.

Reporting that Identifies and Targets Suspicious Activity

Easily accessible, transaction-level detail reporting is available by terminal and any other level of detail. IGT worked closely with anti-fraud experts from more than 15 jurisdictions to create Aurora Performance Intel's baseline fraud reports. Fraud detection relies on accumulating evidence by first **targeting areas of suspicious activity**, e.g., cashes of unclaimed draw-based game products near purge time or excessive draw-based game cancels versus sales. One of our baseline reports provides an interactive dashboard regarding cashing behavior. This is one example of targeting chains or selected retailers with a dynamic prompt- and filter-driven data visualization report that can be viewed based on selectable thresholds of suspicious activities.

The following is a list of some of our other fraudulent activity reports provided in our baseline fraud detection module:

- Activated Packs with No Validations.
- High Percentage of Cancels versus Sales.
- Cancel Transaction Details.
- Ticket Lifecycle.
- Draw Games Coupon Fraud.
- Instant Ticket Scratch-off Game Validations.
- TMIR (Transaction Master Information Retrieval).
- Cash of Unclaimed Draw Games Near Purge Time.
- Tickets Validated at Location Other Than Owning Location.
- Excessive Invalid Validation Attempts per Instant Ticket Scratch-off Game.
- Excessive Non-Winning Instant Ticket Scratch-off Game Validation Attempts.
- Attempt to Validate Canceled Draw Game Ticket.
- Attempt to Validate Instant Ticket Scratch-off Game from Pack or Partial Pack in Invalid Status.
- Stolen Packs with No Validation Attempts.

LiveAlert Monitors Suspected Activity in Real Time

A natural next step in collecting evidence of potential fraudulent activities is to **monitor** transactions at targeted locations to verify the identified and analyzed suspicious outliers, trends, and patterns day-to-day and minute-by-minute. IGT is excited to include its Aurora Performance Intel-based Aurora LiveAlert module in this base business intelligence and data warehouse offering. Aurora LiveAlert provides real-time monitoring and analysis keyed to pre-determined scenarios of fraudulent activity.

LiveAlert's Monitoring and Alerts mechanism can be enabled as part of the Aurora Performance Intel UI or in a more accessible location, such as a tablet or mobile device.

LiveAlert's dynamic performance dashboard leverages Aurora Performance Intel's visual analytics data presentation component. Alerts based on your business rules and thresholds of suspicious activity to which you want to be alerted can be changed as needed. LiveAlert also leverages geo-mapping for a quick view of suspicious activity for any geographic area and at-a-glance evidence of suspicious activity for any time dimension.

Fraud detection requires transaction-level evidence, which is also available directly from LiveAlert. This value-added functionality collects the underlying, targeted transaction activities tied to each scenario of targeted suspicious activity.

Ad-Hoc Users Module Overview

Create or change reports or simply query and analyze your data with Performance Intel's Ad-Hoc Users Module. The ad-hoc capabilities of our Aurora Performance Intel solution include prompt- and input control-driven report models (pre-defined reports created for use in the Business Users module, advanced visualizations, and interactive dashboard workbooks) that can be manipulated or changed. Plus, you will have full access to the Aurora Performance Intel Data Warehouse for data query and investigation. This will be at a granular level of detail via data universes. Business analysts, marketing specialists, and draw-based/instant ticket scratch-off game product managers will be able to use these tools to address any pressing challenges.

Aurora Performance Intel's Ad-Hoc module can further data mining and what-if analysis with pre-defined filters and a host of input controls and filters to quickly interact with more granular data objects and find data associations and patterns. The creation of ad hoc reports will not require any software programming. It's a self-service tool that requires detailed data knowledge. IGT-site team members will work closely with your users to make the most of the system and tools. We have enhanced our on-site training for ad-hoc module users with a data-intensive, multi-day, on-site training class that includes how to use data universes. Our Aurora Performance Intel ad-hoc users' implementation includes detailed Data Universe Guides, access to video training on focused lottery data analysis scenarios, and report creation using the Ad-Hoc Users' module. Training, documentation, and continuing on-site support will create a solid foundation from which Lottery staff can start generating reports and analyzing data with confidence.

Our evolved Aurora Performance Intel product solution provides an array of next-day and real-time reporting capabilities. Authorized Lottery users can use the Ad-Hoc module to look at data across Lottery channels, across time, from the previous week, or even from today's domain applications or host system transactions.

Integrating disparate databases within the central Aurora Performance Intel Data Warehouse optimizes the ability to search multiple databases. Data universes further that capability for less technical users by essentially creating a view of data across related data tables, enabling a semantic layer of business-friendly nomenclatures that are more familiar to the user. Federated searches are also possible, as required, across additional databases leveraging IBM's DB2 Blue Accelerator technologies. Note that any field in the Lottery's data warehouse will be searchable.



Aurora Performance Intel supports comprehensive searches of all database tables within a centralized data warehouse using a single search screen as determined by the Lottery during the requirements part of our delivery process. The ability to see, for example, in one report, both retailers and winners by searching any field available in any data universe is a fundamental capability of both our enterprise reporting and advanced visualization toolset.

Data analysts and reporting developers can use the point-and-click Aurora Performance Intel Ad-Hoc module to query data down to the transaction level or create and share new reports. Pre-built data universes include pre-built data views (universes and data classes), data aggregations, filters, and measures to save time and ensure accuracy. Any Ad-Hoc data query can also be exported to multiple export options that include Excel, CSV (Comma Separated Value file), PDF, or Text format for use in other tools or application. Existing baseline reports can be used as templates for new reports or report changes such as adding additional filters or prompts.

The latest SAP BusinessObjects Version 4.1 solution and Tableau Version 9 solutions, integrated into IGT's latest Aurora Performance Intel offering, will provide easy access to query and report on gaming information collected by data processed by the Aurora Transaction Engine, Aurora's back-office applications, and any other critical third-party databases as required by the Lottery.

Users will access data down to the transaction level and create or change existing reports, create ad hoc analyses, and schedule reports to run automatically using the aforementioned Aurora Performance Intel Ad-Hoc module. They will also export reports in a variety of formats and share them with co-workers. Any Lottery user with authorized access will have the same capabilities, whether in-office or from a remote location with Internet access.

Data Mining and Advanced Analytics

To address the West Virginia Lottery's requirements to have inferential statistical capabilities for predictive analysis, data mining, and other inferred data-driven patterns and associations, IGT's Aurora Performance Intel is positioned to produce any existing or derived data models by leveraging "R," an available toolset that can also mine data and develop data models. IGT is currently working with internal and external stakeholders on many analytics fronts to bring predictive analytics into Aurora Performance Intel as a baseline capability when that capability can be configured to meet any lottery's specific predictive analytics needs. Retailer sales and fraud detection models are currently being developed internally, and we are always assessing their applicability to our customer sites.

One example of our baseline fraud detection reporting that is keyed to data associations is an Anomalous Retailer Behavior Analysis report that correlates instant ticket scratch-off game settlements against validations. It looks for outliers keyed to the resultant percentage of the variance between the observations, i.e., the R-Square (RSQ). High and low variances, or RSQs, are taken into consideration for further analysis to detect patterns of suspicious activities, or refute these as suspicious due to other environmental variables impacting lottery product sales, e.g., an adjacent industry going out of business that had supported lottery sales at that location.

Data mining techniques are also commonly referred to as data or knowledge discovery that can be accomplished in several ways. One method is the dynamic interactive data drill-down, slicing and dicing data and general data investigation searching for trends and patterns or correlations between data dimensions and measures, e.g., noting poor sales of instant ticket scratch-off games at locations of a specific trade style or geographic location.

Tableau, a featured software capability within Aurora Performance Intel, is considered a top “data discovery” tool. Additional methods of data mining include dynamically incorporating data modeling development as a result of data variable selections that may have a correlation to a hypothesized outcome. Many IGT experts use these more inferential statistics-oriented tools to derive predictive or simple correlational data models to understand what impacts lottery product sales. R has become an industry standard for data modelers, and the toolset IGT uses to produce data models within Aurora Performance Intel. In fact, any R script can connect directly to Tableau to, in turn, use dashboards as a front end for R code, which allows viewers to intuitively interact with R data models.

Aurora Performance Intel enables data investigation (or discovery) by first providing the Lottery with functionality to analyze the structured lottery data at various levels of detail. This leverages the solution’s aggregated and transaction-level relational data warehouse (IBM’s DB2 with Blu Acceleration) components, namely Reporting Data Store Transactions (RDST) and Reporting Data Store Aggregated (RDSA), which maintain the required levels of data detail by varying dimensions.

SAP BusinessObjects and Tableau both offer drill-down and drill-through capabilities that leverage the Aurora Performance Intel data warehouse. BusinessObjects Ad-Hoc User Module represents a full-featured data analysis platform tied to well-organized data universes, classes, and associated data objects, enabling data mining at varying levels of aggregation. The Ad-Hoc module is discussed in more detail in the following paragraphs.

Big Data Solutions

At its most fundamental level, “Big Data” is about looking for insights from very large data sets. IGT has increased its focus on Big Data to help its lottery customers optimize the use of their data assets, enabling analysis to find apparent (and not-so-apparent) data correlations that can increase sales.

Aurora Performance Intel provides a strong foundation for Big Data analysis. We have engaged with global experts, such as IBM and the Massachusetts Institute of Technology (MIT), for their insights into how Big Data analysis might be best applied to our industry. Additionally, IGT’s Product Management and Aurora Performance Intel R&D technology teams are working collaboratively with lottery customers to better understand retailer sales and better target prospective lottery retailers through our Retail Market Insights (RMI) tool that leverages IBM’s data warehouse Netezza Big Data appliance.

In parallel, we are working on a Hadoop solution. Hadoop is a Java-based programming framework that supports the processing of large data frameworks in a distributed computing environment. While future Internet lottery transaction information and adjacent social media and web analytics information will require Big Data capabilities, current retail lottery data can also benefit from the power of Big Data technologies to more quickly mine data and extrapolate associations and patterns across a large range of variables.



Reporting Data Universes: Your Window into the Lottery Database

Our solution includes BusinessObjects' Data Universes, the windows used to view and analyze data within the Data Warehouse. Authorized Lottery staff will select from these windows to create and analyze information when conducting ad-hoc analysis. It is important to understand that the universes of information are designed to include windows and views for the entire Lottery staff, such as Brand Management, Sales, Finance, Retailer Contracts and Administration, and Security.

Each Universe includes Data Objects. Data Objects can be dimensional objects (such as game name or retailer name) or measures (numerical data, typically the result of a calculation, such as net sales). The specific universes the Lottery will have will be established during the requirements gathering process ensuring they will be available at Go Live.

Visual Analytics and Tableau

Tableau provides a visual analytics front-end that uses an in-memory (Relational On-Line Analytical Processing [ROLAP]) data engine to allow Lottery users to quickly look at various data dimensions in a highly visual and easy-to-use format.

Tableau offers the best in self-service data discovery and interactive data visualization. It enables data analysts to quickly and easily perform slice-and-dice operations to explore trends and relationships in data, and then create visualizations. Tableau enables one-click filtering and fast rendering and re-rendering of output that is tied to dynamic user interactions. These analyses are again bolstered by the ROLAP data engine that supports optimized, multi-dimensional data selections and measures.

Aurora Performance Intel's data discovery capability creates an interactive data mining environment to compare and contrast data segments. In one example, instant ticket scratch-off game alerts can be tracked and assessed any day(s) by FMSR, region, and relative location. Additional interactive data controls and thresholds or goals can be added for further data discovery.

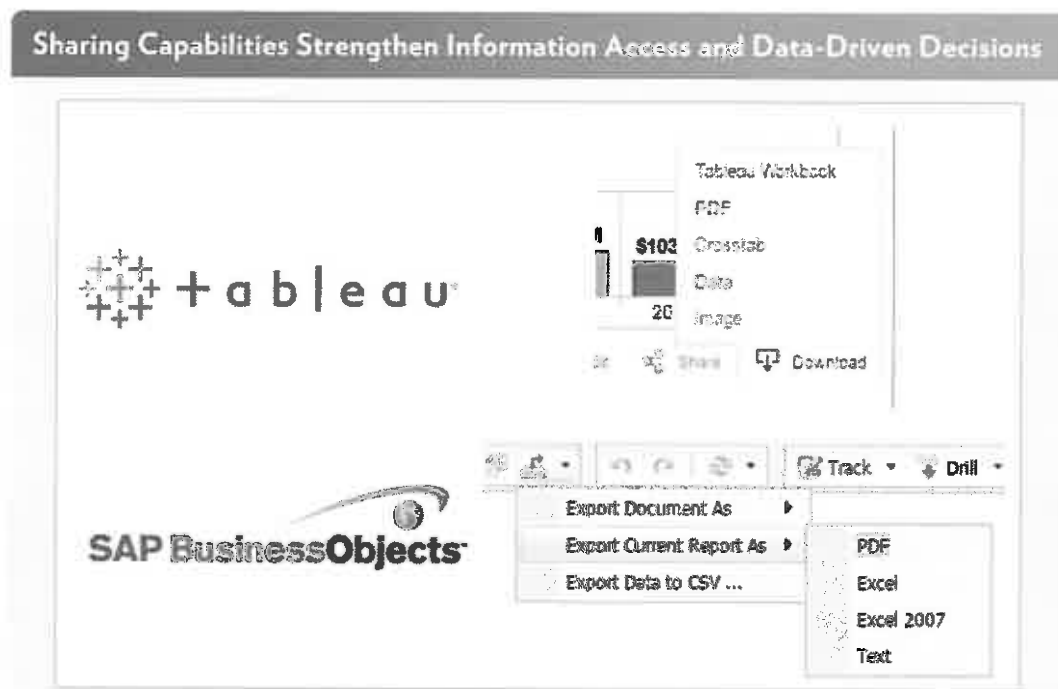
Sharing Capabilities, BI Data Warehouse, and Technology Components

IGT, Through Aurora Performance Intel, IGT will supply web-based BI tools, provide extensive reporting functionality, support data mining techniques and capabilities, enable business performance management, add predictive analysis capabilities and available applicable analyses, and provide data relationship patterns, associations, and other related information needed by the Lottery.

Sharing Information to Support Decisions

Any data visualization or tabular report is portable in three ways. First, the download feature creates a snapshot of data for a particular dashboard, and includes full functionality of that dashboard from anywhere by downloading Tableau's (free) Reader software. Using the Download function in the lower right corner of the data visualization screen creates a Tableau workbook file ([filename].twbx) that can be shared and used without the Tableau or Aurora Performance Intel user interface. Data are only for the point in time that are not connected to a live data warehouse. SAP Business Objects also provides comparable export features to further share reporting content.

Figure 4.3 – 15:

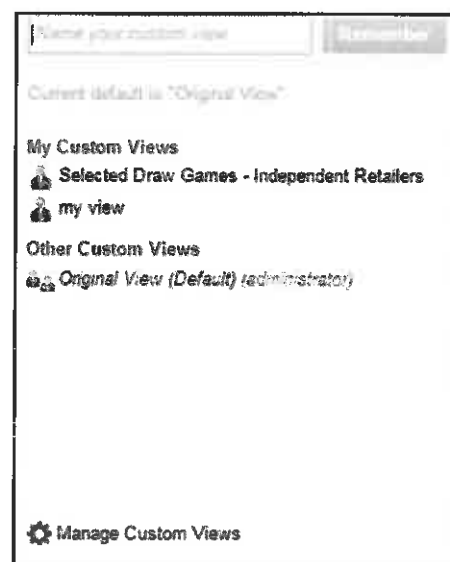


Export options, as depicted in the preceding figure, include PDF or image file (e.g., PNG – Tableau only). Underlying data can be exported to Excel, CSV, or Text files. PDFs and image files can be used to enhance marketing or management presentations.

Second, mobility is a featured capability. Any Tableau workbook can currently be made available from your internal network on a tablet device. Tableau and Aurora Performance Intel follow a responsive design framework. Full mobility of Aurora Performance Intel and smartphone capability is on IGT's current Aurora Performance Intel product roadmap.

Third, additional features enable scheduling reports to be e-mailed to designated users. A feature in Tableau that saves (remembers) a set of interactive analysis selections or "Custom View" provides one-touch access to an analysis task that is worth repeating as data are updated. The figure on the right is an example of the custom-view feature.

Aurora Performance Intel's foundational data warehouse includes the relevant design and data integration work, i.e., the "heavy data lifting" that IGT experts perform as part of the delivery process. The data warehouse will integrate data at the level of detail and update periodicity required from the Lottery. A trusted, comprehensive, centralized database is a fundamental requirement for an industry-standard BI system.



Using the Aurora Performance Intel reporting solution, authorized Lottery staff can quickly and easily access gaming information data processed by the Aurora Transaction Engine and other Lottery systems, including pre-defined dynamic reports and dashboards and the thousands of more granular data elements. The Ad-Hock module enables you to create reports or simply query and interrogate “your” lottery database. Data stored in the Performance Intel data warehouse includes retailer data, sales records, terminal maintenance data, daily transactions, and any other data required by the Lottery.

BI Data Warehouse and Technology Components

To create a one-stop-shop for business intelligence and analytics, Aurora Performance Intel has integrated multiple data sources into a trusted, tested central data warehouse. It then combined industry-tested advanced visualization, enterprise reporting, and advanced analytics tools to create a solid business intelligence and analytics foundation.

The three components of Aurora Performance Intel use best-in-class technologies and baseline content fed from IGT’s years of experience and customer insights. Combined with our collaborative requirements delivery process, we will ensure that Lottery staff have the data and reports they need.

These components include:

1. **Data management:** Aurora Performance Intel’s central data warehouse includes aggregated data for reporting expediency and an operational data store that provides transaction-level detail. The “heavy lift” of designing a relational database is done for you.
2. **Value-added technology:** Leverages top-rated data visualization (Tableau), Enterprise Reporting (SAP BusinessObjects), and advanced analytics (“R”).
3. **Value-added functionality:** Lottery analytics modules that are part of Performance Intel’s baseline content, e.g., Instant Ticket Scratch-off Game Performance, LVM Analytics, and Fraud Detection.

“Best-in-Breed” third-party software adds advanced data visualization seamlessly integrated in an intuitive, web-based UI. Aurora Performance Intel’s software set includes SAP BusinessObjects, which is the de-facto standard in Enterprise Reporting and Analytics, as well as Tableau, which complements BusinessObjects by providing leading-edge, best-practice advanced visualization; dynamic dashboards; geo-mapping; and data discovery capabilities. The two products work seamlessly together to build IGT’s BI and analytics product offering along with a Vaadin web framework that provides HTML5 and responsive design capabilities to add further flexibility to Performance Intel. Add robust documentation and training videos that are a mouse click away and you have a truly self-service business intelligence product solution.

Our central Aurora Performance Intel data warehouse will contain relevant sales and revenue history by game in addition to associated data dimensions that correlate sales and revenue information with related information for the term of the Contract. Longitudinal data about lottery sales and revenue is fundamental to providing the Lottery with current and recent sales performance (oversight), comparative analysis to previous periods (hindsight), and targeted analytics and associated reporting (insights) that are actionable to change behavior and, ultimately, increase sales and the profits that contribute to the good causes of West Virginia.

Aurora Performance Intel's data warehouse aggregates disparate data sources into a central, well-managed, organized relational database using eXtensible Markup Language (XML) files created from the host system's Master Journal File (MJF) data in memory (i.e., buckets of data) that provide data separation from the production MJF transactions and domain systems (e.g., Aurora Instants Processing System) databases. Most data are updated daily and pre-aggregated (completed during non-peak or off-hours) for the RDSA.

Detailed, transaction-level data is separately stored in the RDST, providing an Operational Data Store (ODS) capability for more granular data analysis outside of the production system. An ODS, by design, provides a separate parallel snapshot of the production detail-level database that is used for reporting and analysis in Aurora Performance Intel. These transaction-level data snapshots taken from the production database throughout the day cause no impact to the production system's performance and enable real-time analytics by using these frequent microburst transaction updates as necessary.

While aggregate lottery sales, revenue, and inventory analytics are available at varying levels of detail (time, sales force entities, retailers, chains, trade styles, socio-demographics and other geographic entities such as county, city, zip code) player-level detail at this juncture depends on extrapolations of data, e.g., socio-economic data tied to retailer locations, in lieu of having identified player data.

The data warehouse's data integration and management provides an extensible database platform to analyze and report on your lottery operation, chains, retailers, and – given access to required data – can even provide a single view of a player across products and lottery channels.

Our solution enables integration or interlinking of usage data from web applications to assess details about the users and usage of IGT's Customer Relationship Management (CRM) web applications (such as OnePlace), third-party applications, or data services. In turn, Aurora Performance Intel enables the creation of application usage reports that meet the Lottery's requirements. IGT has significant experience integrating data from third parties – including Cadence call center data as well as Nielsen/Claritas demographics and data mapping sources – to generate usage and accompanying performance reports.

In addition, integrating disparate databases within a centralized data warehouse optimizes the ability to search multiple databases. Data universes further that capability for less technical users by essentially creating a view of data across related data tables, enabling a semantic layer of more familiar, business-friendly nomenclatures.

Aurora Performance Intel and Data Quality

Data quality is paramount in a trusted business intelligence system. IGT prides itself on being a top-flight data integrator that follows industry best practices. We use IBM's DataStage Extract, Transform, and Load (ETL) processes to measure and monitor data controls and balance and maintain data integrity in concert with IBM's latest DB2 relational database management system. In ETL:

- **Extract** is the process of reading data from a source database.
- **Transform** is the process of converting the extracted data from its previous form into the form it needs to be in so that it can be placed into another database. Transformation occurs by using rules or lookup tables or combining the data with other data. For example, rankings, data fields, and other combined or pre-calculated fields can be created at this step.
- **Load** is the process of writing the data into the target Aurora Performance Intel data warehouse.

Our ETL processes are highly flexible to effectively and efficiently accommodate disparate data sources and formats, which, in turn, may require varying scheduled production updates. Data processing follows a "zero-tolerance" process whereby any error results in an immediate alert, issue resolution, and data reprocessing to maintain data quality.

Aurora Performance Intel centers around data extracted from various domain data sources such as the Aurora Transaction Engine, Aurora Retailer Manager, and Aurora Instant Processing System. Data from these systems is propagated into the Aurora Performance Intel Data Warehouse for next-day and real-time reporting and analysis. A web-based load monitoring process ensures successful, accurate data processing.

Key points and processes include the following:

- During the ETL process, data is loaded into staging tables for movement into the final reporting tables.
- Data is also loaded from DAYEND total transactions maintained by the source system.
- Prior to loading the final tables, the ETL process automatically checks the data loaded into the staging tables against the DAYEND totals logged by the source system.
- Only if those checks pass will the data be moved to the final reporting tables.
- A report is generated comparing the various tables in the data warehouse to each other and the source system DAYEND totals; this report is available through the load monitoring tool.

Production capabilities to ensure data quality include data visualization showing a load status page that identifies the start time, end time, total time, and current status by ETL stage/phase, the extract counts, load batch counts, and the status of database (typically weekly) backups. The Load Monitor process will also track any external file loads. This refreshes frequently, generally every five seconds. Additional load-monitoring screens provide detailed balancing of counts and amounts for review.

The Aurora Performance Intel product suite has embedded the latest data management and performance capabilities to optimize both data storage and data retrieval from our data repositories.

For detailed transaction data (RDST) we will store, online, two (2) prior years of data plus the current year. For research purposes, we will have the ability to restore a prior year on demand by temporarily taking one of the prior years off-line.

Aurora Performance Intel leverages the latest "Columnar" database technology, which results in greater compression and performance, allowing end-users to optimally query years of transactional data.

Recognizing the "need for speed" for near real-time and real-time data processing,

IGT continually works to improve data query performance – demonstrated by IGT's working directly with IBM's Architecture Performance Labs (APLs) in a successful assessment and testing of IBM's latest DB2 Release of Version 10.5, with BLU Acceleration, which is included in Aurora Performance Intel.

Data Dictionaries and Training

IGT's offer includes detailed, multi-day classroom data universe/business objects training, plus direct access from the user interface to data dictionaries and a video library of lottery analytics modules that include "how-to" videos (including how to create ad hoc queries for specific report creation scenarios).

An example of a data dictionary is shown below:

Figure 4.3 – 16:

Data Dictionaries are Accessible from the Performance Intel UI

**Sample sales data dictionary for YTD Sales.

Table: IA_SALES_YEAR_TO_DATE					
Table Attributes:					
Property	Value				
Description	BI table of financial transaction totals rolled up for current year to date by product and location				
Source	RDSA IA_SALES_DAILY table and IA_SALES_MONTHLY_CAL tables				
Retention	Up to 1 full year				
Purge Criteria	Purged and reloaded daily				
Years of Data	Up to 1 full year				
In BC Universe	None				
Update Frequency	Nightly				
Table Columns:					
Column Name	Data Type	Is Part of Foreign Key	Is Part of Primary Key	Null	Documentation
PRODUCT_KEY	BIGINT	false	false	false	BI's internal identifier for a product
LOCATION_KEY	INTEGER	false	false	false	BI's internal identifier for a location id
BILL_TO_KEY	INTEGER	false	false	false	location id of entry billed to for accounting
RPT_TO_KEY	INTEGER	false	false	false	location id of entry that accounting reports roll up to
SUPER_KEY	INTEGER	false	false	false	unique id of the super chain head (if applicable) associated with the location id
DATE_KEY	INTEGER	true	false	false	BI's internal identifier for date (usually CDC)
PRODUCT_TYPE_CODE	INTEGER	false	false	true	BI's internal classification for products 0 - Online 1 - Instant 2 - Non Financial 3 - Instant Rollup 4 - Instant Pulltab
PLAYER_CODE	SMALLINT	false	false	true	Type of PLAYER associated with transaction 0 - not player card generated 1 - generated with registered player card 2 - generated with anonymous player card
SALES_CNT	INTEGER	false	false	true	Total sales count
SALES_AMT	DECIMAL (18, 3)	false	false	true	Total sales amount
CANCEL_CNT	INTEGER	false	false	true	Total cancel count
CANCEL_AMT	DECIMAL (18, 3)	false	false	true	Total cancel amount
VALID_CNT	INTEGER	false	false	true	Total validation count
VALID_AMT	DECIMAL (18, 3)	false	false	true	Total validation amount
ACTIVATION_CNT	INTEGER	false	false	true	Total activation count
ACTIVATION_AMT	DECIMAL (18, 3)	false	false	true	Total activation amount
CONFIRMATION_CNT	INTEGER	false	false	true	Total confirmation count
CONFIRMATION_AMT	DECIMAL (18, 3)	false	false	true	Total confirmation amount

Delivery and Support

Delivery and Collaborative Requirements

We expect that the West Virginia Lottery currently uses many mission-critical reports. These reports will be included as part of the business requirements, ensuring that you have pre-defined reports based on *specific West Virginia Lottery* business needs. IGT's delivery team and Aurora Performance Intel experts will work with the Lottery's experts and reporting stakeholders. These on-site, deep-dive sessions will ensure that your baseline reports and underlying data structure meet the Lottery's specific requirements.

Many of these reports will generate data for time periods that include day-after or week-after information or are keyed to time and data periods defined during the requirements process.

To meet your business intelligence and analytic requirements, we will use our new "Collaborative Requirements Process" that was most recently used in Virginia's business intelligence product upgrade and the full delivery of IGT's latest business intelligence solution to the Tennessee Education.

“ *The BI upgrade project has been a win for both the Lottery and IGT. Our users are definitely excited about the updated and more powerful toolset and with the collaborative approach taken. It is also a testament to what strong project management can bring to a large project such as this.*

– Ted Maxwell, Director, Information Technology Services, Virginia Lottery

” This effort will include customizing the underlying semantic layer of data universes and data element nomenclatures to provide your advanced users with a familiar context for creating reports and analyzing data with the Ad Hoc User module.

Finally, our collaborative requirements process will give your stakeholders the chance to validate, change, or enhance existing reports and see where efficiencies can be gained – e.g., using input controls and prompts or advanced visualizations to consolidate or improve the usability or effectiveness of reports.



Ongoing Support

To meet the Lottery's reporting obligations and respond to business needs or rules requiring new reporting for management information applications, IGT provides three-tiered support plus an accessible, central Aurora Performance Intel system-dedicated R&D team. Your local Tier-1 support person, Shane Durham, has considerable knowledge about the Aurora Performance Intel solution and your unique needs.

Shane Durham is currently the on-site Database Administrator (DBA) for the Lottery. He maintains an up-to-date reporting system using SAP BusinessObjects (BO). Over the years, the Lottery has had multiple requests for reports that were needed from every major department. Shane has worked diligently to fulfill these requests and assist with any reporting issues the Lottery may have – including running reports, making modifications to an existing report, verifying ticket wagers, and confirming validations for the Lottery's security team.

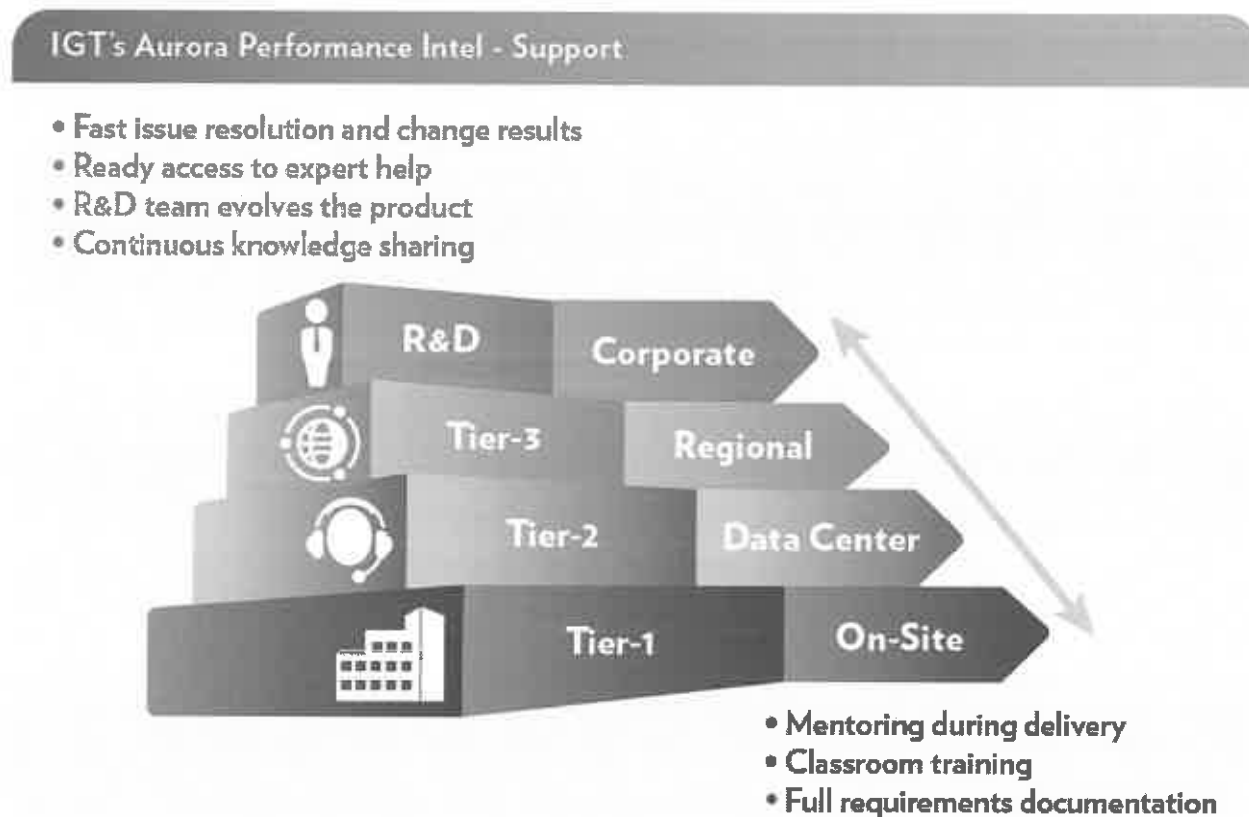
Shane will be extensively trained in all the of latest software tools, baseline content, and underlying database management intricacies.

Under the new Contract, Shane would continue to provide these vital services to the Lottery as your Tier-1 support person. Shane will also have direct access to the Tier-2 operations Team, the regional (Tier-3) team, and our R&D team.

Other levels of support combine Tier-2 support personnel from our Data Center of the Americas (DCA) in Austin, Texas. These personnel will ensure that your data systems and servers run at peak efficiency. In addition, a highly skilled regional Aurora Performance Intel team, including a Senior Aurora Performance Intel expert, will get any reporting or database change or additions done quickly and efficiently, in many instances working directly with your on-site resource. The installation of Aurora Performance Intel and any associated data feeds will be led by the Tier-3 team in conjunction with the immediate groundwork that will be conducted by our on-site team for a quick and efficient Aurora Performance Intel delivery.

This tiered support model is depicted in the following graphic:

Figure 4.3 – 17:



Our solution will collect data from multiple sources, including (but not limited to) Aurora operations, retailer website, Hotline, etc. Regarding the retailer website requirement, IGT proposes its Aurora Retailer Wizard, a powerful tool that combines all IGT has learned from its experience managing retailer networks and lottery sales forces and building retailer websites for lotteries worldwide. With Retailer Wizard, your retailers can devote more time and energy to engaging players, selling tickets, and driving Lottery growth. In turn, any unique data, including usage and activity data from Retailer Wizard, can be integrated into Performance Intel for in-depth and historical analysis of retailer activity and associated retailer-level information.

Please see Section 4.7.4, Retailer Website Enhancements, for additional details. Please also see Section 4.3.8, Retailer Website Reports, later in this section.

4.3.2

Accounting Interface

Data imported from the Vendor system is either a table-to-table transfer from the Vendor's database(s) or provided by the Vendor in a delimited flat file. The Lottery currently uses MS Great Plains Financial Software. The flat file consists of row one being the column headers and the remaining rows being strictly data items. No file may include blank lines or page numbers and column headers cannot be included beyond row one.

Report templates and queries used to retrieve information from the System are developed, installed, maintained, and updated by the Vendor upon the Lottery's request and approval. The Vendor works jointly with Lottery personnel to determine the general ledger and marketing interface requirements to ensure extracted information provided by the System transfers will update the appropriate fields of the Lottery's system(s). The Vendor upgrades all data transfer protocols and formats to be compatible for integration with the latest version of software employed by the Lottery throughout the life of the Contract. Examples of general ledger interface files are included in Appendix B.

The Vendor design provides near real time exchange of information between the System and the Lottery's accounting systems. The exchange of data occurs daily on a schedule and method dictated by the Lottery. The System is configured to enter, update, and delete adjustments specified by the Lottery. For each adjustment type, the System provides the ability to add/modify the retailer number, debit or credit amount, debit or credit transaction, reason (type of adjustment), provide list for selection, initials of person making the adjustment that is posted automatically, and provide a comment field.

The System is designed to have a warning threshold on the amount of an adjustment that is set per user. The System provides the ability to apply, in one process, the same adjustment to retailer groups. The System credits retailer accounts for prizes paid by them in real time.

The System credits retailer accounts for sales and cashing commissions and other items as determined by the Lottery. The System is designed to be flexible and allow for modification of these items throughout the term of this Contract.

As your current vendor, we understand the information provided in this section by the Lottery. The new Aurora solution will provide the same – but much improved – functionality and address your requirements more quickly and efficiently.

Accounting Adjustments

Aurora will provide the Lottery with the ability to execute and review manual accounting adjustments to retailer accounts. The Aurora software will contain more than adequate internal features to allow authorized Lottery staff to perform manual accounting adjustments.

Aurora Accounting allows the Lottery to customize adjustment types to its business rules. Only authorized users can make adjusting entries to retailer accounts, including the addition of bonus payments. These entries generate a complete audit trail, including a unique reference number, adjustment amount, adjustment date, the user entering the adjustment, adjustment type, and a description of the reason for the adjustment. Authorized users can also make recurring adjusting entries based on parameters within the System and/or a file provided by the Lottery, and produce the same audit trail.

The wide range of adjustment types are configurable to your business needs. Adjustment types are also available to reimburse retailers for misprinted draw-based game tickets and damaged or defective instant ticket scratch-off games.

Aurora Retailer Manager provides the ability to manage periodic retailer charges automatically. It includes a data entry capability for manually inputting debit and credit adjustments. In addition, Retailer Manager captures and tracks security deposits and remittances and allows authorized users to view current retailer sales information. For example, an authorized user would use the Sample Location Adjustment screen to enter manual adjustments such as retailer bonuses. The authorized user would then use the screen titled Sample Location Create an Adjustment Screen to view the adjustment detail.

4.3.3

Accounting Reports

The Vendor should work jointly with the Lottery to create accounting reports, see Appendix C, these are reports currently in use by the Lottery and it is intended that any new system be able to recreate these reports.

IGT would be pleased to continue working jointly with the Lottery to create accounting reports. We acknowledge that the reports in Appendix C are the reports currently in use by the Lottery. The proposed Aurora system will be able to recreate these reports and provide comprehensive and integrated accounting functionality to the Lottery.

Aurora's retailer accounting functionality will ensure that all transactions from the retail environment are accurately processed in order to invoice each retailer on a weekly basis – or as retailers are terminated. This Accounting component resides on the Aurora Transaction Engine, and handles all accounting needs for every game, both draw-based and instant ticket scratch-off. Aurora Accounting is closely linked to the Retailer Manager component, which provides extensive retailer accounting functionality, as described in the following paragraphs.

Consistency with Current Lottery File Formats

IGT will provide weekly Comma Separated Values (CSV) and eXtensible Markup Language (XML) files that are consistent with current Lottery file formats to use for email and/or Secure File Transfer Protocol (SFTP). Aurora Retailer Accounting will upload weekly Electronic Funds Transfer (EFT) information to the Lottery's bank for processing and collection of the amounts invoiced.

Internal Controls, Security Features, and Auditing Tools

The Aurora accounting component has internal controls, security features, auditing tools, and other measures to prevent and/or detect changes to retailer banking or other account information through fraudulent means or attempts at executing other improper transactions. These internal control features will include the periodic reporting of all file maintenance transactions involving Lottery retailer information.

Our proposed retailer accounting software is user-friendly, robust, configurable, and has multiple layers of security. It enables customizable and extensive data mining via Aurora Performance Intel. We will work with you to customize it to meet your needs today and as your business grows.



Standard reports include:

- Detailed Retailer Activity Sales.
- Instant Ticket Scratch-off Game Returns.
- Retailer Inventory Status.
- Retailer Renewal Queue (renewal licenses pending approval).
- Key Accounts Location Report.

The benefits of this extensive accounting-management functionality include:

- A single point of processing for all financial transactions, including those generated from all games and from all channels. This seamless integration of data generated by sales, validations, cancellations, debits, and credits on Aurora Retailer Manager (where they're recorded) ensures accurate accounting data.
- Fast processing and report generation for more efficient business management. With Aurora, there are no financial reconciliation issues, which are inherent in systems with separate and multiple databases to maintain.
- User-friendly administration of accounting via Aurora Retailer Manager.

Aurora presents a single financial profile for a retailer's draw-based and instant ticket scratch-off game transactions. If there is a change, updates do not have to be made in two different places, as all of the components of Aurora seamlessly integrate with one another. This enables you to answer retailer questions efficiently with one set of comprehensive data at your fingertips.

If retailers have questions concerning their accounts, then Retailer Manager provides the transaction detail trail and explanation (via comments) of the transactions.

Recording Financial Transactions

Financial transactions recorded in the MJF and Backup Journal File (BJF) on each Aurora Transaction Engine are scanned and uploaded into accounting files and compared with the totals posted by the various products (games). The existing baseline calculates retailers' invoices once per invoice period (the actual day and period length are configurable). At the end of each day, the Accounting component runs the financial data load program automatically. It scans the MJF and accumulates the invoice data by Point-Of-Sale (POS) device in the device invoice files. Separate invoice files are maintained for each invoice period.

IGT's support will be readily available on an ongoing basis to advise the Lottery on how to fully utilize the software features, functions, and controls and ensure the Lottery's accounting operations' integrity through the segregation of duties and other means.

4.3.4

Management and Administrative Reports

Management workstation software produces reports similar to those found in Appendix D and any other reports required by the Lottery.

Reports for chain headquarters includes sales, inventory, and settlements for any individual store within the associated chain, all stores within the chain, and a roll-up summary of all stores within the chain.

Draw game and instant game information are provided as discrete reports or combined for summary reporting. Receiving, shipping, and other Vendor warehouse activity reports are provided at the request of the Lottery to monitor and oversee the storage, packaging, and distribution of warehoused items.

The ICS vendor of record compares and reconciles data files and alerts the Lottery and the System Vendor to any discrepancies or out-of-balance situations between the System and the ICS. The Vendor creates an electronic data interchange ("EDI") file(s) as required by the Lottery.

IGT acknowledges the information provided by the Lottery for management and administrative reports. As your current vendor, we understand your requirements for these reports, including those in Appendix D.

Our new Aurora solution will provide these same reports, although access to them will be faster and easier. In addition, with Aurora improves the user experience when viewing reports. Improved navigation via a web-enabled user interface with intuitive menu and report selections is tied to configurable, functional areas of lottery reporting and analysis. Under the hood, Aurora Performance Intel can leverage IBM DB2's advanced data compression and data throughput technologies to improve data query speed.

4.3.5

Instant and Draw Game Reports

The Lottery receives report(s) by game on a daily, weekly, and in a continuous accumulated format from the inception to the conclusion of each game.

Vendor's design provides the Lottery with access to instant and draw game reports listed in Appendix E.

IGT acknowledges that the Lottery receives report(s) by game on a daily, weekly, and in a continuous accumulated format from the inception to the conclusion of each game. With the new Aurora system, we can provide the same reporting functionality. In addition, we can provide the Lottery with access to instant ticket scratch-off and draw-based game reports as listed in Appendix E.

More details on how Aurora Performance Intel will provide Instant Ticket Scratch-Off Game and Draw Game Reports are provided in Section 4.3.1, Business Intelligence ("BI"), under the heading Instant and Draw Game Reports.

4.3.6

Marketing Reports and Interface

The System should provide the marketing reports and interfaces in a format approved by the Lottery. Report information should be detailed by game, by retailer, by chain, and system-wide including but not be limited to: sales, validations, free plays, coupons, cancels, easy-picks, manual entries, play slip entries, multi-board wagers, multi-dollar wagers, and add-ons/multipliers for any given period. All retailer data available to the telemarketing staff and Field Marketing and Sales Representatives is also available in similar format to Lottery marketing staff. Examples of marketing interface files are included in Appendix F. The Lottery currently receives the reports included in Appendix G.

IGT's Aurora system will provide the marketing reports and interfaces in a format approved by the Lottery. Report information will be detailed by game, by retailer, by chain, and system-wide, including but not limited to:

- Sales.
- Validations.
- Free plays.
- Coupon.
- Cancels.
- Easy-picks.
- Manual entries.
- Play slip entries.
- Multi-board wagers.
- Multi-dollar wagers.
- Add-ons/multipliers for any given period.

Your new gaming system will provide all retailer data available to the telemarketing staff and FMSRs. It will be available in a similar format to Lottery marketing staff. We have reviewed the examples of marketing interface files included in Appendix F. In addition, we have reviewed the reports in Appendix G that the Lottery currently receives. Just as we do now, we will provide the marketing interface files and reports the Lottery has now. Plus, during the project's specifications gathering phase, we will work with the Lottery to ensure it has all of the data, reports, interfaces, and functionality it needs at Go Live.

We will use and analyze reporting data to develop additional insights that drive our business reviews and recommendations. Please see Section 4.6.10, Research and Strategic Development, for additional details.

4.3.7

Ad Hoc Reporting

Vendor's design provides the Lottery with ad hoc reporting access that includes, but is not limited to: retailer data, sales data, licensing data and statuses, terminal and other device maintenance data, inventory data, and daily transactions data. Vendor provides read-only query and report software on a client-server basis with the Lottery's management workstations.

The Vendor's proposal should describe any exceptions to the current environment and provide details about any known or planned enhancements or new features that would provide better service and increase revenue for the Lottery. The proposal should include any schematics, pictures, diagrams, configuration settings or network diagrams that would help the Lottery evaluate the proposal.

Vendor should provide examples of various terminal and system generated reports that are available to retailers, chain accounts, Field Marketing and Sales Representatives, and Lottery personnel. Vendor should describe the ease of use for obtaining such reports.

Response Note: Appendices B, C, D, E, F, G and H document desired reporting to be produced by the System.

IGT acknowledges the information provided by the Lottery for ad hoc reporting. Reporting access currently includes, but is not limited to, retailer data, sales data, licensing data and statuses, terminal and other device maintenance data, inventory data, and daily transactions data. These reports are provided in read-only query and report software on a client-server basis with the Lottery's management workstation. In the following paragraphs and associated graphics IGT provides information about how the new solution will support the Lottery by providing faster, easier access to ad hoc reporting with the goal of increasing revenue for the Lottery.

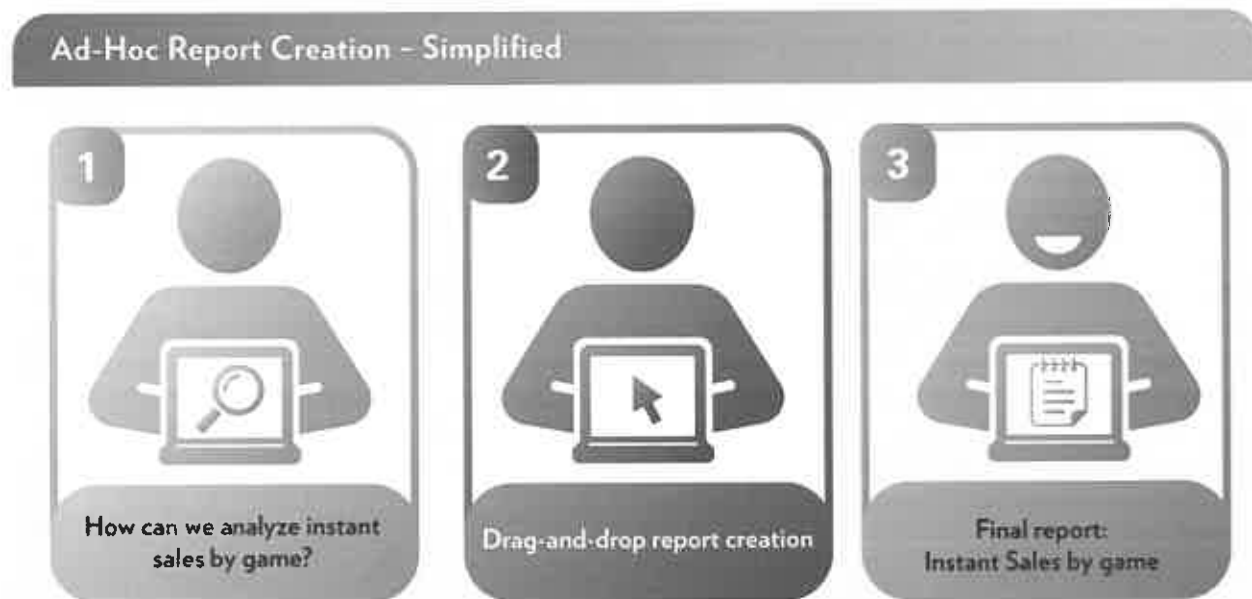
Note that the reports identified in Appendices B, C, D, E, F, G, and H will be produced by the new Aurora system. In particular, our business intelligence delivery team will leverage our collaborative requirements process (noted previously) as part of an updated delivery and support model. The delivery team will meet personally with key Lottery reporting stakeholders to ensure that baseline and new reports meet and exceed identified Lottery business needs that are required to be made available at start-up.

Ad Hoc Reporting Through Aurora Performance Intel

Only a few steps are required to create an ad hoc report using a universe and its data objects in Aurora Performance Intel. For example, to generate a specific report request, a user will ask, "What are my instant ticket scratch-off game sales by game, retailer, Regional Manager (RM), and region for fiscal year to date?" After selecting the universe (e.g., Retailer Sales), the user can then drag and drop to build and view new reports. The report(s) can be saved, reused at any time, scheduled, or shared with co-workers.

The following graphic demonstrates how ad-hoc report creation is simplified for authorized users:

Figure 4.3 – 18:



Data objects, elements inclusive of the Retailer Sales universe, are displayed in the left-hand pane of the screen. Users can expand the folder tree to see the included data objects. The solution includes Meta Data, which provides a business-friendly description of each data object included in a universe to aid the user in developing desired reports. The user creates the query by dragging data objects from the list into the Result Objects pane.

More details on how Aurora Performance Intel will provide Ad-Hoc reporting are provided in Section 4.3.1, Business Intelligence ("BI"), under the heading Ad-Hoc Reporting Overview.

4.3.8

Retailer Website Reports

Describe how your System will provide a website allowing authorized retailer access to accounting reports and other relevant information (e.g. weekly settlement, instant game confirmation, instant game settlement, full and partial ticket pack inventory on hand, etc.). Retailers designated as chain headquarters are to be able to request reports for any individual store within the associated chain, all stores within the chain, and a rollup summary of all stores within the chain. Headquarter retailers only have access to reports for their chain. Reports generated at the chain level indicate each retailer number and the associated chain number if applicable. Initial user creation will be based on Lottery approval. password resets should be automated without requiring manual intervention.

The Vendor should provide and maintain a web-based NSI XML (as specified by NASPL) accounting interface that meets or exceeds NASPL standards for retailer use. The retailer website is used to provide accounting reports for chains, key accounts, and traditional lottery retailers capable of utilizing XML throughout the life of the Contract.

IGT's Aurora Retailer Wizard, unique in the industry, is a robust, interactive website that provides all the tools prospective and current Lottery retailers need to successfully manage and grow their lottery business. With Retailer Wizard, we will meet and exceed the Lottery's RFP requirements for authorized retailer access to accounting reports and other relevant information (e.g., weekly settlement, instant ticket scratch-off game confirmation, instant ticket scratch-off game settlement, full and partial ticket pack inventory on hand, etc.).

Reports in Retailer Wizard can be accessed by:

- Report browser.
- Subscription.
- Directly from the Summary and Instants dashboards.

With Retailer Wizard, retailers designated as chain headquarters will receive reports for each individual store within the associated chain, all stores within the chain, and a rollup summary of all stores within the chain. Chain headquarter retailers will only have access to the reports for their respective chain. Retailer Wizard also allows chain headquarters users to view both Summary and Instants dashboards for each store in its chain via its Store Profile feature, providing a singular, detailed view of their lottery business.

Retailer Wizard reports generated at the chain level will indicate each retailer number and the associated chain number, if applicable. Initial user creation will be based on Lottery approval. Password resets will be automated, without requiring manual intervention, eliminating the Lottery's need to troubleshoot and providing you and your retailers with a more user-friendly experience.

Built by lottery industry professionals, Aurora Retailer Wizard is a powerful tool customized to fit the needs of both corporate account (chain) and independent retailers. Aurora Retailer Wizard's responsive design works across any browser or device, allowing retailers access to both timely information and tools via desktop, laptop, tablet, and mobile – from anywhere with a web connection.



In addition to detailed reports accessed directly through the Summary and Instants dashboards, Aurora Retailer Wizard includes “Wizard only” reports easily accessible through a searchable, sortable report browser that provides retailers with sales, earnings, and inventory data in easy-to-access, easy-to-read, and easy-to-understand presentations.

These reports may also be sent directly to the user and/or his or her designees via email or to the user’s defined Secure File Transfer Protocol (SFTP) site through Retailer Wizard’s subscription feature.

For dashboard, browser, and subscribed reports, retailers can set their own week and fiscal year to align with their own business practices. Of course, invoice and Electronic Fund Transfer (EFT) information will always be based on your Lottery’s accounting week.

Reports can be viewed, downloaded, and sent via email or to retailer’s SFTP site in a variety of formats, including Excel (XLSX), Portable Document File (PDF), TXT, and Comma Separated Values (CSV). Aurora Retailer Wizard also provides an exclusive eXtensible Markup Language (XML) data download of retailer statements that exceeds NASPL standards for retailer use. All retailer-facing chain and independent retailer reports are also available to Lottery staff.

Retailer Wizard will be used to provide accounting reports for chains, key accounts, and traditional lottery retailers capable of utilizing XML throughout the life of the Contract.

Please also see Section 4.7.4, Retailer Website Enhancements, for a complete description of Aurora Retailer Wizard.

4.3.9

Retailer Terminal Reports

Retailers should be able to obtain authorized reports through the terminal. All terminal issued reports include the words "INFORMATION ONLY-NOT FOR SALE" or a similar Lottery approved message at both the top and the bottom of the reports. The System provides combined business reports incorporating both instant and draw game summaries accessible to the retailer and the Lottery. Vendor must provide reports detailed by game as required by the Lottery. Retailer terminal reports include, but are not limited to: daily sales and validation reports for the current day and the previous seven calendar days, week-to-date validation reports, weekly invoice reports for the current week and the previous 52 weeks, weekly summary reports, instant game sell-through report based on validation percentage, instant game summaries, and detailed inventory reports showing all pack statuses at the retail location and instant transaction pack activity (e.g. pack status information, detail pack inventory at retail location, summary of validations, instant ticket billing statements, and news messages).

The System includes the capability for retailers to be able to obtain authorized reports through the SSTs and other devices. SSTs and other devices are to provide reports for all transactions. Operational components of SSTs and other devices are to report totals that include, but are not limited to, sales, validations, cash-in, credits, vouchers, inventory, and out of stock percentages. Report data should include, but not be limited to, total sales for day, week, and previous week, current ticket inventory by game, and current bin settings.

The Vendor should provide retailer and chain accounting and inventory summary reports for all terminal types and devices. Reports include accounting, transaction, and other relevant information (e.g. weekly settlement, instant game confirmation, instant game settlement, etc.). Retailer and chain information roll-up into an individual retailer summary and chain summary.

With IGT's Aurora, the Lottery's retailers will be able to obtain authorized reports through their Lottery terminals. At both the top and bottom of the terminal-issued reports, the words "INFORMATION ONLY – NOT FOR SALE" or a similar Lottery-approved message will appear. Aurora will provide combined business reports that incorporate both instant ticket scratch-off and draw-based game summaries that are accessible to the retailer and the Lottery.

IGT's system will provide reports detailed by game, as required by the Lottery. Retailer terminal-generated reports will include, but not be limited to:

- Daily sales and validation reports for the current day and the previous seven (7) calendar days.
- Week-to-date validation reports.
- Weekly invoice reports for the current week and the previous 52 weeks.
- Weekly summary reports.
- Instant ticket scratch-off game sell-through reports based on validation percentage.
- Instant ticket scratch-off game summaries.
- Detailed inventory reports showing all pack statuses at the retailer location and instant ticket scratch-off game transaction pack activity (e.g., pack status information, detail pack inventory at retail locations, summary of validations, instant ticket scratch-off game billing statements, and news messages).
- Retailer-facing terminal reports.



Samples of terminal-generated reports are provided below, along with other reports that are typically available from the terminal, such as daily sales and validation reports for the current day and for a number of weeks to be established by the Lottery, week-to-date sales and validation reports, weekly invoice reports for the current week and previous weeks (number to be established by the Lottery), game jackpot reports, summary and detail inventory and liability reports for all active instant ticket scratch-off games, and reports showing instant ticket scratch-off games without top prizes remaining.

Lottery retailers will have reporting functionality available at their terminals. This functionality will enable retailers and the Lottery to display and print relevant information regarding sales, financials, inventory, Lottery news, jackpot information, and information about instant ticket scratch-off games.

The terminal's easy-to-use UI makes retrieving reports a seamless process for retailers. Retailers will be able to quickly run frequently used reports such as Weekly Sales and Current Day's Sales at the touch of a button. Reports can include sales, billing invoices, winning numbers, and jackpot information. With our proposed terminal application, retailers can display and print reports for a selected day or week.

Terminal reports, such as the Daily Sales and Winning Numbers report, will be updated in real time, and historical reports will be accessible from the terminal for a number of weeks established by the Lottery. The reporting for the proposed terminal application displays on the terminal. The parameters of Aurora are configurable and historical reports can be set by the Lottery for the number of billing weeks, which will be accessible from the terminal.

Authorized Lottery users can also view retailer terminal reports, including instant ticket scratch-off game billing statements, on their management PCs and see them in the same format in which the retailer sees them. This eliminates any confusion that might otherwise arise during a discussion, because both parties will be looking at the same document.

Lottery-Facing Terminal Reports

Retailer terminal reports will be easily accessible from the Aurora Retailer Manager back-office application. The Lottery's retail-management staff will have the ability to access Aurora Retailer Manager from their Aurora Navigator. The terminal reports will be the exact same real-time sales, invoice, inventory, and financial reports that retailers can print from their terminals. It is easier to do business when lottery users are viewing the same information as the retailer. Authorized users can also view the Invoice Terminal Report rendered from Aurora Retailer Manager in the same format that the retailer sees them.

Self-Service Terminal Reports

Aurora includes the capability for retailers to obtain authorized reports through the Self-Service Terminals (SSTs) and other devices and provide reports for all transactions. Operational components of SSTs and other devices will be able to report totals that include, but are not limited to:

- Sales.
- Validations.
- Cash-in.
- Credits.
- Vouchers.
- Inventory.
- Out-of-stock percentages.

Report data will include but not be limited to:

- Total sales for the day, week, and previous week.
- Current ticket inventory by game, and current bin settings.
- SST Analytics.

Aurora Performance Intel's patent-pending SST analytics module leverages advanced data visualization and real-time analytics. This type of content and capability (e.g., a game penetration report) enables a user to quickly make dynamic selections of SST locations that have not activated and faced a selected game. These data are visualized by location on a geo-map and can be further refined with filter selections such as trade style or service representatives. These data are available in real time with our improved session-based data feeds that include bin-level data analysis.

Identifying locations where top games that *should* have high penetration are not being faced is critical to sales performance. Geo-maps help the sales force or field services optimize route management and communications to resolve penetration issues. We can provide sample SST Sales Analysis Dashboards (SSTs are generically known as Lottery Vending Machines or LVMs) to the Lottery at a presentation or at the benchmark. These types of visual analytics and interactive filters make data analysis easy to get to actionable insights to help the Lottery make data-driven decisions. In addition, a high-level geo-map of SST locations can be filtered to target specific games, locations, FMSRs, or business types.

The SST Details link provides bin-level analytics of a selected location, providing easy-to-use visualization of the actual SST inventory. (Note that this functionality does not apply to the Lottery's current vending machines.) Bin-level analysis helps the sales force and field services verify bin inventory not only in the SST, but also in terms of what games may be available for restocking at that location. Reference data to plan-o-gram optimization standards or sales information may help determine what price points may improve sales.

Comparable data visualizations and bin-level detail are also available for operational data (e.g., empty bins or SSTs not selling), including the events and issues impacting these non-selling SSTs or individual non-selling bins, in real time. Real-time analytics regarding empty bins or non-selling vending machines ties into an adjoining work process that communicates this information in a timely manner (e-mail, push notifications and alerts). This, in turn, maximizes the use of sales force and field services personnel, optimizing route management to tackle the most-affected locations (e.g., focusing on non-selling machines and SSTs that have a threshold of bins being empty, particularly at historically high-selling locations).

Overall sales analysis is also available as an interactive dashboard. The SST Sales Analysis dashboard provides SST locations with marker sizes indicating relative average weekly sales (size of circular marker) and information about whether or not sales are above (green) or below (red) lottery-wide sales averages. Bin-level sales analysis is available by selecting the Details link from any plotted location. Looking at a heat map (by hours), the trend of sales shows Friday afternoon as the top sales day/hours of the day, i.e., the sales hot zone.

Finally, our SST's Summary Analytics Dashboard provides a high-level overview of both current and historical performance of vending machines. This includes week-over-week and year-over-year metrics as well as details on player sessions such as average spending per session.

4.3.10

Account Adjustments and Notifications

An alert should be automatically generated and transmitted to retailers when an adjustment has been completed, and status updates should be provided while an adjustment request is pending. System should be programmed with the ability to make debit or credit adjustment entries to retailer accounts with a complete audit trail by game, transaction type, adjustment amount, date of adjustment, description/reason, and person who entered adjustment. Retailer Terminal Reports are to reflect adjustments made so that retailers can run an updated report upon receipt of the alert.

The Vendor's proposal should describe any exceptions to the current environment and provide details about any known or planned enhancements or new features that would provide better service and increase revenue for the Lottery. The proposal should include any schematics, pictures, diagrams, or reports that would help the Lottery evaluate the proposal.

According to the Lottery's Q & A dated October 28, 2016, the Lottery has recognized the duplication in Sections 4.3.9 and 4.3.10 and has removed and intentionally omitted page 99 of the RFP.

With IGT's Aurora accounting solution, an alert will be automatically generated and transmitted to retailers when an adjustment has been completed. Status updates will be provided while an adjustment request is pending.

The Aurora system will be programmed with the ability to make debit or credit adjustment entries to retailer accounts with a complete audit trail for the following items:

- By game.
- Transaction type.
- Adjustment amount.
- Date of adjustment.
- Description/reason.
- Person who entered adjustment.

Retailer terminal reports will reflect the adjustments made so that retailers can run an updated report upon receipt of the alert.

There are no exceptions to the current environment. Details of enhancements or new features that would provide better service to the Lottery and increased revenue are provided throughout this proposal section. Note that schematics, pictures, diagrams, or reports are provided throughout this proposal section.

4.4 Field Equipment and Consumables

Field Equipment and Consumables should be designed to support the current and future game structure and the ability to supply consumable items necessary for the field. Please describe your plans to achieve the goals related to FIELD EQUIPMENT AND CONSUMABLES. (Section 4.4)

The West Virginia Lottery requires a terminal that fits the diverse and unique environments of its retailers, many of which operate out of supermarkets, convenience stores, grocery stores, taverns, and gas stations. Some retailers work in busy urban locations, such as the Charleston Town Center in downtown Charleston, while others do business in more rural environments, such as Welch Bantam Market in Welch. While some retailers have very limited space at the Point of Purchase (PoP), others enjoy ample counter room for Lottery equipment. IGT continues to adopt and apply technology innovations to the lottery retailer space and offer solutions that provide for high-speed transactions, ease of use, attractive displays, increased reliability, and effective use of space.

We are pleased to offer the Lottery retailer terminal solutions that meet the needs and demands of retailers today, and are flexible for future adaptability: the Altura® Flex and Flex Vision.

The Altura Flex terminal is built upon the features, functions, and benefits that have long produced success for our customers. The Flex continues to represent what we believe will most benefit the Lottery and its retailers – enhanced efficiency and productivity. As a full-service terminal with a modular architecture, our proposed terminal is a premier and scalable solution designed to deliver the best-possible performance and retailer satisfaction.

The Altura Flex reads play slips faster than any other terminal on the market, and its state-of-the-art surface acoustic wave (SAW) touch screen offers high-end clarity and resolution.

Most important, transaction time has been greatly reduced thanks to the Flex's user-friendly interface, which requires fewer movements from the retailer when reading and processing play slips.

While West Virginia's current fleet of Altura 604 terminals offer a print speed of 18 inches per second (ips), the new Altura Flex clocks in at 25 ips, helping to create a faster transaction all around. Also, a quick boot-up eliminates wait time, so retailers can get back to serving their customers.



Accompanying each terminal is the AccuTherm® Ultra printer – the fastest printer on the market. Paper loading is quick, with minimal effort, while the printer's stacker neatly organizes tickets without ticket jams. A corded barcode reader, Ticket-Scan™ Plus (TSP) for customer ticket checking, and a Customer Display Unit (CDU) for promoting content and other messaging, complete the solution.

As described throughout this section, each retailer using our standard terminal setup will receive:

- The Altura Flex retail terminal with 15" SAW touch screen.
- The AccuTherm Ultra Printer.
- The lottery industry's fastest Compact Image Scanner (CIS).
- A corded barcode scanner.
- The TSP ticket checker.
- The Aurora MultiMedia CDU (provides advertising, winner awareness, unique player transaction information, and Amber Alerts).

For those retailers who have prohibitive space restrictions, we offer our Flex Vision terminal and Compact Reader Printer which provides low-volume retailers a smaller, more compact solution with the same enhanced functionality of the full-size terminal.

For retailers operating with limited counter space, the Lottery will have the choice to provide a configuration comprised of:

- The Flex Vision retail terminal with 10.1" Projective Capacitive (PCAP) touch screen.
- The Compact Reader Printer.
- A corded barcode scanner.
- The TSP ticket checker.
- The Aurora MultiMedia CDU.

4.4.1

Terminal Units

The Vendor should supply terminals for training, testing, and replacement.

Terminal features and functions are to be fully operational and support all games and options at startup. The terminal should accommodate future games and options.

The Vendor configures and maintains terminal programming necessary to meet the needs of the Lottery at startup and for the duration of the Contract for all draw games, instant tickets, messaging, request for credit, reports, and promotions. Loading of gaming software to the terminal (gaming logic functions) should be software driven and should be secure and modular.

Capacity: Each terminal should be designed to support at least 400 concurrent instant games using up to four different bar code algorithms without an upgrade of terminal resources. Terminal capacity is scalable and can be configured for expansion to support additional games, graphics, and promotions. Terminal expansions that require more than double the initial terminal capacity are to be negotiated with and approved by the Lottery. Additional terminal capacity should be available, installed, and configured within 180 days of the Lottery's request.

A terminal cannot process new transactions or send new requests to the System until the preceding transaction is processed or resolved. Each terminal should have the capability to continue requesting that the System process the transaction until recovery has been completed or a "time-out" condition exists at the terminal level. The terminal memory cannot be destroyed, modified, or lost for a minimum period of 72 hours from the occurrence of any loss or interruption of power. When an end of ticket stock or jam error occurs, the terminals provide a method of preserving transaction integrity. When the error is corrected, the terminals return to service.

The terminals are to be equipped with diagnostics and status conditions alerting and informing the retailer and Vendor operations personnel of the terminal operating status. Each terminal has audio capabilities as determined by the Lottery, (e.g. creating a short tune(s) for promotional purposes and validations.). The retailer should have the capability to enable and to disable this feature with Lottery permission. The terminals capture Vendor staff identification and player rewards identification (bearing a unique identifier) that is universally recognizable by the System. The terminals read, log, and process a variety of player transactions as required by the Lottery.

Software downloads may be automatically initiated by the terminal for necessary updates, repair, or replacement on a terminal by terminal basis [when resident software needs replacement] or scheduled in advance for download on certain or all terminals at certain times [new lottery games, corrections, etc. are required at all terminals]. Software downloading occurs in the background and should not adversely impact near-24 hour operation of the System. Downloads are broadcast or multi-cast (send once, receive many). The terminal should store more than one version of gaming software with scheduling or System prompting to activate a version or revert to an older version.

The terminal casework and peripherals are to be provided in a color or wrapping selected by the Lottery using the Vendor proposed manufacturer's standards. The Lottery desires a durable and uniform color. No manufacturers' or Vendor's logos or identification will be attached to retailer equipment. The terminal has a serial number and bar code for maintenance, logistics, and inventory, and all equipment bears the Vendor Hotline contact number.

Terminals come equipped with a power cord at least 10 feet in length with a 3-pronged grounded plug. Electronic and electrical components are to be partitioned to prevent access by the retailer during operation and maintenance. There are to be a minimum of four additional initially unoccupied data slots/ports for peripherals. These data ports are covered when they are not in Lottery-authorized use.

Vendor should provide a printing technology for the terminals to produce tickets that are easily read and durable. The Vendor is liable for all prize payments as a result of printer errors creating tickets that appear to be winners.



Tickets have to withstand ordinary consumer use including a variety of environmental and temperature exposure conditions preserving the integrity of a printed ticket for at least 180 days. Ticket stock is top-coated and pre-printed front and back with text, images, and colors in a design approved by the Lottery. The Lottery may request and accept ticket stock that exceeds the properties of the proposed ticket stock should any become available during the Contract term and notwithstanding the specifications found in this paragraph, any future technologies that utilize digital media instead of paper ticket stock that meet industry standards may be requested by the Lottery and provided by the Vendor.

The terminals described throughout this section meet all requirements the Lottery has identified in Section 4.4.1.

4.4.2 Standard Terminals

Vendor should propose at least one standard terminal model and describe the solution in its response that should include the following information:

- *Standard terminal type(s), unit specifications, unit weight, associated peripherals, installation, maintenance, and replacement. The standard terminal size should be compact, and if modular, components should be wireless or cables unobtrusive. Standard terminals withstand difficult environmental conditions such as heat, humidity, dust, grease, spilled liquids, and operator abuse;*
-

Crafting the Right Solution

As a global lottery leader, IGT has continually crafted solutions for our customers based on current market conditions, research conducted at the local lottery level, and information gleaned from all of IGT's jurisdictions worldwide. Using that information, we have developed a retail solution we feel will best address the needs of the West Virginia Lottery.

The following figure outlines IGT's retail solution offering to the Lottery:

Figure 4.4 – 1:



Core Terminal Components

The core terminal components offered to the Lottery are the Flex terminal, which includes a touch screen and image scanner, and the accompanying peripheral devices comprised of a CDU, corded barcode scanner, printer, and ticket checker terminal. The software application is IGT's Aurora™ Open Retail architecture, which has the ability to operate on all IGT terminals as well as third-party devices.

As previously mentioned, IGT also offers to the Lottery the Flex Vision terminal, which provides retailers with an alternative terminal configuration for those spaces encountering lower volume on a day-to-day basis.

The following table outlines the features and benefits of the Lottery's current terminal (Altura 604), the Altura Flex, and Flex Vision:

Figure 4.4 – 2:

"Looking Under the Hood:" Comparing Retailer Terminals		
Altura 604	Altura Flex	Flex Vision
10.4-inch retailer display with 640x480 resolution	15-inch LCD with 40% better resolution, retailer-accessible power on/off switch: The larger touch screen makes it easier for retailers to read information on the display. The depth is 16% less than the GT 604 resulting in more space on the counter for other merchandise. The frameless display creates more useable area on the screen and simplifies cleaning. The display also includes an added screensaver to save on power when the terminal is not in use	10.1-inch retailer display with two times the resolution with retailer-accessible power on/off switch: frameless display, at less than 50% of the footprint of the Altura 604, with an airy, open construction, more counter space is made available and the appearance is cleaner for more modern trade styles with a focus on style. No fans for cooling results in silent operation. The display also includes an added screensaver to save on power when the terminal is not in use
1D internal Barcode Reader (BCR)	2D BCR: External, corded barcode reader with mount to either side of terminal: highly accurate and fast for reading all standard barcodes and barcodes from mobile device screens	2D BCR: Internal barcode reader moves with display: highly accurate and fast for reading all standard barcodes and barcodes from mobile device screens
3.25-inch play slip/document reader with a reading speed of 18 inches per second (ips)	Integrated 8.5-inch-wide play slip reader: At 25 inches per second, with a higher resolution, it's the fastest reader for play slips and ticket validation in the industry, 8.5-inch-wide input can accept play slips in portrait or landscape orientation, visual and auditory feedback with unobtrusive stacking tray, make intuitive ease of use and new features that minimize service down intervals	3.25-inch-wide play slip reader/printer: This peripheral device reads play slips and barcodes from tickets for validation at 10 ips at a resolution of 200 dpi
256 MB Double Data Rate SDRAM (DDR1)	Double Data Rate 3rd generation SDRAM: An optimized memory system facilitates more efficient memory and doubles the data rate. IGT selection of high-quality, industry-leading components means components will be available longer with better reliability	Double Data Rate 3rd generation SDRAM: An optimized memory system facilitates more efficient memory and doubles the data rate. IGT selection of high-quality, industry-leading components means components will be available longer with better reliability

Altura 604	Altura Flex	Flex Vision
512 MB Flash memory (Disk on Module/DOM)	Modern, configurable, next-generation solid-state storage provides similar reliability to the 604 but improved speed	Modern, configurable, next-generation solid-state storage provides similar reliability to the 604 but improved speed
810 MHz Celeron single-core Central Processing Unit (CPU)	Quad Core Intel processor provides plenty of processing power for Lottery applications	Quad Core Intel processor provides plenty of processing power for Lottery applications
Saddle-mount shelf to support color display monitor	Robust stand cantilevered from terminal chassis – secure mount for multimedia display or printer – saves space on the counter	Not available with this compact platform
Good serviceability	Modular construction means each major component – Motherboard tray/power supply, play slip reader, Liquid Crystal Display (LCD) assembly – can each be removed in a few minutes. Robust design, few moving parts, and extensive testing reduces the need for any service. This means more up-time for selling	Robust design, few moving parts, no fans, and extensive testing reduces the need for any service. This means more up-time for selling

For a full description of the Flex Vision's functionality, please see the subsection titled "Flex Vision."

IGT's offered terminals include Help screens that include retailer help, functional help, and context-based player help. They include ticket inquiry, validation status/error messages, one-button functions for frequent ticket sales or retailer selections, and a confirmation screen when a play is entered more than once, a purchase exceeds a certain amount, or a validation falls within a given range.

The terminals can be used to order supplies and are easily updated and modified to accommodate new functionality. They also display messages when play for a given draw is stopped and that draw is closed. The terminals are highly reliable, robust and can withstand various demanding retailer environments, including heat, cold, moisture, dust, grease, spilled liquids, and operator abuse. These characteristics ensure minimal onsite service action and terminal downtime.

IGT's terminals offer flexibility to allow for future growth, including:

- Development of new games, expansion of existing games and easy maintenance.
- Deployment of new games.
- Deployment of promotions.
- Addition of new peripheral equipment.
- Addition of standard expansion boards (serial and parallel ports, video and sound boards, etc.).

Each terminal also offers interfaces for standard equipment including:

- External printer.
- CDU.
- Digital jackpot signs.
- Scanners for reading coupons and barcodes from smartphones.

Figure 4.4 – 3:

Standard Retailer Configuration



Flex: Engineered for Tomorrow, Built on Proven Performance

Advancements in technology and innovation continue to rapidly evolve, as do the demands of lottery retailers and players in every market we serve.

With those lessons learned, we introduce the latest addition to our terminal fleet – the Flex. This latest-generation Altura terminal is currently deployed in North Carolina and Italy, and scheduled for deployment in Virginia, Florida, and Georgia in 2017.

Figure 4.4 – 4:



Altura Flex Retailer Terminal

The Altura Flex retailer terminal is a PC-based terminal specifically designed for retail environments and was developed based on the feedback, opinions, and real-life experiences of thousands of retailers and the latest developments in the Information Technology (IT) industry. In addition to being secure, robust, and easy-to-use, the Altura Flex terminal has a highly flexible design based on modular components. Because the Altura Flex is highly configurable, we will customize the terminal according to the Lottery's specifications and options.

The following figure depicts the Altura Flex:

Figure 4.4 – 5:



Taking into account extensive feedback from various IGT retailer focus groups from around the country, we have developed a terminal, as well as accompanying peripherals, that best addresses the perils of a retailer's daily experience.

Retailer Focus Group Feedback on Altura Flex

"I just like it – it's quicker and easier to use."

"When you have 5 people in line, speed counts. If there is a long line, they can go down the street somewhere else."

"It takes up little space, always looking for space."

Aurora Open Retail Operating Solution

Aurora Open Retail is IGT's new retail terminal software application. The architecture of Aurora Open Retail will support IGT hardware solutions and has the ability for future expansion. It is a browser-based architecture that is device-agnostic. This enables lotteries to deploy one single terminal application across multiple terminal types with greater ease than ever before.

IGT designed Aurora Open Retail architecture to help the transition from today's network of single-purpose devices with different applications to networks of different devices without the burden of individual development effort for each terminal type.

The architecture separates the user interface (UI) from the low-level functionality, such as printers and readers. Within the framework is the server component that encapsulates all core functions, including support for peripherals management, monitoring, and communications, exposing all required services using Application Programming Interfaces (APIs). This simplifies the interface by separating the top layers of the gaming functions and UI from the lower device control and communication. This architecture is a popular building style for cloud-based APIs. This enables devices to communicate with IGT's Aurora Open Retail application using HTML. The APIs are the glue for HTML building blocks.

The UI component, written once, will work across multiple devices with different screen sizes and resolutions. This same UI technology architecture can also be applied to the Bring Your Own Device (BYOD) scenarios.

The transition from using dedicated, single-purpose lottery devices in retail with multi-purpose devices and BYOD networks will have a large-scale impact on retailers. The integration of Android, iOS (future) and Windows (future) smart devices found on mobile phones and tablets will not only fortify lotteries' networks but also their relationships with customers.

Open Architecture

The Flex terminal supports the Linux Operating System (OS) and incorporates an Open Source Embedded Linux distribution with a Linux Kernel. This OS has been proven to be reliable, stable, and extremely powerful. Due to its acceptance in the PC industry, an extensive driver library for peripheral components is readily available. By basing the Flex terminal on Java and Linux, developers can choose from an extensive suite of off-the-shelf tools and code libraries. This enables lotteries to take advantage of developments driven by the power of the PC and Internet industries. In addition, the terminals are equipped with standard interface ports such as Universal Serial Bus (USB) 2.0, USB, 3.0, and Local Area Network (LAN) ports, allowing easy integration with peripherals. The Flex can interface with self-service ticket checkers, player transaction displays, and player advertising displays to name just a few.

Altura Flex Retailer Touch Screen and UI

The Altura Flex is equipped with a 15" SAW touch screen. The SAW touch screen provides retailers with superior image clarity and resolution. This display will allow Lottery retailers to see crisp graphics, fonts, and text and rich, deep colors that automatically show the entire transaction being processed.

All of this makes selling games easier. High-volume retailers especially like these features, which enhance the player experience while improving same-store sales.

Easy to Use; Easy to Perform Sales

The Altura Flex combines several technologies (rugged LCD touch screen technology and flexible software) so that gaming functions are easy for retailers to perform. The screen layouts are designed to make reading retailer messages, reports, and transactions (including lists of past transactions) a simple task. Retailers quickly learn the screens and then move quickly through the sales process. "Power users" often do not even need to look directly at the screen. The screens are formatted so that frequently used buttons are positioned to provide consistency from screen to screen. Special functions, such as sales reports and retailer diagnostics, are obvious and easy to access.

A message on the UI displays the status of the terminal, indicating that the terminal is ready to use. Basic functions of the screen include:

- Accepting manual entry input and play slip wagers.
- Game selection.
- Edit mode.
- Easy pick.
- Multiple draws number of draws.
- Number of tickets.
- Days of the week.
- Card symbols.
- Instant ticket scratch-off game menu including validations, activations and settlements.
- Play amounts to accommodate wagers.
- Cash/pay (print receipt).

- Print screen.
- Print broadcast messages.
- Repeat key.
- Reports.
- Reprint.
- History.
- Subtotal and total.
- Utilities (terminal functions such as training and volume control).

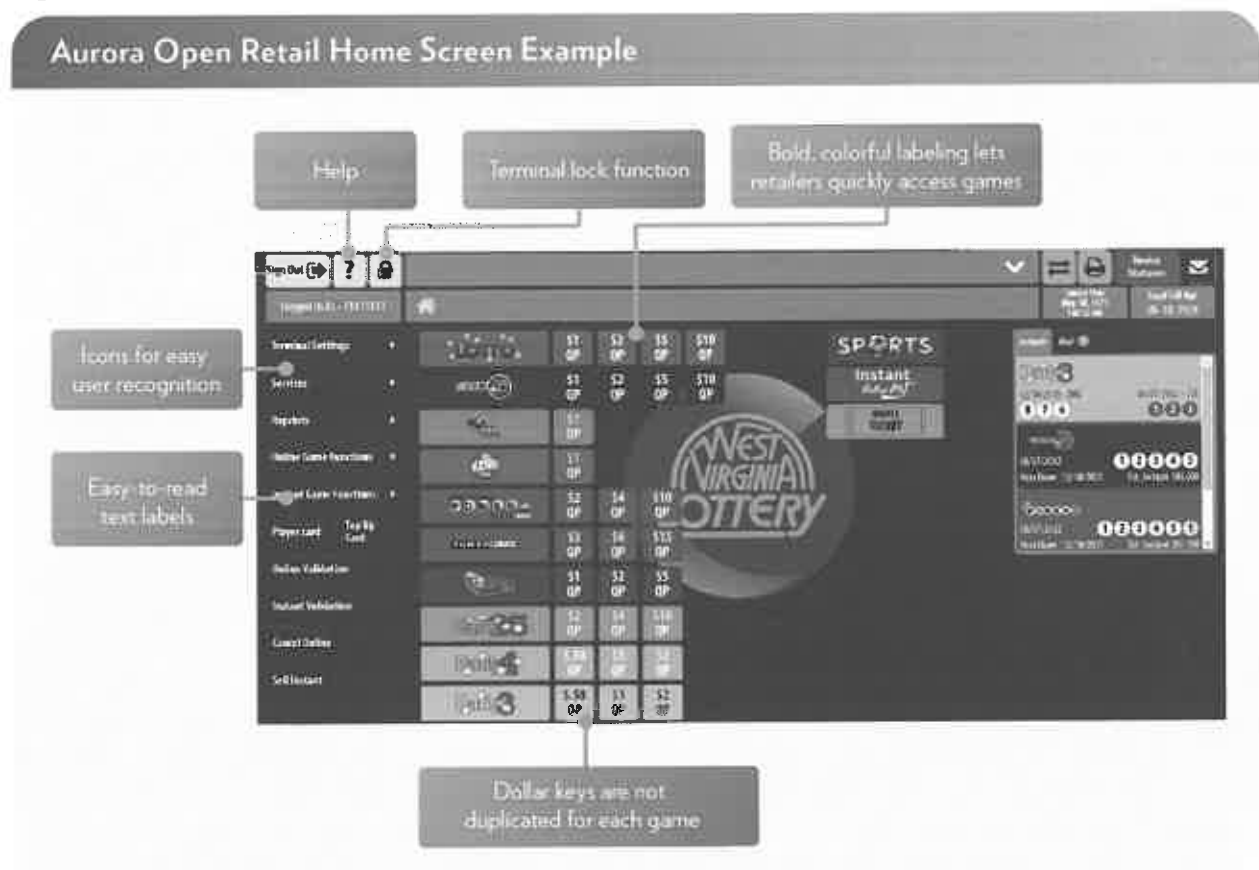
The final UI layout will be agreed upon after meeting with the Lottery. The screen size and resolution allows for an advanced UI design far beyond anything retailers have had previously, vastly improving their Lottery experience. Based on lessons learned, IGT recommends placing the most used functions on the Home screen to eliminate the need to access “nested” screens. This can include terminal functions as well as game functions. The new touch screen, combined with Aurora Open Retail, allows the UI to have a flexible design. Also, because the UI is not unlike common smartphone applications widely used by the public, adjusting to the screen functionality will be easy. Button sizes and colors can all be easily customized to deliver an easy-to-use and graphically pleasing UI retailers will appreciate.

Entire Transaction Displayed

The UI of the Altura Flex automatically displays the entire transaction a retailer is processing. When manually entering a game, the retailer sees a “build-a-ticket” feature on the game’s UI screen as the sale is entered. This allows retailers to confirm that they are entering the correct numbers and what the sale will be – and reduces the frustration of manual-entry errors, cancellations, and adjustments.

We have designed a simple and direct way to generate plays using our UIs via a touch screen with several shortcuts. The following figure highlights the Altura Flex’s UI key features which help retailers provide players with a fast and efficient purchase experience:

Figure 4.4 – 6:



Consistent Parameters for Maximum Efficiency: The configurable UI enables retailers to reduce buttons/keystrokes and increase throughput.

The Altura Flex UI offers a variety of features, including:

- On the game pages, the UI “keyboard” has a 3D quality to it – the buttons change state and appear “pushed” on the screen after being touched.
- Reduced levels of nested screens minimize keystrokes as well as navigation. This ensures utility and productivity for retailers and their staff.
- Game page shortcuts allow retailers to quickly move from game to game and achieve other functionality with a minimum of touches and page changes, improving convenience and efficiency.
- The keystroke flow is intuitive and easy to learn.
- Common activity is laid out to minimize keystrokes. For some games, especially numbers-type games, keying efficiency is essential to gaining retailer acceptance.
- The layout allows sales staff to operate at maximum efficiency. IGT’s experience with high-volume retailers, especially those who manually enter numbers-game tickets, has given us unique insight into how to optimize retailer workflow. It is not enough just to produce a single ticket quickly; the terminal interface must focus on overall operator efficiency throughout the day and week.

- Support is provided for multi-plays.
- Customized screens are designed for optimal use by left-handed or right-handed users.
- Access to the Help screens and the Altura training mode is easy and convenient.

Our UIs, as with every aspect of the terminal, are designed with lottery retailers in mind. All screen layouts will be approved by the Lottery.

Validations

Payment parameters for terminals connected to the Aurora Open Retail system are configurable. IGT can seamlessly implement the current Lottery parameters. Our standard terminal validation software for both draw-based and instant ticket scratch-off games produces a file claim or bearer's claim receipt if the terminal is not authorized to pay a particular prize. We can also configure the system to produce similar claim forms for specific prizes under \$600 so that the player must visit the Lottery to collect the prize.

Winning Ticket Payment

The Flex terminal will clearly display a "pay/no-pay/claim" message, with an additional message such as "Already paid by you" or "File claim," as appropriate, with an indication of the winning prize amount, if applicable. The terminal will be configured to print a validation receipt for all validation transactions.

Claim instructions can be provided along with the validation receipt. All validation transactions on the system are linked to the original sell transaction to ensure that the complete life of the transaction can be audited. For game tickets that incorporate one or more draws under a single unique serial number, and for multiple winners on the same ticket, the system will consider these to be one ticket for the purposes of defining payment parameters.

IGT's validation software prevents the cashing of tickets placed in various security-controlled statuses, i.e., damaged, stolen, claim period ended, etc. The validation receipt will include Lottery-designated messaging in these situations.

Additional Controls

The Altura Flex and central System, based on Lottery requirements, are capable of displaying a message on the terminal alerting the retailer of the amount of the winning receipt to ensure the retailer has the cash available to pay the player. Each gaming product has a parameter that specifies the threshold, at which point the retailer is prompted to confirm the purchase before it is processed by the central System.

Continuation Tickets

The Flex can also produce a continuation ticket. The ticket, commonly referred to as an exchange ticket, is valid for all remaining draws. The central System will be configured to handle all prize payment rules, such as a scenario in which one ticket is winning multiple times.

Terminal Messaging

Broadcast Messages

Many types of messages can be received and displayed to view at both terminals from the Aurora Transaction Engine or access-controlled Lottery user computers.

If the terminals are not powered on or communicating with the Aurora Transaction Engine at the time of broadcast, the Aurora Transaction Engine will ensure that the terminals receive the messages immediately upon sign-on. Retailers will retrieve their messages by selecting the appropriate icon that is visible on the terminal screen. The terminal will provide the Lottery with extensive messaging options and granularity. With our terminal, you will have many choices to ensure your retailers receive important information.

Sign-On Messages

Sign-on messages appear when the retailer signs on. At sign-on, the terminal requests the time stamps of all of the latest messages, compares them, and if there is a change, requests those changed mail messages from the host to ensure the retailer has the latest, most correct messages.

Broadcast Messages

- **Posted Messages:** These can appear any time throughout the day. If a posted message is sent to a terminal when it is not signed-on, the message will be re-sent to the terminal the next time it is signed-on.
- **Special Messages:** This function allows you to send messages to particular terminals or groups of terminals. Targeting your messages can help increase sales in different locations that have different demographics.
- **Normal or Urgent:** The display of messages can be classified as normal or urgent to let retailers know how quickly they should read the information when their stores are busy.
- **Immediate Read or Deferred Read:** When an Immediate Read message is received, the terminal indicates as such and will not allow any financial activity until the message is read. When a Deferred Read message is received, the terminal indicates as such, but allows the sales associate to read the message when desired.
- **News and Mail Messages:** You can separate messages based on their content to further ensure that retailers receive the proper information. News Messages include Amber Alerts and other urgent public notices/messages. Messages are received quickly and in a manner that conveys urgency. The Amber Alert messages can be printed on tickets, as determined by the lottery, in real time, without significantly impacting production transactions.
- **Message Notification:** The Flex can be configured to emit an audible signal and/or display an indicator on the retailer display screen upon receipt of the message command from the Aurora Transaction Engine. Typically, a blinking mail prompt will remain on the status line of the screen until the mail is read.

Memory and Storage

The mass storage memory of the Flex terminal is solid-state Flash memory, which has no moving parts and is not prone to “crashing” like hard drives do. It will store the game applications and Linux OS. Approximately 50% of the Flash memory is available for adding future game promotions and customer-display multimedia content.

Additionally, IGT uses compression techniques when downloading to lower the amount of memory needed for applications.

Benefits of Flash Memory Storage

Flash memory storage, combined with the Linux OS, provides the following benefits:

- A highly reliable, stable, and secure memory-storage device.
- Unlike a hard drive, flash memory has no moving parts.
- Substantial additional memory for future games.
- Faster boot-up times for retailers than the Windows-based terminals offered by other Vendors, with greater stability.

Please note that game application data and other critical information, such as the OS, are maintained in Flash memory, requiring no battery backup to retain the data and code. Because of the solid-state nature of Flash, the information will last for the life of the terminal.

Expandable and Upgradable Memory and Storage

The Flex terminal has a data rate type of three low-voltage (DDR3L)-synchronous dynamic random-access memory (SDRAM), with adequate space available for future expansion should the need arise. We use compression techniques when downloading to lower the amount of memory needed for applications.

The Flex terminal also features a 1.91 GHz ATOM Quad Core Central Processing Unit (CPU). With additional cores and an increased operating frequency, the latest version of the processor ensures noticeably enhanced terminal performance and increased energy efficiency, which are of notable importance to retailers. These features also allow for more robust multimedia content, providing the Lottery an opportunity to increase its footprint at retail.

Software Download

With Aurora Open Retail, software is downloadable in a modular fashion. To help our customers get games to market quickly while ensuring near-24-hour operation, we developed a modular background-downloading approach, our advanced ShadowLoad programming technology. ShadowLoad allows software downloading without interruption to current transaction processing on the Flex terminals in the field, as it completes data downloading during normal breaks in transaction processing. ShadowLoad allows a new version of an application to be gradually downloaded to the terminal while the current application is running. The entire terminal network can be modified in this manner with no impact on performance. Only the modules requiring a change are downloaded.



Background downloading is quick and transparent to the retailer, and the terminal stays online and sells tickets – there is no interruption in sales. This background downloading will also allow the Lottery to switch its entire network over to a new application (game) so that new games can be enabled without interrupting business operations in any way. This is a great benefit for retailers with a 24-hour operation. System upgrades to Read-Only Memory (ROM)-resident routines may also be downloaded. As an added value, IGT uses data compression techniques that decrease the amount of data that needs to be downloaded by more than 50 percent. This decreases the amount of time it takes to download the new application by the same percentage.

Flex Vision

IGT's Flex Vision platform is a tablet-like architecture. The Flex Vision terminal consists of a 10.1-inch touch screen, LCD, and motherboard controller on a stable base. The screen can pivot 90 degrees to accommodate different heights of both users and counters.

The Flex Vision's processor power comes from an Intel BayTrail Quad Core processor, providing high-performance value with low power consumption. This processor is optimized for tablet computing and brings valuable features such as an ultra-slim design and fanless operation.

To accommodate those tighter retail spaces, the Flex Vision comes with either our compact printer or combination play slip reader/printer and a player display. Cable management is integrated with the base to minimize cables on the counter. Wi-Fi and Bluetooth are standard features for connectivity and expansion in addition to six USB ports.

Flex Vision Features

- **Processor:** Intel Atom Bay Trail Quad Core CPU.
- **Display:** Bright 10.1" high-resolution tablet display and touch screen with wide viewing angle.
- **Memory:** DDR3L Random Access Memory (RAM) and large amount of solid-state memory for streamlined Lottery applications.
- **Wireless Connectivity:** WiFi and Bluetooth.
- **LAN:** 10/100 Ethernet.
- **Software:** IGT Open Retail on Glinux.
- **Scanner:** Integrated 2D Imager barcode reader.
- **Power:** Integrated Power Supply.
- **Dimensions:** 9.8" D x 11.3" W x 14.6" H.
- **External display support.**
- **USB expansion with multiple ports.**

The Flex Vision terminal is integrated with a custom terminal stand designed by IGT. The stand allows the angle of the Flex Vision display to pivot from 0° to 90° to accommodate height variations between users. The display housing base includes a base distribution board assembly.

The following figure provides a view of the Flex Vision:

Figure 4.4 – 7:

Flex Vision



Flex Vision Size

Because not all retail environments are created equal, IGT offers a variety of retail devices to accommodate different scenarios. The Flex Vision terminal is a compact-sized solution that will meet the needs of retailers operating with limited counter space while handling low to moderate customer volume.

The following figure depicts a comparison between the Flex and Flex Vision terminals:

Figure 4.4 – 8:



Modular Architecture: We designed the Flex with modular components, making it easy and quick to replace parts.

Compact Reader Printer

Accompanying the Flex Vision terminal is the Compact Reader Printer. This evolution of IGT printing solutions offers play slip reading and validating capability via an integrated scanner, in addition to the full printing functionalities found on all of IGT's printers.

The scanner supports 3.25"-wide play slips, with a maximum length of 13.77". It is capable of reading barcodes in combination with coupons and play slips at a speed of 9.8 ips. The printer is a high-speed thermal printer with a print speed of 7.4 ips and receipt stacker capable of stacking 50 receipts. Tickets are printed on 3.25"-wide paper, and the printer manages a paper roll with 6" roll stock. The printer supports "drop and sell" paper loading.

The following figure depicts the Compact Reader Printer:

Figure 4.4 – 9:

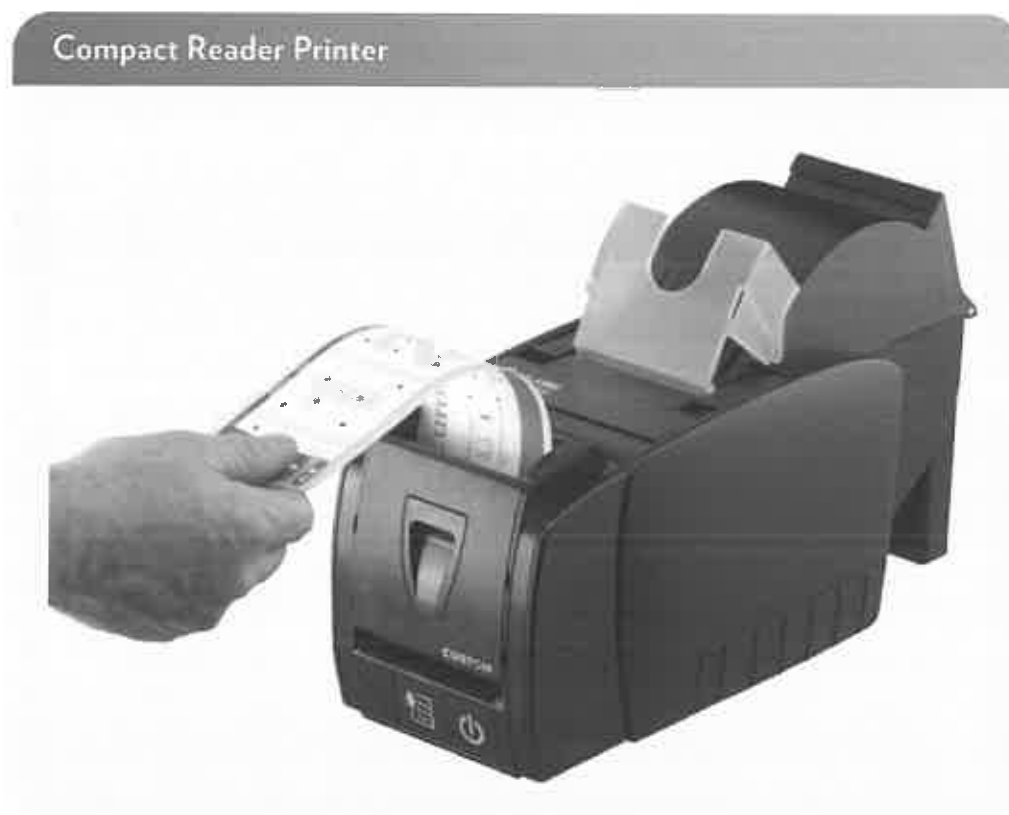


Figure 4.4 – 10:

Key Technical Features	
Printing Method	Thermal printing
Resolution	203 DPI (8 dots/mm)
Printing (sec)	7.4 ips
Supported Barcode	UPC-A, UPC-E, EAN13, EAN8, CODE39, ITF, CODABAR, CODE93, CODE128, CODE32, PDF417, DATAMATRIX, AZTEC, QR CODE
Printing Format	Normal, height and width from 1x to 8x, expanded, reverse, underlined, script
Printing Direction	Straight, 90°, 180°, 270°
Paper width	3.14" / 3.25"
Roll Dimension	5.9"
MTBF	60,600 hours (electronic board)
Head Life	62.13 miles/100M pulses
MCBF	1,000,000 cuts
Dimensions	14" L x 8.5" H x 5.51 W (with cover closed) 17.51" L x 13.98 H x 8.5" W (with cover open)
Weight	7.27 lbs

AccuTherm Ultra Printer

- *Various peripheral attachments for standard terminals. Peripherals should enhance sales and improve retailer service and efficiency. Peripheral interfaces are designed to meet the Lottery's current and future needs;*
 - *Print speed, accuracy, and flexibility of standard terminal printers. Printers rapidly produce tickets, reports (automatic or requested), and promotional coupons using a variety of fonts, graphics, and standard bar codes (e.g. 2D, stacked 2D, QR) while providing a quick load of ticket stock. Character and graphic resolution should meet or exceed 200 DPI. Printer should issue and cut tickets having uniform size or variable length as determined by the Lottery. Printers should stack at least 50 tickets without retailer intervention.*
-

All of our offered Altura Flex terminals will be equipped with IGT's most popular printer, the AccuTherm Ultra. At 12 ips, the AccuTherm Ultra is the fastest printer on the market. Its thermal printing technology provides high-resolution images suitable for rendering logos, messages, and International Organization for Standardization/International Electrotechnical Committee (ISO/IEC) industry-standard barcodes, symbols, and play data. Thermal technology ensures the ticket print is of a size and darkness that can be easily read by players and will last longer than one year from the date of purchase under ordinary consumer use in the retail environment (including ticket folding, hot weather, rain, etc.). The AccuTherm Ultra produces high-quality barcodes that support a 99% first-read rate by scanning equipment. The compact design of the AccuTherm Ultra gives Lottery retailers the flexibility to determine the most convenient location for the printer while meeting the demands of high-volume retailers.

Additional design features that make the AccuTherm Ultra one of the fastest lottery printers on the market today include:

- Ultra-fast 12 ips print speed, resulting in the capability of printing approximately 50 tickets per minute without operator intervention.
- High-performance ability to stack more than 100 tickets.
- A 7.5-inch diameter paper roll that holds 62% more paper than a 6.0" roll.
- A clear clam-shell lid for easily checking the amount of paper stock left.
- Patented Jam Deflector technology that ensures tickets continue to print if the main paper path becomes blocked.
- Can be placed on the back shelf of the Flex to save counter space.
- High-speed USB communications interface.

The printer can withstand heavy use and will continue to look and operate like new or will be replaced at IGT's expense. The printer operates quietly, cuts tickets so that they do not fall to the ground, prints variable ticket lengths, Universal Product Codes (UPCs), and barcodes including PDF417, Quick Reference (QR) codes, alphanumeric characters in up to 72-point font, and graphical symbols and pictures.

In addition to having the ability to print advertisements, the AccuTherm Ultra can print cross promotions and applications the Lottery can use or sell.

Figure 4.4 – 11:



Retailer-Friendly Features:
 Besides being very fast, the AccuTherm Ultra printer is loaded with features that make retailers' work easier.

Figure 4.4 – 12:

AccuTherm Ultra Printer Specifications	
Specification	Measurement
Printer Type	Thermal
Printer Speed	12 ips
Printer Quality	203 dpi
Maximum Printing Width	3.15 inches
Paper Width	3.25 inches

Figure 4.4 – 13:

AccuTherm Ultra Printer Dimensions and Weight	
Specification	Measurement
Base Depth	13.2 inches
Base Width	6.5 inches
Height	8.8 inches
Weight	4.9 pounds without paper
Footprint	86 sq. inches

Retailer Focus Group Feedback on Accutherm Ultra Printer

"Fewer roll changes and because the roll is so large, the tickets at the end won't curl up so badly as they do now."

"I like that it stacks the play slips and the tickets."

"Less time spent waiting. more time selling."

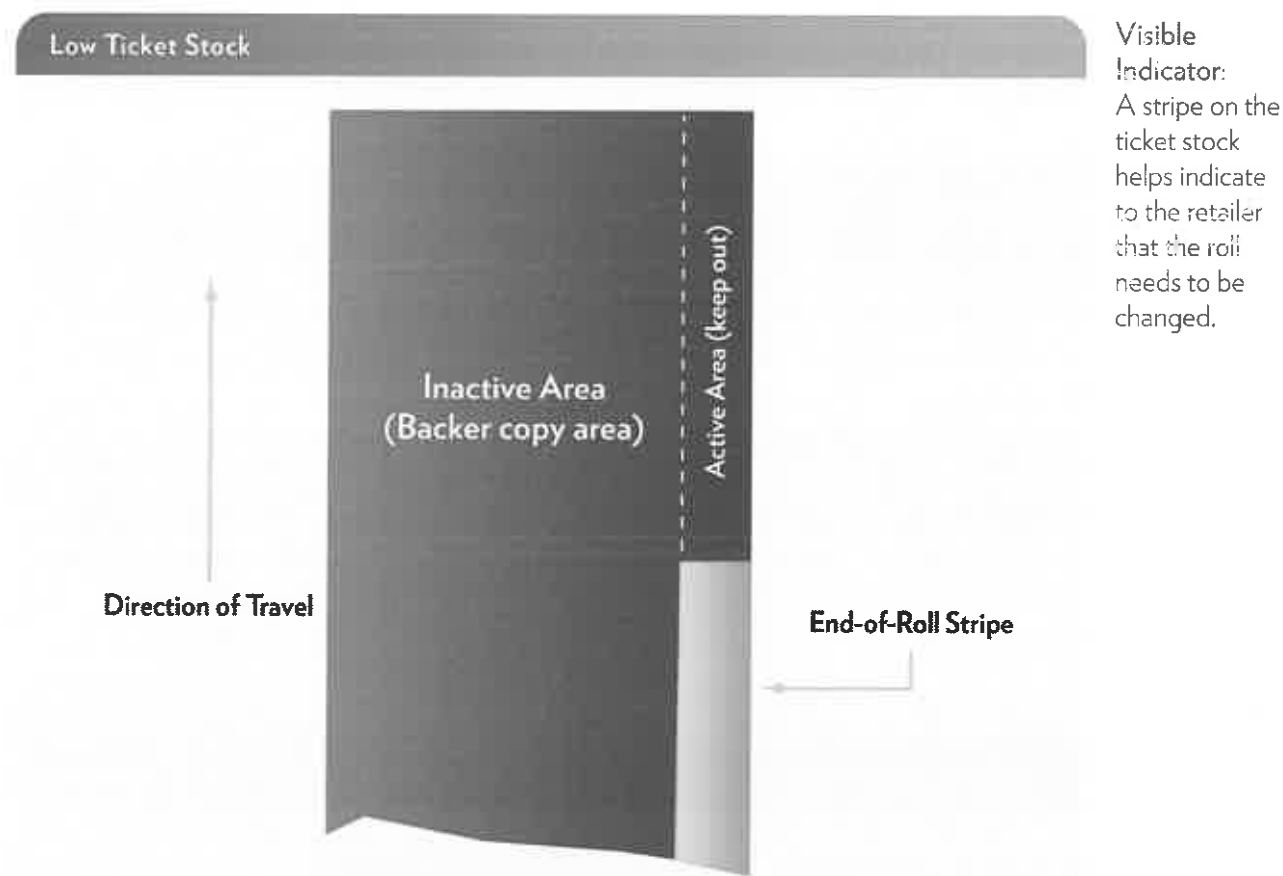
Low Ticket Stock

To prohibit ticket stock from running out before a transaction is complete, the terminal only sends one transaction to the Aurora Transaction Engine at a time. If an "end-of-ticket-stock" condition occurs in the printer, no more tickets will be printed until the situation is remedied by changing the paper, which preserves the integrity of the transaction. An "end-of-stock" condition is generated when the AccuTherm Ultra printer's smart sensors detect the black ink that is added to the last 36 inches of the ticket stock. This is typically preceded by a red agent warning stripe alerting the retailer to a low-paper scenario.

In the event a retailer does not change the paper when prompted to, the printer will continue to print until the sensor reads the black stripe (end-of-roll stripe) printed on the back of the paper, at which time it will complete the last transaction and no longer print until the paper is changed. Should there be more transactions left than available paper, the remaining transactions will be printed as soon as it is reloaded. Other conditions, such as printer fault, jam, or misprint, are handled in the same manner. The AccuTherm Ultra printer also has a clear top cover which allows the retailer to visually monitor the amount of ticket stock remaining in the printer.

The following graphic depicts the “end-of-stock” condition which is visible to the retailer:

Figure 4.4 – 14:



Printer Connection

The host terminal will communicate with the printer via a USB 2.0. It uses an IGT-proprietary communications packet protocol resulting in fast, secure messaging between the host terminal and printer. The printer returns status and fault information over the same interface. The combination of the 12 ips print speed and the faster transmission speed resulting from using the USB 2.0 interface results in a more efficient send-to-cut transaction.

Paper Roll Dimensions

The paper roll contains 1,122 feet of paper. As a comparison, the AccuTherm Ultra’s predecessor, the Supreme, contains 665 feet of paper. The AccuTherm Ultra printer accommodates a 7.5-inch diameter paper roll and ticket width is fixed to 3.25 inches.

Applications and Graphics

The AccuTherm Ultra printer can download applications, graphics, symbols, and pictures sent from the central System through the terminal and thereby define custom characters. These are generally referred to as user-defined characters. The AccuTherm Ultra printer has room for 256 user-defined characters in non-volatile memory.

Easy Paper Roll Replacement

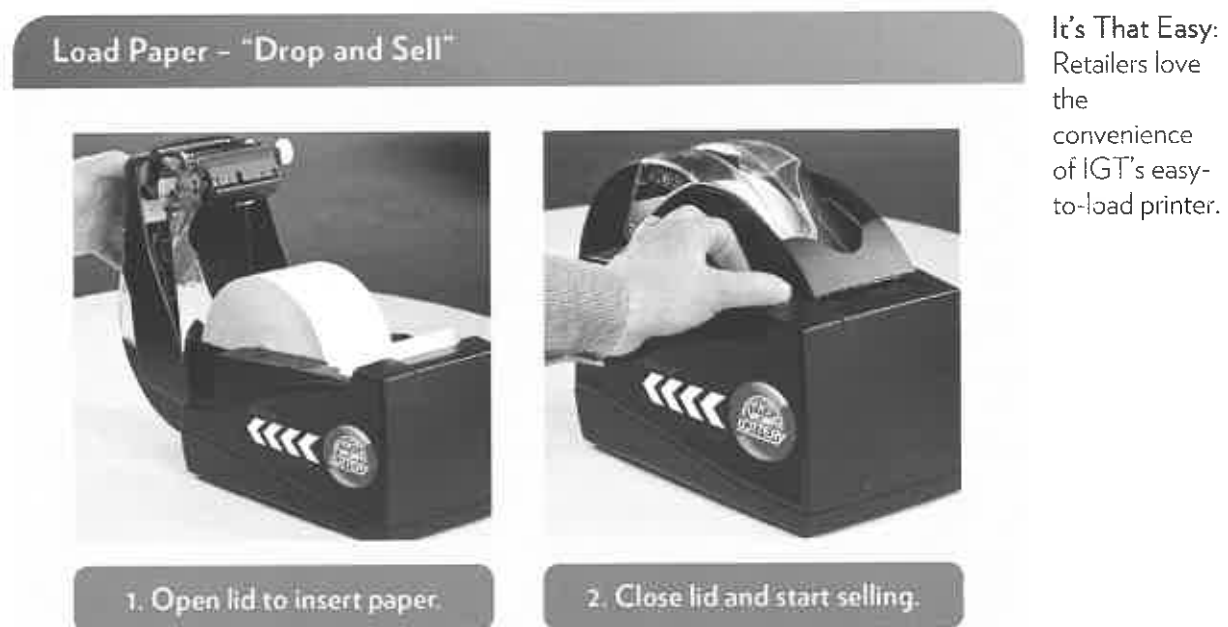
Drop and Sell Feature

What retailers like most about our AccuTherm Ultra printer is how easily they can change the paper. The “drop and sell” feature allows for an extremely fast paper change. A clerk simply does the following:

- Opens the clear printer cover and drops in a new roll.
- Closes the printer cover, and starts selling!

The paper automatically advances, so the AccuTherm Ultra printer is ready to go as soon as the cover closes; no further steps are needed. Experienced retailers often accomplish this process in fewer than five seconds. With this feature, players do not have to wait while retailers change the paper roll, a real advantage during high-volume sales times, providing minimal disruption to retail sales activity.

Figure 4.4 – 15:



Technical Characteristics

The AccuTherm Ultra is equipped with the following technical features:

Printing Technology

The AccuTherm Ultra's thermal printing technology provides high-resolution images suitable for rendering logos, messages, and ISO/IEC industry-standard barcodes, symbols, and play data.

Printing Width

The printing width of the AccuTherm Ultra can be a minimum of one "dot" to a maximum of 3.15 inches.

Printing Definition

The AccuTherm Ultra uses a long-life, thick-film 203 dpi (horizontal and vertical) print head.

Supported Image Types

The AccuTherm Ultra printer supports printing of game tickets, receipts, and reports in different fonts, font sizes, and formats, as well as black/white graphics, including: BMP, GIF, TIFF, PNG, and JPEG.

Automatic Paper Loading

Because the paper automatically advances, the printer is ready to go as soon as the cover closes; no further steps are needed, eliminating retailer frustration. The AccuTherm Ultra printer senses the new roll and automatically triggers a test print.

Automatic Paper Cutting

The AccuTherm Ultra printer has an integrated, high-speed paper cutter to quickly and automatically cut each ticket, receipt, or report from the ticket stock roll, thus eliminating the need for tearing off tickets from the printer. The printer's sensors also recognize a cut-complete condition.

Printer Driver Upgrade

The AccuTherm Ultra printer driver is upgraded via a download from the central System to the terminal. IGT uses a proprietary communications packet protocol from the host terminal to the printer, resulting in fast, secure messaging and driver upgrades.

Ability to Print Graphics

The AccuTherm Ultra printer can download and print text and graphics (games and logos), symbols, and pictures, including new designs sent from the central System through the terminal and thereby define custom characters. These characters are generally referred to as user-defined characters. The printer has room for 256 user-defined characters. Once a user-defined character is defined and stored in the printer, it can easily be reused as needed. This allows the printer to be more flexible with the ticket layout and quicker and more responsive when printing a ticket using the user-defined characters.

Various Character Fonts

The AccuTherm Ultra uses a TrueType font, which is easier to scale and allows more flexibility when designing the look of receipts, graphical symbols, and pictures.

Printable Barcodes

The AccuTherm Ultra can print the following barcodes:

- PDF417 (2D Stacked Symbology).
- Data Matrix.
- Interleaved 2 of 5 (I 2 of 5).
- Interleaved 3 of 9 (I 3 of 9).
- European Article Number (EAN) 8 and 13.
- UPC A and E.
- Code 128.
- QR Codes
- Optical Character Recognition (OCR) 0-9.
- Reduced Space Symbology (RSS) Databar GS1.

Minimum Definition

The long-life, thick-film print head provides 203-dpi definition.

High-Performance Ticket Stacker

The AccuTherm Ultra provides enhanced ticket stacking (100 tickets) that ensures the retailer gets a consistently neat stack of tickets. Its patented design eliminates issues caused by feeding and/or stacking curled tickets.

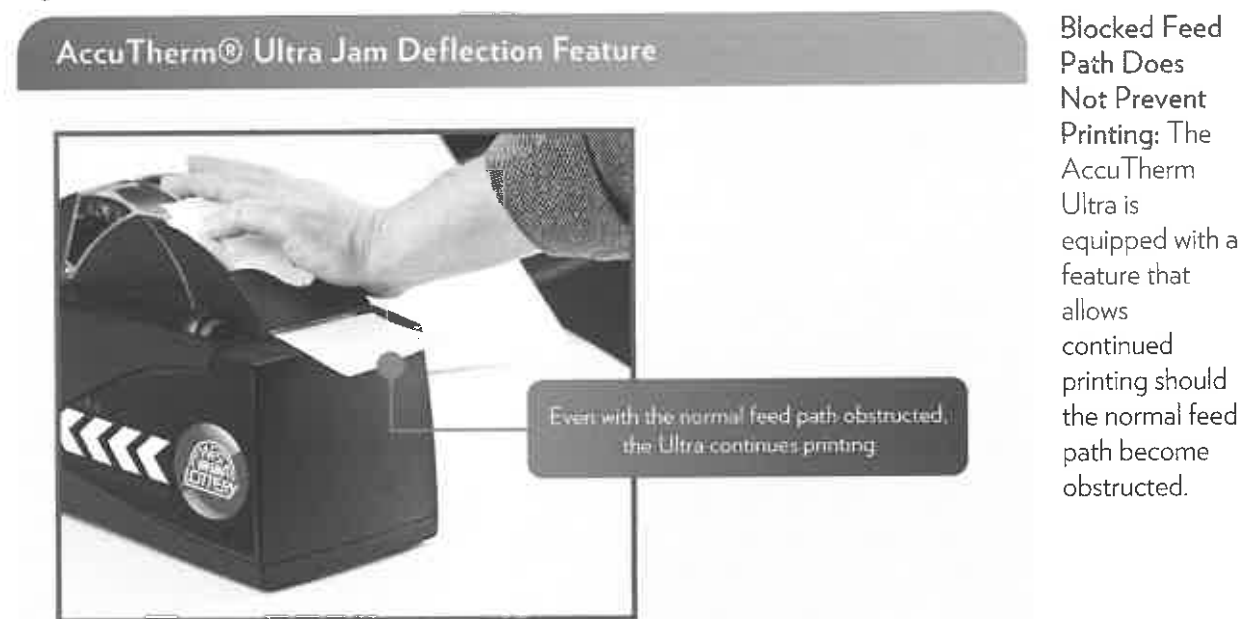
Figure 4.4 – 16:



Jam Deflector

The AccuTherm Ultra is also designed with a feature that helps eliminate jams caused by retailers resting their hands on top of the printer while it is printing. When the normal feed path is obstructed, the jam deflection feature automatically feeds the paper out an alternate opening in the front of the printer. This ensures a continuous operation.

Figure 4.4 – 17:



Smart Sensors

The AccuTherm Ultra printer uses electronic sensors and switches to provide the retailer with advanced notice of the printer status. The printer's sensors detect and communicate the conditions listed and described in the following table. Printer status awareness allows the retailer to maintain the printer or change the paper, e.g., when it is least disruptive to sales.

Figure 4.4 – 18:

Switch and Sensor Conditions	
Condition	Description
Paper Low	The printer recognizes a low ticket stock condition
Paper Out	The printer recognizes that ticket stock is not present and does not attempt to print in this condition
Cover Open	The printer recognizes when the cover is open and stops all action from taking place until the cover is closed
Cut Complete	The printer recognizes a cut-complete condition
Top-of-Form	The printer recognizes pre-printed top-of-form marks on the non-thermal side of the paper for jurisdictions that require fixed-length tickets
Paper Jam Sense	The printer recognizes when the ticket stock is jammed and stops further tickets from being printed until the jam is cleared by the operator
Print Head Failure	The printer recognizes when there is insufficient current available at the print head to fully energize the head and complete the print action

Alert Indicators

The Flex terminal automatically displays an alert notifying the user about various events with the AccuTherm Ultra printer:

Figure 4.4 – 19:



No Guesswork: Once an issue is detected, the display provides clear instructions for the retailer.

Status LED

In addition to a wide array of sensors, the printer has been outfitted with a single Light-Emitting Diode (LED) status indicator. With one glance, retailers can know a printer's status.

Figure 4.4 – 20:

LED Indicators	
Condition	Status LED
Unit Ready/Power On	On
Power Off	Off
Error	Blink

Figure 4.4 – 21:



Enhanced Feature Set:
The AccuTherm Ultra printer provides many enhancements, including a 7.5-inch ticket roll, a translucent cover, jam-free operation, and a ticket-stacking capability to meet the needs of the most demanding retailer.

Printer Shelf

The rear printer shelf designed for the Flex terminal allows retailers to fit the AccuTherm Ultra printer or the CDU (Aurora MultiMedia color monitor) on the back of the unit. By placing either device on the printer shelf and within the terminal's small footprint, less space is taken up on the retailer's counter.

Figure 4.4 – 22:



Figure 4.4 – 23:

Printer Shelf Footprint Reduction



Less Space Required

Using the printer shelf mount reduces the side-by-side terminal and printer footprint.

Using the printer/CDU shelf mount reduces the side-by-side terminal and printer footprint. This increased counter space could provide additional Lottery retailer equipment and increase awareness to stimulate impulse purchases. Additionally, the extra counter space can be a tremendous selling point when trying to recruit retailers.

Flex Play Slip and Document Scanner/CIS Reader

- *Optical reader(s) speed, accuracy, flexibility, processing capability, and functions that include reading various physical and digital graphics, barcodes, and markings on player, retailer, Lottery, and Vendor materials both at the terminal and at a distance from the terminal;*
-

The Flex is equipped with an 8.5-inch reader that reads various size formats of slips, with widths up to 8.5 inches. It can read all current and future play slips and does not require special marking utensils. This feature increases flexibility in play slip and document reading. The reader is also capable of scanning retailer survey documents that the Lottery may wish to implement in the future.

With a rate of 25 ips, IGT's CIS reader is the fastest reader on the market, designed to quickly read play slips, resulting in rapid play transactions, which translates into both retailer and player satisfaction. Retailers simply drop the play slip or document into the top of the reader and the feeder automatically pulls the slip and deposits the play slip or document in front of them at the bottom of the reader.

Play slip documents are easily inserted in any direction as long as they don't exceed the reader's 8.5-inch width. If the play slip is incorrectly marked, it reverses the document back out the top of the reader so the retailer can re-insert it without being confused about whether or not it was read.

The CIS reader of the Flex has evolved from its predecessor based on the analysis of feedback from our customers. Improvements to the reader include a fixed-position CIS head, sealed sensors, and a sealed drive mechanism, which eliminates issues resulting from the buildup of paper dust. These features reduce the need for long-term service.

The Flex's CIS is equipped with a 300 dpi head which translates to better resolution, improving barcode reading and document scanning. Also, the CIS chassis is built from electrostatic dissipating material which produces more predictable paper handling.

These enhancements, drawn from the analysis of our current readers in the field, leads to increased reliability and improved up-time for retailers.



Flex Vision CIS Reader

The Compact Reader Printer has an integrated high-performance scanner capable of scanning Lottery selection slips. The scanner supports 3.25" wide selection slips, with a maximum length of 13.77". It is capable of reading barcodes in combination with coupons and play slips at a speed of 9.8 ips.

- *Dimensions, display resolution, graphic capabilities, communication to the terminal, and terminal memory usage for a customer transaction and advertising display solution to accommodate variable space limitations at retailer locations, enhance sales, and improve retailer efficiency;*
-

IGT offers the Lottery its 22" LED CDU as a central component of the proposed multimedia solution. The CDU is an effective tool for displaying customer transaction information as well as multimedia content. The component can also be mounted to accommodate the space limitations of retailers. Terminal memory usage is described earlier in this section with our description of terminal specifications.

For a detailed overview of our CDU solution, please see Section 4.4.6.1, Customer Display Units.

- *Customer ticket self-check unit solution includes the size, connectivity to the standard terminal, bar code readability, and message visibility;*
-

For a detailed overview of our self-check unit solution, please see Section 4.4.9, Self-Check Units.

Standard Terminal Interface Layouts

- Standard terminal touch screen user interface layouts (e.g. colors, locations, graphics, and text labels) minimize keystrokes and navigation for retailer ease of use and efficiency. Touch screen interfaces display retailer messages, reports, processed transactions, and past transactions, using variable fonts, full-color, graphics, and screen layouts. Touch screen should enable retailer sales, validations, reports, cancellations, and messages for draw games. Vendor should include graphic examples of the proposed interfaces for standard terminals. Instant ticket inventory transactions (e.g. issue, transfer, activation and settlement), validations, receipts, reports and printed messages should also be enabled;

The following graphics illustrate the responsive design of the touch screen interfaces of Aurora Open Retail and user interface layouts:

Figure 4.4 – 24:

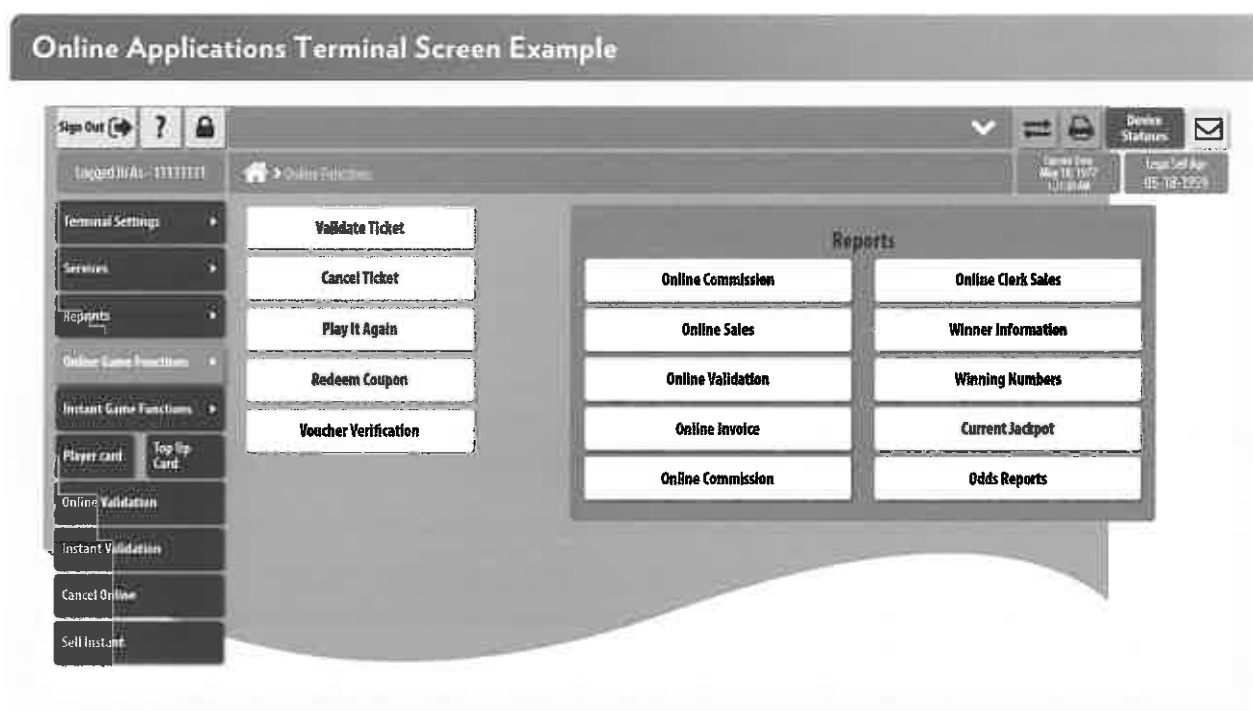


Figure 4.4 – 25:

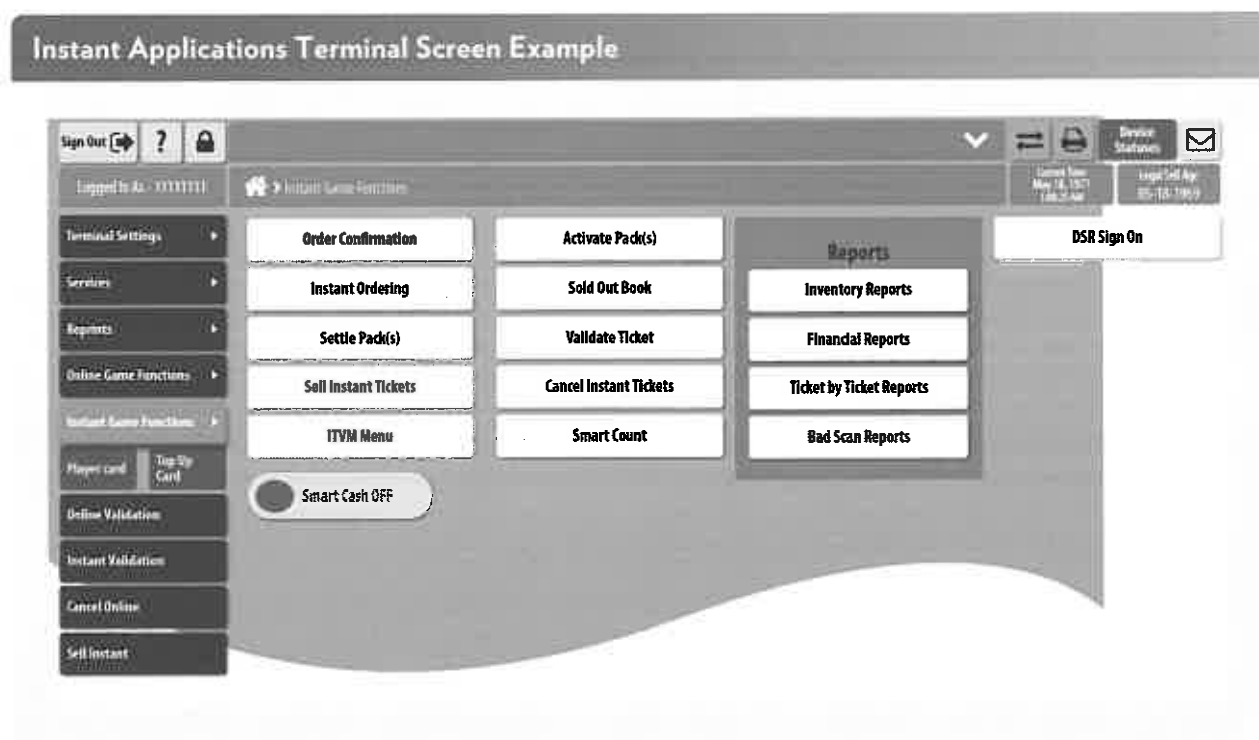


Figure 4.4 – 26:

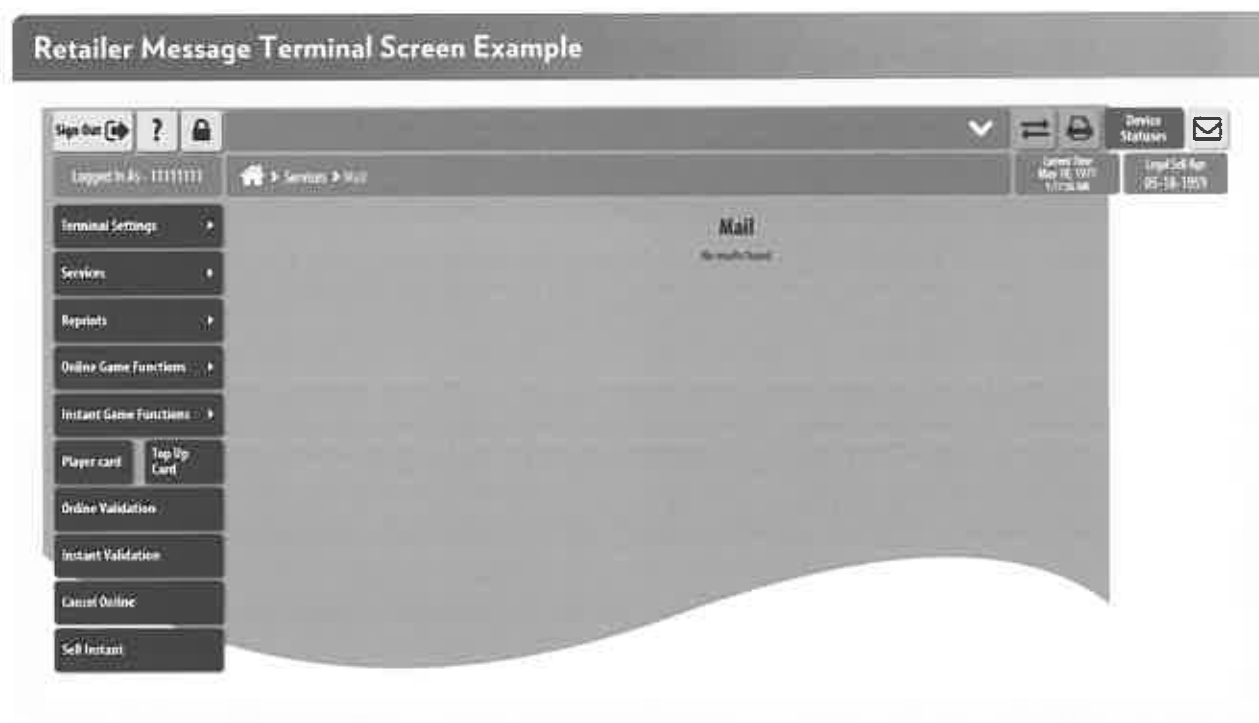


Figure 4.4 – 27:

Terminal Reports Screen Example



The screenshot shows the 'Online Sales Report' screen. The left sidebar contains navigation options: Terminal Settings, Services, Reprints, Online Game Functions, Instant Game Functions, Player card, Top Up Card, Online Validation, Instant Validation, Cancel Online, and Sell Instant. The main area displays the 'Online Sales Report' for '11/02/14' and '10:02:59'. The report shows a list of games and their sales amounts:

Game	Amount
WAGERWISE	0.00
LOTTO	0.00
NUMBERS	0.00
TAKE FIVE	0.00
ALL OR NOTHING	0.00
POWERBALL	0.00
WIN 4	0.00
MONOPOLY MC	0.00
MEGA MILLIONS	0.00
QUICK DRAW	0.00
5X2	0.00
LOTTO INST WIN	0.00
TAKE INST WIN	0.00
POWER INST WIN	0.00
WBS INST WIN	0.00

Figure 4.4 – 28:

Processed Transactions Terminal Screen Example



The screenshot shows the 'Processed Transactions' screen. The left sidebar contains navigation options: Terminal Settings, Services, Reprints, Online Game Functions, Instant Game Functions, Player card, Top Up Card, Online Validation, Instant Validation, Cancel Online, and Sell Instant. The main area displays a list of transactions with columns: Item, Serial Number, and Cost. The total cost is \$8.00.

Item	Serial Number	Cost
1. PBALL	TB-00033781-12	\$1.00
2. MEGA	TB-00033784-20	\$2.00
3. PBALL	TB-00033785-12	\$1.00

Total: \$8.00

Enter Amount: \$0.00

Change Due: \$8.00

Navigation buttons: Total, Cash, Print

Figure 4.4 – 29:



Figure 4.4 – 30:

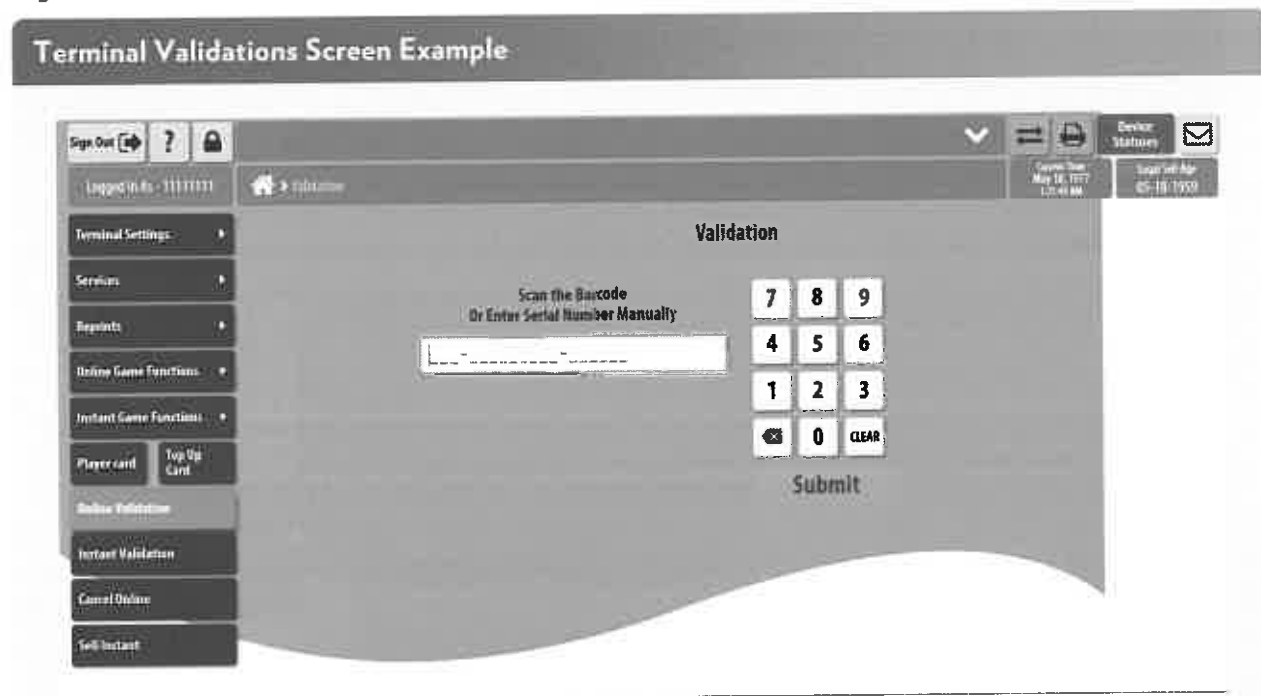


Figure 4.4 – 31:

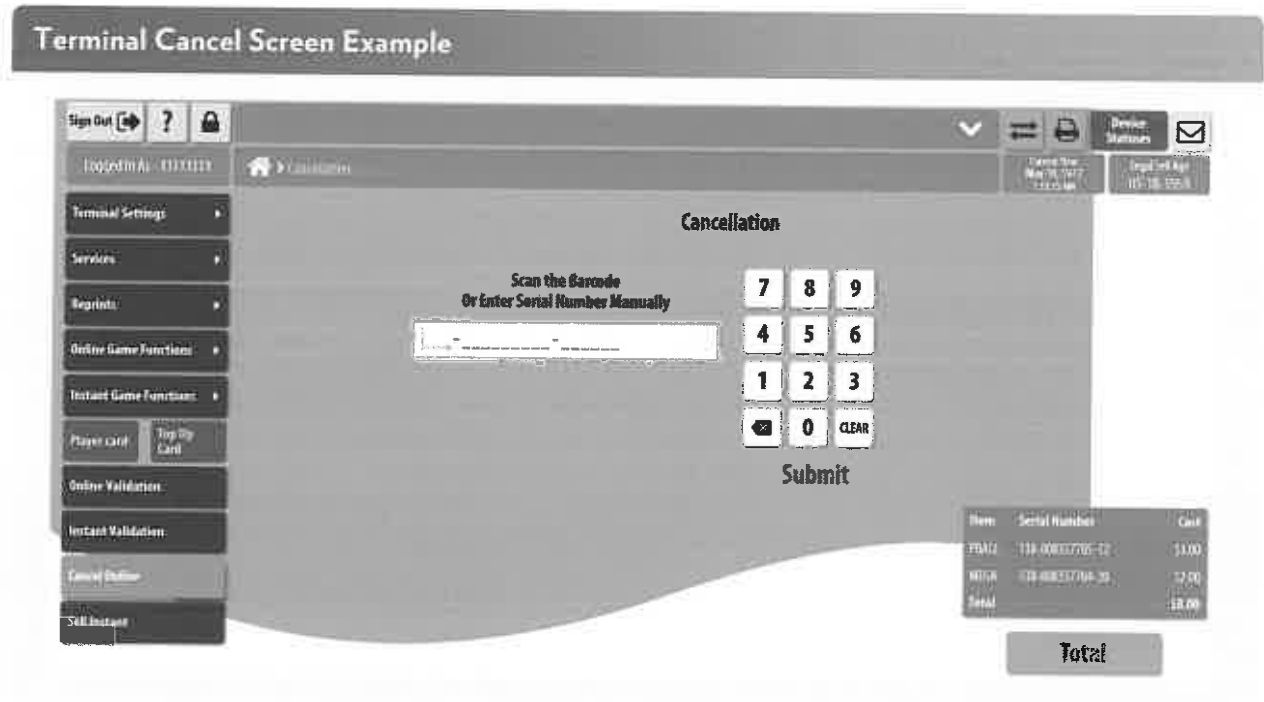


Figure 4.4 – 32:

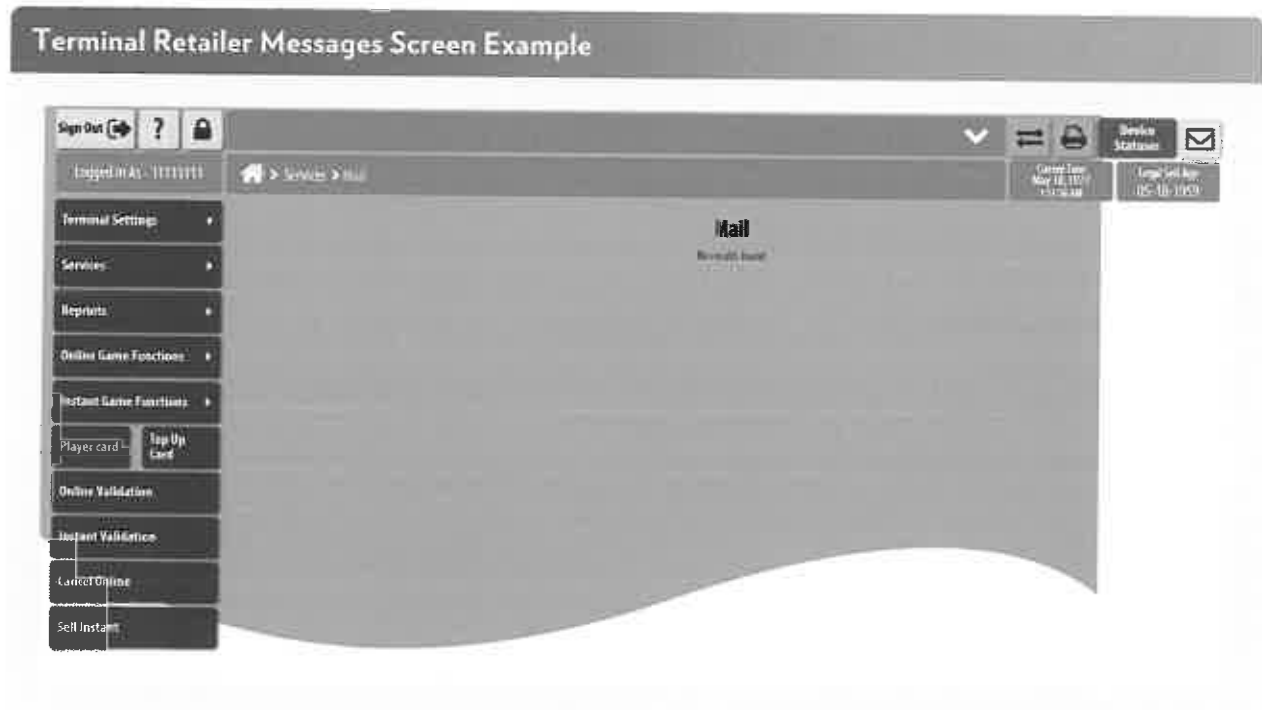
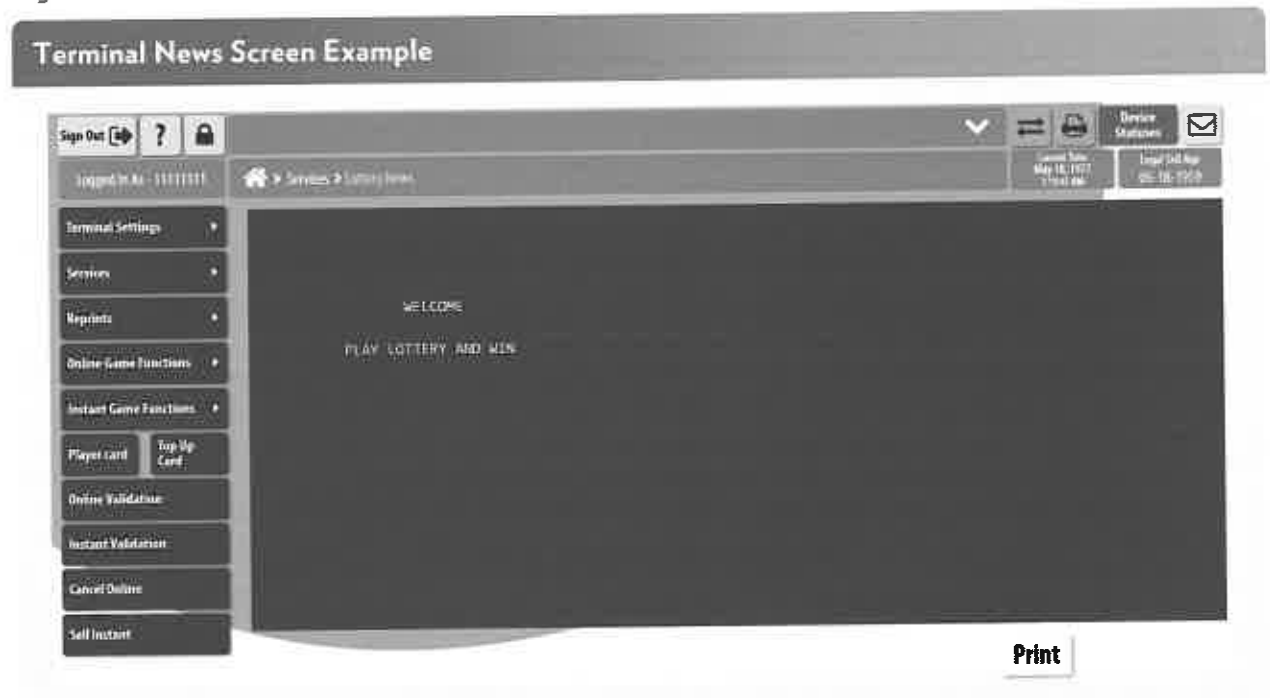


Figure 4.4 – 33:



A detailed description of the Flex terminal's touch screen user interface and layouts can be found under the subheading "Aurora Open Retail Operating Solution."

Retailer Accounting

IGT will supply retailer accounting reports through the terminal; this will enable retailers and the Lottery to display and print information including all sales and financial data. Those reports, which can be found under the same section of the terminal, include:

- Sales summary.
- Sales Associate sales.
- Weekly invoice.
- Weekly adjustments.
- Top prize.
- Cashes.
- Game sales.

The Altura Flex also includes a suite of reports, pertaining solely to inventory, that will assist retailers in managing their day-to-day operations. Reports on pertinent Lottery on-site inventory management, news, and jackpot information is also available.

Those reports include:

- Inventory:
 - Summary Inventory.
 - Detailed Inventory.
 - Pack Status.
 - Pack Settlement Current Week.
 - Pack Settlement Last Week.
 - Active Pack, Confirmed Packs.
 - Returns Full Packs.
 - Returns Partial Pack.
- Lottery News:
 - Lottery news only displays the terminal sign-on message. It is under special functions -> News. It gives you the option to print the message. Also, Mail is under Special Functions.
- Jackpots:
 - Powerball, Mega Millions and Cash 5:
 - All allow you to print Winner Numbers, Winner Information, and Current Jackpot.
 - Pick 3, Pick 4, Raffle, and All or Nothing:
 - All allow you to print recent winners and winning numbers by draw.
 - Instant Ticket Scratch-Off Games:
 - Print Top prize.

Random Number Generator

- *The standard terminal must have a certified and audited random number generating ("RNG") function for creating one or more random sets of numbers for each game as requested by the retailer or via play slip to produce an easy pick wager or wager part.*

The Altura Flex terminal has a mechanism that generates one or more random play (Easy Pick) numbers for any game requested by the retailer or via play slip. We understand that our randomizers must be approved by the Lottery as being compliant with any MUSL or NASPL guidelines and agree that the Random Number Generator (RNG) mechanism will be certified, at our expense, by an independent laboratory such as Gaming Laboratories International (GLI). All IGT terminal RNGs have been tested and certified through GLI or an equivalent certification agency (in compliance with MUSL Rule 2).

Additionally, the terminal has the ability to produce tickets for games in which numbers are selected sequentially from a pool but printed in a scrambled manner on the player's ticket. This feature provides the Lottery with a mechanism for selling tickets from a pool in a manner that appears random.

The terminal software includes a proprietary IGT algorithm that has been used by lottery systems worldwide for more than 20 years. The IGT algorithms have been certified by GLI, as well as other laboratories and regulatory agencies around the world.

Play It Again

- Any additional standard terminal functions and peripheral that would improve ease of use and increase sales, reliability, and accessibility.
-

In the summer of 2007, the Kentucky Lottery requested that we develop an alternative method for players to play their favorite numbers. Our engineers went to work to design and implement the Play It Again solution as an enhancement to the Kentucky Lottery's offerings. Play It Again was a great success right from the start and continues to grow, making the transaction much easier for players and retailers alike.

Play It Again allows players to play their last wager again, quickly and easily. By scanning the original wager's barcode with the external barcode reader, the retailer duplicates the player's wager information for the next scheduled drawing. With Play It Again, retailers do not have to enter new numbers manually, and players do not need new play slips.

Terminal Privileges

The standard terminal identifies, logs transactions, and provides reports for Field Marketing and Sales Representatives. Vendor staff specific privileges should include, but not be limited to, issuing and returning instant tickets, issuing and returning POS materials and consumables, inventory functions, reports, and training functions. Vendor staff privileges are able to be overridden or disabled by Lottery approved personnel. Vendor should configure terminals with a secure mechanism for identifying Vendor staff and providing the appropriate privileges and options for the identified individual to record all transactions. Vendor staff-specific privileges include instant ticket returns, inventory functions, point of sale items, and training functions.

The Vendor supplies and configures all screen graphics, icons, other content, and placement on the terminals upon the Lottery's request and at no additional charge. The terminal interface uses default draw game parameters unless parameters are altered by the retailer for a wager. Parameters are able to be duplicated to subsequent wagers. The user interface design should be developed jointly with and approved by the Lottery.

The terminal has the capability of operating in a training mode. Training mode tickets are marked "VOID---NOT A REAL TICKET---NOT FOR SALE" or equivalent. For formal training in classes, training mode may be local to the individual terminals in the specified training facilities, or may operate from a local server. At the request of the retailer, the standard terminal should have the capability of displaying and printing the last 25 transactions accepted by the System to compare printed tickets with registered tickets. The information displayed includes the last transactions of each type, including last wager, last cancel, last winner validation, last report, etc. as selected by the retailer.

Password Protection

The Altura Flex terminal prohibits unauthorized access through a coded sign-on procedure that requires a password. In addition:

- Passwords can be changed at the terminal by authorized personnel without requiring a service call.
 - Passwords can also be changed by authorized Lottery personnel via a management terminal/workstation.
 - No passwords are ever displayed, printed, or visible in any manner whatsoever at the terminal.
 - If a terminal exceeds a specified number of sign-on attempts, a suitable message will be logged on the Aurora Transaction Engine, and the terminal will be deactivated.
-

Sales Associate Identification (Key Lock Equivalent)

The Altura Flex sign-on screen requires sales associates to enter their sales associate number and pass number. This is the equivalent to a key lock. The system keeps track of all draw-based game sales, validations, and cancellations by individual sales associates, if desired.

In addition to meeting these requirements, our solution provides several additional sign-on security protections, as follows:

- If a terminal exceeds a specified number of sign-on attempts, a suitable message is logged on the Aurora Transaction Engine, and the terminal is deactivated.
- We employ a “dual sign-on” approach. Before a financial transaction can be entered at the terminal, both the terminal and the Aurora Transaction Engine must agree that the terminal is signed on.
- All sign-on attempts, both valid and invalid, are recorded in the System Log.

Assigning Privilege Levels

With Clerk Privileges and Accounting enabled, individual retailer clerks – and even individual terminals within a store – can be assigned various privileges, such as the ability to access certain financial reports or change a password. The System can also monitor transactions, such as sales transactions, automatically by clerk, allowing for Retailer Shift Accounting. Some clerks, typically store managers, will be able to change other clerks’ passwords, thus controlling who in their store has access to the terminal. The individual retailer or the chain/group for multiple stores will control retailer System access levels and passwords.

Training Mode

Training mode is available, in both stand-alone mode for training rooms and online mode for retail locations. While either terminal is in training mode, the status area of the screen clearly indicates training mode status. Terminals in training mode will not interfere with or access the live system. The screen can also be configured to change to a different background color from the active mode and display the words “Training Mode” across the screen, behind the buttons.

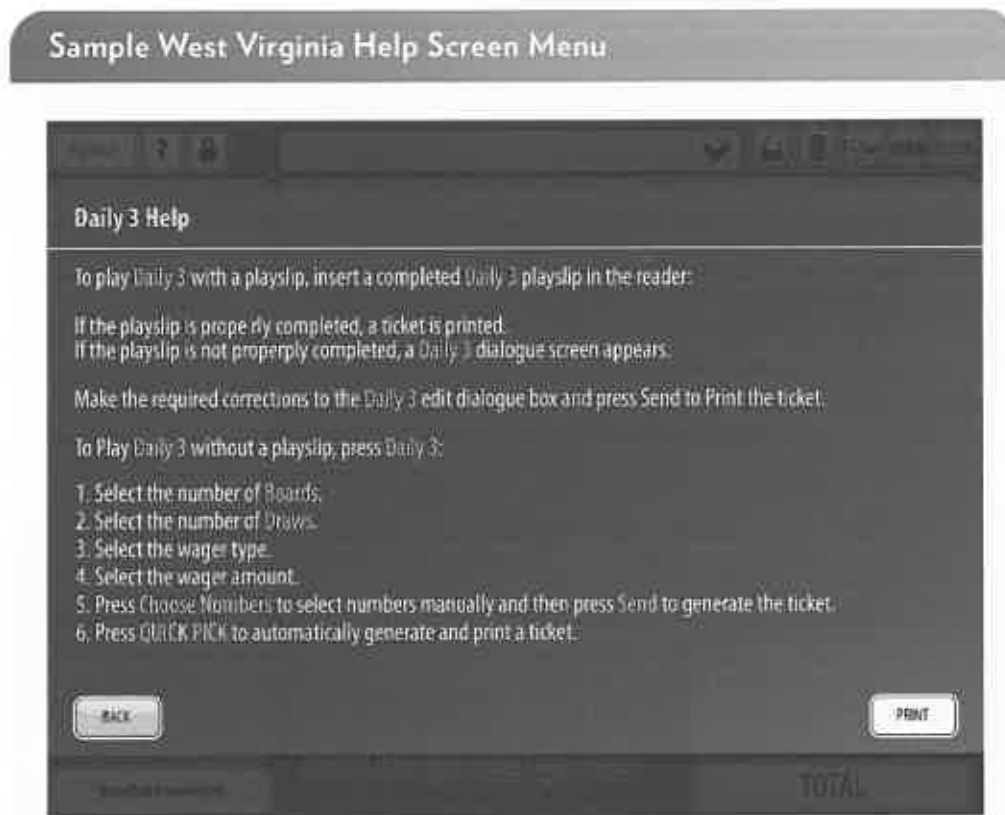
Retailers appreciate the easy access to training mode and that it is always available and updated prior to each new game start. Support stickers with the retailer Hotline number will also be placed on printers or the terminals for the retailers’ convenience should they need to place a call.

Game-Specific Help

Flex terminals combine several technologies to provide an extremely flexible and user-friendly terminal UI. The UI is easy to operate and provides the user with a Help option for every field and function, including instructions on specific games. The terminals also display Help screens that include Frequently Asked Questions and Answers. To obtain instructions on a particular game, a retailer selects that game followed by the Help button at the top of the screen. The button is represented with a question mark.

The following figure depicts the Game Specific Help function:

Figure 4.4 – 34:



Finding Help is Easy: West Virginia retailers will find the UI easy to operate. It includes a great tool to find help and quickly print off an answer.

The Video Clip Feature

The Flex terminal also includes retailer training video clip functionality as an advanced training feature. This feature will show retailers and their staffs how to change paper on each terminal and clear paper jams, etc. Training video clips offer simple, visual reminders of how to perform terminal functions. Like the standard help feature, the online video clips may be displayed to guide novice operators through a transaction, instruct retailers and sales associates how to perform routine maintenance procedures, or offer operational shortcuts for experienced operators.

The help and video clip features are available right on the terminal so that retailers are knowledgeable, comfortable, and confident when selling Lottery products.

4.4.2.1 Optical Reader

The terminal should incorporate a single component or multiple component optical reader that is mechanically and fault tolerant to perform the following functions:

- Read standard barcodes, graphics, pencil, pen, and digitally produced player, retailer, and Vendor materials to support administrative functions;
 - Scan and rapidly process single or continuous multiple play slips and draw game tickets (validation and cancellation) without retailer input;
 - Extend a minimum of 15 feet from the terminal to read various shapes and sized documents at various angles and directions (e.g. ticket packs, paper stock boxes, point-of-sale, dispenser inventory); and
 - Demarcation should be placed on the front of each winning or non-winning draw game ticket for cancellation and validation indicating its "processed" status.
-

Corded Barcode Reader

Each of the Altura Flex retailer terminals will come equipped with a corded external barcode reader. The 2D image-based barcode scanner will provide read rates and codes for the West Virginia Lottery's existing tickets, including industry-standard 1D, 2D and PDF417 barcodes; UPC and serialized, barcoded coupons; and smartphone-displayed barcodes (such as Interleaved 2 of 5, EAN, PDF417, Data Matrix, QR Code, and Aztec). The reader enhances retailer productivity by combining an onboard 2D imager with high-performance scanning features. The scanner can also read barcodes that conform to NASPL standards, accept player loyalty/frequent number media, and extend 15 feet from the terminal.

IGT's retailer research involving our barcode readers revealed a variety of positive feedback on both readers. Many retailers praised the barcode reader for its convenience and efficiency due to its proximity to the terminal. Also, retailer focus group participants liked having the ability to hold and aim the scanner rather than bring a ticket behind the terminal to scan.

Features of the Corded Barcode Reader

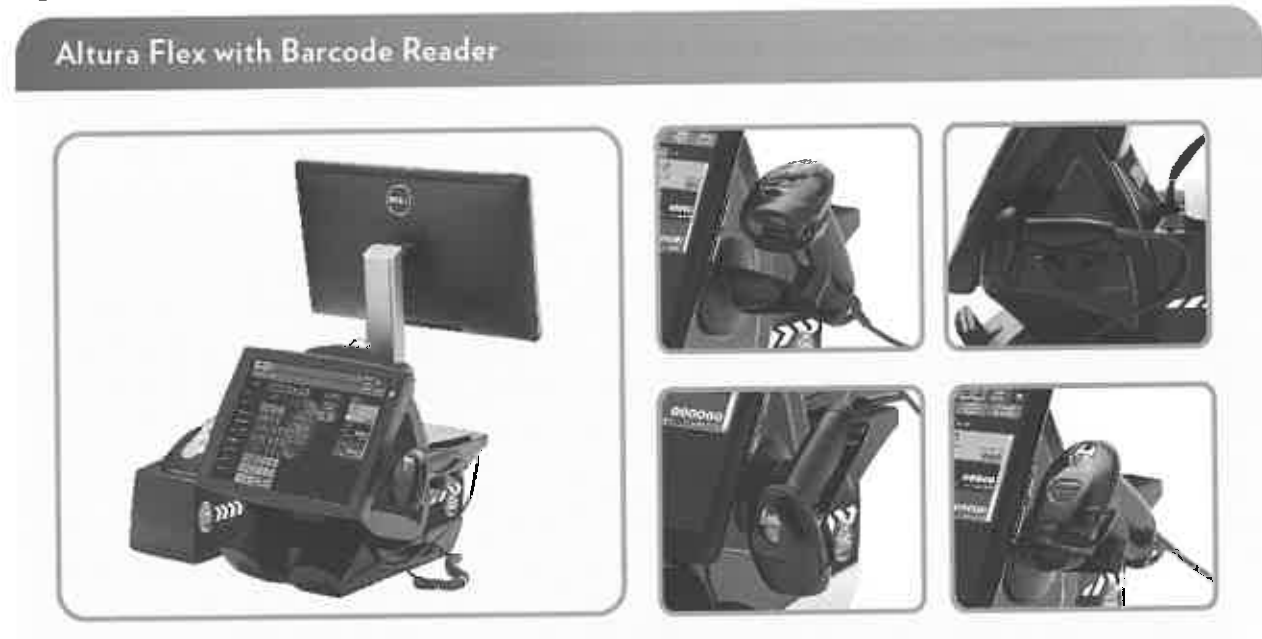
IGT's barcode readers offer an array of advantages to Lottery retailers. Among the reader's features are:

- **Read rate:** Provides a first-read rate of more than 99% when validating or cancelling a ticket.
- **Comprehensive advanced data capture:** Eliminates the need to purchase multiple types of devices to capture 1-D, 2-D, and PDF417 barcodes. The optional hands-free presentation cradle enables additional advanced data-capture capabilities, including signatures and images of documents such as driver's licenses.
- **Superior high-performance scanning on all barcodes:** The revolutionary imager eliminates the performance degradation common in 2-D scanning, delivering laser-like performance on both 1-D and 2-D codes, rapid and accurate capture of even poor quality and damaged barcodes, and full omni-directional scanning, which eliminates the need to precisely align barcode and imager, improves ergonomics, and protects productivity.

- **Superior durability:** Designed to meet best-in-class drop specifications, it has the ability to survive six-foot drops to concrete, ensuring reliable operation in spite of everyday drops and bumps.
- **Lightweight ergonomic design:** Easy-to-hold regardless of hand size, reduces fatigue, and enables all-day scanning comfort to protect productivity in scan-intensive applications.
- **Flexible positioning:** Easy to place in a position that meets the retailer's needs. The barcode holder can also be attached to either side of the Flex.

The following figure depicts the barcode reader:

Figure 4.4 – 35:



MultiPlay

The proposed system will provide the functionality to multiplay a ticket by scanning the ticket into a terminal. A ticket presented at the terminal for multiplay will result in a ticket issued with all of the selections from the original ticket, including the player's numbers, the number of draws, boards, play type, amount played, and Megaplier or Power Play option (if applicable). Multiplay Easy Pick plays will be printed with the same numbers as the original play.

Age Verification

IGT takes preventing underage gambling seriously. We can enable the Flex through our 2D image barcode reader to verify customer age and identification (ID).

The barcode reader(s) offered use an advanced 1D and 2D imager that can read today's barcodes as well as future barcodes. West Virginia driver's licenses contain PDF417 barcodes, which is a standard barcode read by all IGT barcode readers. The Flex is equipped with an age verification functionality that allows it to scan the barcode on the back of a driver's license and parse out the person's age. The algorithm designed to do this only looks at the person's age – it does not store or capture any other personal information, ensuring data privacy is maintained.

Once the license is scanned, the terminal displays a message with the age of the customer. For example, retailers receive the message shown in the following figure:

Figure 4.4 – 36:



Useful Retailer Tool: Retailers can use age verification for Lottery sales.

Demarcation

The internal reader of our terminals is equipped with demarcation functionality. The status of every ticket receipt presented to a retailer for validation is always recorded at the central System. Consequently, even if physical branding is not used, there is always a record of the status of the ticket on the master file.

4.4.2.2

Cash Drawers

Cash drawers for terminals are provided by the Vendor for approximately 1,200 retail locations. Cash drawers interface electronically with the terminal and the cash drawer allows manual locking and unlocking as desired by the retailer.

IGT offers a cash drawer that is ideal for both cash transactions and non-cash transactions.

In terms of cash transactions, the drawer is configured with a five-bill, nine-coin tray that can be removed to access items below it. The tray is constructed with indestructible Acrylonitrile butadiene styrene (ABS) thermoplastic.

For non-cash transactions, the front of the drawer has a slot opening that can be used for checks, coupons, courtesy checks, money orders, and debit card slips. These items can be conveniently deposited without opening the cash drawer by simply sliding them through the front slot.

The cash drawer can be operated manually or electrically (drawer open) based on a command from the Altura Flex terminal. The drawer opening mechanism is highly reliable and has been tested to endure 1,000,000 cycles.

The drawer front is stainless steel and includes an easily accessible locking device on the front panel. The locking device has several positions, including locked (closed), online (opens electrically) and manual open. The cash drawer features a three-position lock for maximum cash security. All drawers will be provided with two keys.

The dimensions of the cash drawer are:

- Width: 16.5".
- Length: 16.5".
- Height: 3.6".

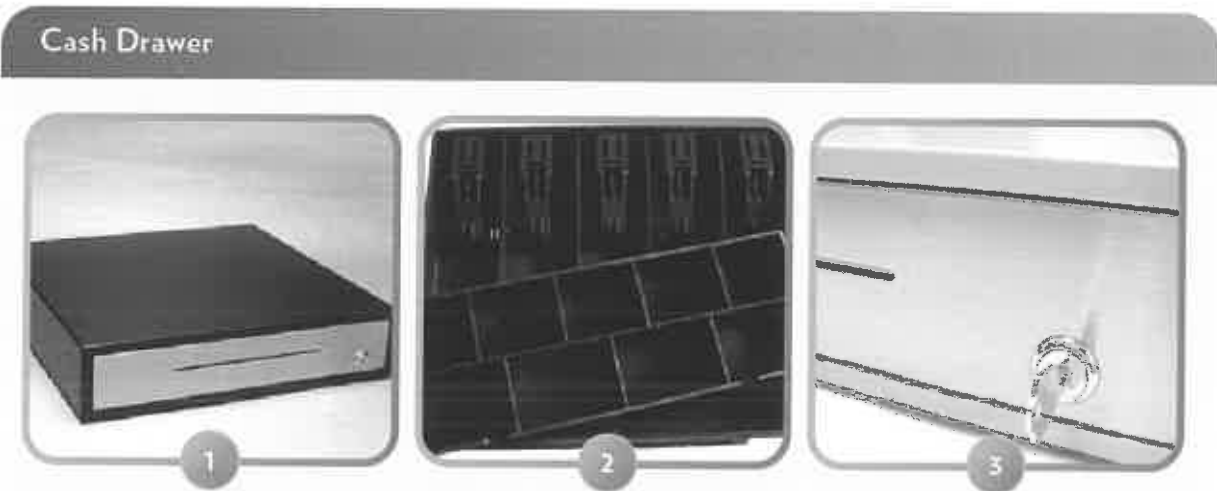
This size drawer makes it convenient to position the Altura Flex terminal on top of it without impacting the retailer counter space.

The following figures depict the Altura Flex cash drawer:

Figure 4.4 – 37:



Figure 4.4 – 38:



4.4.3

Wireless Terminal Devices

The Vendor should describe unit specifications, installation, maintenance, and replacement of wireless (e.g. mobile/portable) terminals. Mobile/portable terminals are to be compact, easily moved, and fully functioning for promotions and events. The Vendor should provide mobile terminals that are capable of operating from a temporary location or promotional event. All wireless terminal devices will be fully functioning at startup.

TC55 Handheld Lottery Terminal

For special events, promotions, or scenarios in which standard lottery retail terminals are not convenient, lotteries need a reliable, remotely accessible device to get the job done. While personal smartphones, tablets, and laptops may be attractive and easy to use, they don't have the durability or functionality necessary for mobile lottery use.

The pocket-sized, all-touch TC55 Mobile Handheld Terminal (MHT) has it all. The color screen capitalizes on the latest technological advancements, aesthetic appeal, and usability of popular personal devices. Unlike its consumer-grade counterparts, it has integrated, advanced data-capture capabilities, including an integrated 1D/2D scanner and an 8-megapixel camera for high-resolution photos and documents with proprietary software, making events staff more efficient. The TC55 supports Easy Pick and manual entry of player numbers, ensures the West Virginia Lottery will be able to read all current barcodes on both draw-based and instant tickets, and future-proofs the Lottery for any new barcodes it may use in the future.

IGT proposes the TC55 Mobile Handheld Terminal to the Lottery. The handheld terminal is designed as a single-purpose solution for support of lottery applications only. The handheld terminal will consist of two discrete devices, both provided as third-party, enterprise-class devices. The battery-driven Motorola TC55 will act as the terminal device, and the Zebra Technologies iMZ320 will act as the battery-driven Bluetooth printer. Combined with IGT's new terminal software architecture, the Lottery will have access to a portable, best-in-class handheld terminal solution.

The TC55 terminal is currently live in Washington, Tennessee, and Belgium and pending deployment in New York.

The following figure depicts the Motorola TC55 and the iMZ320:

Figure 4.4 – 39:



Type of Screen and Maximum Display Resolution

The TC55 is equipped with a 4.3" hyper amorphous silicon (HAST) color LCD with 480 x 800 WVGA resolution. The Projected Capacitive (PCAP) touch sensor is bonded to Gorilla Glass® 2 cover glass.

Screen Dimensions

The terminal screen's active area is 2.2" horizontal x 3.6" vertical with a diagonal active area of 4.1".

Backlighting and Brightness

The transfective screen of the TC55 comes with a thin film transistor (TFT) and is capable of displaying light as bright as 700 NITs, or 700 candela/meters squared (cd/m2).

iMZ320 Printer

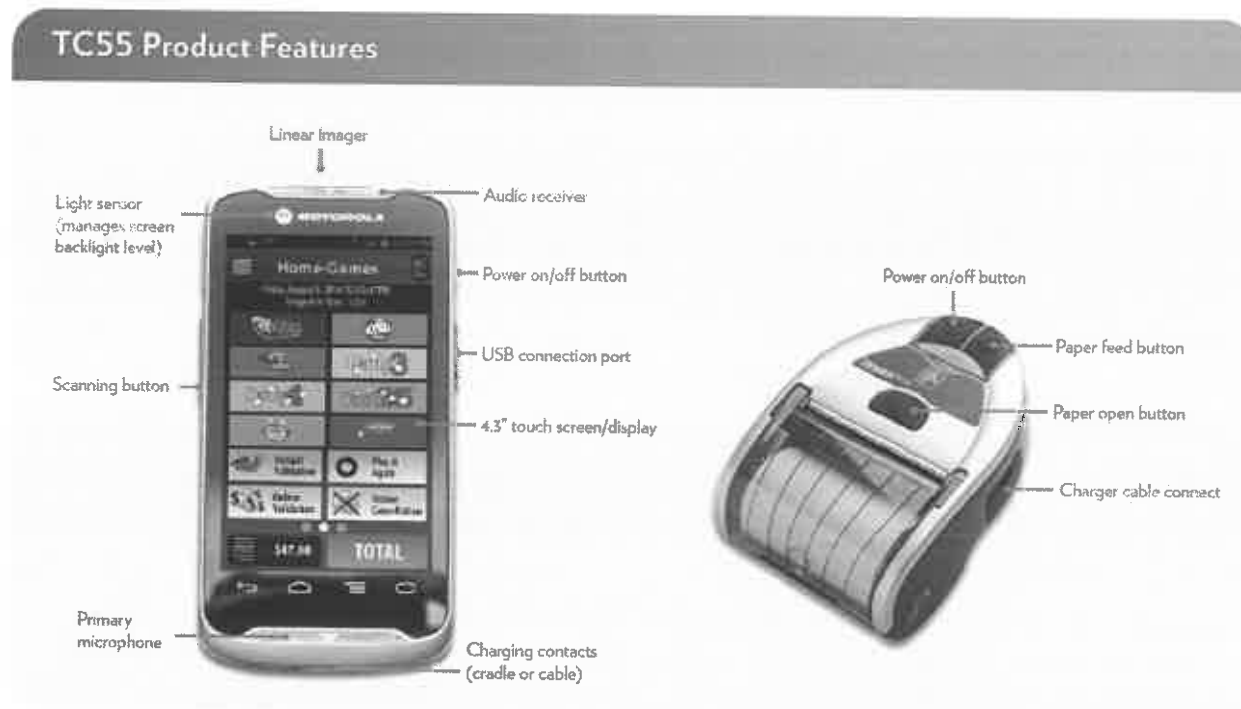
The printer accompanying the Mobile Handheld TC55 terminal is the battery-driven Zebra iMZ320. This printer is ideal for mobile lottery receipt printing applications. At three quarters of a pound, this lightweight printer can be worn comfortably via belt clip or shoulder strap for unobtrusive and convenient printing. The printer is simple to operate, with a single push-button for media access, making paper reloading quick and easy. It's equipped with intuitive Light-Emitting Diodes (LEDs) indicating on/off, error, and connectivity statuses. The iMZ320 comes standard with Bluetooth connectivity to the mobile TC55 terminal. The printer supports user-defined fonts and graphics, including custom logos. Its memory includes 128 MB Flash (16 MB user available) and supports downloadable programs, receipt formats, fonts, and graphics.

The Zebra iMZ320 supports the following barcode symbologies:

- Linear Barcodes:
 - Codabar (NW-7).
 - Code 39.
 - Code 93.
 - Code 128.
 - EAN-8.
 - EAN-135.
 - 2 and 5 digit add-on.
 - Interleaved 2-of-5.
 - UCC/EAN 128.
 - UPC-A.
 - UPC-E.
 - 2 and 5 digit add-on.
- 2D Barcodes:
 - Aztec Code.
 - Data Matrix.
 - GS1/DataBar™ (RSS) family.
 - MaxiCode.
 - MicroPDF417.
 - PDF417.
 - QR Code.
 - TLC 39.

The following figure depicts product highlights of the TC55 and iMZ320:

Figure 4.4 – 40:



4.4.4 Self-Service Terminals ("SSTs")

The Vendor should describe the unit specifications, installation, maintenance, and replacement for proposed SSTs. Vendor should detail accepted payment methods (e.g. cash and non-cash purchases), instant and draw game ticket dispensing, ticket validation and self-check, credit issuance for winnings, integrated customer display solutions, and inventory and reporting capabilities.

The SSTs are to meet the following specification requirements or offer alternatives of equal or greater value. Vendor should describe any alternatives proposed in response.

- Designed to handle both instant and draw game transactions;
- Scalable with capacity to handle 12 to 24 separate instant games four inches in width and ranging in size from two to twelve inches in length;
- Ticket price and dimension information should be easy for the retailer to change on a bin by bin basis;
- Audible alerts and notices to inform store management of unauthorized entry into the machine, empty bins, jams, sales transactions, bill acceptor failures, and any other failures with a remote disable function for retailers to prevent unauthorized use (i.e. if a minor is about to use the machine);
- Machines should have an automatic shutdown feature to prevent transactions when insufficient tickets are available for sale;
- Currency acceptor must be capable of accepting USD currency both new design and older design \$1, \$5, \$10, \$20, and \$50 U.S. bills;
- Display the amount of available credit (e.g. validated tickets, cash in, gift card balance, player's card balance, and coupon redemption) to the customer. Vouchers are printed for remaining change and remaining balance during any malfunction;
- Designed with a mechanism to display variable messages and advertisements approved by the Lottery; and

- Any memory expansion should be provided by the Vendor at no additional cost to the Lottery. Additional memory should be available, installed, and configured within 180 days of the Lottery's request. The terminal memory cannot be destroyed, modified or lost for a minimum period of 72 hours from the occurrence of any loss or interruption of power. If a power failure occurs, the SST prints the date and time of the failure along with sales and inventory levels at the time of the failure.
-

The 24-Bin Gemini Touch Ticket Vending Machine

The evolution of personal electronics such as smartphones and tablets has opened up a whole new world for self-service product innovation, particularly as it relates to consumer acceptance and use of touch screen technology. As touch screen interfaces have become more ubiquitous and familiar, their migration to vending has been a natural progression.

Self-service purchase of lottery products now includes an element of entertainment. It is a total player experience heightened by the level of creativity that is now possible using touch screen technology.

With the Gemini Touch self-service terminal (SST), the West Virginia Lottery can more readily showcase its brand using customizable attract screens, sell up to 24 instant ticket scratch-off games, and sell six or more draw-based games all in one place.

Multimedia content is now integrated directly in the UI, providing a more immersive user experience. The use of animations, which calls attention to new games and the number of tickets left, adds another layer of excitement for the player.

The Gemini Touch contains a host of features, including real-time reporting capabilities, reinvestment, Pick Your Own Numbers, instant ticket scratch-off game pack management, audible alarms, remote control, and more.

IGT has maintained a strong focus on self-service, leading the lottery industry in self-service solutions for more than two decades. Players and retailers are attracted to self-service – the former for the speed and convenience, the latter because it frees up their workload and enhances sales opportunities. Our ongoing investment in self-service technology has kept us at the forefront of consumer trends with an array of solutions designed specifically to help customers increase sales.

Our self-service terminals make the lottery experience simple and easy for players, retailers, and Lottery personnel. For players, the units are attractive, easy to use, convenient, and fast, offering a large selection of games in a consistent and efficient manner. West Virginia retailers and the Lottery benefit as well:

Value to the West Virginia Lottery Retailer

- **Increased Sales:** Retailers can optimize store resources (improved efficiency/costs) while achieving incremental Lottery-category sales growth.
- **Reduced Waiting Lines:** Increased Lottery sales no longer means extra work for retailers and longer lines for customers, especially at high-jackpot times.
- **Peace of Mind:** Tickets and cash are locked up and accounted for at all times. End-of-day ticket accounting and cash receipt reconciliation has never been easier.

Value to the West Virginia Lottery

- **New Distribution Channels:** Opens new retail venues and corporate accounts for the Lottery.
- **Attracts New, Younger Players:** Self-service is more attractive to younger players who prefer anonymous play, privacy and the ability to create their own lottery sales experience.
- **Promotes Lottery Brand:** Outstanding merchandising capability via the attract screen ensures immediate recognition of the Lottery brand to both new and existing players.
- **Increased Profits:** Proven to drive incremental lottery sales and profits, its reliability and uptime ensure maximum selling ability.
- **Player Awareness:** Customized multimedia displays allow the Lottery to reach more players at the PoP and optimize its advertising budget.

There are 1,450 Gemini Touch SSTs currently deployed in Washington State. Early statistics collected since the conversion reveal an immediate impact on instant ticket scratch-off and draw-based game sales. During a five-month period in 2016, average weekly instant ticket scratch-off game sales rose 7.5% (based on settlements) compared to the same period from the previous year, and draw-based ticket sales rose 23.6%.

The Gemini touch is currently deployed in Washington State and scheduled for deployment in Florida, North Carolina, Virginia, and Missouri in 2017. The Gemini Touch has also been piloted in Rhode Island and Tennessee.

Features of the Gemini Touch

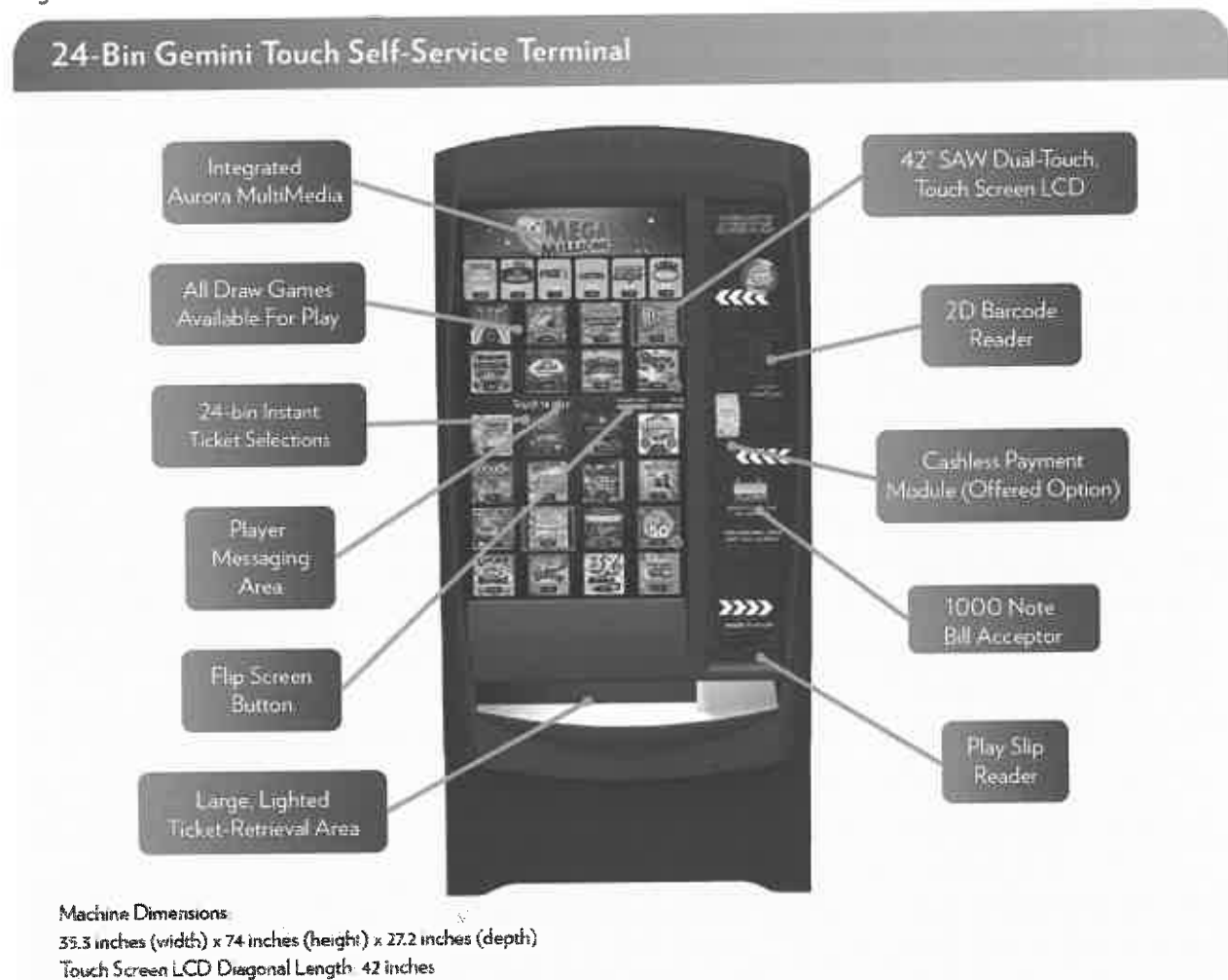
The Gemini Touch provides the following features:

- A contemporary industrial design.
- Intelligent Quad Bursters.
- A 42-inch SAW dual-touch touch screen with 500 nit LCD.
- An integrated Aurora MultiMedia digital advertising and messaging screen capable of housing promotional videos.
- A 1,000-note bill acceptor (optionally upgradable to a 2,000 note bill acceptor).
- A full complement of draw-based games.
- A new and improved 2D barcode reader capable of identifying winning tickets, non-winning tickets, or if a prize should be claimed at the Lottery.
- Reinvestment.
- Pick Your Own Numbers.
- Age verification.
- An integrated player messaging area.
- Audio capability.
- Independent bin pricing.
- A robust cabinet design using high-quality materials.

- An easy-to-use main door latching mechanism.
- A large, lighted ticket-retrieval area.
- A play slip reader.
- A lottery-grade thermal printer.
- Internal color touch screen display to support Retailer Management and Field Services Technicians (FST) functions with a new icon-based UI.
- Cashless payment module (Optional).

The following figure depicts several features of the Gemini Touch:

Figure 4.4 – 41:



Enhanced Functionality: The Gemini Touch's sleek, simple design makes playing as easy as pushing a button.

Figure 4.4 – 42:

Altura Flex Features and Benefits	
Feature	Benefit to the West Virginia Lottery
Modern, contemporary design available in 24- and 28-bin configurations	<ul style="list-style-type: none"> • Continues as the industry standard for style and player appeal • Attractive to new players • Greater visual appeal • Unique concave door designed to draw players in and give them privacy when playing
Flexible touch screen UI: <ul style="list-style-type: none"> • High-definition SAW dual-touch touch screen LCD • Customizable attract screens and animations • Game information screens 	<ul style="list-style-type: none"> • Engaging user experience and strong call to play • Increased brand identity • Immediate draw-based game recognition • Flexible number of draw-based games • Expansion options for same-store sales growth • Rapid response to lottery market demands • UI changes are made digitally, allowing for easy updates • Match games to various POS trade styles or to an individual retailer's sales capability
Real-time reporting	<ul style="list-style-type: none"> • Up-to-date, timely, actionable data • Reduced machine downtime and out-of-stocks
Consumable delivery screen	<ul style="list-style-type: none"> • Confirm and log the delivery of consumables and update the retailer's complete consumable inventory
ADA considerations	<ul style="list-style-type: none"> • Accessible areas within 15-48 inches above floor • Flip the screen button, which allows games displayed in the upper rows to be rotated to the bottom
Bill acceptor downloads from the central system	<ul style="list-style-type: none"> • Reduced downtime • Rapid updates of new currency notes
Integrated Aurora MultiMedia display in main user interface	<ul style="list-style-type: none"> • Great modern look that players prefer • Player awareness and Lottery promotion tool
New, icon-based internal management touch screen interface allowing retailers and FSTs to perform specialized functions when the main door is open	<ul style="list-style-type: none"> • Diagnostics • Reports • Inventory management • Terminal configuration
Play slip reader (allow 4.5 inches slip width)	<ul style="list-style-type: none"> • Allows for playing any available Lottery game • Supports favorite numbers play
2D barcode reader	<ul style="list-style-type: none"> • Allows ticket checking, ticket validation • Reads driver's licenses for age verification • Facilitates player/loyalty card use
Cashless payment module (Optional)	<ul style="list-style-type: none"> • Allows for accepting debit cards • Near Field Communications (NFC) solutions such as Apple Pay and Google Wallet

Feature	Benefit to the West Virginia Lottery
Front-mounted main door lock and improved latching mechanism	<ul style="list-style-type: none"> • Easy lock access • One-handed latch operation – easy for operators to open • Fits into narrower openings
Large, lighted ticket-retrieval area	<ul style="list-style-type: none"> • All tickets and vouchers fall in the same area • Easier to retrieve tickets in darker locations
Separately locked storage, cash box enclosure, electronics, and instant ticket scratch-off game draw areas	<ul style="list-style-type: none"> • Retailer convenience, safety, and security

Additional information regarding this section is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant financial harm to IGT and its shareholders.

Memory Expansion of the Gemini Touch

Any memory expansion will be provided by IGT at no additional cost to the Lottery. Additional memory will be available, installed, and configured within 180 days of the Lottery's request. The terminal memory cannot be destroyed, modified, or lost for a minimum period of 72 hours from the occurrence of any loss or interruption of power. If a power failure occurs, the SST prints the date and time of the failure along with sales and inventory levels at the time of the failure.

As an additional memory feature, players using the Gemini Touch will be able to use all of their credits at the terminal. When a bin is sold out before a transaction is completed, or if there is a power failure, the vending machine will indicate the remaining credits available for play, hold the credit for players, and allow players to use the credit for another game, until the bin has been reloaded or power restored.

User Interface – The Heart of the Gemini Touch

Our offering is a precise blend of aesthetics, practicality, and technology – an attractive solution to increase sales, geared toward capturing the younger player demographic by incorporating greater interaction with the machine using a customized UI. The Gemini Touch's intuitive UI is an example of IGT's evolution in thought leadership.

Beginning with the first Gemini Ultra, IGT's widely distributed SST, and with the goal of achieving an aesthetic departure from our legacy self-service products, Instants To Go® (EDSQ), the instant ticket scratch-off game SST, and Lottery To Go® (Gamepoint), we enlisted a group of students from the Rhode Island School of Design to consult on the design of that device's UI. IGT has leveraged the knowledge gained from this experience and advanced it even further in its design of the Gemini Touch with a strong emphasis on user experience design.

User experience design is a field that involves the understanding of a person's behaviors, attitudes, and emotions as they relate to using a certain product. The Gemini Touch's UI was designed at IGT by individuals who are certified in user experience design. They are adept at the science behind consumer interaction and have leveraged that knowledge to innovate the user experience. IGT is currently pursuing patents on several of the Gemini Touch's innovative UI components.

The touch screen interface offers the same simplicity and intuitive play as that of an SST with traditional push-buttons, yet it leverages the flexibility that a touch screen offers. While it opens the door to many creative possibilities, the touch screen interface for vending is a new concept for our players that required extensive research.

Working to Create an Unprecedented Touch Screen UI

Our Gemini Touch solution has relied heavily on the results of extensive focus group studies to provide significantly more science, creativity, and precision in the development of the UI to provide best-in-class player experiences. The research that was conducted has provided the next level of player experience to cultivate greater interaction with the machine.

IGT has taken the feedback gleaned from numerous focus groups and incorporated it into the Gemini Touch UI design. The valuable input received relative to the UI main screen background color and layout, use of animations, attract screen concepts, as well as purchase path scenarios has provided us with a high level of confidence in our UI design. Participants in our focus groups underscore how easy it is to operate the Gemini Touch, noting that even older lottery players won't encounter a learning curve. Also, the intuitive feel is consistently noted throughout our research, underscoring the quality of the UI.

During the course of our product research, focus group participants underscored the Gemini Touch's attention-grabbing appearance and the inherent benefits it offers to retailers battling long customer lines at the counter. Also, the appealing graphics and interactive UI are especially attractive to retailers. Participants note how the Gemini Touch looks and feels cutting-edge and won't be difficult to learn how to use, which will attract and create new Lottery players.

Retailer Focus Group Feedback on Gemini Touch

"The Lottery causes lines and it would eliminate the lines at the register. It's like having an extra cashier without hiring anyone."

"It draws attention, it's self-promoting, and it monitors the age of players."

"This would catch people's eyes."

Interactive and Inviting Appearance

The Gemini Touch's modern design is inviting, engaging, and interactive. The UI provides colorful graphics and animation, keeping the player engaged within a dynamic and intuitive play environment. Its attract screen feature will allow the Lottery to showcase its brand, promote new games, and display jackpot information. It will provide you with a blank, yet potentially dynamic, canvas that will allow you to personalize the machines and amplify their presence in the unique West Virginia market.

Integrated MultiMedia Content

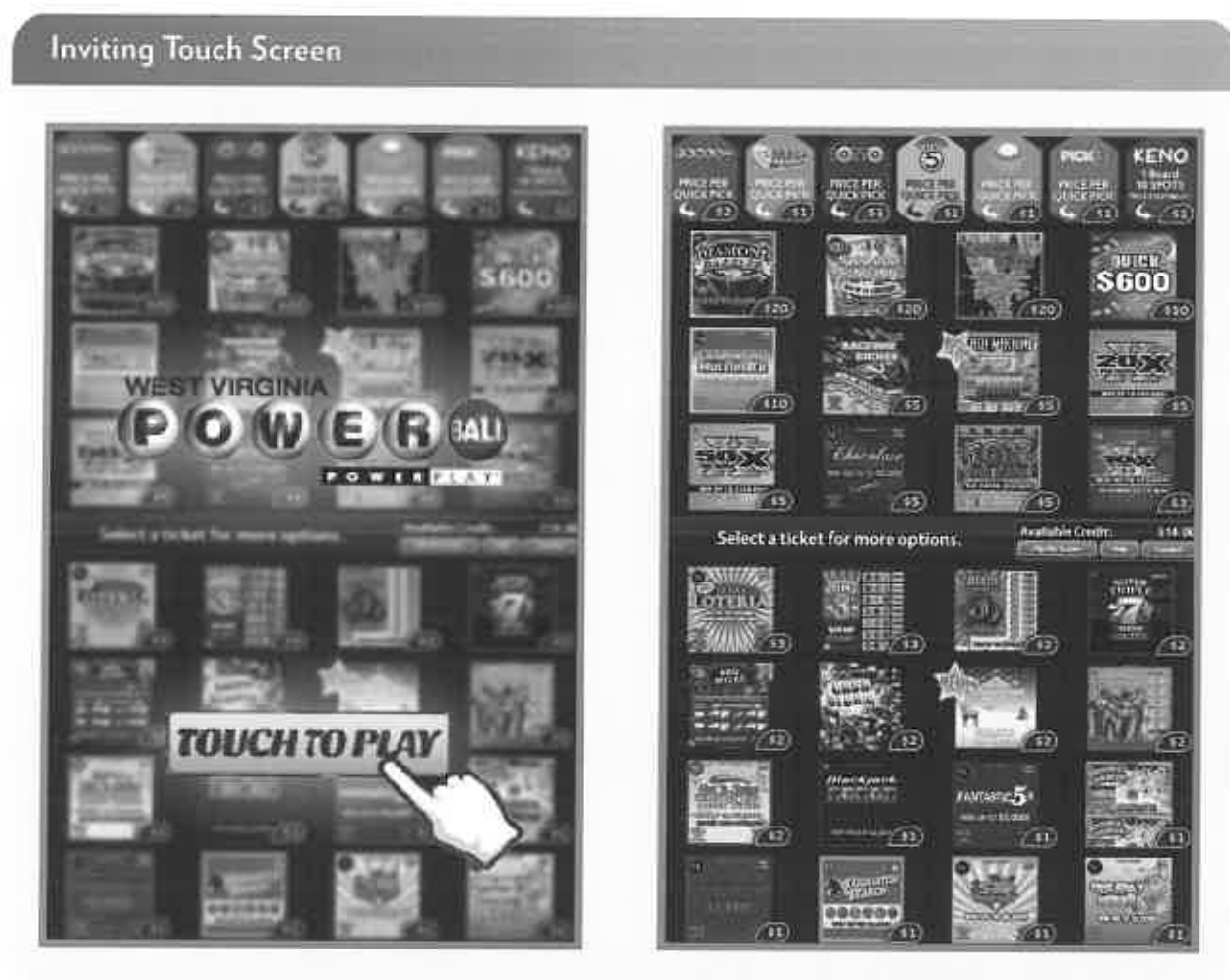
The main player screen of the Gemini Touch features IGT's Aurora MultiMedia advertising integrated into the top section of the main UI. When combined with the Aurora MultiMedia Content Toolkit, the Lottery can deliver, manage, and display multimedia marketing content at the Gemini Touch. Below the Aurora MultiMedia show area are the high-resolution draw-based games as well as instant ticket scratch-off game selections. Bright and vibrant, the games are readily identifiable to players.

Animation Adds to the Player Experience

Animation adds another dimension to the player experience. For example, it lets the player know how many tickets are left for a particular game and which games are new. These types of details appeal to players, especially those who bring a bit of superstition to their play. Animations are downloadable as multimedia content and do not require the involvement of an FST.

The following figure shows an attract screen on the left and a main player screen on the right:

Figure 4.4 – 43:

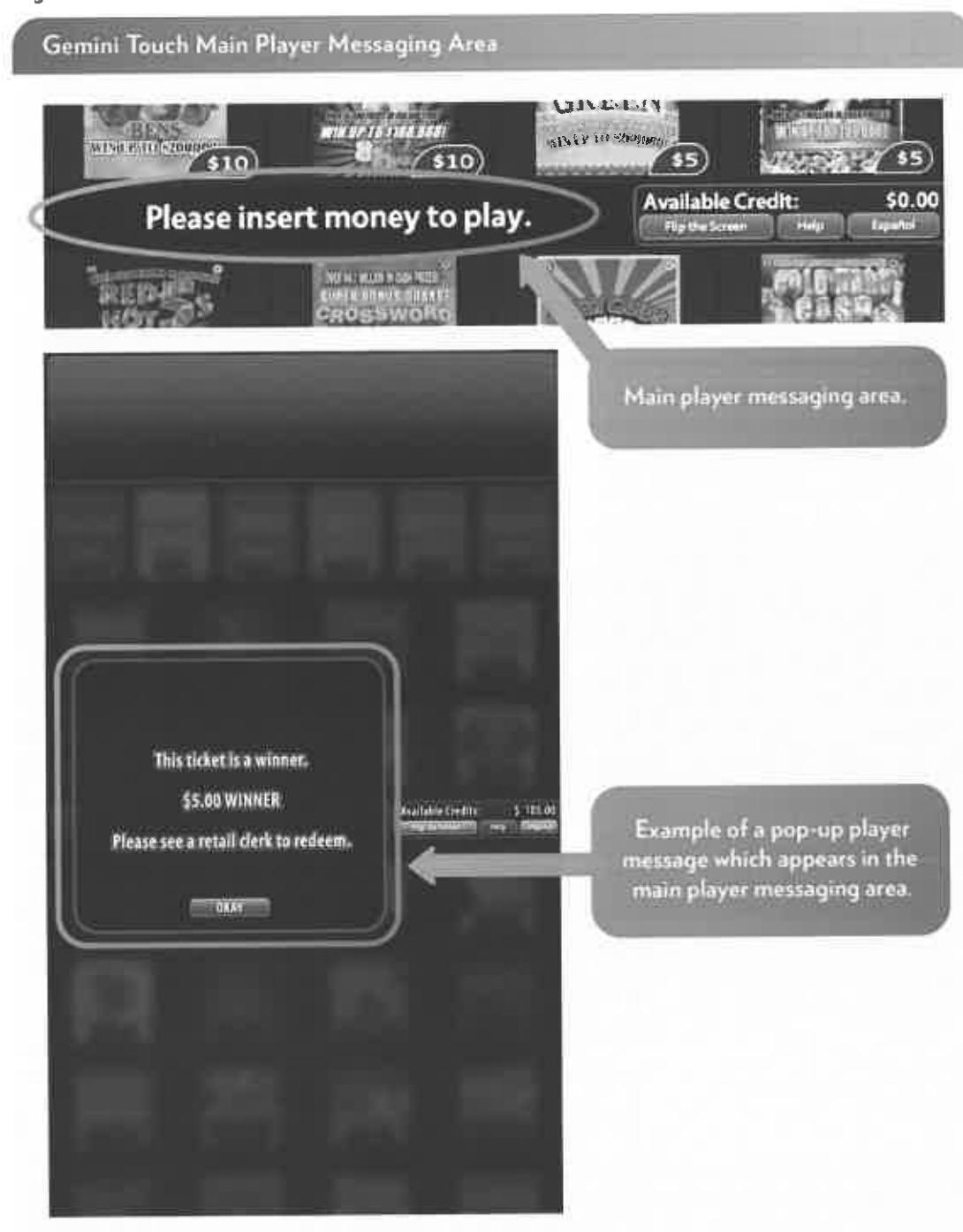


Appealing to the Player: The large draw-based game selection buttons on the Gemini Touch machines are located at eye level to attract new players and help current players immediately recognize their favorite draw-based games.

Player Messaging

The Gemini Touch provides intuitive, interactive player messaging. The touch screen allows greater flexibility in terms of player messaging within the main UI because the size of the touch screen is no longer a constraint. In the center of the UI is the main player messaging area which is readily identifiable and informative. Here, the player can see a display of credits, access help, and flip the screen should there be an accessibility need. In addition, instructional, status, and error messages are displayed. The Gemini Touch also makes use of pop-ups within the UI to show detailed instructions, messages, and prompts.

Figure 4.4 – 44:



Simple and Reliable Ticket Dispensing

Upgraded Burster Technology

To ensure that our customers always receive the best machines available, we constantly work to enhance our self-service products. Several improvements to the burster design have been made through the years. IGT's upgraded Quad Burster mechanism provides an even smoother, jam-resistant ticket separation and dispensing action. It is the only proven technology for clean and reliable separation of individual tickets. IGT's SSTs have successfully dispensed instant ticket scratch-off game tickets printed by every ticket printer in the industry, indicating the great flexibility of our terminals in terms of ticket specifications.

Additional information regarding this section is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant financial harm to IGT and its shareholders.

Ticket Checker: Easy and Accurate Ticket Checking

The SST allows players to scan the barcodes on their tickets using the 2D barcode reader to see if they have won. Results are displayed in the player messaging area including the amount of credit available to players.

Players are presented with a win or non-win message. If the message on the display identifies that they are winners, players are given the option to reinvest winnings by applying the associated credits to the machine to continue playing their favorite games. They can also see the retailer to claim their winnings or visit Lottery headquarters.

The Gemini Touch will display the amount of available credit to the customers.

Adding or Changing Draw-Based and Instant Ticket Scratch-off Games

Adding a new draw-based game to the Gemini Touch, one that is currently not in the Lottery's draw-based game portfolio, is accomplished at the host level through an application change that is downloaded to the machine. With a digital UI, there is no need to visit every location and change buttons on the machine, greatly enhancing speed to market.

All new instant ticket scratch-off game assets (graphics) in the Lottery's portfolio are downloaded to the Gemini Touch and stored, making game changing quick and easy. New game inventory is loaded into a bin using the barcode reader to scan the game ID on the instant ticket pack. Scanning the game ID ensures that the correct game parameters, such as ticket dimension and price, are automatically stored. The appropriate game image is then displayed on the screen.

Terminal Capacity

The Gemini Touch is scalable, with the capacity to handle 12 to 24 separate instant ticket scratch-off games up to four inches in width and ranging in size from two to 12 inches in length.

Bin Level Inventory Management

The Ticket Inventory report provides ticket inventory by bin and shows the value and quantity of tickets presently in the machine as well as the game number. The software lowers the inventory count each time a ticket is dispensed so that the report reflects the most recent inventory reading. The report also displays the total number of tickets in the machine and their total value.

Credit Issuance for Winnings (Vouchers)

The Gemini Touch has the ability to cash winning tickets. Players will have the option to use some or all of their winnings for new lottery purchases. Players will also have the ability to “cash out” and produce a voucher for unused winnings. The voucher will contain a serialized barcode, which is recorded on the central system. The voucher will be able to be read by all vending machines as currency, using the 2D BCR. When presented with a voucher, the retailer will cash the voucher by scanning the barcode via the terminal. The central system will mark the voucher as paid and return the value of the voucher to the retailer. Any subsequent attempts to cash the voucher will result in an “Already Paid” message appearing on the retailer screen. Just like with winning ticket validations, the retailer will receive a credit on the weekly invoice report for all cashed vouchers.

Gemini: Reporting and Accounting Functions

The Gemini Touch contains software that accurately accounts for ticket sales and current inventory. The reporting software of the Gemini device was developed specifically to provide retailers with the sales and inventory information they need to make business decisions about which games to keep in stock and when to refill the machine. With the connection to the central System, this reporting software will also allow the Lottery to analyze its SSTs and make sure they are in stores that will make the most impact. When used in tandem with the machine’s cash log, the software ensures the accuracy of ticket sales and inventory, thus avoiding fraud and making accounting simple for the retailer.

Lottery End User Reports

The Gemini Touch’s comprehensive reporting package includes machine-generated reports and your gaming systems’ business intelligence reporting, both of which are supported by IGT’s Aurora data and applications. Machine-generated reports will be readily accessible in real time directly from the Gemini and through Aurora Retailer Management; these reports are the same ones (sales, inventory, financial, and invoice reports) that a retailer can print from the machine.

Gemini Touch’s transactional and operational data and other related information can be analyzed and reviewed in-depth in near-real time or across time from our central Aurora Performance Intel reporting solution. Aurora Performance Intel provides meaningful and actionable reports right at the desktop for end users including business analysts, retail account managers, and other lottery operations personnel.

Additional information regarding this section is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant financial harm to IGT and its shareholders.

Reports Available for the Gemini Touch SST

To ensure that West Virginia retailers and Lottery employees have all of the information they need to assess their SST equipment, the Gemini Touch provides a variety of reports, including online reports and local machine reports.

Gemini Touch SST Online Reports

Online reports for a single Gemini Touch are generated by the Aurora Transaction Engine and available on the terminal when it is connected to the Aurora Transaction Engine:

- **Online Reports:**
 - Online Summary Report.
 - Invoice Report.
- **Instant Financial Reports:**
 - Cashing Summary.
 - Pack Commission.
 - Commission Invoice.
- **Instant Inventory Reports:**
 - Summary Inventory.
 - Detailed Inventory.
 - Billing Summary.
 - Billing Detail.
 - Pack Status.
 - Settled Pack Report – Current Week.
 - Settled Pack Report – Previous Week.

Gemini Touch SST Local Reports

Local reports are generated in the Gemini Touch software application and reside on the SST.

Sales Reports

Sales reports include draw-based game and instant ticket scratch-off game sales on the same report. Options for reporting sales are configurable based on site-specific requirements. Options include the following:

- By bin.
- By game.
- By bin and by game.

Sales reports can be specified for a given time period.

Inventory Reports

Inventory reports provide ticket inventory by bin and show the value and quantity of tickets presently in the machine, as well as the game numbers. The software lowers the inventory count each time a ticket is dispensed so that the report reflects the most recent inventory reading. The report also displays the total number of tickets in the machine and their total value. The report configuration is machine-specific.

Shift Report

The shift report details all transactions that took place during the current shift. The report period is from the last time a report was printed. For example, if the user prints a shift report at 9:00 a.m., and another one at 5:00 p.m., the second report will include only sales for that eight-hour period. Sales are also defined by game/bin, with a total for all tickets sold during the reporting period. Report times are configurable at the device level. This means that the FST can configure the shift times to start and end at different times, if desired. The Gemini Touch is capable of automatically printing the current day's sales report for both draw-based and instant ticket scratch-off game sales at predetermined times as designated by the retailer.

Status

The status report shows the status of bins ("in service," "door is open," "bin inventory is low," etc.) on a single Gemini Touch SST, and status is shown for each individual bin.

Security Log

The Security Log lists all events that have been identified to be included in the Security Log. The reportable events can be set up at the time of implementation. This particular report is a daily report and can be accessed any time the Gemini Touch is signed on.

Audit Trail Report

The Audit Trail Report details the transactions that take place on the Gemini Touch and includes all of the events that affect credits during the process of transitioning from cash amount to zero. Details are reported for the last transactions. By default, three transactions/sessions will be reported.

Gemini Touch Age Verification

IGT understands the Lottery's commitment to responsible gaming and the prevention of underage play. The Gemini Touch includes a 2D BCR that can be used to accurately validate a player's age by scanning the barcode on a U.S. driver's license or similar government-issued ID. In addition to the technology controls used to support age verification, IGT will incorporate its two best practice guidelines in its solutions to prohibit lottery sales to people who are not of legal age.

These best practices are:

- Bright and clear graphics labeling that identify the mandatory age requirement to play.
- Display messaging on the touch screen to reinforce age requirements.

Remote Control

The Gemini Touch includes IGT's remote control feature. With this feature, retailers can discreetly, quickly, and easily disable and enable the Gemini Touch remotely. (Please note that, once disabled, the machine must be enabled for the reader to be reactivated.) This feature allows retailers to monitor the device and stop underage players from using the machine – an added security feature for retailers and a great benefit to the Lottery.

The remote transmitters use Radio Frequency (RF) signals and are not significantly impeded by any line-of-sight obstructions. Additional features of the remote control include the following:

- The retailer-activated transmitter does not require careful aiming at the Gemini Touch.
- It operates at 433MHz.
- More than 68 billion codes are possible.
- It includes a sleek case with a flashing LED indicator.
- The remote transmitter includes a 12-Volt Direct Current (VDC) battery and keychain.

The age-verification feature can be enabled or disabled using the configuration screen:

Figure 4.4 – 45:



RF Transmitter: IGT's remote control transmitter allows retailers to enforce age requirements related to the use of SSTs, helping the Lottery continue its support for responsible gaming.

Security and Reliability

Construction

The Gemini Touch SST is built to be secure and durable. The cabinet is constructed of 14-gauge steel and weighs approximately 812 pounds to keep the device secure in the POS environment. The Gemini Touch contains mounting holes in the cabinet base to allow the machine to be secured to the floor. These enhancements will help keep the machine secure in any retail environment.

The Gemini Touch's touch screen uses a flat profile SAW technology designed specifically for high-use applications. The construction is made of pure glass, which delivers the highest level of image quality and light transmission while maintaining color purity. A pure glass touch screen surface also provides unsurpassable durability, as there are no known modes of wear. There are no layers, coatings, or moving parts. The touch screen provides for stable, drift-free operation for a touch response that is on target. Operationally tested to 50 million touches in one location without failure using a stylus, the Lottery can be assured that the Gemini Touch's touch screen will stand the test of time and usage, giving the Lottery the reliability it expects in a high-performance vending solution.

Security Features – Locks, Sensors, and Alarms

The Gemini Touch offers the following security locks:

- Bill acceptor access door – separately keyed.
- Main door – separately keyed.

The following sensors and alarms are also available on the Gemini Touch:

- Main door sensor.
- Side door sensor.
- Bill acceptor door sensor.
- Tilt sensor.
- Audible security alarm (password is required to access service menus and to disable alarm).
- Circuitry to monitor power loss and allow terminal to store status and enter orderly shutdown.

Audible Alarm

The Gemini Touch will emit an audible alarm that alerts the retailer of input errors, such as wrong passcode, communication malfunctions, and when the terminal enters sign-on mode. This alarm is a software-dependent function.

Gemini Touch Audible Alarm

As an additional security feature for retailers' peace of mind, the Gemini Touch is equipped with an audible alarm system for the following alarm conditions: tilt, main door access and bill acceptor door access. An audible alarm activates whenever the main door or bill acceptor door is opened or the machine is tilted in any direction greater than 13 ± 4 degrees. If the alarm is enabled prior to power being removed, the alarm will sound when the alarm conditions are met. The alarm can be heard at a distance of up to 20 feet away from the vending machine.

Bill Acceptor Alerts

The following bill acceptor alerts are available on the Gemini Touch:

- BILL_OVER_LIMIT.
- CASH OVER LIMIT.
- BILL_ACCEPTOR SIGNED_OFF.
- BILL_DOOR_OPEN.
- BILL_DOOR_CLOSE.
- CASHBOX_REMOVED.
- CASHBOX_INSTALLED.
- MAX_CASH.
- BA_STATUS_CHANGE.

Sales Transactions Alerts

Sales transactions are provided in reports, on the machine and within business intelligence (Aurora Performance Intel). Error conditions will also be displayed on the touch screen. For example, if the printer is out of paper or if there is a ticket jam, the machine may say “Error. Please See Retailer for Assistance.” The Software Requirements Specification (SRS) will contain a list of responses for different types of failures for your review and approval.

Unavailable/Insufficient Games

In order to preclude lost sales, the Gemini Touch terminal does not shut down if there are insufficient tickets available. If a draw game is unavailable, an error message will appear. If there is no instant ticket inventory, the machine will display “Sold Out,” or respond according to Lottery-defined business logic.

Changes in Currency

The currency acceptor used in our self-service SSTs can be easily updated to accept any new versions of paper currency that the government is planning to introduce. The currency acceptors include a reprogrammable capability that enables quick, easy updates.

When a change in currency occurs, the manufacturer issues a software update to IGT’s Field Services Group. With the Gemini Touch, this update can be downloaded to the currency acceptor from the central system when the machine is working in an online mode. The update can be made without any impact to retailers or players or disruption of the machines’ selling capabilities.

Accepted Currency Types

The bill acceptor is capable of accepting \$1, \$5, \$10, \$20, and \$50 bills.

Debit, Credit, and Gift Cards (Optional)

To better position the Lottery for future growth, the Gemini Touch is available with the option for “cashless payment functionality” support incorporated into the design.

Our cashless payment solution supports:

- Credit and/or debit cards (Note: Cashless transaction fees are not included in the cashless payment solution).
- The leading payment networks Visa and MasterCard. (Note: American Express and Discover, while technically supported, do not currently allow Lottery transactions).
- The full range of payment technologies, including magstripe, chip card, and Near Field Communications solutions, such as Apple Pay and Google Wallet.

Please note that this cashless payment functionality includes only the hardware and software for our Gemini Touch to support these cashless transactions. As cashless functionality introduces additional business and operational and financial considerations, the offer does not include other associated costs with respect to cashless transactions, such as communications fees, service costs, or transaction fees. Such fees (and the parties responsible for payment therefore) will be dependent upon the final solution specifications, the legal and regulatory environment at the time of deployment, and the final commercial agreement regarding the party(ies) responsible to assume and pay such fees. As such, IGT and the Lottery will need to re-examine West Virginia regulations, as well as banking and similar laws and regulations, regarding cashless transactions in effect at the time of implementation of this option to ensure all parties have a clear understanding and make final agreement with respect to the business model for such implementation. IGT further recommends that you conduct either retailer and player focus groups and/or a pilot program for cashless payments with a small group of retailers. These focus groups and/or pilot program can help determine the optimal mix of cashless payment processing solutions, the timing to deploy such solutions, and, most importantly, who should pay the fees associated with each payment option (e.g., Lottery vs. retailer).

Installation, Maintenance, and Replacement

IGT will use professional, experienced, and bonded third-party Vendors for the delivery and installation of the Gemini Touch terminals in West Virginia. The installation of the Gemini Touch SSTs will happen as a separate effort from the installation of Flex terminals, peripherals, and communications equipment. Once retailers have been identified as requiring a Gemini Touch SST, we will first install the Flex terminal, peripherals, and communications equipment in these retailer locations. After that step is complete, we will return to deliver and install the Gemini Touch SSTs. If the Gemini Touch SST is replacing an existing SST, that terminal will be removed at the time of the Gemini Touch installation.

IGT will provide the Lottery with a regimented installation schedule prior to the start of the deployment to ensure it meets all needs. All retailers will be contacted approximately one week prior to the scheduled installation date and one day prior as a friendly reminder. IGT will strive to ensure that installation is completed in the soundest manner with the least amount of disruption to retailer sales.

Like all other IGT-provided equipment, the Gemini Touch self-service terminal will be maintained by our field service staff. Installations and replacement of the Gemini Touch are treated similarly to the existing self-service terminal. Attachment A, Section 4.6.6, Field Technical Services, under the heading titled "Terminal Maintenance in the Field" contains a thorough maintenance and service plan for all IGT-proposed equipment inclusive of the Gemini Touch.

4.4.5

Low Volume SSTs

Vendor should include an alternative SST model, or an equivalent solution, for low volume retailers that handle no more than eight separate instant games. Vendor's proposal should describe this solution and include whether the proposal includes instant game sales solely or a combination of instant and draw game sales.

Instant To Go 4

This attractive, 4-game instant-only self-service terminal is easy to install – just plug in and begin selling – and offers mounting options to suit every retail environment. It's perfect for introducing instant ticket vending into non-traditional lottery venues, such as keno retail locations and limited-gaming retail establishments struggling to showcase instant ticket scratch-off games. The terminal also provides the Lottery with a sleek way to enforce minimum selling requirements for instant ticket scratch-off games and, alternatively, provides an option for expanding the distribution and exposure of top-selling or proceeds-directed games.

With its eye-catching design and intuitive, user-friendly interface, the Instant To Go 4 (ITG-4) encourages play, attracts new players and makes the purchase of instant ticket scratch-off games easy – even for non-Lottery players. The player simply puts money in (coins and/or bills); pushes one of the four large, illuminated buttons; and retrieves the ticket.

Figure 4.4 – 46:



Flexible and Customizable

The ITG-4 is offered as standard with a coin acceptor, a bill acceptor, or both. Other readers, including card readers for age verification, are available as options. Colors and decorations can be customized to match the Lottery's palette. The ITG-4 is a stand-alone device that can be placed on a countertop, mounted on a pedestal, or fixed to a wall.

The following table lists the specifications of the Instant To Go 4:

Figure 4.4 – 47:

Instant To Go 4 Specifications	
Number of Games	4 Games
Ticket Capacity	4 x up to 300 tickets pack
Ticket Sizes	2" to 4" Width 2" to 8" Length
Pack Sizes	4.8" to 8" Length 2" to 4" Width
Game Button	3.15" x 3.15" Light Emitting Diode (LED) illuminated display for ticket picture
User Display	8-character Liquid Crystal Display (LCD) 0.26" x 0.47" W x H LED backlight
Audio	Sound effects (configurable WAV files)
Coin Acceptor*	Configurable for U.S. and international currencies Configuration tools for coins updates
Bill Acceptor*	Configurable for U.S. and international currencies Configurable tools for bill updates
Service Interface	2 x 16 characters backlit display 4 navigation keys
Internal USB Port	Recording weekly sales statistics over one year Data collection and software update available using USB pen
Memory Expansion	microSD connector
Extension COM Port	1 x RS232 for optional peripheral
Networking	Optional Ethernet COM port
Dimensions	17.5" x 24.8" x 16.3" Width x Height x Depth
Weight	78.3 lbs.
Compliance	Complies with CE and RoHS standards U.S. certifications to be planned

4.4.6

Terminal Peripherals

Describe how your proposal demonstrates you can provide, install, maintain, and replace peripheral units that are functional with all terminal types.

The following response demonstrates how IGT will provide, install, maintain, and replace peripheral units that are functional with all terminal types.

4.4.6.1

Customer Display Units

Vendor should describe a solution for retailer customer displays. Vendor provides Customer Display Units that show player transactions and advertising at all retail locations. Customer Display Units are to be clearly visible from a minimum of 15 feet and approved by the Lottery. The Vendor creates, programs, and maintains content for use on the Customer Display Units as requested and approved by the Lottery.

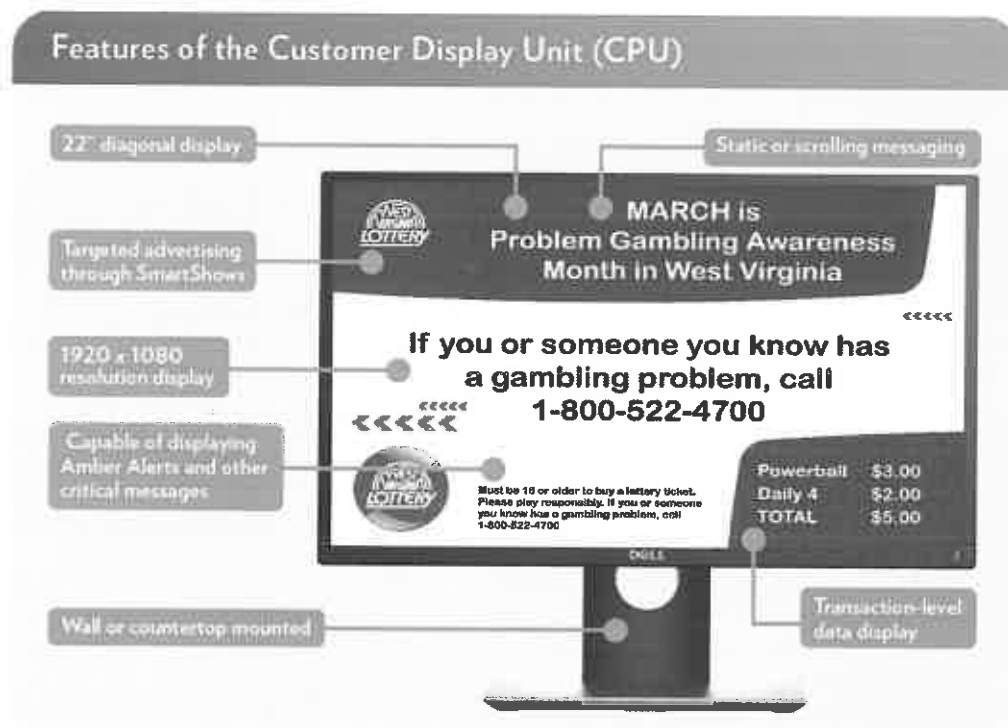
The customer display should be configured to display both sales and validation transactions. Sales transactions communicate the amount of the current sale. Validation transactions display notifications of any wins. Vendor configures each display to Lottery specifications with the ability to net sales transactions with validations for the same customer at the same time, i.e. the display will show the net balance. The content must be real time for transactions, messages, and jackpots. The advertising content is date driven and allows toggle on and off functions for rapid response in the field.

One of the central components of IGT's multimedia solution is a 22-inch LED monitor at the POS. When placed at the POS, the digital display becomes an effective medium for displaying transaction information, jackpot amounts, winner awareness, third-party alerts, and West Virginia Lottery messaging. The monitor can also display graphics that can be managed via the Digital Content Management System at any time.

The displays built-in swivel, tilt, and pivot capabilities offer the retailer the flexibility to adjust the equipment into the optimal viewing position. In addition to the standard counter mount, displays can be installed using a pole to increase the height of the display or to the wall using a wall mount. The display also offers a flicker-free feature allowing your content to display brightly across an ultra-wide viewing angle.

The following graphic depicts the 22" monitor:

Figure 4.4 – 48:



IGT's customer display unit can display graphics and messages that change constantly, daily, or weekly and be downloadable to the terminal (or a media box). Content for the units can be managed through the Lottery management terminals and a content management solution. A Marketing Content Manager will be able to use all of the IGT tools to manage this functionality. The Lottery can traffic content by region, city, zip, chain and any other addressable demographic. The Lottery can also schedule program content by demographic, parts of day or time, or retailer type.

The display can display advertising, jackpot information, alerts, promotions, and game information to players within the store. Characteristics include a flat panel, flexibility of placement within the retail establishment, sufficient cord lengths, good visibility, and sound available through auxiliary speakers or the terminal. The display and terminal are capable of playing sound, static image files, animations, and full-motion high-resolution video and dynamic RSS-fed slides.

The following table outlines the specifications of the 22" CDU offered to the Lottery:

Figure 4.4 – 49:

22" ADU Specifications	
Type of Screen	LED
Dimensions and Weight	Height: 11.70" (without stand)
	Width: 19.64" (without stand)
	Depth: 1.98" (without stand)
	6.18 lbs (panel only)
Construction Type	Injected molded plastic with metal substructure
Brightness	250 cd/m2 (typical)
Maximum Screen Resolution	1920 x 1080 at 60Hz
	(178° vertical/178° horizontal)
Maximum Viewing Angles	Tilt (-5° to 21°)
	Swivel (45° to 45°)
	Pivot (90° clockwise)
Connectivity Options	1 x DP (ver 1.2)
	1 x HDMI (ver 1.4) (6-foot length)
	1 x VGA
	1 x USB 3.0 port - Upstream
	2 x USB 3.0 ports - Side
	2 x USB 2.0 ports - Bottom
Power Requirements	Voltage Required:
	100 to 240 VAC/50 or 60 Hz \pm 3Hz/1.5 A (typical)
	Power Consumption (Operational):
Power Switch Options	17W (typical)/37W (maximum)**/50.6 kWh (Energy Star)
	Operational and Standby/Sleep
Standby Options	Power Consumption Standby/Sleep:
	Less than 0.3W
Integrated Sound Options	Optional Soundbar - (AC511)

Aurora MultiMedia

IGT's proposed system includes its innovative, latest-generation Aurora MultiMedia solution. Aurora MultiMedia consists of a Content Management System, developer's toolkit, media player (which will be used to render the draw animation for your monitor games), and a 22-inch LED advertising monitor connected to each Flex and Flex Vision terminal. All of these components will work together to allow the Lottery to create and deliver exclusive customer-facing "Lottery shows" at each retail location.

Digital signage content will be driven by intelligent, yet easy-to-use show creation software. As mentioned earlier, a Marketing Content Manager will be able to use IGT tools to create, manage, and edit the content shows that are displayed at the POS. This will benefit the Lottery's marketing team and provide better execution of its marketing and advertising initiatives at retail.

Following are highlights of the Aurora MultiMedia Content Toolkit:

- It runs on a Windows PC.
- A robust scheduling feature allows content to be scheduled based on a specific time of day, day of the month, or even a large expanse of time, such as covering a holiday, season, or major event.
- Pre-defined conditions can be set that permit a show to play, or not play.
- A quick preview feature allows a show's conditions, configurations, and schedule to be previewed before finalizing the show.
- An integrated test tool connects to the terminal, allowing a remote view of the content running on the terminal, identifying potential functionality and performance issues sooner.
- It supports legacy file formats such as Flash 6, Flash 7, Flash Lite 3.1, and Moving Pictures Experts Group 2 (MPEG2), as well as newer standards such as Flash 10, HyperText Markup Language 5 (HTML5), CSS, JavaScript, and WebM/MP4/H.264 video.

Smart Shows™

Smart Shows technology will allow you to create a dynamic playlist in which content can change based on conditions and events you establish, such as start and end dates, chains, new instant ticket scratch-off game releases, jackpot levels, etc. For example, you could create a show that only plays during certain days, dates, or times, or when the jackpot reaches a pre-defined threshold. Once the conditions are established in the Aurora MultiMedia Content Toolkit, the Aurora Transaction Engine will automatically deliver the necessary information for the Aurora MultiMedia show.

Alerts

Aurora MultiMedia shows can be composed of a combination of images, video, and Flash animations, as well as dynamic text such as jackpot information and winning numbers, and public service messages such as Amber, Blue, and Silver Alerts. Graphics and messages can be changed on a periodic basis and, at the Lottery's discretion, be downloaded to the multimedia display to update shows at any time.

Targeted Winner Awareness

The Aurora MultiMedia Smart Shows package includes Targeted Winner Awareness functionality that can be directed to a single retail location.

Examples of Targeted Winner Awareness messages are:

- **Total number of winners:** "50 winners here at Kroger last week! Play today!"
- **Number of high-tier winners:** "Two Match 2 Win winners won the top prize yesterday!"
- **Amount of prizes won:** "\$50,000 won at this store yesterday! Buy your ticket today!"
- **First winner of new game:** "Royal Bingo just had its 1st winner last week!!!"
- **Large prize claimed:** "Someone just claimed a \$100,000,000 Mega Millions ticket! You could be next!"

The Aurora MultiMedia system gives you the flexibility to choose at which level the numbers and amounts won are displayed. For example:

- **At the state level:** “West Virginia had 100,000 winners last week!”
- **At the city level:** “Charleston had 20,000 winners last week!”
- **At the individual store level:** “300 players won at this Go-Mart store last week!”

The Aurora MultiMedia system even lets you choose minimum thresholds for your messages, so that messages are not displayed with a low number of winners or low-dollar amounts that might disappoint players and potential players.

For example, you can preconfigure the rules such that:

- If there were fewer than, for instance, 500 winners in a store, the system would automatically display the number of winners in the city, rather than in the store.
- If there were fewer than, for instance, 5,000 winners in a city, the system would automatically display the number of winners in the state.

Figure 4.4 – 50:



Dynamic Content Automatically Entered: An operator does not have to manually enter the number of winners and the store name, since all of this information is already stored on the Aurora Transaction Engine. Once the graphical template is set up, the system fills in the dynamic data for you.

4.4.7

Digital Jackpot Signage

Vendor should describe a solution for advertising at least two draw games with wireless, digital jackpot signage. Vendor provides, configures, installs, and maintains jackpot signage at participating Lottery retailers.

Digital Jackpot Signage

Lottery awareness and attention-grabbing signage at the POS promote lottery sales and increase branding awareness. For the West Virginia Lottery, we will offer Carmanah in-store wireless double (two-panel) jackpot signs as a solution. The proposed wireless capability will operate only at short range, nominally on the order of up to 100 feet. Radio signals will be designed so as not to interrupt or interfere with any electronic devices otherwise operated in the store or carried by store customers or employees.

Carmanah Signage

Carmanah has been creating energy-efficient LED-illuminated signs since 1993. These signs are ideal for corporate identity, lottery, POS, and gaming applications. Carmanah has more than 120,000 wireless jackpot signs in the field, with approximately 65,000 connected to IGT terminals. Working with Carmanah, we will provide the best solution available, at a time that meets the Lottery's needs. The signs will accommodate multiple games and their jackpot amounts.

All Carmanah jackpot signs meet the following criteria:

- Long lamp life.
- High degree of durability: no breakage during shipping.
- No replacement bulbs needed.
- Low maintenance.
- Low-cost, energy-efficient operation.
- Safe, low-voltage wall adapter.
- Environmental considerations.
- Wireless connectivity.

Multiple jackpots can be displayed per sign, more games can be added to the signs in the future, and many signs within a 100-foot area can be updated at once. This means extreme flexibility in terms of displaying information to your customers.

With Carmanah's wireless, updatable jackpot signs, jackpot data can be sent directly from the terminal via a standard USB connection to the sign's transmitter. Once the information is transferred from the terminal to Carmanah's USB utility, it is then wirelessly transmitted to the sign via secure, encrypted data.

With a service life of more than 10 years, Carmanah signs provide substantial maintenance-cost savings in terms of labor and materials over traditional fluorescent or neon-illuminated signs. Additionally, Carmanah LED signs require less than 1/10th the power of fluorescent, neon, or incandescent signs.

IGT offers the Lottery two different types of double jackpot signs: either hung from the store window or placed on the retail counter, as shown in the figures below. The Lottery can select either type of sign, or a combination of both, adding up to the required number of units.

Figure 4.4 – 51:



Figure 4.4 – 52:

Countertop Double Jackpot Sign

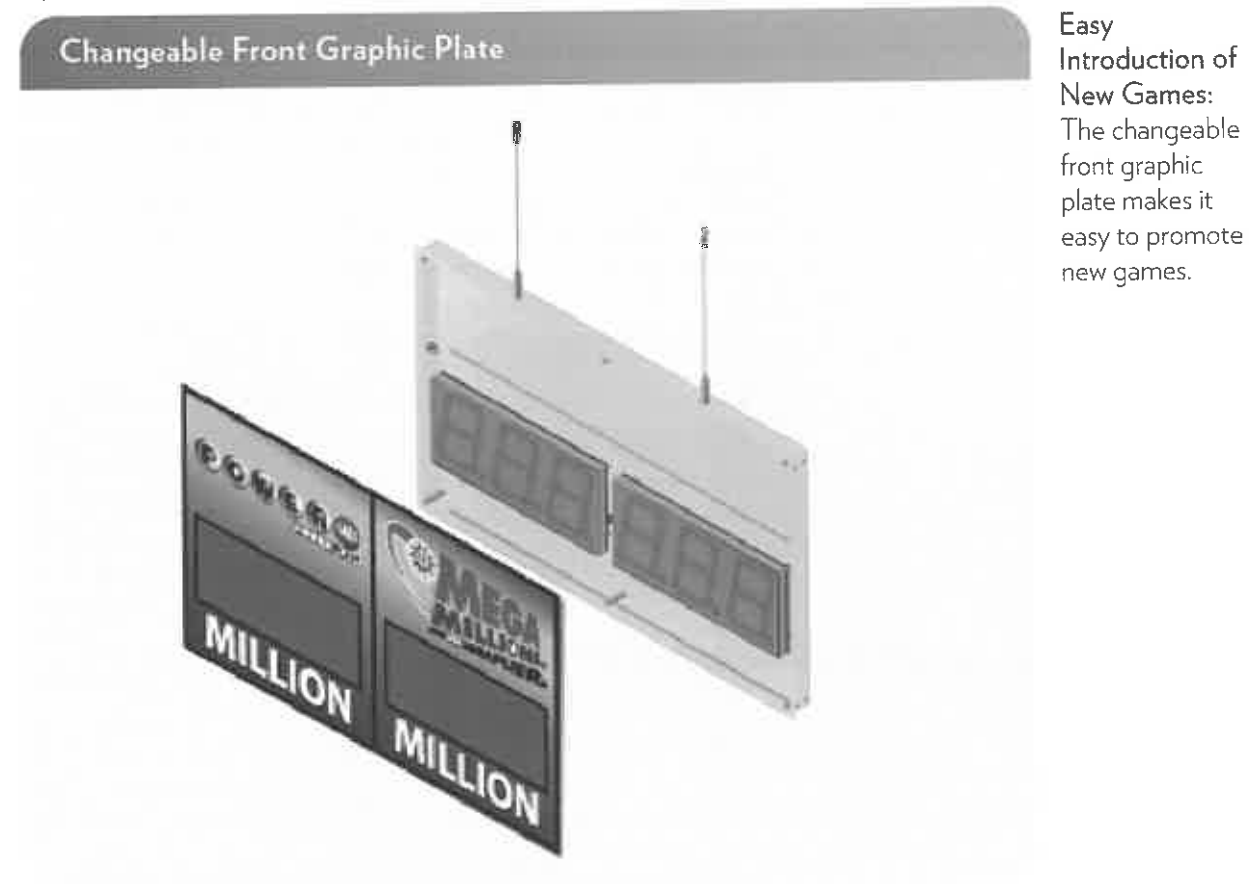


Countertop Displays: Signs placed on retailer counters can bring additional visibility to current draw-based game jackpots.

Changeable Graphics

Our signs feature a changeable graphic front plate, allowing for easy introduction of new games and graphic “refreshes.” The plate is easy to change. You simply unscrew the existing front plate and replace it with a new one. We are proactively working with our suppliers to address larger jackpots.

Figure 4.4 – 53:



LED Energy Efficiency

Because they run at low voltage, LEDs are safer and more economical than other light sources. And since the bulbs never need to be replaced, signs from Carmanah are, compared to neon or fluorescent backlit options, the most cost-effective choice by far.

Modularity

Modularity is a unique advantage of Carmanah jackpot signs, in that it will enable the Lottery to add incremental games at any point in time. For example, should a new national game become available, it could easily be added to an existing double jackpot sign. The transformed sign will communicate using the existing transceiver via the Lottery terminal.

Visibility

The offered double jackpot display signs will provide clear, easy-to-read images that are visible from at least 15 feet away.

4.4.8

Keno Monitors

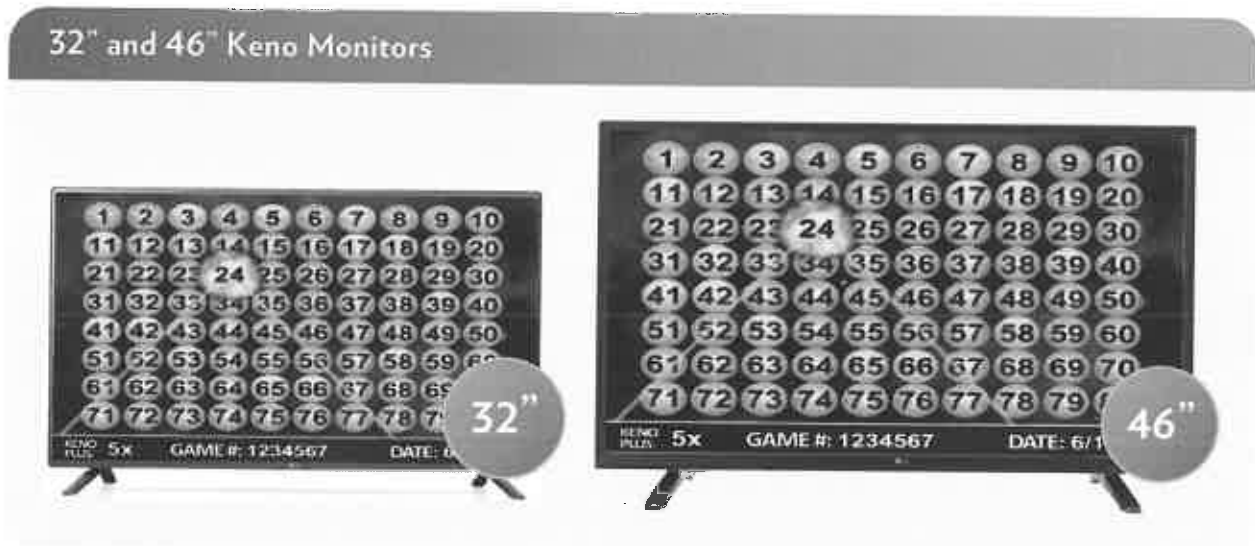
The Vendor supplies and installs equipment, monitors, cables, and mounting brackets as required for Keno sales and broadcasting results. The Vendor should describe the size, functions, and communications for the Keno operations including any alternative proposals for Keno monitor equipment or technology and describe how it may enhance Keno game experience for players.

IGT offers the West Virginia Lottery new, replacement LCD monitors in all retail locations in which Keno games are played. These 32" and 46" high-definition monitors can be wall-mounted and installed in larger or higher-volume Keno locations through the State.

IGT will supply the Lottery with all equipment, Keno monitors, cables, and mounting brackets as required for Keno sales and broadcasting results.

The Keno monitors are depicted in the following graphic:

Figure 4.4 – 54:



Functions, Communications, and Future Player Enhancements

IGT's current Keno operation in West Virginia groups retailers by region, chain, or other criteria to provide targeted Keno shows within a specific group of venues. Keno shows also include promotional screens for specific retailers or groups of retailers.



Enhanced Grouping

The value of digital signage increases when messaging is targeted to meet the needs and wants of those viewing the content. Of course, customer needs and wants vary depending on their location or even where they are shopping. Aurora Multimedia supports many grouping segments which allows the lottery to group retailers for the purpose of targeted messaging.

Typically created in the Retailer Management System, lotteries can group retailers using the following criteria:

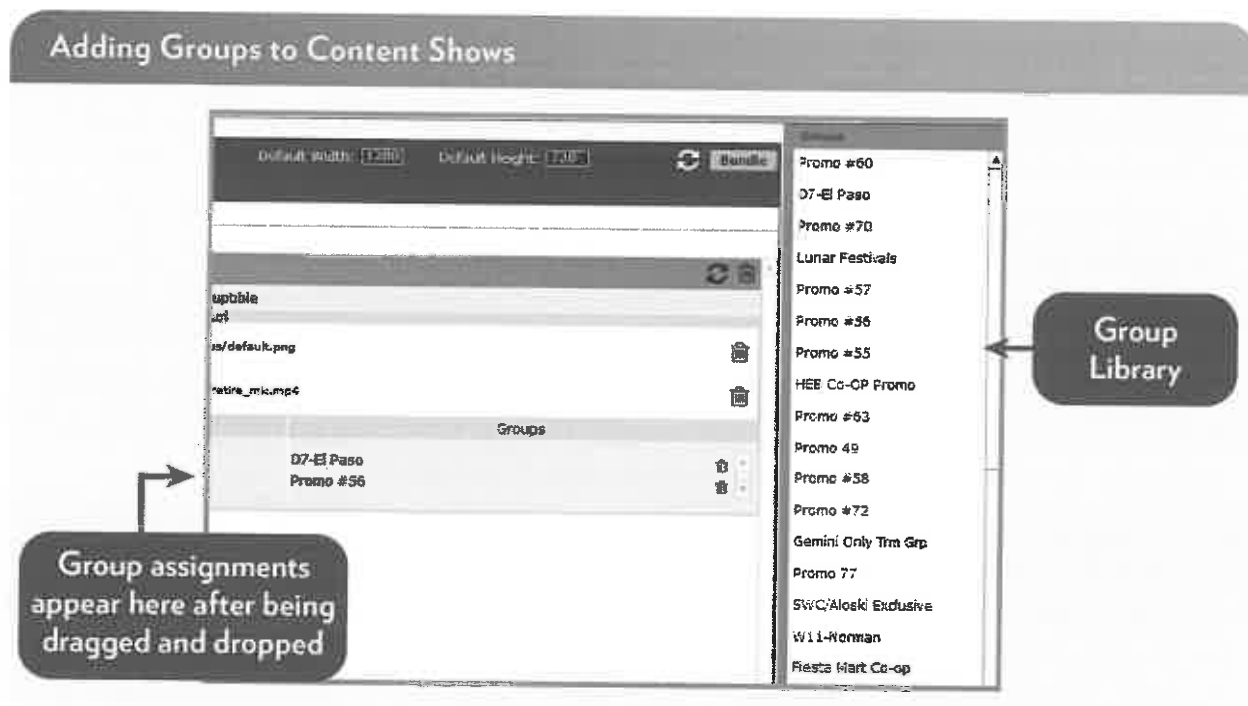
- Activation Date.
- Bill to Chain ID.
- Business Code.
- Chain Code.
- City.
- Contract Type.
- County.
- Location #.
- Location Name.
- Location Status.
- Location Type.
- Terminal ID.
- Terminal Status.
- Terminal Type.
- Zip Code.

Once the groups have been configured, they are imported into the Group Library located in the Aurora MultiMedia Content Toolkit. Once in the toolkit, content can be assigned to groups through easy drag-and-drop or check box functionality.

How It Works

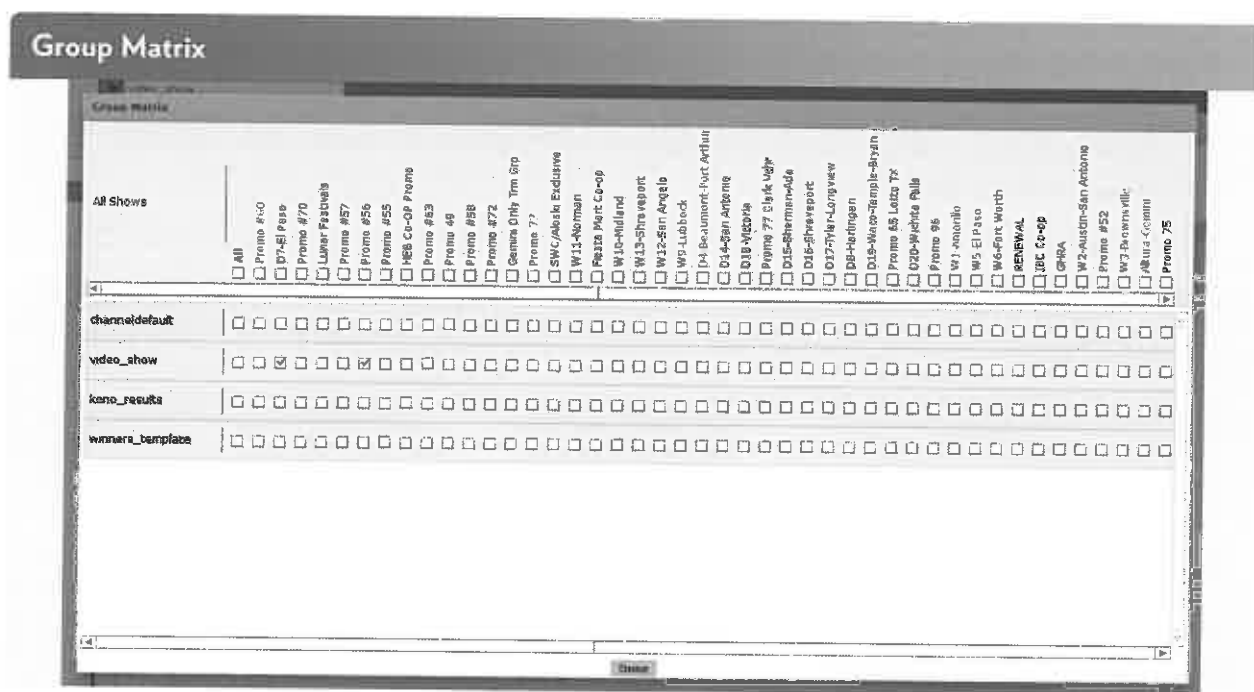
The Aurora Multimedia Content Toolkit offers two methods for adding groups to content shows during the show creation process. The first method involves dragging and dropping group names from the Group Library to the show you are creating. This option works well if you are interested in assigning groups to one show.

Figure 4.4 – 55:



Another method for adding groups is through our Group Matrix. The group matrix allows users to see all of their content shows for a particular channel at once, and then check off which group should receive the content show. This method works well when multiple shows need to be assigned to a group.

Figure 4.4 – 56:



Player Rewards

Should the Lottery proceed with implementation of the Player Rewards package offered in response to Section 4.2.8 of the RFP, Keno players will have the advantage of IGT's mobile convenience application for Android and Apple iOS mobile devices which includes the following capabilities:

- Feature to locate Keno-capable retail locations on the retail locator map.
- An animated display of current or prior Keno draw displays, replicating the Keno play reveal display seen in retailers' stores.

Video Control Unit (VCU)

To ensure that the performance of the retailers' Lottery terminal is not compromised by the demands of multiple video display streams (the Lottery's Keno graphics and the advertising graphics on the terminal's CDU, we offer one of IGT's newest products, the Video Control Unit (VCU).

The VCU is an external companion device that will expand your ability to handle higher-end graphics and additional in-store displays by:

- Supporting two content streams independent of the terminal.
- Storing POS messaging and monitor games as well as driving content to in-store displays.
- Supporting legacy file formats, such as Flash 6, Flash 7, Flash Lite 3.1, and Moving Pictures Experts Group 2 (MPEG2), as well as newer standards, such as Flash 10, HyperText Markup Language 5 (HTML5), CSS, JavaScript, and WebM/MP4/H.264 video.
- Supporting two channels of sound through a pair of self-powered external speakers or a display audio input.
- Allowing content to be loaded through the network or locally, through a USB flash. Network loading is typically recommended for easier distribution, however.
- Accepting background downloads of content or application upgrades without any noticeable disruption to the graphics on the display.
- Allowing displays to be positioned away from the POS terminal for those retailer locations that use multiple display devices.

Figure 4.4 – 57:



Compact and Powerful: The VCU provides the capability to handle higher-end graphics for a better advertising display.

Key features of the VCU include:

- 1-HDMI and 1 Display Port (supporting 2 independent content streams).
- 1-USB 3.0 port.
- 1-USB 2.0 port.
- 1 audio output via a headphone jack – HDMI and display ports support audio as well.
- VESA mounting holes.
- Fanless cooling.

4.4.9

Self-Check Units

Customer ticket self-check units are to be provided at all retail locations and configured to read all Lottery approved bar codes. Customer ticket self-check units are either a self-contained peripheral or a part of a full service unit (i.e. Self-service terminals).

Ticket-Scan® Plus (TSP)

IGT designed its TSP to ensure security for players and retailers by allowing players to confirm whether or not their tickets are winners prior to approaching the retailer. With TSP, players can check the win status of draw-based game tickets, instant ticket scratch-off game tickets, as well as their transitional tickets from the current vendor, by simply passing the tickets under the built-in barcode reader's red beam of light.

Players hear a beep when tickets have been successfully read and the TSP will display messages related to the outcome of the validation, as prescribed by the Lottery. The 2D imaging system used in the TSP is capable of reading 1D and 2D industry-standard barcode symbologies and is downloadable with new symbologies as they become available. Also, multiple ticket checkers can be placed in required locations.

The following figure shows the TSP, which is currently installed in 12 U. S. lottery jurisdictions:

Figure 4.4 – 58:

Ticket Scan Plus



Check Your Ticket: The TSP provides some of the most advanced features in the lottery industry: a 2D barcode reader that reads both draw-based and instant ticket scratch-off game tickets, a 3.5-inch LCD, and advanced wireless capabilities.

The TSP's new design and refreshed technology build upon the features offered by its predecessor to meet the growing needs of retail outlets and players.

The integrated 3.5-inch color display represents a leap in technology for ticket checker devices that will enhance both Lottery and player usability. The color display offers the Lottery a wide variety of capabilities, including the ability to present its marketing, jackpot, and winner awareness messages, to name a few.

Players will appreciate the large and easy-to-read touch screen display. The display provides an anti-glare screen with 320 (RGB) x 240 resolution, and the driver supports domestic and international fonts.

The touch screen can also be equipped with enhanced capabilities, and we will work with the Lottery to establish specific touch screen requirements.

Retailer Focus Feedback on Ticket-Scan Plus

"I can move it and change the flow of traffic."

"Being able to move it to a different location in the store would be great."

Figure 4.4 – 59:

Features and Benefits of the Ticket-Scan Plus	
Feature	Benefit to the West Virginia Lottery
Fast and easy to use	Saves retailers and players time. Players do not have to wait in line, and retailers do not have to check non-winning tickets. The Imager used in the TSP is a Zebra (formerly Motorola) SE3300 2D imager. The SE3300 captures images at 60 frames/sec to facilitate a fast response to users when checking the STATUS of their tickets
Can be positioned up to 300+ feet from the terminal using an Air Con radio	Reduces lines at the terminal and cash register
2D barcode reader	Reads all common lottery industry 1D and 2D barcodes, which will future-proof the Lottery for years. Readable barcodes include: <ul style="list-style-type: none"> • 1D • 2D • PDF417 • Interleaved 2 of 5 • EAN • Data Matrix • QR Code • Aztec
Player anonymity	Provides players with the opportunity to check the win status of their tickets on their own
Designed for wall, counter or play-center mounting	Provides complete flexibility for placement in the retail outlet
3.5-inch color display with touch screen	Offers additional player communication opportunities, including enhanced jackpot information and/or advertising message capabilities
Proven technology	More than 147,000 IGT ticket checkers (including the earlier-generation Express Point and Express Point Plus) are deployed worldwide; of that number, nearly 30,000 are TSP devices
Modern design	Attracts players with its new and fresh look
Wireless connectivity	Uses the AirCon™ radio to support flexible deployment options at retail
Customized trim kit	Displays your brand to shoppers and players

Size

The TSP can be deployed in a counter-mount configuration as well as a wall-mount configuration. The dimensions of those configurations are as follows:

- Counter-mount configuration: 12.47 in. (H) x 7.45 in. (W) x 4.85 (D).
- Wall-mount configuration: 12.03 (H) x 6.73 in. (W) x 3.58 (D).

Figure 4.4 – 60:

TicketScan Plus Counter Mount Configuration

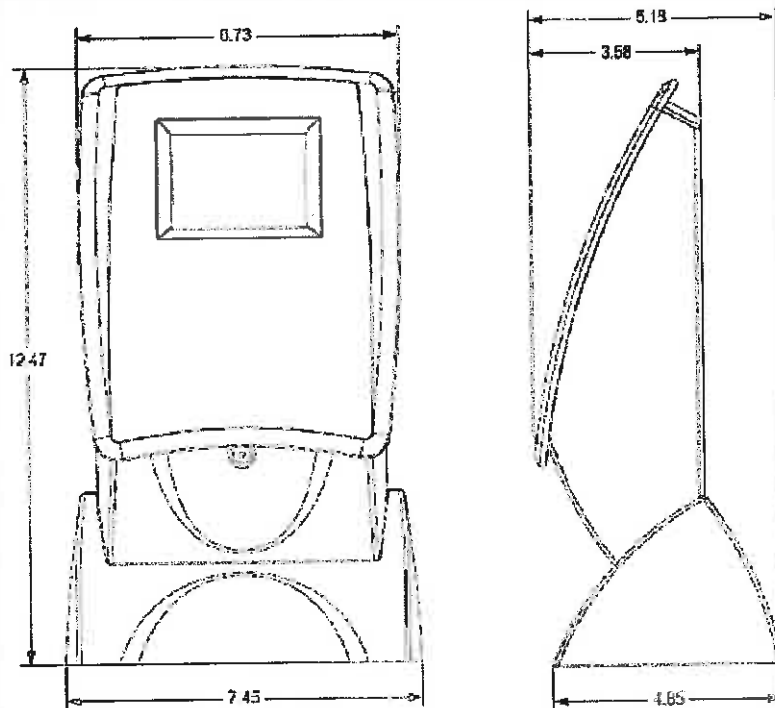
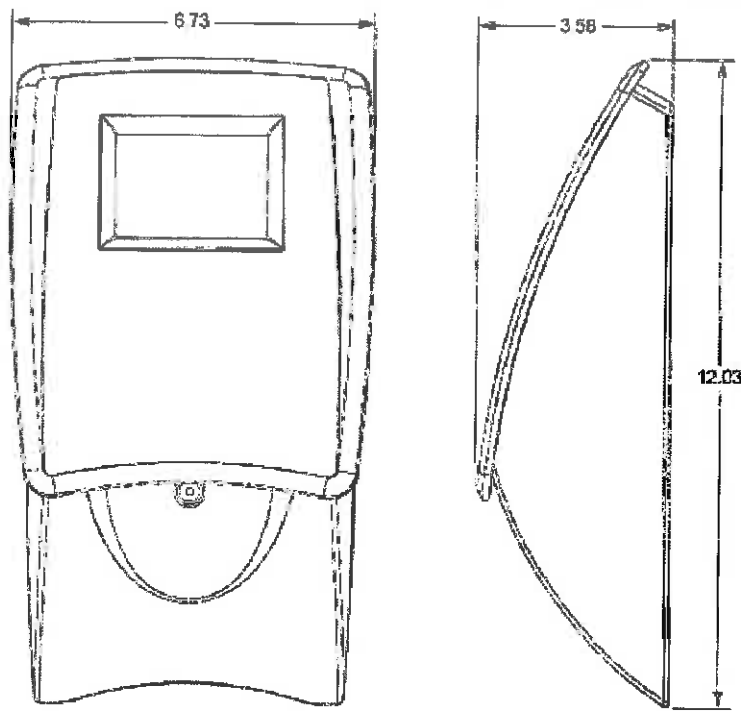


Figure 4.4 – 61:

TicketScan Plus Wall Mount Configuration



TSP Wireless Capability

AirCon Radio

An AirCon radio replaces the traditional RS-485 cable to connect the TSP to the terminal that can be more than 300 feet away. A single AirCon radio on the terminal can communicate with multiple peripheral radios such as a ticket checker and wireless jackpot signs. This ability reduces overall cost and eliminates the need to have two different radios plugged into the back of the terminal. The AirCon radio delivers the capability to extend RS-485 peripherals within a retail environment without the high cost and time required to relocate RS-485 cabling.

IGT has incorporated several features into the radio module to overcome the vast majority of conditions encountered in a retail environment that cause Radio Frequency (RF) communication links to degrade. However, in any wireless device deployment, there may be conditions that cannot be overcome with these features. In those cases, hard wiring remains the most appropriate installation method.

When the AirCon radio module is incorporated into a product, line-of-sight distances can be affected by the housing that contains each unit. As with any wireless RF device (e.g., garage door opener, mobile phone, etc.), the physical placement, physical environment, and RF environment can impact the ability of the radio to maintain a communications link.



Security

The AirCon radio ensures security by using industry-standard, 128-bit authentication and packet encryption, Medium Access Control (MAC) address filtering, and firewall functions. If the IGT terminal radio does not receive a response from the peripheral radio due to a loss of signal, the peripheral radio will reset itself, allowing the IGT terminal radio to re-connect.

The AirCon radio operates in the worldwide frequency band of 2.400 – 2.4835 GHz and complies with Electrical and Electronics Engineers (IEEE) 802.15.4-2006 industry standards for spread-spectrum radio. Because spread-spectrum signals are so wide, they transmit at a much lower power density than POS (narrowband) transmitters. This allows POS signals to occupy the same band, with little or no interference.

The AirCon radio has been certified by IGT and is approved by all major regulatory agencies including the U.S. Federal Communications Commission (FCC), Underwriters Laboratories (UL), Canadian Emissions (IC), European Telecommunications Standards Institute (ETSI), and Restriction of Hazardous Substances Directive (RoHS).

4.4.10

Consumable Supplies

The Vendor's proposal should describe consumable supply development, approval and update procedures, procurement, tracking, distributing, and inventory management solutions and provide examples of player and retailer materials. Materials include, but are not limited to, ticket stock, retailer manuals, brochures, play slips, instant planograms (i.e. instant game menus, sale sheets), digital jackpot displays and information, any customer digital display content, marking pencils, literature holders, and special promotional items. If special promotional items are requested by the Lottery such items will be billed at cost. The Lottery approves Vendor created or updated retailer and player content before distribution.

The Vendor is responsible for all Lottery consumable supplies and management of those supplies in the field. Vendor creates, updates, procures, secures, warehouses, inventories, delivers, and manages the consumable supplies, which include, but is not limited to:

- *Play Slips: New play slips for current and future draw games and any game changes that require a new slip;*
- *Brochures: Draw games and special promotions brochures detailing information and rules as requested by the Lottery. The Lottery produces approximately eight promotions per year requiring brochures. Vendor works with the Lottery to establish content, design, production, warehousing, and distribution. Additional promotion brochures exceeding eight per year are to be provided and billed to the Lottery at cost;*
- *Ticket Stock: Secure variable length, preprinted ticket stock with Lottery-designated information (multi-color) or a secure print process that meets MUSL Rule 2. Vendor should procure more than one provider for paper stock and printing of ticket stock and play slips. The Vendor should also provide stock of the same paper quality suitable for testing and training. Testing and training ticket stock should be plain and conspicuously distinct from live ticket stock and is required to comply with any multi-jurisdictional security rules;*
- *Retailer operation manuals and updates, literature holders as needed, player marking pencils, and monthly instant game planograms;*
- *Printer toner, ink, and any other required materials for retailer terminals and Checkwriters, and;*
- *Design retailer terminal, inventory, accounting, and operation reference materials for distribution as requested by the Lottery.*

Consumables Management

IGT's Consumables Management System (CMS) will provide the West Virginia Lottery with the flexibility necessary to support its growing and changing business demands. We will provide an adaptable, configurable solution to support your current and future business needs with a CMS tool that helps tailor support requirements to your unique gaming, hardware, and retailer dynamics.

Consumable Supply Development, Approval and Update Procedures, and Procurement

Raw Paper Suppliers

IGT has a long history with raw material suppliers as well as designated consumable printers. We have worked to develop thermal papers specifically designed for lottery as well as play slip paper. As technology changes and printers become faster, it is imperative that the papers used meet the printer speed required to produce a clean sharp image that will remain for years. IGT works tirelessly to stay ahead of the curve, which is why we work with the leading thermal paper manufacturers to maintain a consistent thermal technology that meets or exceeds the lottery industry's expectations.



Print Vendors

Our six printing partners throughout the U.S. have been long-term partners, some for more than 30 years. With this experience comes the fact that they produce the best-performing products for the lottery industry. We continue to work with these suppliers and constantly work on methods to consistently strive for problem-free products that work in conjunction with IGT terminals for the optimal player experience. We also maintain redundancy among our suppliers to ensure that, at no time, would any customer be single-sourced and we always maintain a healthy supply chain in the event of elevated jackpots or spikes in the business.

Supply Warehousing and Delivery

IGT's proposal for recording, tracking, and delivering supplies is a unique, "best-of-both worlds" solution for the Lottery and its retailers. We offer a solution that combines high-tech predictive ordering in addition to personal hand deliveries by FSTs. The predictive ordering features of our innovative CMS mean retailers, who are often short on space, will never be overstocked, nor will they be understocked at critical selling times. In addition, consumables will be delivered via United Parcel Service (UPS) via our CMS model, which proactively monitors consumables usage and re-supplies retailers based on their unique low- and high-water settings. These settings, for any particular item, can be uniquely configured by retailer based on their storage capabilities and requirements.

IGT is proposing 4,000 square feet for the consumables warehouse. This will include space for a MUSL-compliant cage, an area designated for packaging and shipping (new game rollouts, etc.), play slip pallets, and storage of miscellaneous equipment. Please see section 4.6, Data Center Operations, for a description of the warehouse.

Recording, Tracking and Fulfilling Supplies

IGT's CMS records the amount of paper that is used every time a wager, validation, or report is printed. The CMS also uses a similar method of counting the number of play slips used.

When a retailer's inventory reaches a preset low level, an order is automatically generated for any low inventory item(s). The CMS will then generate an order for all of those products to ship to the retailer. This automated system requires no interaction on the part of retailers for ordering consumables.

Reporting

The tracking system will generate various reports for both ticket stock and supply inventories. The following is a list of available on-screen reports:

- Locate Ticket Stock.
- Retailer Delivery History – Ticket Stock.
- Ticket Stock Inventory.
- Retailer Delivery History – Supplies.
- Supply Inventory Summary.
- Sales Representatives Delivery History – Ticket Stock.
- Delivery History – Ticket Stock.

Our ticket stock tracking system's standardized and specialized reports add a powerful dimension to tracking. The system generates operational and management reports in either summary or detail format, enabling inventory to be organized and analyzed.

The System's stock tracking provides numerous on-screen reports. For example,

Lottery users can run "Locate Ticket Stock" reports to determine if the stock is in a specific location, damaged, stolen, in transit between locations, issued to a distribution representative, or issued to a retailer. Or, the Lottery can generate reports to locate and verify an individual ticket stock serial number (the number preprinted on the back of the stock) when high-tier winners are identified. The Lottery user enters the Vendor ID, the stream code, and the individual serial number, and the System responds with the details of the current location of that serial number.

These reports can search for a skid of ticket stock, a carton, a roll, or even a single ticket. The tracking system retains historical data online. The maximum data retention time varies among jurisdictions.

Delivery Method

The consumable delivery will be facilitated by the CMS system, in addition to FSTs, and integrated with preventative maintenance and service events as they occur. In addition, our FSTs can usually respond to ad hoc supply requests within the same calendar day, as opposed to the standard 24 to 48 hours often required by UPS or FedEx.

During periods of higher than usual sales volume, supplemental deliveries can be shipped via UPS. Emergency deliveries can be shipped overnight or delivered by FSTs, whichever is quicker and/or most feasible. Emergency delivery of ticket stock due to an outage will receive the same priority as a "down" service call.

UPS can deliver play slips for new game rollouts 5 to 10 days prior to Go Live instead of manual delivery which may take longer. This reduces the possibility that retailers could misplace them or try to use them prior to start-up. IGT effectively employs this practice in many states.

Back-up Option for Consumable Replenishment

When IGT FSTs are at Lottery retailer locations, they will review and update the retailer's consumables inventory through the terminal. If any inventory questions or concerns arise, our FSTs will relay that information back to the warehouse manager, who can systematically make custom-tailored adjustments by retailer in the system. Small storage areas, larger storage areas, and re-use of play slips by players can all be managed specific to the retailer's needs.

Warehouse Storage

Ticket stock will be stored in a MUSL-compliant cage area in our existing warehouse site, in the same facility as our primary business site.

Our CMS will create orders for each retailer based on metrics tracked by the host system. These are then quantified by low and high watermarks to ensure the proper quantity of ticket stock is delivered to that location. As the orders are put together in the MUSL-compliant cage area, the serialized items are scanned via barcode scanner into the Transaction Engine. This data is then time-stamped for historical reporting and in the event any investigations are needed by the Lottery. The FSTs will update the on-hand inventory current in the system by conducting an audit count of both ticket stock and play slips and enter the quantities of each in the locations' terminal whenever on site for service. The terminal inventory updated will load the new inventory information into the CMS.

Ticket stock is delivered to retailers in cartons having a barcode and carton number, which is then used as delivery confirmation of ticket stock orders. If FSTs deliver product, they scan the ticket stock only to confirm delivery.

Testing and Approval of Paper

IGT maintains strict standards in terms of testing and approving paper for use in lottery terminals. There are internal controls in place that review, evaluate, and test any product in conjunction with our hardware partners and customers prior to implementation anywhere. These are very strict test methods and approval processes that ensure that, before any product is put in the field, rigorous testing protocols have taken place and have been approved. This process has been in place for many years and is constantly evaluated to ensure we maintain the highest-possible product integrity.

Security Features of IGT Ticket Stock

IGT conducts a rigorous testing and qualification process for thermal paper used for its lottery customers. In partnership with our printer hardware supplier, there is a multi-faceted qualification process between our two companies to ensure that ticket stock paper meets our strict environmental durability requirements and can withstand an extensive life test in the printer. This testing process ensures complete compatibility between the printer and paper and guarantees a product that will retain image quality for an extensive period of time. All paper grades meet compatibility and image-retention requirements.

All of our lottery-grade paper is MUSL-compliant and has been developed, tested, and approved by IGT and its printer manufacturer.

Security features built into the ticket stock include the following:

- **Ultraviolet (UV) Inks:** We preprint graphics (or text) in UV inks, which are invisible to the human eye, on our draw-based game tickets to help detect fraudulent claims. This feature allows us to confirm the authenticity of the ticket stock, and thus a claim. There are two ways we can confirm the ticket stock is ours:
 - Our security department, by using a black light, can obtain a visual image of the UV ink.
 - A third-party forensics lab can authenticate the ticket stock by confirming the UV security imprint.

- **Preprinted Ticket Serial Number:** A serial number is preprinted on the back of our ticket stock rolls. This number enables us to track where and when a ticket was distributed so that we can determine if the ticket is fraudulent. A claimant's date and location of purchase (tracked with this serial number) must reconcile with our database records before the claimant's ticket is considered legitimate and eligible for payout.
- **External Transaction Serial Number:** The external serial number uniquely identifies a gaming transaction. This number is a combination of the Continuous Day Count (CDC), a sequence number, and a product number generated from an internal serial number and then encrypted using an IGT-proprietary algorithm. This number is printed on the draw-game ticket at the POS.
- **GGuard Plus Number:** GGuard Plus uses an encrypted number which ambiguously verifies ticket validity.
- **Retailer Identification Number:** Every retailer has a unique identification number that is verified when a ticket is presented for validation.
- **Barcode:** Each ticket has a barcode; the unique external transaction serial number is part of the barcode.
- **Best Practice Distribution System:** Our industry best practice CMS tracks each carton of ticket stock from the time it was manufactured, and then shipped, warehoused and distributed to the retailer. Cases of ticket stock are issued in numerical sequence and rotated after each delivery. Our System knows the status of every carton at any given time in the supply chain per MUSL rules. Any ticket that came from a carton that does not report to the proper retailer in the System may be identified as possibly fraudulent.

Security as the Foundation of Storage and Supply Standards

When considering locations, layouts, and setups for equipment facilities, adhering to security protocols is at the forefront of our minds. The Lottery deserves the assurance that we take as much care and consideration in this endeavor as we do in designing your secure system and the games for your players' enjoyment and for the benefit of the Lottery's good causes.

Our proposed West Virginia facilities will meet all Lottery, MUSL, and WLA security requirements. The Charleston location's security components can be monitored 24 hours per day, 365 days per year. We also monitor our security systems remotely from the Security Center at our corporate headquarters in Providence, Rhode Island, and at the Data Center of the Americas (DCA) in Austin, Texas. Further, we establish communications protocols with appropriate law enforcement and fire protection agencies serving our facilities. An automatic fire-detection system will be installed and equipped with alarms that sound both locally and at our fire-alarm Vendor's national dispatch center.



We install locking devices – including mechanical, magnetic, and/or electronic devices as appropriate – on all doors and other entry points. This includes the receiving and shipping areas. Access to the Charleston facility will be electronically controlled and restricted to authorized individuals only. Visitors and utility/service personnel will be admitted to the facility only by prior arrangement and with authorization from the Lottery. All visitors must sign a visitor log and produce identification. An IGT employee will escort all visitors throughout their visits.

In accordance with our standard security policy, we will provide the Lottery with a record of all entries and exits from the facility upon request. Our electronic card-access system can also generate access and egress reports for all access activity within the facility, including that of authorized visitors. These reports can also be made available to the Lottery.

Materials

Retailer Manuals and Brochures

Retailer reference manuals and quick reference guides are included with every new terminal deployment. In addition, these documents are available on the Retailer Wizard website for review and download. The terminal incorporates context-sensitive help for operations undertaken by the retailer, and the Lottery Learning Link (LLL) provides extensive training material over a web interface.

Instant Planograms

With the new Gemini Touch self-service terminal, planograms have been automated so that the layout of games on the touch screen can be determined centrally and remotely by users in Lottery headquarters. This is done through a UI page in the Navigator Instant Processing System (IPS) application. Retailers may be granted privileges to adjust the planogram for local conditions at the Lottery's discretion. Planograms for instant ticket scratch-off game dispensers and static facings can be managed with Field Marketing and Sales Representatives (FMSRs) using the OnePlace application, accessible from an iPad carried by the rep. Planograms can also be published via the Retailer Wizard website.

Digital Jackpot Displays and Information

Digital jackpot displays will be distributed and installed during terminal rollout prior to Go Live, as described in Section 4.8, Conversion and Implementation Specifications. IGT FSTs will deliver and install new electronic jackpot displays as necessary during the Contract. Alternatively, such equipment may be drop-shipped to individual retailers for installation during the normal FST visit rotation. Jackpot information is passed to the displays via the terminals through which the jackpot displays are connected (wirelessly in most cases).

Customer Digital Display Content

The system is capable of downloading customer display data to terminals and display controller units using a background download mechanism.

Examples of unbranded tickets (ticket stock) and play slips can be found in the **Ticket (Ticket Stock) and Play Slip Examples** Exhibit behind the Exhibits tab in the Original binder. Other examples of player and retailer materials include the **Sample West Virginia Lottery Training Materials**, located behind the Exhibits tab, as well as various illustrations throughout Section 4.6, Vendor Administrative Functions and Support. Please note that many additional examples requested are trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant financial harm to IGT and its shareholders.

4.4.11

Manual Jackpot Signage

Vendor should include a manual jackpot signage solution for low volume retailers in its proposal.

IGT will provide the West Virginia Lottery with a manual jackpot signage solution for low-volume retailers. This style of signage allows retailers to manually change the numbers of each corresponding draw-based game as the amount changes.

The following figure depicts manual jackpot signage:

Figure 4.4 – 62:



4.4.12

Ticket Dispensing Units

Manual countertop and in-counter display/dispensing units are to be provided, installed, maintained, and replaced by the Vendor and approved by the Lottery for all retail locations. Units may be supplied, installed and maintained by the Vendor or through a third-party. There will be existing units that remain in the field that are the property of the Lottery and will remain in the field; the Vendor will be responsible for maintenance and replacement of these units at the Lottery's request. The cost for new or replacement equipment shall not be included in the Base Cost and shall be billed to the Lottery at cost upon order fulfillment. The Lottery's equipment order history is included in Appendix A.

IGT will provide, install, maintain, and replace both manual countertop and in-counter displays/dispensing units to the West Virginia Lottery. These units will be approved by the Lottery for all retail locations. IGT will maintain and replace existing units remaining in the field that are the property of the Lottery. We will work with the Lottery to determine the placement and quantities needed for each size and type of ticket dispensing unit through the duration of the Contract. The number of units will be sufficient to display all games sold on a retailer-by-retailer basis and approved by the Lottery. IGT will provide new units as required by the Lottery for new retailers and replacement units will be available to replace old units that do not meet the Lottery's approval.

IGT recognizes that, when it comes to the best way to display and promote instant ticket scratch-off games in a given retailer environment, one size does not fit all. Therefore, we will work with the Lottery to determine the best mix of options, ensuring that retail locations are optimized with the dispensers and promotional displays that best suit their needs. The success of your instant program rests, in good part, on the active involvement of retailers in promoting the sales of tickets. The following paragraphs present examples of types of dispensers and displays that could be useful in specific retail situations.

Based upon our experience, we do not recommend "promoter" style displays for instant ticket scratch-off games. While they do offer a compelling economic benefit related to the cost per bin, they do not provide good visibility of the product. They may be beneficial in high-volume locations that use an alternative approach, such as a menu board, to display the different games that are available.

While in-counter displays offer increased security for the tickets, their presentation to potential players is significantly less compelling than on-counter dispensers. Menu mats and menu boards may increase sales in these locations while retaining the security of the under-counter location.

Figure 4.4 – 63:

Assorted Modular Instant Ticket Dispensers



A Variety of Choices: The single Snap-Together 6" Modular Mini® Dispenser, 12" Modular Mini® Dispenser, and dual 6" Bingo Dispensers provide versatility in counter displays.

Single Snap-Together 6" Modular Mini® Dispenser

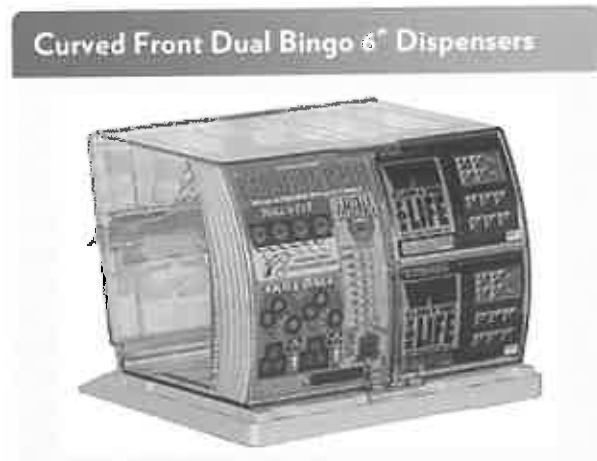
The original, Snap-Together Modular Mini dispenser is a single-model unit molded of 1/8" polycarbonate material. The dispensers can be stacked on top of each other with a "snap-together" feature. It is recommended that the stacking not exceed four units, but it is not unusual to see some stacked five or six high.

No foam tape is needed between units for stacking. A security door can also be added to this dispenser. The security doors restrict ticket access when dispensers are unattended. This dispenser requires a Single Lockable Slide Mount between the counter and first unit for mounting. Single units can be mounted on top of dual units to fit around other store elements.

Curved Front Dual Bingo 6" Dispensers

These dispensers provide a curved front, designed to fully display 4" x 6" tickets. They are available in both single and dual units.

Figure 4.4 – 64:



Dual 6" Modular Mini Gen2 Dispenser

This is one of the newest dispensers from Shafer Systems, a manufacturer and distributor of instant ticket scratch-off game displays, menu boards, and play stations. The dispenser incorporates a removable divider panel so that 8" wide tickets, such as IGT Super Tickets® and other oversized tickets, can be sold from a standard dispenser.

The following figure depicts the Dual 6" Modular Mini Gen2 Dispenser:

Figure 4.4 – 65:



Ticket Menu Boards and Mats

Some retailers are reluctant to display tickets on the counter. In addition, some dispensers, such as in-counter dispensers and certain black box dispensers, display very little of the tickets. Menu boards and change mats can be effective alternatives in these situations.

Ticket menu boards sit on top of a retail counter without taking up as much space as a display case and can display many tickets of varying shapes and sizes. This allows retailers to fully showcase all of the games available to customers while saving on valuable counter real estate.

Several varieties of ticket menu boards are shown in the following figures:

Figure 4.4 – 66:



On-counter menu mats lay on the retail counter, without taking up any standing space, providing the ability to display many instant ticket scratch-off games of varying shapes and sizes. Menu mats provide retailers with the flexibility to showcase all ticket options without losing counter real estate.

Figure 4.4 – 67:



No Space Lost:
On-counter menu mats showcase tickets of varying shapes and sizes without taking up any counter real estate.

4.4.13

Management Applications/Inventory Management and Tracking

The System should provide equipment, consumables, and point-of-sale ("POS") inventory management. The System allows POS and other commodity orders to be placed by the retailer and/or Field Marketing and Sales Representative via the terminal, sales device, and/or management terminal. Orders are logged by representative, retailer, and item including all deliveries, returns, re-issues, and destruction. Vendor personnel scans or enters the necessary information for the System to track each item and status change in real time. All equipment is assigned to the appropriate retailer for distribution. Inventory is tracked, viewable, and searchable by retailer, item, Vendor personnel, and chain.

Vendor should describe how it will accomplish the specified inventory management and tracking requirements and note any system provided by a third-party or other subcontractor.

Response Note: Current Vendor Field Equipment and Consumables requirements do not reflect minimum standards expressly provided in section 4.4 and Lottery Terms and Conditions. Major components and functionality specified relating to inventory tracking, logging, and analysis capabilities are not in the current System but are being requested as part of this RFP.

IGT is pleased to provide the West Virginia Lottery with significant enhancements to its management applications/inventory management and tracking systems. Our tools have improved greatly and will work to give the Lottery a real-time, comprehensive and holistic view of all equipment, consumables, and POS inventory at all times.

To achieve this, IGT will use three applications:

- **Equipment:** For equipment such as Aurora MultiMedia screens, terminals, and jackpot signs, we will use a newly enabled feature of our Cadence hotline application, the Inventory Management Tool (IMT). IMT is a premium capability that will track field assets and repair activities in real time. With read-only access through the Cadence UI, the Lottery can understand retailer asset statuses and run reports based on a number of parameters.
- **Consumable Management System (CMS):** IGT's CMS combines high-tech predictive ordering for consumables such as ticket stock, with personal hand deliveries by FSTs. Delivery via FST is integrated with preventative maintenance and service events as they occur.
- **Point of Sale (POS):** POS inventory, such as signage, adjustment forms, claim forms, ticket dispensers, etc., will be tracked and managed by IGT's powerful and intuitive Aurora OnePlace. With OnePlace, upon retailer visits, FMSRs will access the OnePlace application on their tablets to easily update inventory and place orders for retailers.

Below, we further describe these tools in greater detail.

Cadence's New Inventory Management Tool (IMT)

As a component of our Cadence hotline application, IGT has implemented a brand new inventory management tool that it will enable for the Lottery to vastly improve asset tracking and management. This premium capability, the IMT, will track field assets and repair activities in real time. The Lottery will receive read-only capability to the IMT UI, allowing for a real-time view of all assets and their statuses.

In addition, the Lottery will be able to run reports based on a number of parameters. IMT improves management of site inventory, knowledge of material location, and reporting on repair trends and parts orders. We will integrate with your Aurora system to monitor all major components installed from terminals to all peripherals. This means that all item movements are monitored and tracked at all levels, from depots and vehicles to agents.

Our solution supports the tracking of serialized and non-serialized assets. Inventory can be itemized by asset number or quantity and entered by the Call Center Associate or FST into Cadence. In the field, FSTs will use their mobile phones to communicate with Cadence in real time. In this way, asset management is neatly integrated into Field Service activities, as FSTs are already responsible for preventative maintenance, terminal provisioning, terminal repair, etc., allowing for precise, real-time tracking and giving FSTs a more comprehensive and clear view of their territory. The entire life of the equipment is maintained and can be tracked via Cadence by inventory number.

Activities Prior to Go-Live

Prior to Go-Live, IGT will order all necessary equipment for retail and establish a temporary warehouse in West Virginia. From there, IGT will:

- Establish asset types based on the technical strategy (e.g., terminal configurations).
- Once serial numbers are recorded, IGT will establish an interim process for deploying the infrastructure. Our Network Rollout Organization (NRO) will work in concert with the Cadence team to ensure that all serial numbers are synchronized, which will enable Asset Tracking within Cadence and, in turn, provide FSTs with the most accurate information in order to execute standard terminal maintenance procedures.
- Equipment (i.e., terminals, peripherals, etc.) arrives at the temporary warehouse and IGT's NRO rolls out equipment to retailers and records all serial numbers.
- The FST organization will use and maintain the asset inventory throughout the transition period in conjunction with the NRO rollout. At Go Live, all assets will be accounted for within both retail locations and the warehouse.
- Post Go Live, the FST organization will continue to maintain serialized tracking.

Consumables

Our FSTs are trained to complete a maintenance visit each time they enter a retail location, no matter what the retailer originally requested. This efficient approach to terminal maintenance allows us to identify and resolve potential issues before they turn into a service call. While at retailer locations, FSTs also check consumables inventories to ensure ticket stock and play slips are adequately maintained. However, with our predictive inventory management program described below, retailers will always have the proper amount of such consumables.

Predictive Inventory Management Program

IGT has developed an automated predictive inventory management system that maximizes operational efficiency. Our system measures the movement of paper through terminal devices and utilizes the usage statistics to calculate when new supplies are necessary. This is an inventory best practice, used throughout the retail and manufacturing industries.

Our solution is described as a Push model. It uses a calculation to define material use at each retailer and manages the distribution based on reorder point logic. The model “pushes” inventory to our retail network based upon calculated need. Retailer inventory is adjusted on a daily basis as actual usage, collected from terminal reporting, “nets” against retailer on-hand inventory. As on-hand inventory falls below planned levels, replenishment orders are created. In other words, in place of a retailer calling the customer hotline to order, an order requirement is automatically generated when the retailer's inventory level drops below a predetermined minimum days of supply.

As the orders are put together in the MUSL-approved cage area, the serialized items are scanned via barcode scanner into the Aurora Transaction Engine. This data is then time-stamped for historical reporting and for any investigations needed by the Lottery. The local FSTs will keep the on-hand inventory current in the system by conducting an audit count and entering the data in the locations' lottery terminals which load the new inventory into the system.

West Virginia FSTs, if requested, can usually respond to ad hoc supply requests within the same calendar day. All FSTs will also carry emergency stock for any emergency deliveries.

Ticket stock is delivered to retailers in cartons having a barcode and carton number. Each roll in the carton has a unique barcode allowing the ticket stock to be received at the retailer terminal. This information is used to confirm delivery of ticket stock orders.

Our solution frees retailers from having to manage their consumables inventory because it recognizes their inventory position and replenishment needs in advance of a stock-outage. The solution allows retailers to maintain sufficient on-hand quantity of all supplies and not be concerned with running low or out. IGT manages all supply needs for the smooth and effective operation of sales.

Reporting

The tracking system will generate various reports for both ticket stock and supply inventories. Following is a list of available on-screen reports:

- Locate Ticket Stock.
- Retailer Delivery History – Ticket Stock.
- Ticket Stock Inventory.
- Retailer Delivery History – Supplies.
- Supply Inventory Summary.
- Sales Representatives Delivery History – Ticket Stock.
- Delivery History – Ticket Stock.

Our ticket-stock tracking system's standardized and specialized reports add a powerful dimension to tracking. The system generates operational and management reports in either summary or detail format, enabling ticket stock inventory to be organized and analyzed.

The system's stock tracking provides numerous on-screen reports. For example, users can run Locate Ticket Stock reports to determine if the stock is in a specific location, damaged, stolen, in transit between locations, issued to a distribution representative, or issued to a retailer. Or, you can generate reports to locate and verify an individual ticket stock serial number (the number preprinted on the back of the stock) when high-tier winners are identified. The user enters the Vendor ID, the stream code, and the individual serial number, and the system responds with the details of the current location of that serial number.

These reports can search for an entire skid of ticket stock, a carton, a roll or even a single ticket. The tracking system retains historical data online. The maximum data retention time frame varies among jurisdictions, depending on available disk space and performance criteria.



Delivery Method

The consumable delivery will be facilitated by FSTs and integrated with preventative maintenance and service events as they occur. In addition, our FSTs can usually respond to ad hoc supply requests within the same calendar day, as opposed to the standard 24 to 48 hours often required by UPS or FedEx.

Removal and Destruction of Consumables

IGT will pick up and destroy existing ticket stock and play slips. Any material that is removed from a retailer, due to being deemed not usable or recyclable or slated for destruction, is isolated in a MUSL-compliant cage. All movement of ticket stock is recorded and signed off on by a Lottery security person. Once ticket stock is destroyed in compliance with MUSL standards, it is given a Destroyed status in our CMS system. Only Lottery-authorized personnel will be able to mark a roll as destroyed.

IGT will select a highly secure and reputable Vendor to perform the physical destruction of ticket stock.

Our Commitment to the Lottery

IGT understands that the sensitivity of ticket stock makes it essential that the location of a skid, carton, roll or individual ticket be traceable at all times. IGT commits that it will provide the Lottery with an accurate picture of where each roll of ticket stock is located at any given point in time. When the Lottery contacts IGT with an individual ticket number, IGT can track the number to a single retailer. Within 15 minutes, we will report back to the Lottery the name, location, retailer number, and date of delivery for the retailer to whom the ticket stock was delivered.

Field Marketing and Sales Representative Automated Ordering

While our Push model solution described above will alleviate the need for retailers or FMSRs to proactively place orders, IGT will ensure they can place orders via the retailer terminal and through devices used by FMSRs. The terminal will have an option for the retailer to order consumable supplies, and Aurora One Place will have consumable and POS inventory ordering capability on the tablets carried by FMSRs.

Tracking, Viewing, and Ordering POS Inventory via IGT's Aurora OnePlace

Tracking and seeing that retailers are appropriately stocked with POS inventory is critical to ensuring there are no delays in posting any signage or advertising items and they are being used by retailers appropriately. A quick lookup of POS items available in the POS warehouse will be accessible using IGT's new Aurora OnePlace. FMSRs will be equipped with tablets containing the OnePlace app. The app allows FMSRs to order POS inventory directly from their iPads. The order is automatically passed along to the central warehouse system, which, in turn, creates a pickup request for the items from the POS warehouse.

Tight Integration with Your Aurora System

OnePlace will provide tight integration with IGT's Aurora, and its dashboard will give FMSRs a view into POS inventory at each retail location in their territory. The OnePlace Inventory History screen provides a cumulative history of POS inventory at each retailer based on the FMSR's input, which they can, in turn, cross-check with the Aurora system and any other POS inventory data.

IGT will track retailer supplies through available content on the OnePlace Sales Force Automation tool. The OnePlace Inventory History screen allows further oversight of retailer supplies with FMSR inputs at the retail location – and will enable updates to a retailer's recorded inventory during on-site visits by the FMSR.

In addition, during the on-site visits, FMSRs will coordinate each retailer's current inventory with the retailer so they can estimate when each retailer will run low and order the supplies that are needed.

There should be little need to process retailer consumables orders thanks to the enhanced efficiencies in our SAP consumables management Push system, which calculates use of ticket stock and play slips. Based on an algorithm containing usage, on-hand counts, and preset min/max inventory levels, the system automatically determines when a reorder is needed.

4.5 Vendor Administration

Vendor Administration Staffing should sufficiently support all phases of the project including design, programming, installation, conversion, and ongoing support. Please describe your plans to achieve goals related to VENDOR ADMINISTRATION staffing specifications. (Section 4.5)

Vendor's proposal should describe how it plans to satisfy the vendor administration roles as described below:

We value our relationship with the West Virginia Lottery and would like to approach this new opportunity as more than just a relationship, but rather as a true partnership. IGT is ready to help you carry out your vision and to work hard to achieve your goals. We are committed to supporting our customers' mission and business objectives by making our *Customer First* philosophy our most important responsibility. Each of our customers deserves and receives attentive service based on this principle, and the West Virginia Lottery is no different. *Customer First* is not a business practice at IGT; it is a mindset – and we stand ready to continue putting this to work, every day, for you.

Our vendor administration staffing will sufficiently support all phases of the project, including design, programming, installation, conversion, and ongoing support. The following sections describe how we plan to achieve goals related to vendor administration staffing specifications and how we will satisfy the Lottery's vendor administration requirements.

4.5.1

Contract Management and Support Staff

The Vendor will provide the Lottery with staff for contract management and support services. Vendor personnel who are dedicated for permanent, full-time work supporting the WV Lottery account cannot be taken from their primary duties to provide temporary services to another lottery jurisdiction or to the Vendor's corporate locations without the written authorization of the Lottery Director or designee. Vendor may cross-train personnel to ensure coverage across various job functions and allow employees to serve in multiple capacities, unless otherwise specified in this RFP. No personnel may be temporarily reassigned to provide services of any nature to the Lottery other than for traditional operations as set forth in this RFP, unless express written consent is provided by the Lottery Director or designee.

Vendor should identify any subcontractors that are anticipated to be part of the implementation and ongoing operational support by name. Changes to the proposed documented structure or staffing are to be approved by the Lottery.

Our permanent, full-time employees will use their experience and expertise to work uniformly across all lines of business to support the West Virginia Lottery's business objectives and to keep jobs in the State. Our local team will focus on helping you increase revenue and drive sales to fund good causes that benefit West Virginia seniors, including Veterans, and support programs that fund education and tourism in the State. We recognize the importance of having a dedicated team to meet your needs. As such, we will provide a dedicated staff who will not be taken from their primary duties to provide temporary services to another lottery jurisdiction or to other IGT Corporate locations without the written authorization of the Lottery Director or designee.

Acquiring Local West Virginia Talent

Among our West Virginia staff are many native West Virginians and others who have proudly made West Virginia their home. No matter their native state or country, their commitment to their communities contributes to the growing multi-cultural fabric of the State. Over the course of the Contract, IGT will source, attract, identify, and hire the best-in-class talent from within the State of West Virginia. Thoughtfully, consistently, and constantly building the leadership and talent within the organization through recruiting, ongoing training, and employee development will allow the West Virginia team to continue to expand the resources necessary to accommodate IGT's future talent needs. It is this talent that will deliver solutions to support the Lottery's objectives and achieve outstanding results.

Anticipated Subcontractors

While IGT will not have any subcontractors as part of our ongoing operational support structure, we plan to contract with third-party subcontractors during the implementation period for Very Small Aperture Terminal (VSAT) and terminal installations, as noted in Attachment A, Section 3.1, Corporate Capabilities and Overview. These subcontractors will be determined upon Contract award.

We acknowledge that changes to the proposed documented structure or staffing will be approved by the Lottery.

4.5.2

WV Vendor Staff

At minimum, the Vendor should provide the following management level positions: General Manager, Operations Manager, Marketing and Content Manager, Field Marketing and Sales Manager, Warehouse and Field Technical Services Manager, Telemarketing Supervisor, Hotline Supervisor, Database Administrator, and Systems Administrator. These positions are to be dedicated solely to the Lottery's account and operate from a Vendor facility located in WV.

Upon Contract award, the Lottery reserves the right to refuse the services of any Vendor on-site employee based on the employee's competence, performance, and/or criminal background. Criminal background refusal is based on the employee's conviction of any felony or crime related to theft, gambling, or involving moral turpitude as detailed in the Lottery Terms and Conditions.

We recognize that your requirements do not begin and end with the awarding of your Contract. Our ongoing commitment to achieving your business objectives is our most important responsibility. We expect our employees to fulfill the requirements of their respective roles and, further, we encourage and expect them to lead – no matter their role – in their service to the West Virginia Lottery. In keeping with that expectation, we are proposing IGT professionals who are uniquely qualified to support business continuity, continued growth, and innovation in West Virginia. The result will be a collaborative organization that is responsible and accountable to you.

Under the leadership of General Manager Nikki Orcutt, the following critical staff will continue to serve the West Virginia Lottery, leveraging the knowledge and experience they have gained working for you since 2009:

- **Nikki Orcutt:** General Manager.
- **Tim Snyder:** Operations Manager.
- **Joseph Payne:** Field Marketing and Sales Manager.
- **Roger Ezzell:** Field Technical Services and Warehouse Manager.
- **Gail Stroup:** Telemarketing (Tel-Sell) Supervisor.
- **Art Osborne:** Hotline Supervisor.
- **Shane Durham:** Database Administrator.
- **Tim Powers:** Systems Administrator.

We have provided short biographies for each person later in this section.

Our Marketing and Content Manager position has been accounted for in our West Virginia staffing plan; however, this role is **to-be-hired**. It is our intention, and our hope, to work collaboratively with you in hiring a highly qualified local candidate through this process. We have provided more details about this position in Section 4.5.10, Marketing Content Manager.



IGT West Virginia Organizational Chart

The **IGT West Virginia Ongoing Operations Organizational Chart** – presented as an insert at the end of this section – includes all key Contract positions, names, titles, and headcount allocation numbers. It also presents key IGT Corporate Support resources to show how our West Virginia staff will work collaboratively with, and be supported by, our operations, marketing, and executive staff to ensure business continuity and strength of service provision.

Resumes are provided in the exhibit entitled **Resumes**, which is located behind the Exhibits tab.

The following short biographies introduce our West Virginia team:

Nikki Orcutt, General Manager



Nikki Orcutt will be responsible for the overall management and direction of IGT's operations in West Virginia. With more than seven years of West Virginia Lottery experience, Nikki and her staff will support the continued integrity of the Lottery and its successes. Nikki will manage the transition from conversion to ongoing operations by working closely with the Lottery and our Corporate IGT teams to ensure a seamless, risk-free conversion. She will also be responsible for the ongoing development of our current staff and the continued enhancement and revision of work processes and procedures.

Since joining IGT in November 2015, Nikki has been responsible for the organization and implementation of IGT's FutureGame, with primary responsibility for the strategic alignment of innovative products across the Marketing and Portfolio Management Teams. She has collaborated with other corporate lottery marketing functions to identify and support execution of same-store sales projects and initiatives across the U.S. In addition, she was responsible for the customization of IGT's "go-to-client" approach, as well as the extension of FutureGame integration with other product areas (including IGT Printing), non-U.S. jurisdictions, and third parties. Her return to the forefront of West Virginia operations will see her serve as a direct mentor and leader to our local operations team, a collaborative sales and revenue partner for the Lottery, and a coach to our incoming Marketing and Content Manager to ensure a smooth transition on all West Virginia Lottery matters.

Tim Snyder, Operations Manager



Tim Snyder has worked closely with the West Virginia Lottery management and staff for nearly 17 years under several vendors and in different capacities. Tim understands the challenges the Lottery faces on a daily basis and works tirelessly to deliver results. Tim will continue to oversee all aspects of operational services for the Lottery's new Contract, including data center operations – both Primary Data Center (PDC) and Backup Data Center (BDC) – systems team operations, audits, and supporting system project deliveries to meet the requirements of the Contract. He will serve as a Point of Contact (POC) for the Lottery, will work closely with the Lottery and the IGT project team during the conversion, and will continue as the liaison between the Lottery and the software delivery teams to insure a seamless flow of information during the life of the Contract. Tim will also act as liaison between the Lottery, Elsym, and all other third-party subcontractors.

Joseph Payne, Field Marketing and Sales Manager



Joseph Payne has been with IGT for five years and will be responsible for managing the day-to-day operations for our West Virginia Field Marketing and Sales Representatives (FMSRs). Joe will monitor and maintain service levels, while incorporating best practice solutions for FMSRs to use in the retailer sales environment. Joe will serve as a liaison to the West Virginia Lottery Deputy Director of Marketing and other West Virginia Lottery Marketing staff members, providing support with retailer management, training, promotions, and sales initiatives, as well as field sales and customer-relationship strategies. He will also be closely aligned with our Field Technical Services and Warehouse Manager, as well as our Telemarketing Supervisor to drive promotion and sales initiatives and create synergies in support of field sales operations.

Roger Ezzell, Field Technical Services and Warehouse Manager



Roger Ezzell has been with IGT for more than 12 years and has led our West Virginia Field Service operations since 2009. Roger has oversight for our local team of FSTs, Repair Logistics Technician (RLT), warehouse staff, and service vehicle fleet; has fiscal accountability for all service activities within the state; and plays a key role in the planning, implementation, and execution of equipment and firmware upgrades in the field. Roger is seen as a dependable leader within our Global Field Service organization and has been asked to participate in, and lead, multiple conversion efforts over the years for our customers in Arizona, Tennessee, and Michigan. He was also an integral member of a global safety initiative that spanned our Field Service organization, for which he received our Company's President's Award. He will be closely aligned with our Field Marketing and Sales Manager, as well as our Telemarketing Supervisor to enhance efficiencies in retail inventory management and field operations support.

Gail Stroup, Telemarketing (Tel-Sell) Supervisor



Gail Stroup has 25 years of experience in the lottery industry, all them providing support to the West Virginia Lottery in different roles. Gail was an integral part of the previous system conversion team in West Virginia in 2009, and she will continue to bring her knowledge and experience to IGT's West Virginia team during the new Contract. In her role as a Tel-Sell Supervisor, Gail is responsible for the direct supervision and training of our telemarketing team. She reviews the performance of each individual team member, and the team as a whole, to ensure performance goals are accomplished and retailer relationships are fully

developed. She coordinates the division of territories to make certain retailers are contacted on a weekly basis. Using the various reports and information available, Gail provides the telemarketing staff with the necessary tools to deliver the highest-quality customer service to your retailers. We have provided more information about Gail's responsibilities under your new Contract in Section 4.5.4, Telemarketing/Tel-Sell Staff. She will be closely aligned with our Field Technical Services and Warehouse Manager, as well as our Field Marketing and Sales Manager to help improve sales and promotional activity and assist in enhancing retail field operations and Lottery customer relationships.

Art Osborne, Hotline Supervisor



Art Osborne oversees the daily operation of the Hotline in Charleston, West Virginia, and has been with IGT in this role for the last six years. In his daily responsibilities, Art ensures that required service levels are exceeded and that customer service standards are met for each Lottery retailer call. He also ensures that FSTs are notified of equipment issues in a timely manner and that data and reports are available to identify any trends that may arise in maintenance calls.

When Art was hired, he realized the potential for the West Virginia call center to become something more than a center that only services West Virginia's retailers, and lobbied IGT's National Response Center (NRC) to have equipment and seats installed to expand the Charleston location to take calls from all over the country. The center grew from a three-associate, West Virginia-only call center to a 10-associate, nationwide center, creating seven additional jobs in the State, while maintaining the West Virginia Lottery's requirement for its calls to be handled within the State. As stated above, West Virginia retailers are given call priority within our Charleston location, and we remain committed to that same practice under the Lottery's new Contract.

Shane Durham, Database Administrator



As a Database Administrator, Shane Durham's primary goal is to ensure that the Data Warehouse contains the proper level of data granularity in a user-friendly way, provide high-level support and assistance to the reporting solution, and make sure all reports meet the West Virginia Lottery's needs. Shane has been with IGT for more than five years and currently provides support to the Lottery relating to the Business Objects Reporting Solution. This includes creating and editing reports, troubleshooting, and resolving issues with database universes, tables, and data. Shane also provides support in Extraction, Transformation, and Load (ETL) processing, ensuring that the ETL loads run on schedule and correctly Continuous Day Count (CDC) after Continuous Day Count (CDC). Shane also works each year directly with the West Virginia Lottery Licensing Department to ensure a smooth licensing period for both the West Virginia Lottery and West Virginia's retailer base. This includes creating or editing renewal forms in Business Objects for the Lottery to be able to run one report for all retailer licenses. He also has created reports to help licensing from start to finish of the licensing period.

Tim Powers, Systems Administrator



Tim Powers will be responsible for assisting in designing, planning, and implementing modifications to the network, system, and servers including security, access, and documentation. Tim will also provide technical assistance in identifying, evaluating, and developing systems and procedures as they relate to the network, servers, systems, and applications that are delivered. Tim has 13 years of Lottery experience and seven years with IGT in roles of increased responsibility. In his current role as a System Administrator, Tim is responsible for 24/7 proactive administration and operational support of the network, servers, and applications in the production and testing environments. He develops and maintains scripts for systems automation and maintenance tasks, provides server hardware and software support (including installation, configuration, and deployment), and provides PC hardware and software support for multiple users (including installation, configuration, repair, and deployment of desktop and laptop computers and peripherals). Tim served as the Site Project Lead in 2011 for the West Virginia Lottery Headquarters Relocation, and in 2015/2016 for the BDC Relocation Project.

Marketing and Content Manager



As noted above, we have provided more details about the Marketing Content Manager in Section 4.5.10, Marketing Content Manager, as this position is ***"to-be-hired."*** The successful candidate will be closely aligned with Joe Payne, Field Marketing and Sales Manager, and will work to leverage skill sets into the retail selling environment.



Addressing Business Continuity with Business Analysis and Software Quality Assurance

Throughout the course of your last Contract, we have grown to understand the premium the West Virginia Lottery places on business continuity. Our on-site Business Analyst (BA) and Software Quality Assurance (SQA) Analyst are positions that are not required by the Lottery, but are local resources that are crucial to your everyday ongoing operations.

Our BA is responsible for contract compliance and liquidated damage assessment, directing the efforts to ensure that contract requirements are being met, and coordinating all auditing efforts at the site. This includes working directly with all internal and outside auditors (SOC1, MUSL, SOX, ISMS, etc.) to identify and define all controls and then collect, itemize, and retain evidence to support compliance to all control objectives. The SQA Analyst provides local QA testing of all software changes prior to Customer Acceptance Testing (CAT), develops all testing scripts and procedures, and directly assists and provides services to the Lottery during all CAT testing, including testing scripts and procedures, system preparation and restoration, performing all game drawing procedures, instant ticket scratch-off game loading/ordering/Pick and Pack efforts, and performing and maintaining all tape backups.

By having an on-site Business Analyst and SQA Analyst, we are committed to continued knowledge and transparency across our organizations and to going above and beyond expectations.

Jeramie Gibson, Business Analyst



Jeramie Gibson has been a part of our West Virginia team since 2009 and has 10 total years of lottery industry experience. Jeramie creates and edits requirements documents during the course of a software batch, operates as the site liaison between the Lottery and our local West Virginia team for software needs, maintains the JIRA database that documents requests for software and software changes from the Lottery related to host and hardware, and is responsible for the annual SOC1 audit. Over the course of his tenure, Jeramie has developed requirements for and helped to implement the following successful software changes/upgrades: SmartCount, Mega Millions, Marketing Interface Files, Powerball Matrix Change, Power Play and IPS Settlement, among others.

Jeremy Vickers, SQA Analyst



Jeremy Vickers has been with our West Virginia team since 2009, where he started as a Computer Operator. Jeremy's primary responsibility is to create plans and procedures and to test all software prior to its implementation into the production environment. He assists the Lottery with acceptance testing, reporting any issues found and ensuring resolution to the Lottery's satisfaction. Jeremy also assists with troubleshooting and problem resolution when issues or anomalies occur in the production environment, and tests and ensures compatibility between all new hardware and software. Since transitioning to the

SQA Analyst position, Jeremy has played a major role in the MUSL updates to Powerball, updates to Business Intelligence (BI), implantation of batches and Emergency Batch Fixes (EBFs), and the BDC relocation in 2015/2016.

IGT Executive Support Personnel

Our West Virginia Ongoing Operations Team will have a close working relationship with our senior staff at the corporate level. Specifically, Nikki Orcutt will report directly to Regional Vice President, Matt Cedor. This close working relationship will ensure the West Virginia Lottery has the support it requires from all functional areas of our organization. In turn, IGT's senior staff will be highly aware of the Lottery's business plans and objectives and the progress our West Virginia Ongoing Operations Team is making in support of them. Along with these benefits is the assurance of immediate responsiveness to any escalated issue.

Matt Cedor, Regional Vice President



As Regional Vice President, Matt Cedor leads cross-functional IGT operations teams in serving clients throughout the U.S. market. Matt focuses on guiding the organization in delivering IGT's *Customer First* philosophy regarding a full range of product solutions including iLottery and iGaming, lottery central system solutions, instant ticket scratch-off games, and video lottery services. Matt has been with IGT for more than 20 years in various roles, including site operations, business development, product marketing and management, and project management in both the U.S. and international markets.

Joseph (Jay) S. Gendron, Senior Vice President, World Lottery Association (WLA) North America



Jay Gendron makes it his business to know and serve our customers. Jay makes sure each customer's business objectives are fully understood and supported. Jay will provide the Lottery with a visible senior staff presence, as he will regularly engage with West Virginia Ongoing Operations Team leadership and staff. He brings more than 20 years of experience to our customers.

Michael Chambrello, President & CEO, North American Lottery



Michael Chambrello oversees the strategic development and management of business in the U.S. and Canada, working directly with IGT's management teams to deliver value to IGT's customers, shareholders, and employees. Michael also oversees the development and delivery of all lottery technology solutions globally for IGT. In addition, he is responsible for our global instant ticket scratch-off printing business.

4.5.3 System Operations Staff

The Vendor should provide personnel who are responsible for System operations, retailer networks, test systems, and any other operations at Vendor facilities. Duties include System startup and shutdown tasks, monitoring, draw results entry, report generation, file backups, recovery from system failures, and various operational procedures to provide accurate and secure System operations. System operations provide reports and files documenting activities.

Vendor PDC should be staffed with a minimum of two computer operators at all times and a minimum of eight computer operators to cover all shifts. Appropriate management may temporarily substitute for an operator when he or she leaves the data center room. The remote backup system facility should be adequately staffed for failover scenarios and testing as required by the Lottery.

Under the direction of Tim Snyder, the System Operations Team will consist of:

- Jeremy Vickers, SQA Analyst.
- Tim Powers, System Administrator.
- Shane Durham, Database Administrator.
- Eight PDC Computer Operators.
- One BDC Computer Operator.

This team will be responsible for Aurora™ operations, retailer networks, test systems, and any other operations at our PDC and BDC facilities. They will handle Aurora start-up and shutdown tasks, monitoring, draw results entry, report generation, file backups, recovery from system failures, and various operational procedures to provide accurate and secure Aurora operations. The System Operations Team will provide reports and files documenting activities as requested.

Our Charleston PDC will be staffed with a minimum of two computer operators at all times and a minimum of eight computer operators to cover all shifts so that a temporary operator substitution can occur should an operator need to leave the data center room. The remote backup system facility will be adequately staffed for failover scenarios and testing as required by the Lottery.

IGT Corporate Operations Support

Data Center of the Americas (DCA)

The DCA Operations Senior Management Team comprises seven lottery professionals across six crucial organizations who have a combined total of more than 140 years of leadership and management experience in the U.S. and abroad in both the lottery and IT fields. These professionals possess the latest skills and are trained in industry, national, and worldwide operational best practices.

To ensure operational excellence for our customers, the DCA incorporates the following into the governance of its operations:

- Best practices from the Information Technology Infrastructure Library (ITIL), Control Objectives for Information and Related Technologies (COBIT), and Capability Maturity Model Integration (CMMI) frameworks.
- Guidance from Information Systems Audit and Control Association Certified Information Systems Auditors (ISACA CISA).

Operational governance ensures that policies and strategies are actually implemented and that required processes are correctly followed. Each process and best practice continue to ensure prompt and effective response to recover from system failures, diagnose root cause of failures, perform planned maintenance, and implement planned and urgent system, network, and software changes with minimal impact to the operating environment. This includes defining roles, responsibilities, measuring, reporting, and taking actions to resolve any identified issues.

4.5.4

Telemarketing/Tel-Sell Staff

The Vendor should employ a minimum of three telemarketing operators and be located in a Vendor facility in WV.

The Vendor should employ one additional individual to serve as a full-time Telemarketing Supervisor whose job will be to view and analyze the telemarketers' actions by telemarketer name on deferred calls, orders placed, retailers that have dropped or lowered orders, out-of-cycle call ins, and daily progress.

Our West Virginia Telemarketing Team of three operators will continue to be located in our Charleston PDC location under the direction of Gail Stroup, our full-time Telemarketing (Tel-Sell) Supervisor. These operators will create and promote a positive, customer-centric environment and will act as knowledgeable resources for your retailers, working to ensure their on-hand inventory of instant ticket scratch-off games are properly managed. The Telemarketing Team will promote new products, recommend orders based upon the predictive order recommendations of our new Aurora OrderStar telemarketing software, support your Key Accounts, and help our FMSRs promote sales in coordination with ongoing field operations. Further information about our Aurora OrderStar offering may be found in Attachment A, Section 4.6.3, Telemarketing.

Our team is eager to continue working to increase the Lottery's draw-based game and instant ticket scratch-off sales. They are excited about the capabilities that Aurora OrderStar will provide, including improved integration with FMSRs through the Aurora OnePlace Sales Force Automation Tool.

Gail will continue providing supervision for our Telemarketing Team. She will observe and evaluate their actions pertaining to orders placed, deferred calls, fluctuation in order levels, out-of-cycle call-in orders, and daily progress. Gail will ensure the team is properly trained and the Aurora OrderStar software properly configured so the Lottery's retailers and the Lottery will benefit from the new system starting on Day 1. Gail will work with Nikki Orcutt and Joe Payne to ensure that the FMSRs are fully trained on the ordering process available to them with the Aurora OnePlace Sales Force Automation Tool and that her team works closely with the FMSRs to both monitor and improve the Lottery's instant ticket scratch-off business. Gail will also continue establishing weekly selling goals for each member of the Telemarketing Team to ensure the required games are being upsold during daily retailer calls.

4.5.5 Hotline Staff

Vendor Hotline staff services are required to be located in a Vendor facility in WV and provide a 24/7/365 Hotline service to assist retailers and provide support for player services. Vendor should provide a minimum of three Hotline operators during normal business hours dedicated to service traditional Lottery retailers and players including one Hotline Supervisor.

Vendor should have at least one operator at all times to provide timely, professional, and accurate call responses for the Lottery's retailers and players. Hotline staff should be trained to perform diagnostic tests, address communication failures, resolve most retailer validation problems that do not require dispatch of field technicians, and provide technical support for player services (e.g. user id/password assistance and reward balance inquiries).

Our West Virginia Hotline will employ a minimum of three operators who will be 100% dedicated to the West Virginia Lottery. The operators will work under the direction of Art Osborne, our Hotline Supervisor. These operators will continue to be located at our PDC in Charleston. Our West Virginia Hotline is also part of our National Response Center (NRC) family of Hotlines that provides around-the-clock (24/7/365) Hotline service to assist retailers and provide support for players. As we do today, we will provide a minimum of three Hotline operators during normal business hours dedicated to service traditional Lottery retailers and players. Our plan is described in detail in Attachment A, Section 4.6.5, Hotline.

Our West Virginia Hotline will provide timely, professional, and accurate call responses for the Lottery's retailers and players via a thorough training/onboarding program and continual professional development and quality assurance reviews. They will be trained to perform diagnostic tests, address communication failures, resolve most retailer validation problems that do not require dispatch of FSTs, and provide technical support for player services (e.g., user ID/password assistance and reward balance inquiries). We have provided more details regarding our approach to Hotline training in Attachment A, Section 4.6.5, Hotline, under the heading "West Virginia Hotline Associate Training and In-House Training Materials."

IGT's NRC Executive Support

Our West Virginia Hotline will benefit from the experience of our corporate support staff at the NRC. These professionals have nearly 20 years of IGT experience supporting our local teams, our customers, their retailers, and their players.

Michael Carpenter, Director, Global Services Call Center



Michael Carpenter has been with IGT for nearly 10 years in roles of increasing responsibility within our NRC call centers, training, and operations departments, which has afforded him an acute knowledge of all aspects of operations management. In his role as Director of Global Services Call Centers, Michael has focused on delivering quality service to lottery retailers and ensuring that all Contractual service level requirements are met. He has directly contributed to every major Lottery start-up and conversion since 2008 and led the effort to implement the interactive support model for the U.S. in 2011.

Steven Kay, Vice President, Global Services Call Center



Steven Kay has been with IGT for eight years as a member of our contact center management team. In his current role, Steven has executive oversight for our NRC locations in the U.S. and also provides support and oversight for our retail contact centers around the world. Under his leadership, the NRC has adopted a universal agent strategy in order to maximize the level of service IGT provides to our customers. Since 2011, the NRC has been recognized as one of the top five contact centers in the Americas by Contact Center World. For the last two years, the NRC improved its ranking to best in the world. Steven also sponsored Lean Six Sigma Training for all key contact center personnel. Since 2012, the NRC has achieved ISO 14001, ISO 27001, and ISO 20000 certifications.

4.5.6

Field Technical Service Staff/Field Staff

Vendor should provide one full-time Warehouse and Field Technical Services Manager who will provide oversight of the Field Technical Service Staff and warehouse staff.

*Field Technical Service Staff should be hired and maintained by the Vendor at all times. Field Technical Service Staff are responsible for all necessary equipment install, maintenance, repair, and removal. In the event of a retailer's license being approved, revoked, or suspended by the Lottery, the Field Technical Service Staff installs or recovers all Lottery and Vendor equipment within a 24 hour period from the initial retailer or Lottery service request. Field Technical Service Staff should be on site within two actual hours of notification for Lottery designated high volume retail locations and within four business hours of notification for all other retail locations. Vendor should describe its response times and a detailed plan for its Field Technical Service Staff proposal. The Lottery currently identifies 38 high volume retailers in **Appendix H**.*

Field Technical Service Staff evaluates the field equipment including retailer and Lottery terminals, peripherals, check writers, and ancillary equipment. Vendor supplies Field Technical Service Staff with motor while on duty. Vendor should ensure field staff maintains a valid driver's license and meets all Lottery security requirements.

Roger Ezzell will be our full-time Warehouse and Field Technical Services Manager. Roger will oversee our Field Technical Services staff and Warehouse staff for the Lottery's new Contract, as well as a team of 10 Field Service Technicians (FSTs), one of which will also serve as an RLT and be responsible for terminal screening and maintenance repair at our Elkview Field Repair Location/Warehouse. We have provided more details about Roger in Section 4.5.2, WV Vendor Staff, above and in Attachment A, Section 4.6.6, Field Technical Services, under the heading "Your West Virginia Field Services Team."

The FSTs we hire and maintain are responsible for, at a minimum:

- All necessary equipment install, maintenance, repair, and removal.
- Installing or recovering all Lottery and IGT equipment within 24 hours from the initial retailer or Lottery service request in the event of a retailer license being approved, revoked, or suspended by the Lottery.
- Arriving on site within two actual hours of notification for Lottery-designated high-volume retail locations (currently 38 high-volume retailers as noted in Appendix H) and within four business hours of notification for all other retail locations.
- Evaluating the field equipment, including retailer and Lottery terminals, peripherals, check writers, and ancillary equipment.

Our response times and a detailed plan for our West Virginia Field Services organization is provided in full in Attachment A, Section 4.6.6, Field Technical Services. We will continue to provide a maintenance and repair motor fleet for our FSTs and will continue to ensure our staff maintain valid driver's licenses and meet all Lottery security requirements.

IGT's Corporate Field and Gaming Services Support

Our West Virginia Field Services Team will be supported by our corporate Field Services organization. The management team has more than 70 combined years of experience providing lottery field service and related projects for domestic and international customers. For more information about the management team, as well as other IGT Corporate support teams that will work with our West Virginia Field Services Team, please refer to Attachment A, Section 4.6.6, Field Technical Services, under the headings "IGT's Corporate Field and Gaming Services Support" and "IGT Corporate Support Divisions."

4.5.7

Warehouse Staff

The Vendor should provide adequate personnel to receive, warehouse, process Orders, package, and ship/transfer all instant ticket game stock, POS materials, consumables, ticket dispensers, terminals, equipment, and marketing supply items requested by the Lottery.

Our West Virginia warehouse will remain in its current location in Elkview, West Virginia, which also incorporates our primary field service repair activities for the Lottery. Our warehouse team consists of two warehouse clerks under the supervision of Roger Ezzell. They will continue to receive, warehouse, process orders for, package, and ship/transfer all instant ticket scratch-off game stock, Point-of-Sale (POS) materials, consumables, ticket dispensers, terminals, equipment, and marketing supply items requested by the Lottery. Our warehouse team prides itself on ensuring prompt shipment of all replenishment orders entered each day. For more information about our proposed warehouse and distribution plan for the Lottery's new Contract, please see Attachment A, Section 4.6.7, Warehousing and Distribution.

4.5.8

Field Marketing and Sales Staff

Vendor's Field Marketing and Sales Representatives are to be the Lottery's main contact with retailers. Adequate staff maintenance should be provided by Vendor and includes at least one full-time Field Marketing and Sales Representative for each 100 retailers, who will have a wide variety of duties. There are currently 1,485 Lottery retailers. Vendor should maintain the ratio of retailers per representative as required by the Lottery. Field Marketing and Sales Representatives provide services in every geographic part of WV for all retailers. The call frequency and schedules are approved by the Lottery, with a minimum of one Field Marketing and Sales Representative visit per retailer per month. Field Marketing and Sales Representative assigned territories are defined by county borders for sales reporting continuity, unless otherwise approved by the Lottery.

Vendor supplies Field Marketing and Sales staff with motor vehicles. Vehicles should not be branded to identify the Lottery, the Vendor, or the State of WV and appropriately insured to the levels requested by the Lottery. Vendor should ensure field staff maintains a valid driver's license and meets all Lottery security requirements.

Field Marketing and Sales Representatives are to be paid using a sales incentive compensation, such as a base salary coupled with bonus. Lottery approves the Field Marketing and Sales Representative compensation plan and any future modifications upon Contract Award.

The Front Lines

In the lottery business, the sales force is more than just friendly, familiar faces. The FMSR is the lottery retailer's face of the Lottery, whose professionalism, frequent visits, advice, market insight, and availability provide the foundation for a strong and mutually successful partnership between the West Virginia Lottery and its retailers.

Our staff of full-time FMSRs, managed by Field Marketing and Sales Manager Joe Payne working at the direction of Nikki Orcutt, will be the Lottery's primary face-to-face contact with retailers. We will meet the Lottery's requirement for FMSR staff maintenance by supplying one full-time FMSR for each 100 retailers (currently 1,485 Lottery retailers in total). We will maintain the ratio of retailers per representative as required by the Lottery and will routinely monitor our staffing levels and retailer recruitment numbers in accordance with this requirement. We have provided more information on the roles and duties of our West Virginia FMSRs in Attachment A, Section 4.6.8, Field Marketing and Sales, under the heading "Summary of Field Marketing and Sales Responsibilities."

Today, our FMSRs provide services in every geographic part of West Virginia for all your existing retailers. Their call frequency and schedules will be approved by the Lottery, with a minimum of one FMSR visit per retailer per month. Their assigned territories are defined by county borders for sales reporting continuity, unless otherwise approved by the Lottery. We will continue supplying our FMSRs with motor vehicles – which will not be branded to identify the Lottery, IGT, or the State of West Virginia – and will help to minimize security risks associated with ongoing service to retail operations. We will appropriately insure our sales fleet to the levels requested by the Lottery, and our FMSRs will maintain valid driver's licenses and meet all West Virginia Lottery security requirements.

FMSR Sales Incentive Compensation Program

One of the most important lessons we've learned with lottery retailers is that "one size does NOT fit all." Each retailer has distinct and special needs, which can best be served by a highly motivated, "incentivized" sales professional. Some retailers, particularly those with exceptional sales volume and replenishment needs, may require more visits than others. In addition, retailers associated with a corporate organization may be handled differently than sole proprietors. Customization of the number and kinds of retailer visits is an IGT competence acquired through field-tested methods. Our West Virginia FMSRs have a sales incentive compensation program (base salary coupled with bonus) that is paid out on a quarterly basis. Our philosophy is that incentive compensation is performance-based and is designed to provide incentives to achieve both short-term financial results and longer-term strategic objectives. The primary focus of our West Virginia Sales Incentive Plan is to motivate our FMSRs and reward the achievement of specific sales goals of retailers in West Virginia. We want to reward our FMSRs who materially impact our ability to meet or exceed sales quotas for West Virginia Lottery accounts.

We will work in unison with the West Virginia Lottery to establish sales performance metrics and other performance measures to ensure that our organizations are aligned and working to achieve the same goals and objectives. The Lottery will approve our FMSR compensation plan and any future modifications upon Contract award, as you do today. In conjunction with the Lottery, we will use the components below to help determine the criteria used for the Sales Incentive Plan developed for West Virginia:

Quarterly Sales Quota Plan:

- a. Sales goals will be established for each sales representative based on their territory's sales from the same quarter during the previous year. Payouts start when 95% of the sales goal has been achieved. The maximum payout is met when 105% of sales have been achieved.
- b. Target payout amount depends upon sales category and is weighted as follows:
 - 45% Instant Ticket Scratch-Off Game Sales.
 - 30% Online Sales (excluding Powerball and Mega Millions).
 - 12.5% Powerball Sales.
 - 12.5% Mega Millions Sales.
- c. SPIFF Kicker
 - The SPIFF is an opportunity to earn additional incentive payments for meeting or exceeding stretch sales goal as determined by the company.

IGT's Retail Sales and Marketing Execution Support

To strengthen the alignment of corporate and site resources around account plans and financial objectives, IGT's Retail Sales and Marketing Execution group will establish a dotted line reporting connection to our West Virginia Field Marketing and Sales staff site resources.

Tom Stanek, Senior Director of Sales and Marketing, and **Nat Worley, Vice President of Marketing: North America,** will work closely with our West Virginia team to execute coordinated growth initiatives. For more information, please refer to Attachment A, Section 4.6.10, Research and Strategic Development, under the heading "Staffing Plan."

4.5.9

Sales Manager

Vendor should provide a Marketing and Sales Manager to oversee all field sales and marketing operations. Vendor should provide a highly-qualified individual with a minimum of five years of professional experience in retail, sales, and/or marketing. This position serves as the liaison to the Lottery Marketing Director. The marketing and sales manager maintains service levels, recruits, provides retailer and chain account services, and develops corporate marketing and sales initiatives and strategies for use by the Lottery.

As stated in Section 4.5.2, WV Vendor Staff, above, Joe Payne will be our Field Marketing and Sales Manager for the Lottery's new Contract and will oversee all field sales and marketing operations in the State. He is well-known to the Lottery and is highly qualified, having received a promotion to this role from his previous position as West Virginia Marketing Manager. Joe has more than five years of lottery marketing experience and will work as the liaison with the Lottery's Marketing Director, Retail and Chain Accounts Manager, and other key Lottery Marketing staff with whom he has developed a great relationship since his arrival. Joe has worked with the Lottery on two retailer incentive contests in 2016: for your Holiday instant ticket scratch-off games and your \$10 Wheel of Fortune game. These retailer incentive offerings were the first of their kind under Joe's tenure. Joe is also a presence in the field alongside his FMSRs, making it a point to ride along with them at least three times per month.

In his new role, Joe will enhance service levels, recruit, provide retailer and chain account services, and develop corporate marketing and sales initiatives, promotions, and strategies for use by the Lottery. Joe will report to our West Virginia General Manager, Nikki Orcutt.

4.5.10

Marketing Content Manager

Vendor should provide a Marketing Content Manager with responsibilities for scheduling, updating, tracking, and implementing all Lottery-approved content for use across all platforms and distribution channels including but not limited to retail, website, social mobile interactive, customer display messaging, ticket messaging, terminal messaging, and any other Lottery requested marketing tools. Vendor should employ and maintain a highly-qualified, organized individual with a minimum of three years of experience in marketing, communications, retail, public relations, or other related field.

Marketing Content Manager will also serve as the liaison to the Lottery marketing staff who assist and/or approves all content for distribution.

We recognize that by asking for a management-level marketing content position within our organization for your new Contract, the Lottery has high expectations for its marketing campaigns, retail execution, and level of collaboration and outreach efforts over the course of the next seven-plus years. In today's media-driven and technology-powered society, the timeframe to attract a potential player's attention (whether a long-time player or a potential new player) has decreased to single-digit seconds. Content and advertising must quickly capture and engage an audience, bringing them into the experience and immersing them in the environment. Our goal is to hire a Marketing Content Manager who will work side-by-side with the Lottery to deliver upon those expectations and help to enhance the West Virginia player experience over the course of your new Contract.

As a tenant of our *Customer First* philosophy, we understand that nobody knows your business better than you. That's why when we begin the hiring process for a highly qualified, organized individual from the State of West Virginia, we want you in the room with us vetting potential candidates, asking questions, and determining the right person for this important role.

Our Marketing Content Manager will have a minimum of three years of experience in product marketing, digital marketing or advertising, content management, graphic or multimedia design, corporate or strategic communications, public relations, or another related field. The successful candidate will be responsible for scheduling, updating, tracking, and implementing all Lottery-approved content in a socially responsible manner for use across all platforms and distribution channels. These channels will include, but are not limited to:

- Retail.
- Website.
- Social/mobile/interactive.
- Customer display messaging.
- Ticket messaging.
- Terminal messaging.
- Any other Lottery-requested marketing tools.

In conjunction with Joe Payne, the Marketing Content Manager will serve as a liaison to the Lottery's marketing staff who will assist with and/or approve all content for distribution, and will also work closely with Tom Stanek and Nat Worley from our Retail Sales and Marketing Execution Support Team to execute coordinated growth initiatives.

We have provided a **Marketing Content Manager Job Description** as an insert at the end of this section. This job description is a final draft for the purposes of our proposal to the West Virginia Lottery; however, we would seek your input and recommendations for revisions before considering it approved and actively placing or posting it for purposes of recruitment.

Exceptions, Planned Enhancements, New Features

The Vendor's proposal should describe any exceptions to the current environment and provide details about any known or planned enhancements or new features that would provide better service and increase revenue for the Lottery. The proposal should include any schematics, pictures, diagrams, or organization charts that would help the Lottery evaluate the proposal.

Response Note: Vendor should describe its staffing plan and provide details relevant to specifications and terms and conditions detailed in this RFP.

Throughout this section, we have described our staffing and provided details relevant to the specifications and terms and conditions detailed in this RFP. We have no exceptions to the current environment and have provided details about any known or planned enhancements and new features that will provide better service and increased revenue for the Lottery. As stated above, our **IGT West Virginia Ongoing Operations Organizational Chart** is presented as an insert following this section, and the resumes of our ongoing operations staff and implementation staff have been provided as part of the **Resumes** exhibit, which is located behind the Exhibits tab.



Our West Virginia Ongoing Operations staff, combined with our experienced staff from IGT's Corporate Teams, has a wealth of experience working with the West Virginia Lottery. This in-house expertise, combined with previous vendor understanding and our combined years of experience, can provide you the best of both worlds and bring you a more collaborative working relationship. We are excited to be able to continue working with the Lottery to expand upon and grow this partnership during the next Contract period.

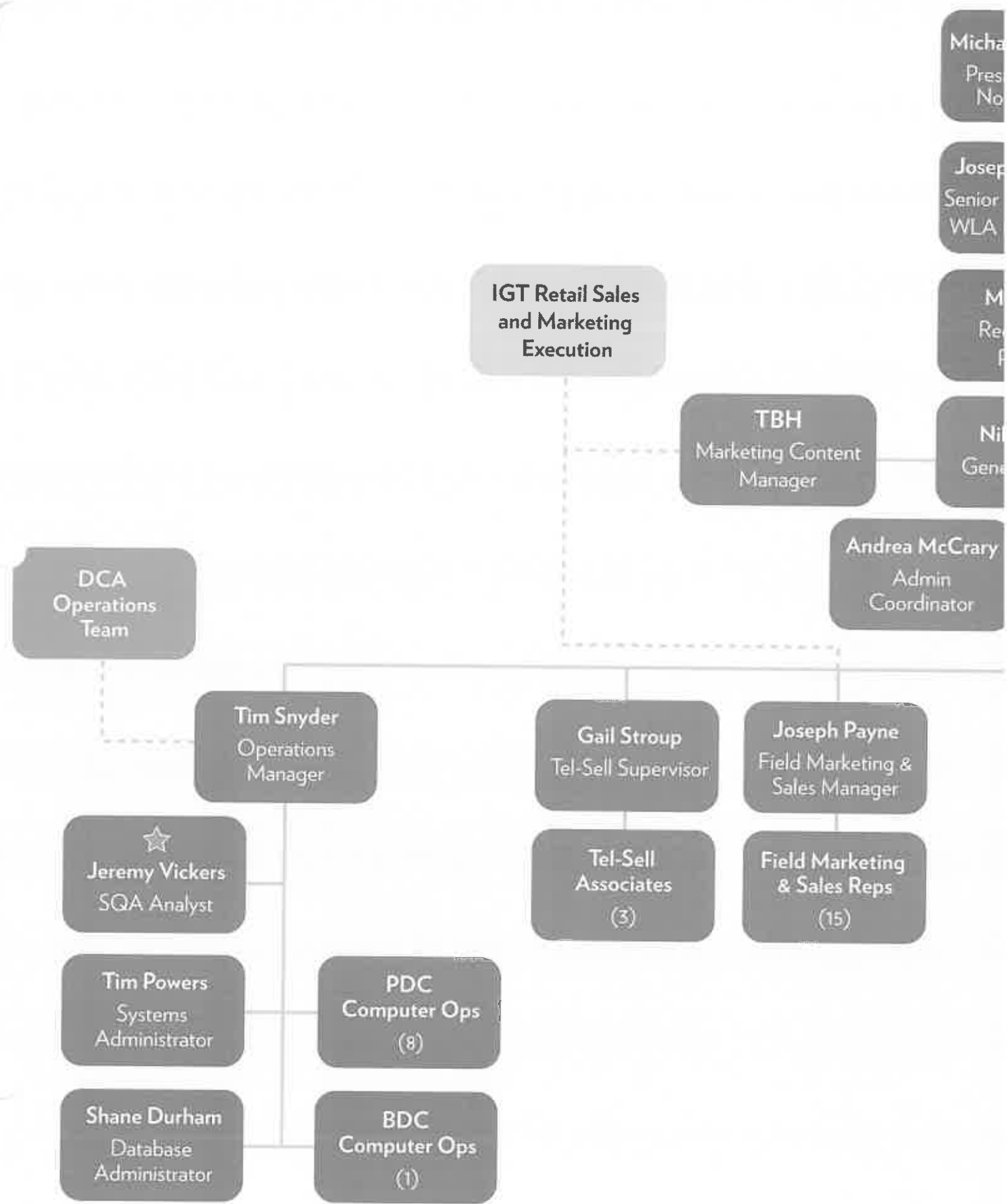
Business Continuity

To ensure a smooth and efficient transition to day-to-day operations following start-up, our Ongoing Operations Team will be integrated and engaged with the Implementation and Conversion Team described in Attachment A, Section 3.4, Vendor Staff and Qualifications, and Section 4.8, Conversion and Implementation Specifications. They will become fully versed in and trained on the new Aurora lottery gaming system and processes. The following chart identifies members of our West Virginia Ongoing Operations Team, including whom they will work most closely with from our IGT Implementation and Conversion Team to help ensure a smooth transition while operations are sustained and enhancements are provided.

Figure 4.5 – 1:

Resource Collaboration for a Smooth Transition	
IGT West Virginia Team Member: Role	IGT Implementation and Conversion Team Member: Role
Nikki Orcutt: General Manager	<ul style="list-style-type: none">• Gaurav Jain: Project Manager (PM)• John Wood: Systems Engineer (SE)• David Rannacher: Facilities Manager• Kim Scholle: Finance Lead• Chris Lawrence: Training PM
Tim Snyder: Operations Manager	<ul style="list-style-type: none">• John Wood: SE• Ashish Agarwal: Software PM• George Lonergan: Communications Lead• Justin Lefebvre: Infrastructure PM
Jeremy Vickers: SQA Analyst	<ul style="list-style-type: none">• Celestina Alessio: QA Lead• Ashish Agarwal: Software PM
Joe Payne: Field Marketing and Sales Manager	<ul style="list-style-type: none">• John Wood: SE• Chris Lawrence: Training PM
Marketing Content Manager (To Be Hired)	<ul style="list-style-type: none">• John Wood: SE• Chris Lawrence: Training PM
Roger Ezzell: Field Service and Warehouse Manager	<ul style="list-style-type: none">• John Wood: SE• Dustin Larson: NRO Lead• David Rannacher: Facilities Manager
Jeramie Gibson: Business Analyst	<ul style="list-style-type: none">• John Wood: SE• Pierre Gallant: BA Lead
Tim Powers: Systems Administrator	<ul style="list-style-type: none">• John Wood: SE• George Lonergan: Communications Lead

IGT West Virginia Ongoing Operations Team



Marketing Content Manager Job Description

JOB TITLE: MARKETING CONTENT MANAGER	JOB CODE
CATEGORY: MARKETING – CONTENT MANAGER/ESMM DEVELOPMENT	FLSA: EXEMPT
FAMILY: MARKETING	REVISION DATE: 3/24/2016

OVERALL OBJECTIVE AND PURPOSE

Collaborates with Lottery marketing staff to support, design, coordinate and produce audio/visual content and features used in Web, broadcast, streaming or other media forms. Use of creative and game design leadership to bring content needs and specifications to product. Responsibilities include designing graphics, animations, and shows for in-store digital advertising (ESMM) displays, ensuring that they are exciting, effective, and appropriate for the target market and culture. Acts as project coordinator for digital advertising show development. Provides design support for new draw games (POS, how to play, etc.), as requested by the Lottery, and identifies new strategic target segments and channels to facilitate growth of the Lottery brand.

PRINCIPAL DUTIES AND RESPONSIBILITIES

- Collaborate with the Lottery to identify customer segments and develop a B2B marketing strategy to address each segment through email, social media, public relations and blog partnerships.
- Manage and grow the Lottery's customer network within the applicable Lottery brands and assist the Lottery with identifying retail and online promotion opportunities.
- Establish Key Performance Indicators (KPIs) and guide the development of digital marketing and content strategies.
- Align content strategy with relevant social media presence across platforms, through the enhancement of the Lottery brand and digital content (ESMM) to coordinate with daily/weekly social media and other Lottery promotions.
- Designs and develops engaging, exciting content for ESMM digital advertising shows, including graphics and animations, best suited for applicable target segments.
- Coordinates development and deployment of ESMM digital advertising shows to enhance product marketability at retail and align with wvlottery.com product marketing efforts.

This description is a summary of principal responsibilities and is not intended to include all duties that may be assigned.

- Works closely with Lottery Marketing Director and Marketing staff to develop, design and maintain ESMM shows that reflect the Lottery game positioning strategy, communication and advertising goals, to include the build-out of weekly email campaigns, ESMM content and subscription services/iLottery.
- Assists with graphics for multi-media, digital, retail point-of-sale game materials and other game-related materials for retailer training and new product launches.
- Conducts research and development activities on maximizing the use of existing technology, creates design efficiencies and evaluates design packages and tools.
- Assists Lottery Marketing staff and advertising agency graphics teams as directed to prepare game descriptions and visualizations for “how-to-play” stimuli used in Lottery market research.
- Assists with graphics and animation for new vending machine touchscreen graphics.
- Provides recommendations based on expertise.
- Develops, edits and reviews content for use in B2B and B2C retail marketing strategies.

SCOPE

- **Complexity:** Functions Responsible for or Influenced
 - Medium complexity - Game and Advertising Content Development
- **Diversity:** Locations Responsible for or Influenced
 - Content design for Lottery projects
- **Typical Job Problems and Difficulties**
 - Determining the best graphics and use of animation for target audiences

GENERAL

- Extent decisions governed by procedures or referred up
 - Exercises judgment within defined procedures and policies.
- Standard requirements for research and analysis
 - Market research on graphics and animation best suited for target market
- Opportunity and consequence of typical errors (supervision)
 - Errors may require the allocation of additional resources to correct and/or achieve project goals.
- Frequency and complexity of internal business contacts
 - Frequency and complexity of external business contacts
- Physical (% time: travel, operating machinery, environmental etc.)
 - Intense visual or creative concentration, working on a computer, up to 70% of total work time
Subject to eye strain and arm or hand injury due to keyboarding, drawing, working with pen (Wacom)

This description is a summary of principal responsibilities and is not intended to include all duties that may be assigned.

EDUCATION

- Minimum education
 - Bachelor's Degree in Marketing, Business, or other related field.
 - Technical school or college diploma/certificate in computer graphic design or 2D animation or 3D animation.
- Years Experience
 - A minimum of three to five years marketing work experience, preferably in a marketing and/or advertising agency or B2B context.
 - One year design project coordination, project management, or equivalent.
 - Proven experience ideating and executing marketing programs focused on driving the development of new B2B and B2C sales channels and revenue growth.
 - Track record of successfully managing multiple projects and meeting deadlines, testing new marketing strategies and analyzing success through relevant metrics, and experience building and managing successful direct mail and social media (Facebook, Instagram, Pinterest, LinkedIn, etc.) promotions.
- Essential special training requirements
 - Good professional graphic design skills including illustration, animation, computer graphic design and 3D modeling.
 - Proficient with Adobe Creative Suite 6 (including Photoshop, Illustrator, and After Effects) and Flash 5, 3D modeling.
 - High degree of creativity and innovation.

This description is a summary of principal responsibilities and is not intended to include all duties that may be assigned.

4.6 Vendor Administrative Functions and Support

Vendor Administrative Functions and Support should be designed and implemented to ensure field sales and operations are able to support the Lottery's requirements. Please describe your plans to achieve the goals related to VENDOR ADMINISTRATIVE FUNCTIONS AND SUPPORT. (Section 4.6)

Vendor's proposal should describe how it plans to provide the necessary administrative functions and other support to the Lottery, including:

IGT's Vendor Administrative Functions and Support will be designed and implemented to ensure that our field sales and operations are able to support the Lottery's requirements and achieve the goals related to these functions. Our proposal describes how we plan to provide the necessary administrative functions and other support to the Lottery in the following subsections.

4.6.1 System Training

Vendor should provide the Lottery and its retailers training and is responsible to develop, modify, produce, and distribute training materials as requested and approved by the Lottery. Vendor is responsible to train field service staff to provide appropriate training and/or service to retailers.

Digital and physical forms of training materials are to be provided by the Vendor as requested and approved by the Lottery. Materials are simply written and graphics are easily understood. Materials are of a design that is easily updated. Retailer training material changes and updates are to be distributed to all retailers prior to the scheduled changes and updates of the System.

IGT will provide Lottery and retailer training, as described throughout this section, and will be responsible to develop, modify, produce, and distribute training materials as requested and approved by the Lottery. We will work with the Lottery to develop these training materials for your new Contract.

IGT will be responsible to train field service staff to provide appropriate training and/or service to retailers. Our Technology Training and Support Services (TTSS) team works closely with our Corporate Field Services group to provide continual support in on-site and online training for field services initiatives, including retailer and sales clerk training. We describe this in further detail within Section 4.6.6, Field Technical Services, under the heading "Training our West Virginia FSTs."



Digital and Physical Training Materials

IGT will provide digital and physical forms of West Virginia-specific training materials developed in conjunction with the Lottery as requested and approved by the Lottery. As they are provided today, these materials will be simply written and of a design that is easily updated and the graphics will be easily understood.

We will provide retailers with Quick Reference Cards (QRCs) describing the most frequently asked questions and solutions. These QRCs will be updated with each major Lottery change in games or operations and we will distribute them to retailers prior to the scheduled changes and updates of the system. QRC cards for our terminal offering will be distributed to retailers during their assigned training sessions. A comprehensive Retailer Reference Guide (RRG) will also be provided to the retailer either during their training session or during their terminal installation, depending on the Lottery's preference.

Quick reference information in digital form includes web-based training videos. These videos will be available to all retailers via Lottery Learning Link (LLL) on the retailer website, Retailer Wizard, which is described in further detail in Attachment A, Section 4.7.4, Retailer Website Enhancements. This training would include, but not be limited to, terminal usage, an overview of each game, and specific training on each promotion. We describe LLL in further detail in Section 4.6.2, Lottery and Retailer Training [Conversion and Ongoing], under the heading "Web-Based Training: IGT's Lottery Learning Link."

Our TTSS staff will provide your business staff and operations personnel with task-based Aurora™ reference guides that supplement the materials provided during training. These guides will include all back office functions. We will package the information to meet your users' needs. Most customers ask that we provide the user guides in soft copy Portable Document File (PDF) for reproduction or computer/tablet access. These will be updated with each software change and updates will be provided in an electronic format with approval by the Lottery.

To assist all users and trainees in performing their daily tasks, we will also package the same content in the form of web-based operations manuals, available via the Help feature on Aurora Navigator, which is fully indexed and easily searchable.

4.6.2

Lottery and Retailer Training [Conversion and Ongoing]

Vendor provides training to the Lottery and retailers as required over the course of the Contract. All training materials and supplies are prepared by the Vendor and approved by the Lottery in advance. Training occurs prior to conversion and any time updated training or procedures are necessary as determined by the Lottery.

Since 1991, IGT has successfully trained more than 1 million retailers and system users across 30 U.S. states and in more than 50 counties, on five continents, in more than a dozen languages.

Critical to any conversion strategy and implementation plan is end-user training. Introducing changes to the office systems and applications that West Virginia Lottery users know well can be daunting, even when those changes bring opportunities for greater efficiency and productivity. The value to West Virginia retailers and sales clerks who are both comfortable with their lottery equipment and familiar with Lottery products, policies, and procedures cannot be overemphasized. A well-trained retailer is vital to the Lottery's success, and IGT's training programs ensure maximum retailer learning with minimum disruption to the retailer's business.

From our longstanding relationship with the West Virginia Lottery, we know the Lottery prides itself on its good relationship with its retailers. For retailers, we are pleased to provide a customized, retailer-friendly training program for the terminal-network conversion which will be approved by the West Virginia Lottery. Training will occur prior to conversion and at any time updated training or procedures are necessary as determined by the Lottery. For Lottery end users, TTSS will create a training plan that provides much more than a demonstration of new system features and much more than simply showing your users how to do what they have already done. Instead, the TTSS team will create a training plan tailored to the Lottery and its users.

Throughout this section, IGT describes its approach to:

- Retailer Training:
 - Lottery Learning Link (LLL).
 - Classroom Training.
- Lottery Staff Training.
- Telemarketing (Subsection 4.6.3).
- Hotline Staff Training (Subsection 4.6.5).
- Field Services Training (Subsection 4.6.6).
- Sales Staff Training (Subsection 4.6.8).



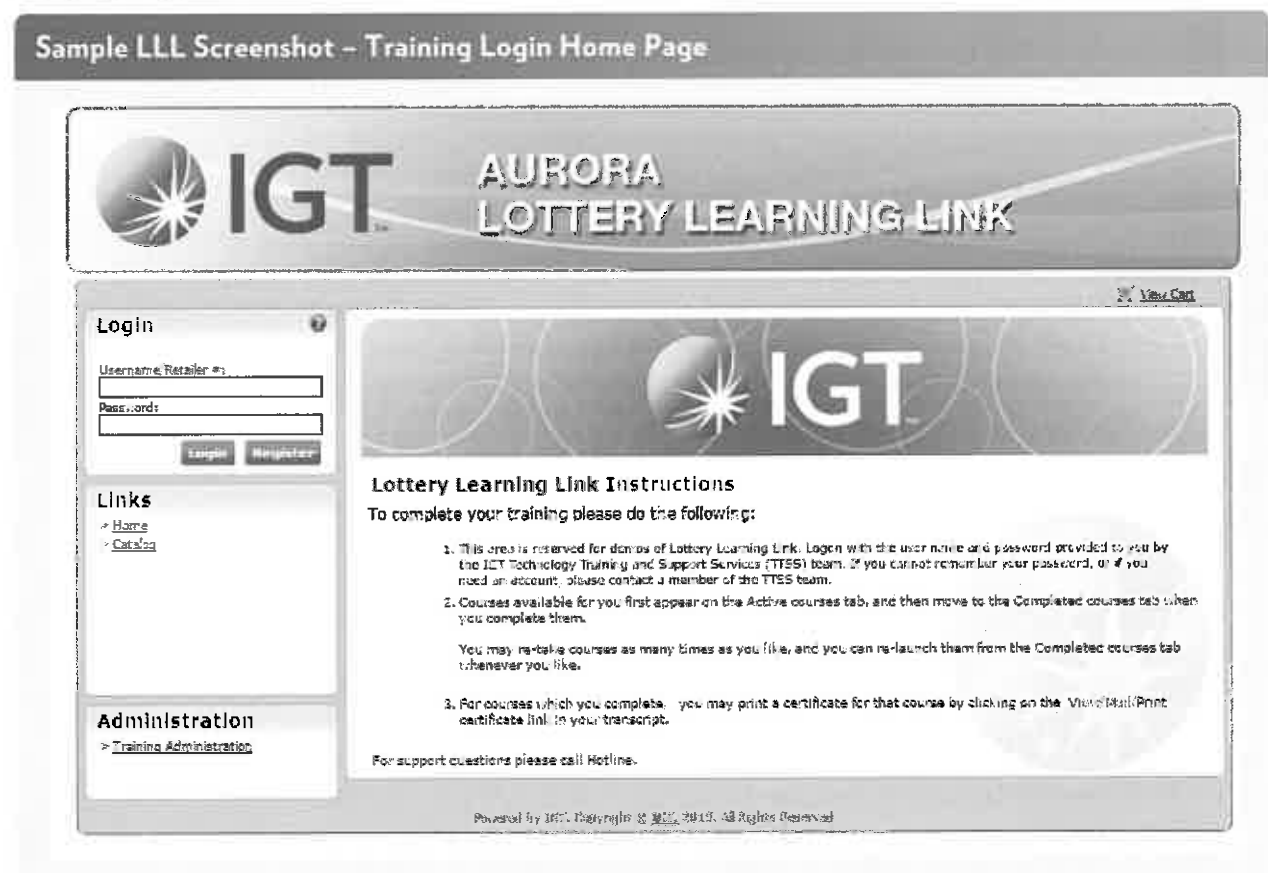
Retailer Training

Web-Based Training: IGT's Lottery Learning Link

Taking time away from business to take a training class can be inconvenient for retailers and costly for both retailers and their lottery. We also recognize and understand that people learn and retain information in different ways. With advances in technology and a population that is increasingly computer savvy, web-based retailer training is a viable alternative to traditional training.

To accommodate this evolution for the retail space, IGT is pleased to offer the West Virginia Lottery its new, enhanced Lottery Learning Link (LLL). Developed in-house by our TTSS and Learning Services experts within the last four years, specifically for customers with both Aurora and Enterprise Series (ES) solutions, it is the only program of its kind. While LLL was not yet thought of or actualized during your last conversion period to our systems, we are excited to present this tool to you today.

Figure 4.6 – 1:



Highly Accessible: Retailers and their employees can log in from any desktop computer to take courses and, in the case of retailers, administer their training program.

LLL is a multimedia, web-based, fully interactive video and simulator application. To make training easy and convenient, it offers a complete training program that your retailers can take anytime, anywhere, and on any computer, tablet, or mobile device without the need to have a live trainer present. Individuals have the ability to stop the training at any point and pick it back up again later on. The training content is authored by the TTSS training team and developed with the participation of the Lottery. Short courses for conversion retailers would be developed as well as longer courses for new retailers to the Lottery's family; this content would be sustained and refreshed over time.

In addition, in the following ways, LLL saves considerable time, all while helping the Lottery to begin generating income more quickly:

- **Rapid Install:** LLL is built into Aurora. It can help the Lottery achieve cost savings relating to in-store training. It also empowers the Lottery to offer chains and retailers a tool to help them train new hires at any time, and it can support chain-specific content if the Lottery wishes to offer key accounts the ability to deliver Lottery-related content specific to their chain (such as specific cash-in, cash-out forms, or other procedures relating to the Lottery).
- **Faster, More Convenient Training that Is Always Available:** Quickly trained retailers can sell more tickets sooner. Some stores have employees that are natural trainers. For those that do not, or those stores that wish to be able to train their new hires on lottery operations comprehensively and with minimal effort, LLL is a perfect fit.
- **Ongoing Training:** LLL creates a permanent channel – a channel that would not otherwise exist – from the Lottery to retailers to train them on upcoming promotions, new features, new games, etc. Where lotteries are prohibited from adding Field Marketing and Sales Representatives (FMSRs) or advertising, using a training tool to deliver training and information directly to existing retailers is a cost savings, as their FMSRs do not have to visit every retailer to teach new features or policies throughout the life of the Contract. LLL tracks which retailers logged in and completed lessons, so FMSRs can focus on those that do not. Some sites have already authored online content they wish to deliver by LLL that promotes responsible gaming, since LLL tracks when a retailer launched a course and how the retailer scored on test questions and provides a means to print or e-mail a certificate of completion.

A Time and Money Saver for a National Chain

The 7-Eleven chain (39,000 franchise outlets worldwide) featured LLL in its April 2011 corporate newsletter as a great alternative to classroom training. The article states: "... typical classroom training... is limited and could take hours out of your day. To make things easier, LLL is offering online classes available 24 hours a day, 7 days a week. If you are familiar or accustomed to online training or Computer-Based Training (CBT) and have Internet access, and your computer meets minimum requirements, this could save you and your managers a lot of time and money."

Comprehensive Content, In-Depth Instruction

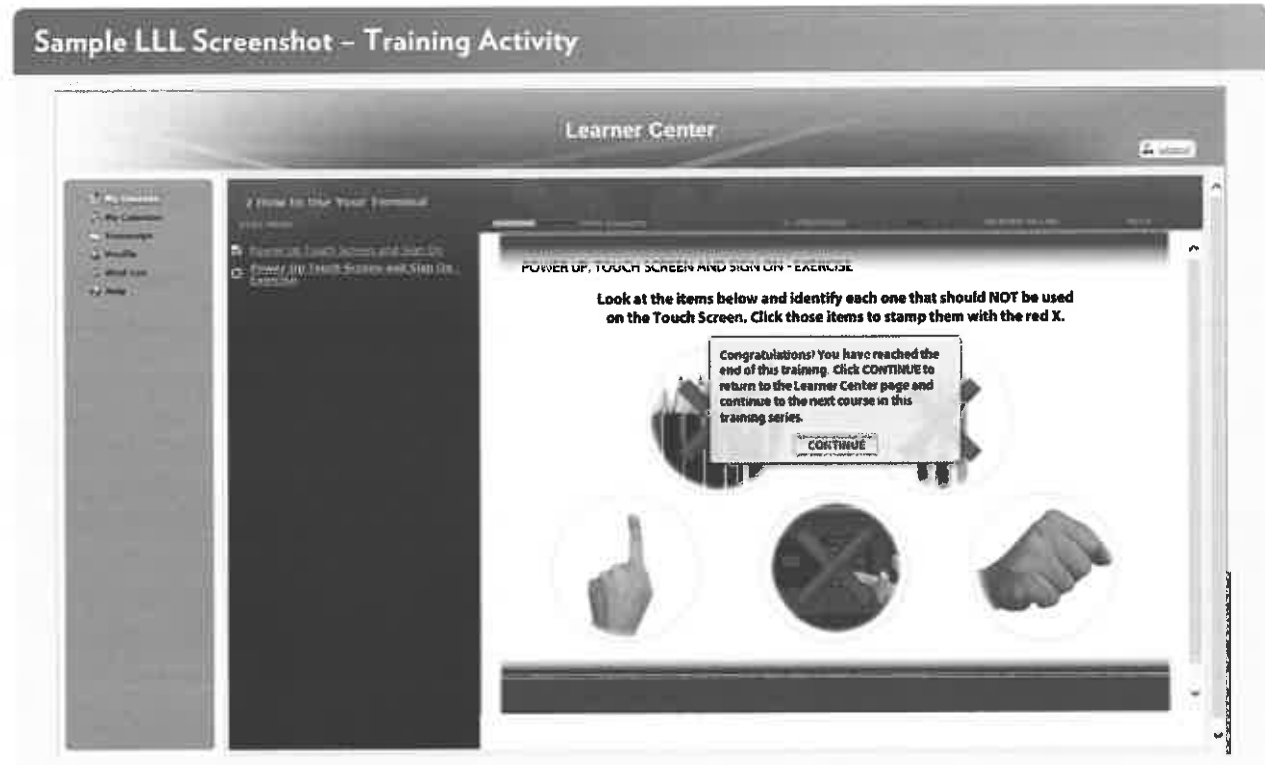
LLL's retailer training content is just as comprehensive as other training formats and is customized for an interactive, go-at-your-own-pace delivery. For training segments that previously relied on the presence of physical terminals to describe and teach the terminal's mechanics, trainees' screens show a 3D model that the trainee can manipulate and view from many angles.

LLL presents a simulation of the retailer training exactly as it appears on the terminal. This enables retailers to be trained in a way that closely replicates their experience with their actual terminal. All of the same buttons appear, and the "virtual instructor" guides the retailer through the same menus and functions as the learner touches the appropriate icons and buttons. In short, this is the classroom experience online, which is delivered to the retailer's computer and available whenever the retailer or store staff is available to learn, at their own pace, and to practice as often as they would like. Even the mouse cursor changes to a finger to allow the learner to simulate the lottery terminal application using their own Flash-enabled laptop or tablet.

LLL features a virtual instructor who coaches the learner through an exploration of the terminal and its applications. Retailers have ample time to review the content and practice skills, such as producing wagers and accessing reports. The learner can perform both scripted and free-form gaming applications.

Our web-based training has automatic tracking and reporting capabilities. LLL tracks progress as learners complete the training exercises. The training ends with an assessment. We work with our customers to develop acceptable standards for completion.

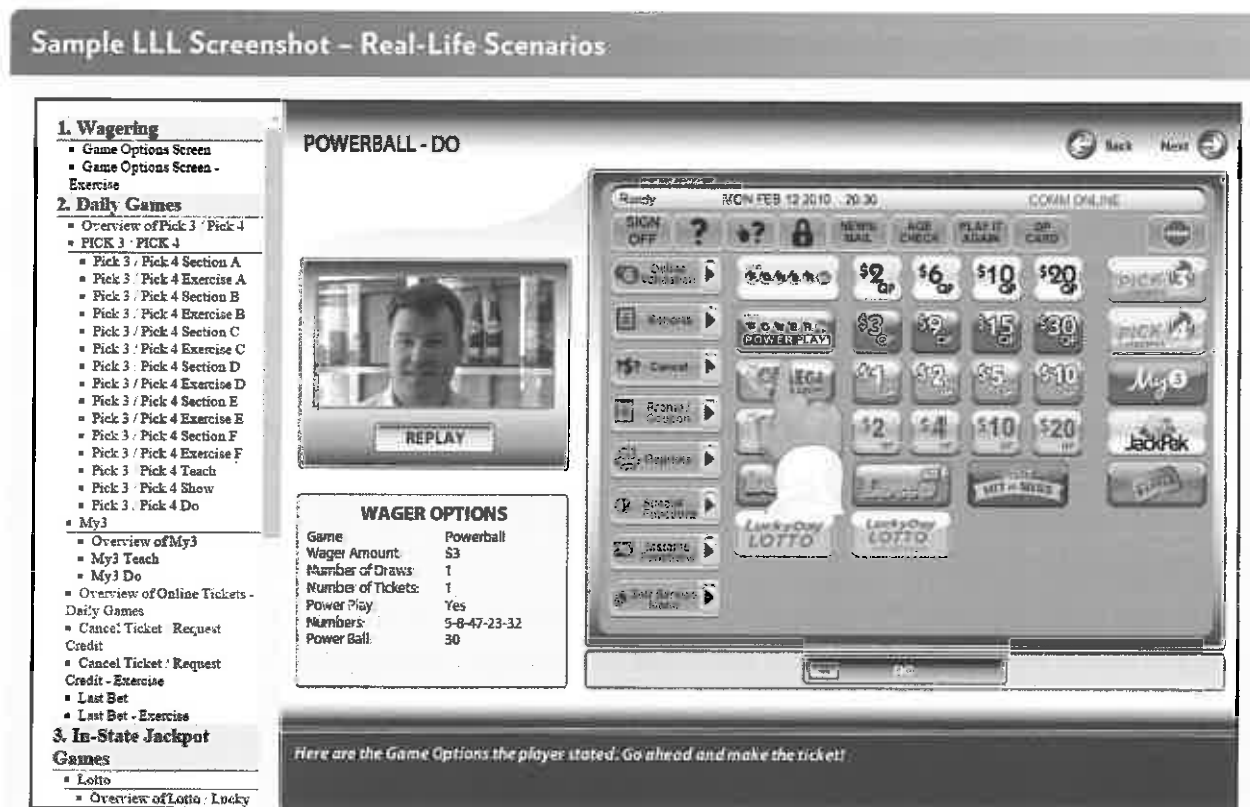
Figure 4.6 – 2:



Easily Tracked Progress: LLL training programs are easy to use, interactive, and engaging. At the end of each course, users are tested and immediately informed of their results.

LLL embeds video clips that simulate real-life situations, as shown in the following figure.

Figure 4.6 – 3:



Like Placing a Real Wager: The customer in the video clip requests a wager, and the learner uses the mouse to place the wager.

Using LLL's interactive simulations, retailers easily learn how to change paper, clear a paper jam, or service the equipment. These highly detailed simulations take learners through the same steps they would take on their actual equipment, including operating latches and opening and closing compartments.

Tracking Retailer Activity for Lottery Compliance

For compliance, we track all retailer activity on the system. The Lottery can see retailer training activity and learn how many times a course was accessed, how long the retailer spent in each section of the course, and even how well they responded to quiz and test questions.

The online course will be created and customized by the same team of training professionals who, working with our customers, created our online and our traditional, instructor-led training classes, which are discussed in detail later in this section.

Because LLL includes many features, like full-motion video, audio, and detailed tracking and reporting capabilities, LLL is only available using a web browser on the Internet. It is not accessible on the Lottery terminal itself.



LLL Benefits: Today and in the Future

LLL will provide cost savings and benefits – beyond retailer time and travel, instructors, and classroom space:

- There need be no lag time between a new retailer receiving equipment and starting to sell.
- According to a statistical report, retailers are less likely to call the Hotline with questions after web training.
- With traditional classroom training, the store can send only two employees, and then they train the other employees. With LLL training, everyone in the store takes training from the same source. This makes a measurable difference in training consistency, retention, and, ultimately, success.

According to the National Response Center's (NRC's) data following our Illinois conversion, retailers completing training via LLL were **2.5 times less likely** to call the Hotline with questions as compared to retailers who attended classroom training in person.

Ongoing Retailer Training

As described in the subsection “Web-Based Training: IGT’s LLL,” LLL is available to retailers and their clerks any time of the day via a compatible device and web browser. New retailers may take courses at times convenient for them and retailers who have already completed courses may retake them more than once for any reason. Additionally, we will train the FMSRs and the FSTs to deliver ongoing refresher training at the retailer’s location if they prefer the social aspect of one-on-one interactions.

Terminal Training Mode

Our Flex terminals also come with a built-in training mode. The training mode will always be available to your retailers and will be updated prior to a new game start. We have described this solution in more detail in Attachment A, Section 4.4.2, Standard Terminals, under the heading “Training Mode.”

Classroom Training

With respect to the Lottery’s Other Terms and Conditions as outlined in RFP Section 44.11.23, Retailer Training, we can offer classroom training should the Lottery desire. Our TTSS team, along with General Manager Nikki Orcutt, can work with you to accommodate your requirements for locations and travel times. While keeping in mind the needs of your retailers, and paying particular attention to minimizing any potential disruption to their normal business operations, we believe our LLL solution offers the greatest upside to retailer training prior to start-up. LLL is an advantage for the efficiencies it brings to retailer training. Retailers will not have to worry about shift coverage because they will not be taken out of their stores, providing them more time and focus on selling your games to players. LLL will further minimize any disruption to sales because training can be done anytime, at the retailer’s convenience.

We are able to offer LLL to you as your incumbent vendor as we are confident that this will provide you and your retailers with a comprehensive, fast, and efficient way of managing training needs while giving back valuable time associated with the need for classroom training. Along with this exciting new product offering, we will work with you to customize any terminal GUIs to your preference and to your needs, should you wish. We are excited to continue this longstanding partnership with the Lottery and are ready to demonstrate LLL to you live prior to Contract award.

Lottery Staff Training

As noted at the beginning of this section, introducing changes to the office systems and applications that users know well can be daunting. IGT's TTSS team creates a training plan for each customer that provides much more than a demonstration of a new system and its features. The same will be true for the West Virginia Lottery. Your training plan will be tailored for your users and will be developed in collaboration with you. It will show your users how to capitalize on the advantages that your investment in training brings, and after conversion, our training staff will remain on the Lottery's project for no less than 45 days to ensure continuity of business and that your needs are met.

Our Philosophy – Success through Collaboration

IGT will design customized training programs for the Lottery that:

- Build bridges between your business users and the technology they'll rely on to operate your business.
- Fit your personnel, workflows, and processes.
- Ensure every department has the skills, knowledge, hands-on experience, and post-live support needed to successfully interact with the system and perform their jobs.

Not only do we train your end-user population on the back-office application they use on a daily basis, we embed ourselves with our QA and Business Analytics departments to obtain a full understanding of your specific business rules and bring real-world scenarios into the classroom to maximize the learning experience.

Our expectation is that not only will all Lottery staff members know how to do their job using the new, advanced technology but Lottery managers will gain insight into the many ways in which the technology can add efficiency to existing procedures and workflows. In fact, we will ensure that managers gain this insight in advance of the training and before the new system's start-up.

Length of Seminars, Class Size, Facilities

Classroom training sessions for the Lottery's staff will be the same length as the training for retailers described previously. The class size will be up to 15 people. Training will take place during a train-the-trainer session the week prior to the scheduled beginning of the three-week retailer training. We will also provide appropriate training facilities for your Lottery staff.

Training Schedule

Training will be scheduled close to the conversion date to reinforce retention of information at the time of the system conversion.

Training Topics

We will customize course outlines to your users' needs and workflows. Lotteries, understandably, request generic or sample course outlines to view prospective vendors' training program content. Given that the roles and responsibilities of your users will vary from those of other lotteries, we prefer to provide custom course outlines based on your unique business groups, processes, and requirements.

The following figure provides an overview and general topics for the Lottery's customer service center training during conversion.

Figure 4.6 – 4:

Sample Customer Service Center Training Topics for Conversion		
Training Component	Topics Addressed	
Welcome	<ul style="list-style-type: none"> • Introduction • System overview • Instant ticket scratch-off game review 	<ul style="list-style-type: none"> • System access • Operating functions
Aurora Game Manager	<ul style="list-style-type: none"> • System management 	
Aurora Retailer Manager	<ul style="list-style-type: none"> • Retailer searches • Retailer information • Terminal information • Clerk information • Adjustments • Comments 	<ul style="list-style-type: none"> • History • Reports • Financials • Addresses • Contacts
Aurora Performance Intel	<ul style="list-style-type: none"> • System access • Data universes • Application training • Report creation 	<ul style="list-style-type: none"> • Report generation
Aurora Claims & Payments	<ul style="list-style-type: none"> • Claims • Players • Payments 	
Flex Lottery Terminal Management	<ul style="list-style-type: none"> • Common questions and issues • Draw game functions • Instant ticket scratch-off game functions • Reporting 	

Accelerator for Lottery Staff Training

IGT's Accelerator sales force management and development program provides a customized approach to optimizing sales force performance, taking into consideration the Lottery's unique needs and your retail climate. Our program was developed based on experience and lessons learned through our lottery and lottery sales force management contracts, and it combines strategies and hands-on support for two categories: management and training. Specific to Lottery staff training, Accelerator will provide your personnel with new skills and methods for continued use and follow-up in the field. It builds a culture of learning and growing and helps find the right balance of classroom, online, and in-the-field training to best invest your sales force's time.

IGT Training Staff's Expertise and Qualifications

IGT's TTSS staff has more experience training lottery professionals on more technology in more places than any team in the world. On average, each individual on the team has 10 years of training experience. The Training Project Managers (TPMs) have an average of 18 years of training experience.

Our Langevin Learning Services-certified trainers are experts in adult learning. They use a variety of techniques that motivate adult learners and maximize knowledge retention. In line with this methodology, the Lottery's training (leveraging the Trainer Needs Analysis [TNA] results) will include a mix of instructor-led presentations and discussions, as well as interactive (hands-on), computer-based activities and workshops. Specifically, we will employ a "one-third/two-thirds" method of delivery, whereby approximately 33% of classroom time is devoted to lecture and the other 66% to hands-on applications, questions, exercises, and feedback. This method has proven effective with adults and provides maximum retention of course material.

IGT's TTSS team will create and present all of the customized learning packages for retailers. Led by Director David DeAngelis, TTSS serves all of IGT's training and documentation or multimedia needs globally, across all technologies. This group has logged thousands of hours working with customers to build bridges between IGT's technological capabilities and a lottery's business goals, organizational structure, and skill sets.

Key IGT West Virginia Training Staff

John Hickey – Training Manager



John has worked more than 18 years at IGT in various training roles with six as the manager of Systems Applications and the prior years in the position of Senior Trainer. He currently manages a team of training professionals across multiple locations. John has trained or managed training on more than 100 projects, including for the Lottery's last conversion to IGT's systems. He holds Master Trainer certification from Langevin Learning Services.

In 2009, John was responsible for delivering training to our local West Virginia Operations, Warehouse, and Hotline staff, as well as training all of the trainers that conducted the retailer training statewide during the conversion period. He also delivered training for all West Virginia Lottery staff, including the District Offices, and conducted a special training session for some of the large Key Corporate Accounts in their own corporate training locations during conversion. John worked one-on-one with key West Virginia Lottery staff to plan and deliver end-user training including the Security Director, Validations Manager, Licensing Manager, and Marketing Staff, and looks forward to doing so again for your new Contract.

Christopher Lawrence – Training Project Manager



Christopher will manage all training-related initiatives for the full life cycle of the project and will be the central point of contact for all training deliverables during conversion. He will create and manage the timeline for training activities and documentation, produce budget forecasts for project costing and product management, track forecasts versus actual costs to ensure that spending remains within budget, create and monitor a risk register, and monitor and control the execution of all training deliverables. Christopher has extensive experience managing training projects worldwide and joined IGT's Project Management team in 2010. He holds both Project Management Professional (PMP) and Six Sigma Master Black Belt certifications. Christopher also has an extensive systems integration background. Prior to joining IGT, Christopher worked for nine years as a Senior Education Manager for EMC Corporation where he managed a team of 12 training professionals. He has also worked as a systems integration consultant, specializing in messaging systems.

Additional IGT Corporate Training Staff

David DeAngelis – Senior Director, TTSS



David DeAngelis brings more than 25 years of IGT training experience to the Lottery. He has served in a variety of successively responsible positions relating to technical training and documentation since joining IGT in 1988. In 2002, he became Manager of Training Integration and Delivery. His group manages all global project training deliverables. During his tenure at IGT, David has managed all of the individual training groups that are now part of TTSS.

In 2009, David oversaw the West Virginia Lottery's training delivery, including retailer training, and worked with the Lottery to determine the best locations to deliver the retailer training in a classroom setting. In addition to retailer training, David's staff provided operations training to Customer Acceptance Testing (CAT) participants, computer operations and support, Hotline training, field services training, and warehouse training (Pick & Pack and Tel-Sell).

Anthony Andrade – Senior Manager, Training Program Development



With 23 years of training experience, including 17 years in lottery gaming, Anthony manages the team that will be responsible for the Lottery's staff training. He will manage the System Applications Training Team, including the Process Engineering role and the Operations Support Team that will collaborate with the project team and Lottery staff to ensure that the customized training programs satisfy the needs for each department within the Lottery. Anthony has an MBA from the University of Rhode Island and is a certified Master Trainer from Langevin Learning Services.

4.6.3 Telemarketing

Telemarketing

Ticket ordering is predominantly done by the Vendor's Telemarketing/Tel-Sell staff. The System supports a wide variety of instant ticket ordering functions and features related to status tracking and ticket ordering records that include shipped orders, pending orders, instant game pack lookup, retailer inventory, returned inventory, settled inventory, inventory validation, game definition, sales activity, ended games, Field Marketing and Sales Representatives route listings, and ticket images.

The Vendor provides telemarketing services for the Lottery that support Field Marketing and Sales Representatives. Vendor's employees contact retailers and enter ticket order information from the Vendor's PDC; location of telemarketing employee operations is approved by the Lottery. Outsourced telemarketing services (from subcontractors or from areas other than the Vendor's headquarters in Charleston, WV) are prohibited. Telemarketing services are operational Monday through Friday and observe non-duty periods such as weekends, holidays, and other days as specified by the Lottery.

The following retailer information is displayed for telemarketers for each respective retailer: name and doing-business-as ("DBA"), terminal number(s); addresses (physical, location, and shipping); phone number(s); email address; at least five fields for contact name(s); chain contact; status (active, inactive, disabled, etc.); assigned Field Sales Representative; Field Sales Representative call record; Field Sales Representative route and stop; comment field; ordering comments; call frequency; allocation status and history; and hours of operation.

The System is configured to trigger calls to retailers based on criteria that include retailer inventory levels, number of days since the last call was made by telemarketing staff and Field Sales Representative, and notification from the retailer. The System should prohibit ordering for certain retailers dependent on Lottery assigned status codes and allows for the ability to postpone and reorder a call to a future date. System creates a call queue according to a set schedule for each retailer identifying a call day and a call frequency.

System provides an ordering function for instant tickets. Data fields needed for order entry and information include, but are not limited to: game number, game name; game price point; sale priority; inventory (full pack) by warehouse, trunk stock, retailer on-hand, returned, and settled.

Queue information should be exportable for reporting and will include the following order data: telemarketer identification; assigned delivery number for order; retailer demographics; call cycle and date; delivery cycle and date; last order date; last Field Marketing and Sales Representative visit; and employee comments for order information. Ordering functions and information logged on the System include the following:

- *Retailer inventory, including pack status and pack validation percent (packs at retailer);*
- *Retailer current game inventory based on validations by price point and a summary of all game inventory;*
- *Type of dispensing unit(s) with bin count;*
- *Recent pack settlement*
- *Unsettled inventory [pack number(s)];*
- *Sorting by game number and name, sell priority, price amount, and inventory condition or code;*
- *Block a game from being ordered;*
- *Add or remove a retailer on a callback list;*
- *Update, delete, or add route, contact, email address, and phone number;*
- *Search order and manifest information;*
- *Record all unscheduled calls;*
- *Generate holiday and promotional calls for specific dates;*
- *Generate new order suggestions based on retailer inventory, previous sell-rate, and bin count;*



- Search using key retailer identifiers that include, but are not limited to, license number, name, DBA, phone number, county, region, Standard Industrial Classification ("SIC"), owner name, and other identifying information; and
 - Export and print hard copies of current screen information.
-

IGT welcomes the opportunity to provide greatly enhanced telemarketing services to the West Virginia Lottery. Our new system will not only continue to provide all the functionality you have described in your requirements, but also provide specific individual order recommendations for each of your retailers using our advanced predictive ordering algorithms.

Going forward, the additional services we describe in this section will help improve transparency of field activity, enhance operational efficiencies, and responsibly grow sales in several key ways.

Aurora OrderStar: Advanced Telemarketing Software Designed to Boost Lottery Efficiency and Profitability

- Our updated telemarketing software, Aurora OrderStar, supports a proactive approach to replenishing instant ticket scratch-off games by monitoring retailer sales and inventory daily to avoid stock-outs.
 - The software's advanced predictive ordering algorithms will provide our Tel-Sell team with retailer-specific intuitive order recommendations, based upon the retailer's sales history and available inventory, and the Lottery's objectives.
 - Real-time inventory information will ensure that retailers always have the correct amount of tickets "on hand" and available for sale, and it will mitigate the risk of our Field Marketing and Sales Representatives carrying excessive trunk stock.
 - Combined with our Aurora OnePlace sales force automation tool, our new OrderStar system will offer the greatest flexibility of ordering options, creating efficiencies and improving communications and interactions between our Tel-Sell team and our FMSRs and the retailers they support.
-

There are additional benefits to continuing our partnership. Our Tel-Sell team is already very familiar with the attributes of the Lottery's instant ticket scratch-off games and has established credible relationships with your retailers. They know how sales are trending, and they understand the Lottery's sales goals. They are also hard-working citizens in their community, who help IGT assist the Lottery in having meaningful impact on the economy of West Virginia.

Aurora OrderStar: How It Works and How It Will Help the Tel-Sell Team

Today, our Tel-Sell reps can perform all the functionality you described related to status tracking and ticket ordering records that include shipped orders, pending orders, instant game pack lookup, retailer inventory, returned inventory, settled inventory, inventory validation, game definition, sales activity, ended games, FMSR route listings, and ticket images.

As you described, ordering functions and information logged on the system include the following:

- Retailer inventory, including pack status and pack validation percent (packs at retailer).
- Retailer current game inventory based on validations by price point and a summary of all game inventory.
- Type of dispensing unit(s) with bin count.
- Recent pack settlement.
- Unsettled inventory [pack numbers].
- Sorting by game number and name, sell priority, price amount, and inventory condition or code.
- Ability to:
 - Block a game from being ordered.
 - Add or remove a retailer on a callback list.
 - Update, delete, or add route, contact, email address, and phone number.
 - Search order and manifest information.
 - Record all unscheduled calls.
 - Generate holiday and promotional calls for specific dates.
 - Generate new order suggestions based on retailer inventory, previous sell-rate, and bin count.
 - Search using key retailer identifiers that include, but are not limited to, license number, name, DBA, phone number, county, region, Standard Industrial Classification ("SIC"), owner name, and other identifying information.
 - Export and print hard copies of current screen information.

At the heart of our enhanced Aurora OrderStar software is our advanced predictive ordering algorithms, which will provide the Tel-Sell team with retailer-specific intuitive order recommendations based upon the retailer's sales history, the Lottery's objectives, and each retailer's available inventory. Aurora OrderStar also supports a fully automated ordering methodology when and where appropriate.

With our predictive ordering software, we expect many of the Lottery's retailers to quickly rely on the suggested orders recommended by our Tel-Sell team, making them more efficient. We also believe that a major portion of your retailers will be willing to have their inventory replenished "automatically" without the need to speak with the Tel-Sell team, freeing up valuable time to build retailer relationships, provide better customer service, and support critical West Virginia initiatives such as retailer promotions and retailer recruitment.

An Easier Way for Tel-Sell Reps to Create Orders

The new OrderStar will also make it easier for Tel-Sell staff to create orders. In most cases, our Tel-Sell reps will only need to access the Order Entry screen to enter an order. Should a retailer ask a question or the Tel-Sell rep want to check additional information, it is readily available with the click of a button.

Figure 4.6.3 - 1:

Effective and Precise Recommendations



OrderStar Ease: The new Aurora OrderStar software will make the telemarketing team's recommendations more precise and more effective in meeting the Lottery's sales and marketing objectives.

Enhanced Ordering Flexibility through Integration with OnePlace

Under the new contract, our FMSRs will be supplied with Aurora OnePlace, a tablet-based sales force automation tool. In addition to providing detailed sales reports for individual retailers and comparative data for similar trade styles or district-level sales data, this new tool will allow our FMSRs to enter orders for retailers without needing to call our Tel-Sell team. Our FMSRs will have access to the same predictive ordering recommendations available to our Tel-Sell team.

The synergies between Aurora OnePlace and Aurora OrderStar open the door for closer communications between our Tel-Sell reps and our FMSRs, which is critical to moving your business forward. For more information on other benefits and advantages of the OnePlace sales automation tool, please refer to Section 4.6.8, Field Marketing and Sales, and Section 4.6.9, Field Marketing and Sales Reports.

Terminal Ordering: A Third Option Available through OrderStar

Because of retailers' busy schedules, some retailers might appreciate the ability to enter orders for instant ticket scratch-off games themselves. For example, a retailer might want to create an order for a game when they activate their last pack on a Saturday afternoon rather than having to remember to call to place an order on Monday morning. Our new system will provide that option with field-proven controls to ensure that human data-entry errors do not inflate a retailer's liability. Retailers in New York and Michigan have been using IGT terminal ordering software for instant tickets for more than 10 years each. And, retailers in New Jersey have been taking advantage of this feature for more than two years.

Predictive Ordering Success Stories

The predictive ordering software that we are offering the West Virginia Lottery has already assisted the California, Indiana, and Missouri lotteries in significantly growing their instant ticket programs as described in the following case studies. (Note: The software referred to in these case studies as “NextGen ProCall” was the predecessor to Aurora OrderStar.)

California Lottery

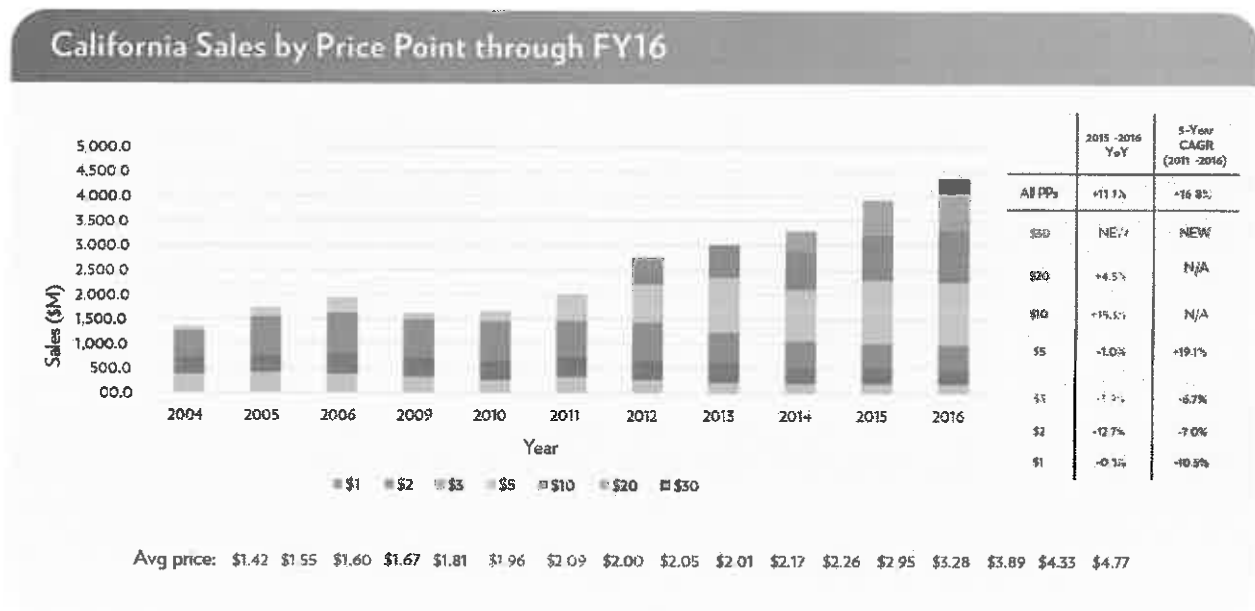
Telemarketing Services: California Lottery Staff.

Warehousing & Distribution Services: California Lottery Staff.

As shown in the following graph, the California Lottery experienced more than a 400% increase in sales between 2009 and 2015. The driving force behind the increase was the change in legislation that allowed the Lottery to increase the payouts in its instant ticket scratch-off games. This also allowed the Lottery to expand the availability of \$5 games and introduce the \$10 price point (2012) and the \$20 price point (2014).

How did IGT contribute to this success? IGT’s predictive ordering software, NextGen ProCall, the predecessor to Aurora OrderStar, was specifically developed to support the California Lottery’s instant ticket program. We recognized that the increase in prize payout would create a business situation that required precise **algorithms** to generate recommended orders rather than relying on the hunches of the lottery’s staff. IGT software ensured that California Lottery retailers had the instant ticket inventory that they needed to generate this dynamic increase in sales.

Figure 4.6.3 - 2:



Hoosier Lottery (Indiana)

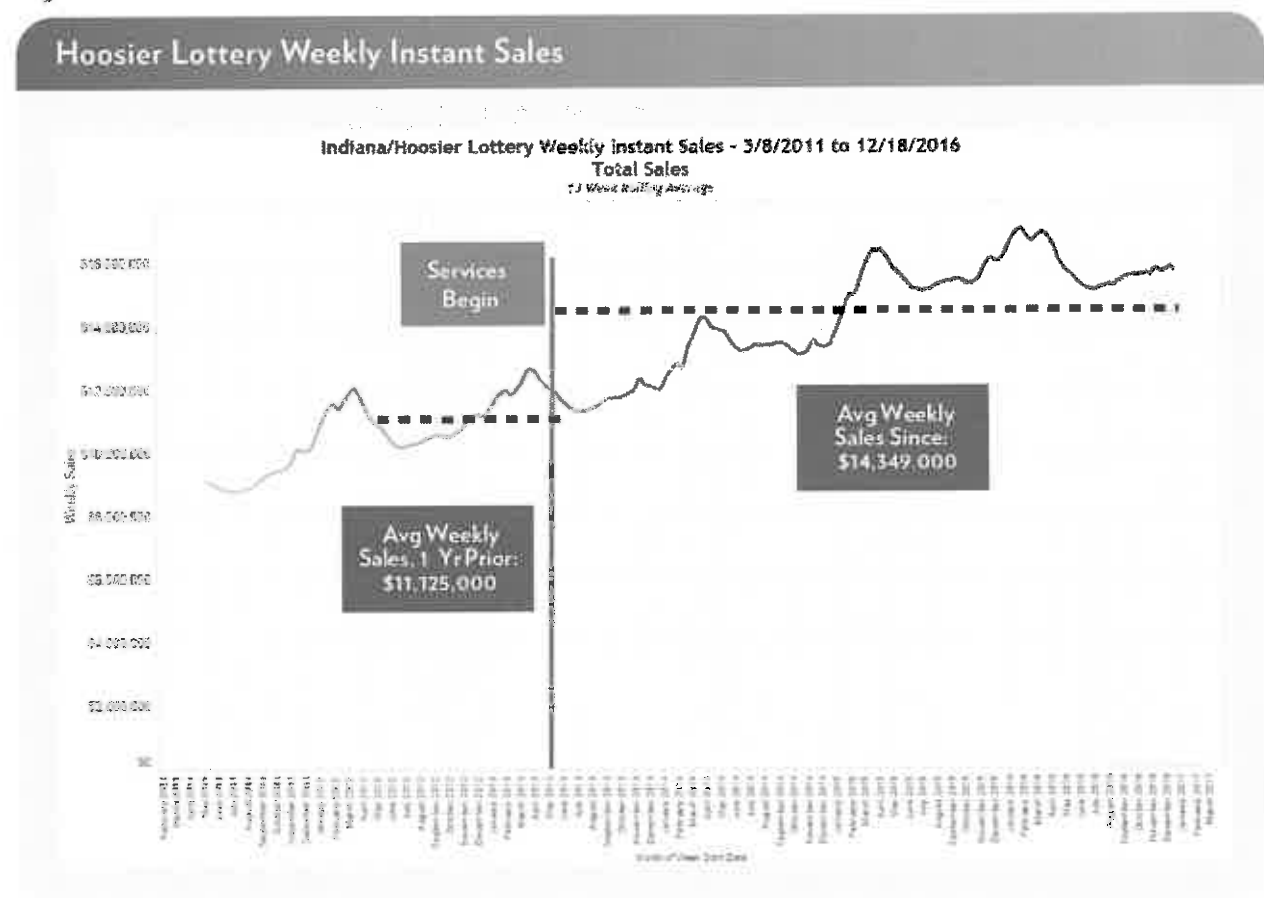
Telemarketing Services: IGT Staff.

Warehousing & Distribution Services: IGT Staff.

The Hoosier Lottery implemented IGT's NextGen ProCall software and system in May of 2013. As seen in the graph, the Lottery's instant sales were fairly flat prior to mid-2013. To expand sales across all product lines, the Lottery switched from its historical sales force ordering/inventory placement model to a centralized ordering model using IGT's predictive ordering software. The flexibility of the system allowed the Lottery to expand sales of higher price points while maintaining strong sales at lower price points.

Since the Hoosier Lottery defines instant ticket sales as net shipments from the warehouse, it would have been easy to "just ship more tickets" to raise sales that would lead to larger returns "down the road." Historically, the Hoosier Lottery averaged a 12% return rate. With the precise predictive order generation of OrderStar, the Hoosier Lottery has enjoyed a 27.6% increase in average weekly sales while reducing returns to less than 8.5% by mid-2016.

Figure 4.6.3 - 3:



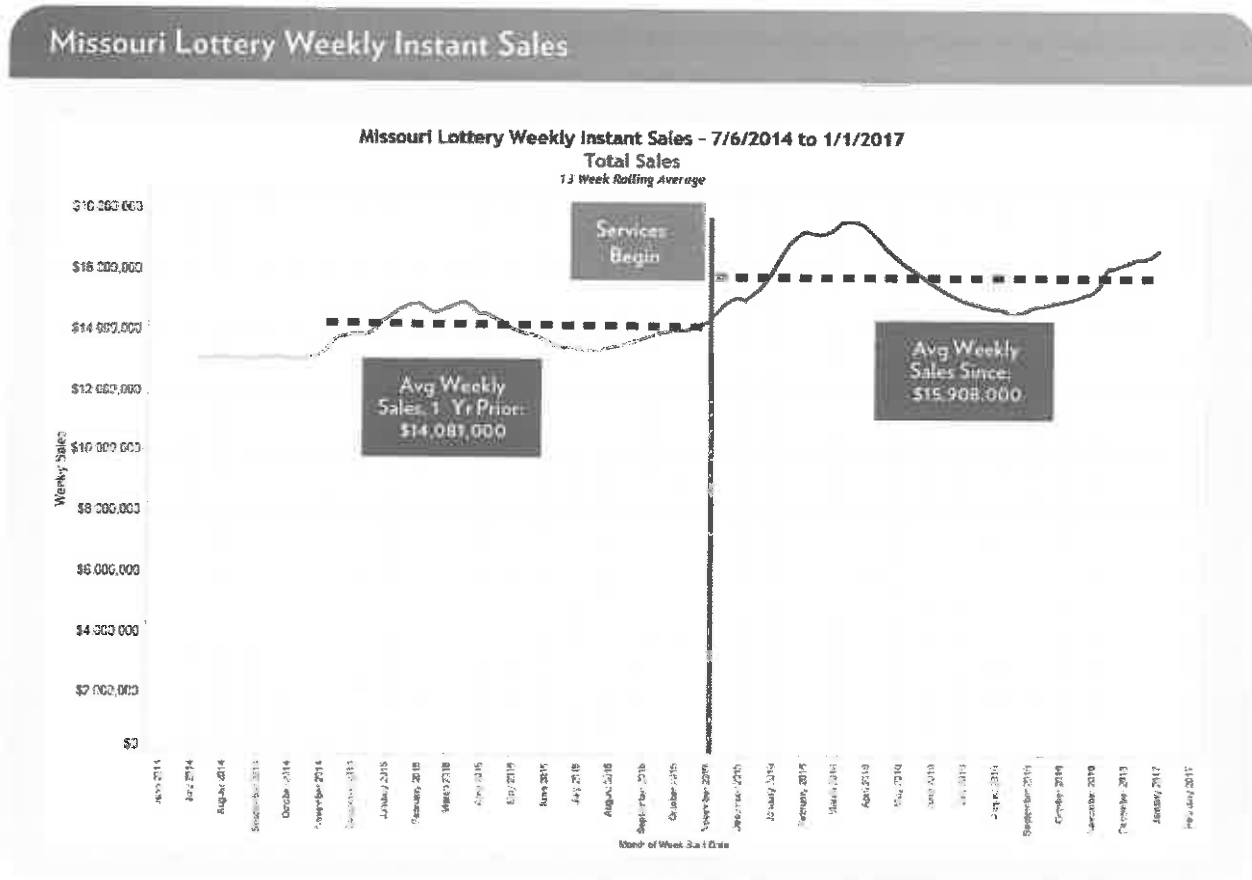
Missouri Lottery

Telemarketing Services: Missouri Lottery Staff.

Warehousing & Distribution Services: Missouri Lottery Staff.

The Missouri Lottery switched to IGT's predictive ordering software at the end of October 2015. As shown in the following graph, the lottery was able to generate more than a 12% increase in average weekly instant ticket sales using NextGen ProCall to ensure that retailers had the right game for their location and the games that the lottery wanted them to sell.

Figure 4.6.3 - 4:



Conclusion

For an instant ticket program to be successful, nothing is more important than the games themselves. The public has to believe that they have a reasonable chance to win a reasonable prize in order for an instant ticket program to be successful.

But, players cannot buy tickets if retailers do not offer them for sale, and retailers cannot offer tickets for sale if they do not have those tickets in their inventory.

IGT's Aurora OrderStar order generation and telemarketing software will ensure that each West Virginia Lottery retailer has the best games for their location and the games the Lottery wants retailers to sell. Going forward, our Tel-Sell team will take advantage of the software's predictive ordering capabilities. This will increase operational efficiencies and give our Tel-Sell reps more time to enhance existing retailer relationships and work on building new relationships while supporting key Lottery initiatives. An essential component of the success of our Tel-Sell team will be their training to understand the capabilities of our new software.

Together with our OnePlace tablets that our FMSRs will use, we believe our Aurora OrderStar software, in the hands of our experienced Tel-Sell team, will significantly impact the Lottery's future growth and profitability.

4.6.5 Hotline

The current Vendor provides a toll-free phone line for resolving retailer and player issues. Vendor provides, installs, and maintains telephone lines and equipment connected to a staffed, voice response unit. Vendor Hotline supports and assists retailers with accounting issues, ordering supplies, reporting or resolving technical difficulties, System log-on, and may assist players with matters relating to a player rewards program (i.e. password retrieval, account activity, redemption of rewards, etc.). The Lottery notifies Vendor of any Hotline deficiencies and such deficiencies are resolved within 30 days after the Lottery's notice.

Vendor Hotline support includes an email portal to receive and respond to retailer and player inquiries.

All Hotline verbal communications and telephone calls are recorded; copies of written correspondence and other documents received by Hotline staff are retained in accordance with all applicable federal, state and local laws. The Vendor provides, installs, and maintains recording equipment. Recorded tapes and digital files are maintained on a minimum 60 day cycle.

Vendor provides and maintains a Hotline log and reporting system that includes the following functions or functionality:

- *Tracking and reporting all retailer terminal, communication line, network, and other actual or perceived problems;*
- *Hotline log and reports accessible and configured so that no less than 12 months of historical Hotline call data and daily statistical reports are available for query;*
- *Call data is time stamped, each caller is fully identify with a full description, and documentation of the action or resolution is recorded in the Hotline log;*
- *Identify and report calls that require field technician site services to ensure quick response and dispatch;*
- *Prepare and submit digital reports to the Lottery on all criteria, including daily Hotline staffing levels, frequency of busy signals, caller hold or wait time, and the number of abandoned calls;*
- *Provide digital reports to the Lottery detailing all steps being taken to resolve substandard performance of the Hotline if notice of such conditions are provided by the Lottery; and*
- *Utilize call management equipment to handle all incoming calls on toll free circuits with pre-recorded messages when a call is placed in queue.*

IGT's West Virginia Call Center

To support the West Virginia Lottery, its retailers, and its players, IGT staffs a Hotline for retailer trouble calls located in Charleston, West Virginia, which is part of our nationwide National Response Center (NRC) family of several Hotline locations. It features an integrated suite of technology solutions and experienced, professional Hotline staff of three dedicated West Virginia Hotline associates and one supervisor locally hired from the State of West Virginia.

We are committed to creating additional jobs in the State. While our three West Virginia Hotline associates are designated as sole resources for the West Virginia Lottery's retailer calls, we seat seven more Hotline associates to answer retailer calls for other lotteries as part of the NRC. We have the capacity to increase this number should the need arise. This idea for job expansion came from Art Osborne, our West Virginia Hotline Supervisor. We have provided more information about Art later in this section.

We use service industry best practices in our Hotline and field service operations. Our Hotline service practices ensure quick access to associates who know the Lottery's equipment inside and out, create automated scripts to help associates diagnose and correct retailer problems over the phone, and provide ongoing West Virginia-specific training.

Figure 4.6.3 - 5:

West Virginia Hotline Associates



Ready to Assist: When your retailers call our Hotline, they can be assured of receiving efficient, world-class service from our qualified and competent employees.

Our Hotline services every retailer need, whether it is to promptly place ticket stock orders, solve validation questions, troubleshoot problems, or dispatch Field Service Technicians (FSTs). With every call we take, we have an opportunity to represent the Lottery to your retailers. Our associates will engage your retailers with professionalism, courtesy, and respect while ensuring that, by the close of every call, your retailers have what they need to continue selling games. Our Hotline also has a robust email management solution in place to provide responses to user inquiries routed to a mailbox dedicated to the West Virginia Lottery.

Redundancy for Business Continuity

Our Hotline infrastructure provides redundant capacity in terms of telephony, data center infrastructure, and physical call center operations. Since the implementation of the infrastructure, the Hotline has enjoyed 100% uptime.

Our Cisco Internet Protocol Contact Center (IPCC) solution uses Voice over Internet Protocol (VoIP) technology to route retailer calls seamlessly and expeditiously between the Hotline locations.

In the unlikely event our West Virginia Hotline location becomes inoperable, we will have Hotline redundancy capacity at our other NRC locations in the United States. NRC Workforce Management staff will align resources at the other available locations and adjust staffing levels accordingly in order to continue meeting the West Virginia Lottery's Hotline requirements until the Charleston location is back up and running. As is done today, all West Virginia Lottery retailer calls will be answered at our Charleston Hotline location unless a disaster occurs and the Lottery approves that calls are to be rerouted to another NRC location.

Hotline Call Management System

Easy Navigation for Retailers

Inbound calls from West Virginia retailers and players to a toll-free number will route callers into an Integrated Voice Response (IVR) system. Based on their IVR selections, callers can navigate to the department or associate best suited to assist with their questions or concerns. This extends to language competency, as well. A sample IVR Call Tree is provided in the following figure.

Figure 4.6.3 - 6:



Language Support for the Lottery's Retailers

Tele Language Line

When non-English or Spanish-speaking retailers call in, we contact the Tele Language Line, which can be utilized to provide accurate and complete translation in more than 200 languages. The Tele Language Line is available 24 hours a day, 7 days a week, 365 days a year, and the translators are available within seconds.

If an associate does not know which language the retailer speaks, he or she can say, "Help," and be automatically transferred to a representative trained to help in language identification. The Tele Language Line has a group of quality specialists who regularly monitor calls to confirm translator quality. They are bound by a strict code of ethics and are trained to focus on the performance of the translator, not the conversation.



Hotline Call Tracking and Reporting

Cadence: Real Time Service Management Tool

IGT's Real Time Service Management Tool (SMT), Cadence, is deployed in all our domestic lottery locations as the Hotline and field service dispatch managing system used to receive, update, and close service calls. It covers the entire life cycle of a retailer service call, spanning all of the retailer service disciplines, including:

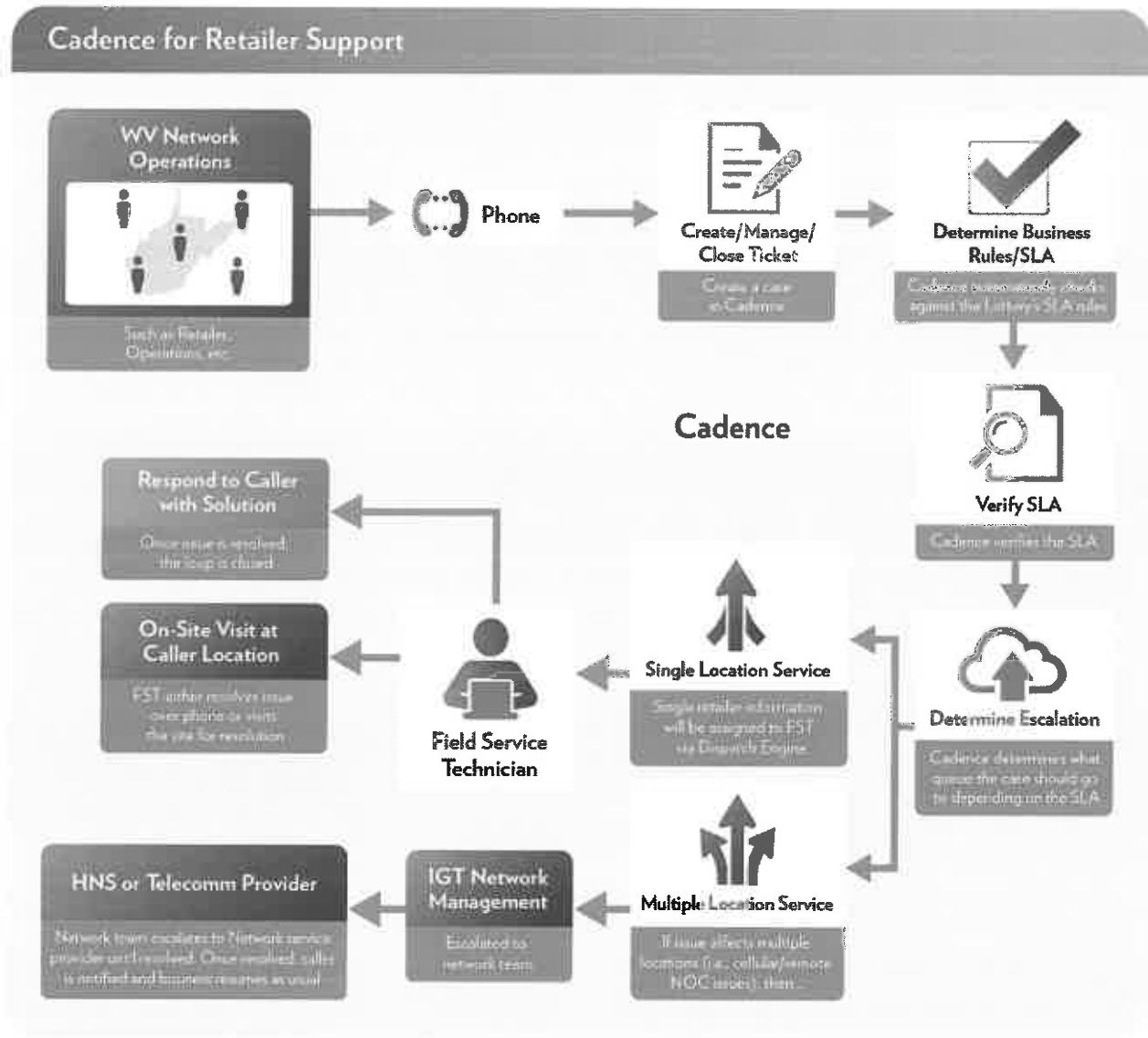
- Hotline.
- Communications.
- Dispatch.
- Installations/removals/moves.
- Field service.
- Repair facilities and lock-ups.

Cadence provides leading-edge capabilities for the full life cycle of a case, from initial input to case closure. It leverages nearly 35 years of experience and industry best practices and utilizes proven, advanced case management, dispatch, and scheduling, and features handheld/mobile technology functionality, all of which we will apply to ensure quality customer service to the West Virginia Lottery and its retailers.

Cadence tracks and captures:

- All statistics relating to both Hotline and field service performance, including a log noting all maintenance activities. These incident statistics are presented via reports that we use to improve our service.
- Issues related to retailer service calls, dispatches, resolutions, equipment and peripherals, communication lines, and networks.
- Reporting of situations in which no actual problem was found, which may be indicative of a training issue that requires attention.
- Data kept on all terminals, including those in reserve or returned to a lock-up for maintenance.

Figure 4.6.3 - 7:



Tracking Support History: Cadence operators, working across all service channels, can easily track a retailer's support history to provide efficient and timely service.

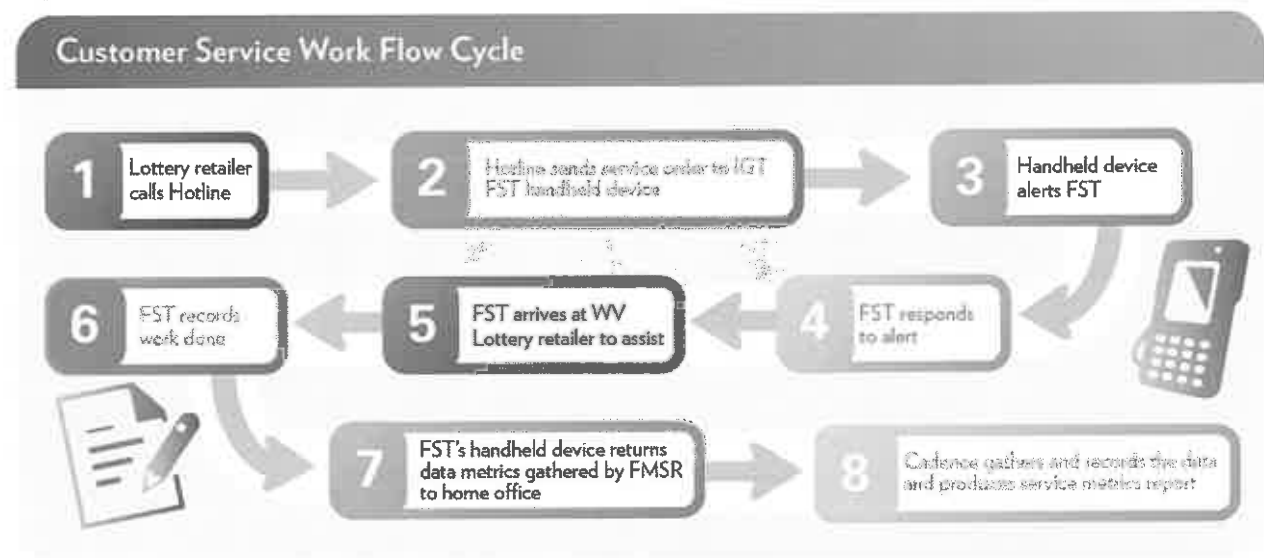
Every interaction with a retailer is logged in Cadence. With this tool, our Hotline associates track every issue to resolution and continually add updates to the case as they occur. They can set priority status to urgent issues, indicate a need for a call back, and review past interactions to make sure the Lottery's retailers are taken care of properly. This tool also allows Hotline management to quickly identify trends and perform historical analysis, thereby improving our resources and solving any potential issues before they become widespread.

FST Dispatch in Cadence

All services will be delivered to the Lottery's retailers with the highest degree of efficiency through the use of site-specific metrics to confirm that each call is assigned to the best-qualified FST. When a Lottery retailer places a trouble call, our skills-based routing system directs the call to the Hotline associate with the most appropriate skill set (described in further detail underneath the heading "Hotline Staffing Levels and Positions" later in this section). Cadence's database provides information about the case, dispatching, and metrics, as well as previous call history for the retailer, information about the equipment installed at the retail location, and previous transactions to help with troubleshooting before FSTs are dispatched into the field.

The efficiency of this entire process is illustrated in the following figure.

Figure 4.6.3 - 9:



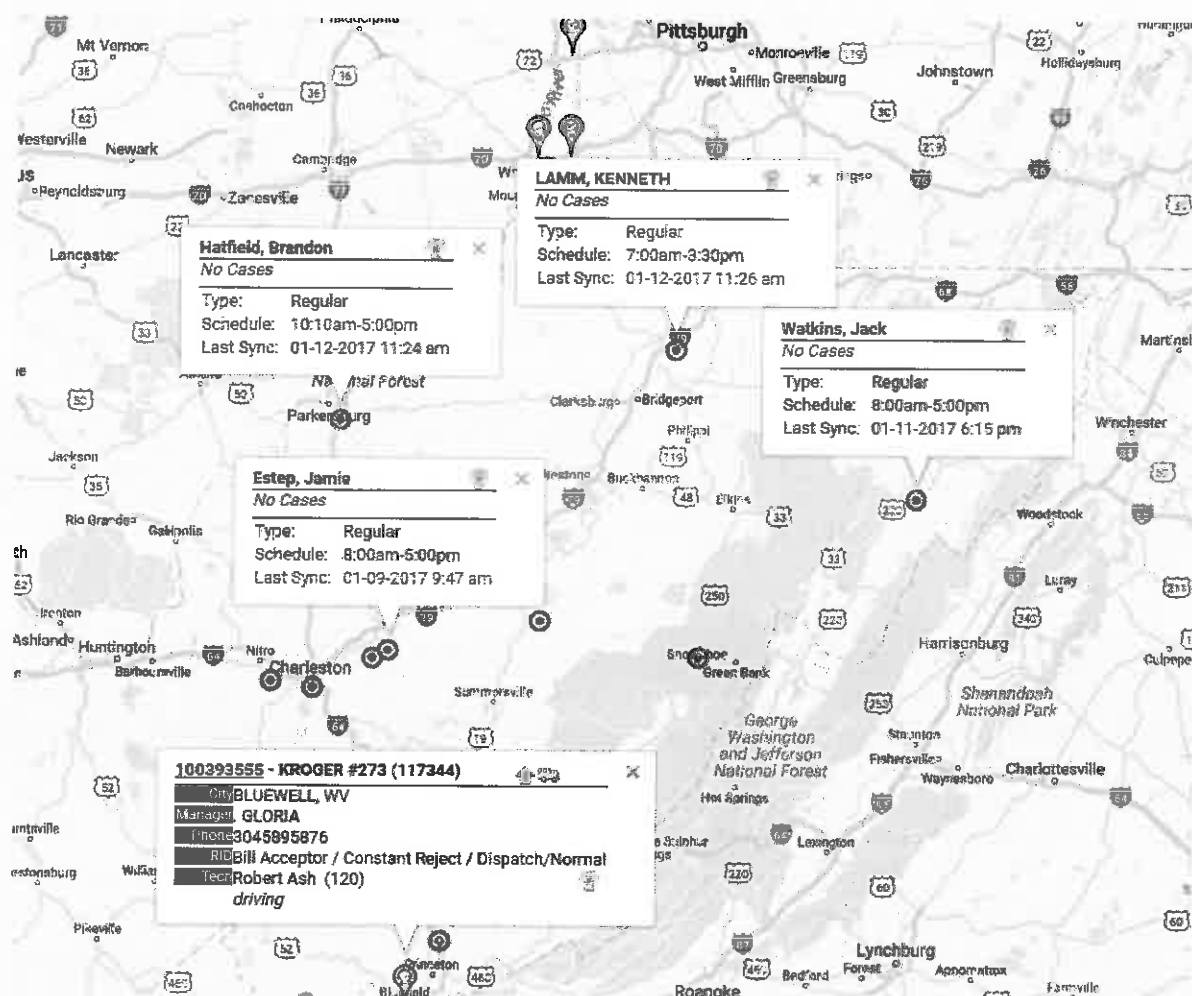
Monitoring Every Step: We time-stamp and monitor every step in the service call work cycle to ensure that all work meets or exceeds maintenance expectations.

To provide service delivery to our customers with the greatest degree of efficiency, Cadence's integrated SMART Dispatch Engine (DE) places service requests into the field service queue – instantly and **without** manual intervention. Calls are prioritized according to the issue and key account status. The Cadence tool then routes the FST using geocoding; this secures optimal response performance. This level of automation provides *real-time, intuitive* dispatching of the optimal FST for each service call, which enables retailer-focused service delivery with the singular goal of customer satisfaction.

A sample screenshot of a West Virginia retailer call dispatch map that our dispatch team would see when answering West Virginia Lottery service calls is provided in the following figure. The team will be able to ensure proper routing by factoring in a *human calculation* – familiarity with Lottery retailers (such as your high-ranking Key Accounts) and familiarity with the FST team's capabilities and experience levels – with a *geographic calculation* that's based on an FST's proximity to the retailer. This real-time route optimization will minimize retailer downtime and deliver the right support at the right time, resulting in increased retailer satisfaction and sales.

Figure 4.6.3 - 9:

Sample Real-Time FST Call Dispatch Map

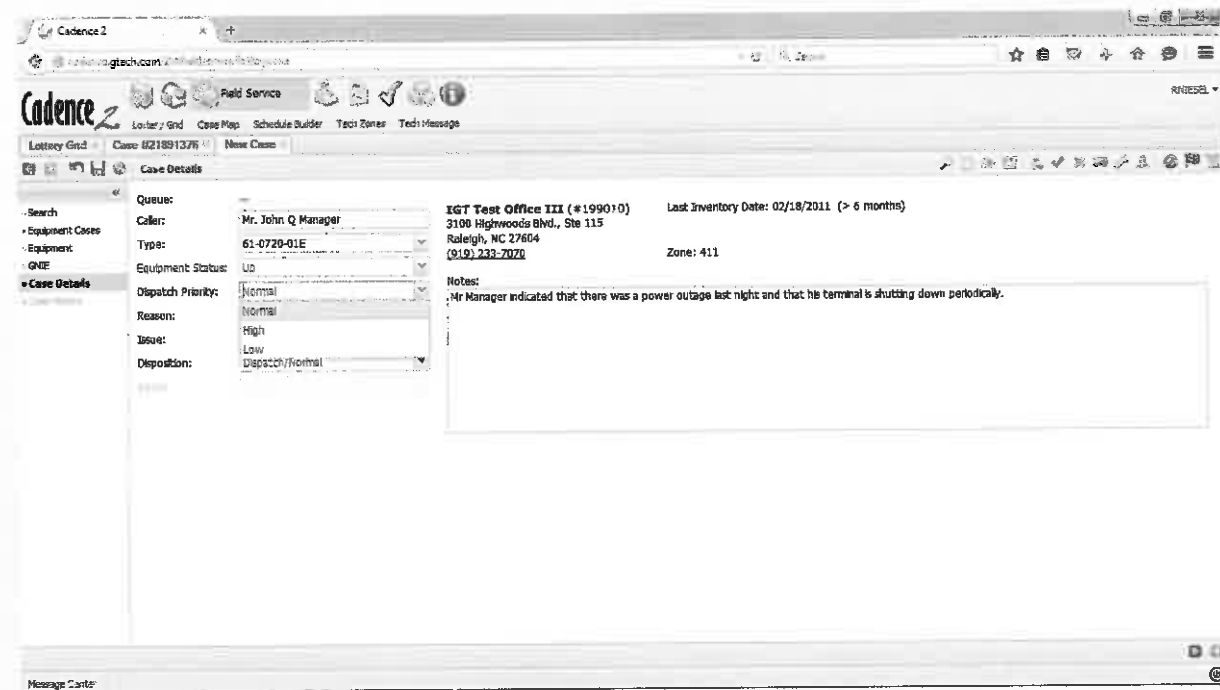


Routing West Virginia FSTs in Real Time: This map provides a snapshot of working West Virginia FSTs, their assigned calls by status, as well as their work schedules and last sync times.

In addition, our local West Virginia field service management will adjust the priority of any service visit due to the needs and requirements of the Lottery. The ability to change the prioritization in real time will allow IGT the ability to respond immediately to urgent requests made by the Lottery. If a dispatched call is not accepted and/or closed within a specified timeframe, it will be automatically escalated to a higher level.

Figure 4.6.3 - 10:

Sample Screenshot: Assigning Dispatch Priority in Cadence



The screenshot shows the Cadence software interface. The top navigation bar includes 'Lottery Grid', 'Case Map', 'Schedule Builder', 'Tech Zones', and 'Tech Message'. The main content area is titled 'Case Details' and displays the following information:

- Queue:** Mr. John Q. Manager
- Caller:** IGT Test Office III (#199010)
- Type:** 61-0720-01E
- Equipment Status:** Up
- Dispatch Priority:** Normal
- Reason:** Normal
- Issue:** High
- Disposition:** Low
- Disposition:** Dispatch/Normal

Additional information displayed includes:

- IGT Test Office III (#199010):** 3108 Highwoods Blvd., Ste 115, Raleigh, NC 27604, (919) 233-7070
- Last Inventory Date:** 02/18/2011 (> 6 months)
- Zone:** 411
- Notes:** Mr Manager indicated that there was a power outage last night and that his terminal is shutting down periodically.

The interface also features a 'Message Center' at the bottom.

Default priority is “Normal,” but can be changed by field service management direction and as requested by the Lottery.

For all cases generated, the Hotline associate and FST update case notes so that reviewers have a full understanding of the case activities. In addition to the manual entry of notes, the Cadence system also captures and time stamps automated backend processes.

Ad Hoc Reports

Cadence monitors and reports, at a minimum, all of the following data components in ad hoc format:

- The date and time of the original call.
- The identification of the retailer and the Hotline associate (aka “operator”).
- The general nature of the retailer’s call.
- The date and time of dispatch.
- The date and time of problem resolution.
- What the FST found upon inspection.
- Retailer, FST, and/or Hotline associate comments.
- Whether the service call went into penalty status with liquidated damages applying.

The information captured by Cadence can come from several sources. We use this information to identify the severity of each call and those areas that may require an evaluation to improve service. These updates will be available to the Lottery upon request and in real time:

- A Hotline associate enters case notes detailing the purpose of the call, the nature of the problem, and its resolution.
- Cadence captures all of this data, along with the corresponding retailer data, and updates all history data for the call.
- The FST, using their Cadence mobile device, can update the source of the actual problem after visiting with the retailer and follow the steps taken to solve the issue.
- The FST can also enter information concerning any training required to prevent future issues.

Hotline Call Recording

As part of our commitment to best practices and customer satisfaction, we record all incoming Hotline calls and will make recorded calls available to the Lottery upon request. Our recording system, NICE NIM, uses digital recording technology to capture, store, analyze, and manage interactions with retailers. With NICE, we can record and play back every call in its entirety. Using the role-based NICE NIM portal, we can make recordings available to the appropriate people based on their role.

The NICE NIM system offers:

- Rapid access to recordings.
- Multiple search criteria.

Call data and maintenance information is stored and will be accessible online (via a secure, web-enabled browser) for at least 12 months. Maintenance data will also be maintained for the life of the Contract. Having this data at the Lottery's fingertips allows them to scroll through past calls and ensure quality control. The ultimate goal is to improve customer service and strengthen retailer and player relationships.

Ensuring Hotline Call Quality

We ensure the quality of our call center service via our robust Quality Assurance (QA) program, which leverages world class tools to manage performance and was designed by our West Virginia Hotline supervisor, Art Osborne. The QA team, of which Art is also a member, is comprised of dedicated resources embedded across our U.S. NRC footprint who have received specialized training in all aspects of customer service and support. The team reviews a random sample of calls each month for every Hotline associate and works closely with all NRC Hotline supervisors, training staff, knowledge management resources, and the NRC leadership team to identify trends and opportunities for improvement. The QA team also responds to any direct requests for call recordings and research by providing thorough analysis of the interaction and recommending steps to determine root cause and mitigate any potential issues.



West Virginia Hotline Staffing

Tools for Optimal Staffing

NICE IEX Software

Our Hotline's NICE IEX workforce management software harnesses historical data and our experienced staff's extensive lottery knowledge to maintain adequate staffing for expected call volumes. NICE IEX has been a top choice in the customer service help desk industry for 20 years and is a leader in market share and product innovation.¹

Skills-Based Call Routing

Our Hotline utilizes an automatic skills-based routing tool to ensure that Lottery retailers will always have access to the representative who is most knowledgeable about the subject or issue at hand. The system matches the best available associate with the appropriate skill set and readiness to the incoming call. The retailer is then routed to that associate automatically. This allows us to leverage the system's capacity, adding and removing skilled associates as necessary during periods of higher call volume.

West Virginia Hotline Staffing Levels and Positions

Hotline Associates

Our Hotline associates are the first line in responding to Lottery retailers. They can handle terminal, printer, and network communication issues, along with related sales equipment problems and questions.

Hotline Supervisor

Our West Virginia Hotline Supervisor, Art Osborne, is a highly skilled specialist who contributes to the training and professional development of our Hotline associates. In addition to being a Subject Matter Expert (SME), he serves as the first-line of management with responsibilities for policy and procedure implementation and associate performance metrics.

The following figure provides more information about our West Virginia Hotline associates available to the Lottery's retailers.

¹ <http://www.nice.com/engage/workforce-optimization/workforce-management>

Figure 4.6.3 - 11:


West Virginia Hotline Support Personnel

WHO IS THERE FOR YOUR RETAILERS?


IGT's technology is proven and successful. But it's our people who help you reach your goals. This is evident in the support the West Virginia Hotline team provides to you and your retailers. Our experienced leadership works hard to foster excellence among the Hotline associates.

Help Desk Associate: Associate with proficiency in call-handling across multiple retail jurisdictions.

Supervisor: First-level management resource for associates. The Supervisor monitors associate performance metrics, conducts quality observations, facilitates coaching sessions and team meetings, and supports the implementation of new policies and procedures through direct interactions with associates on a regular basis.



Help Desk Associate



Supervisor

Art Osborne – West Virginia Hotline Supervisor



Art is responsible for overseeing the daily operation of the Hotline in Charleston, West Virginia, and has been with IGT in this role for the last six years. As part of his daily responsibilities, he ensures that required service levels are exceeded and that customer service standards are met for each West Virginia Lottery retailer call. He also makes sure that FSTs are notified of equipment issues in a timely manner and that data and reports are available to identify any trends which may arise in maintenance calls.

When Art was hired, he realized the potential for the West Virginia call center to become something more than a center that only services West Virginia's retailers and lobbied IGT's NRC to have equipment and seats installed to expand the Charleston location to take calls from all over the country. The center grew from a three-associate West Virginia-only call center to a 10 associate nationwide center, creating seven additional jobs in the State, while maintaining the West Virginia Lottery's requirement for their calls to be handled within the State. As stated above, West Virginia retailers are given call priority within our Charleston location, which will continue under the Lottery's new Contract.



West Virginia Hotline Associate Training and In-House Training Materials

Our West Virginia Hotline staff are fully trained to politely and effectively resolve retailers' accounting issues, requests for supplies, reporting or resolving technical difficulties, and system log-on inquiries. We maintain all of our associates' skill levels through continual training and QA reviews. In this way, we provide timely, professional, courteous, and accurate responses for all retailer equipment and issues. In instances where issues must be escalated, they have the knowledge and insight to route matters to supervisory support for resolution. We describe how our associates are trained to ensure prompt, courteous, and professional service below.

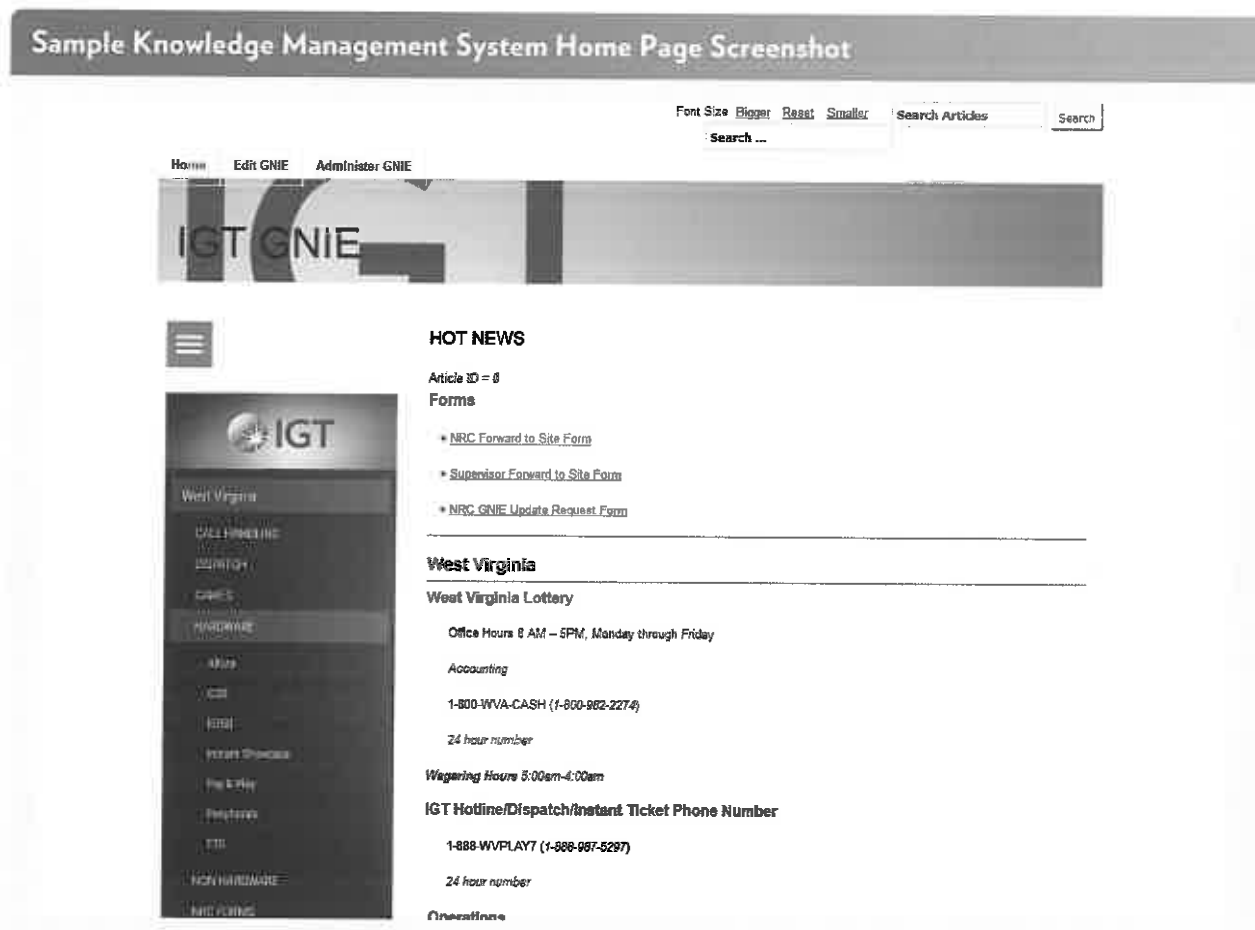
Training for New Hires

We hold New Hire classes for new West Virginia Hotline associates. Classes consist of in-depth analysis of all hardware and software used by Lottery retailers. Knowledge and comprehension is checked at various stages throughout the training using a series of online assessments and mock support calls. Associates are instructed on all Lottery policies and procedures and become familiar with all applicable tools required to troubleshoot and service retailer issues.

Knowledge Management System

IGT has developed a West Virginia Hotline-specific knowledge management system that is continuously updated with input from our West Virginia site personnel, our current West Virginia Hotline staff, and our training team. The documentation is clear and accurate and provides our Hotline associates with immediate access to the latest information about the West Virginia Lottery's games and equipment. This ensures we give Lottery retailers consistent, accurate, and timely responses.

Figure 4.6.3 - 12:



In the event of a disaster at our West Virginia Hotline location, where calls would be rerouted to another NRC location, Hotline associates will have access to this knowledge management system content and will be able to assist Lottery retailers with any questions they may have.

Help System Course

For West Virginia Lottery-specific training and support, IGT's NRC Training team has developed a Help system course. This module is presented during the initial training period for every West Virginia Hotline associate. The goal of this course is to make each Hotline associate familiar with the Lottery's specific knowledge management system information. The module includes:

- An overview of the knowledge management system.
- A detailed discussion on navigating the knowledge management system to quickly locate call handling and troubleshooting articles.
- Role-playing scenarios that give each Hotline associate an opportunity to practice navigating the knowledge management system. The knowledge and skills learned are reinforced throughout the training, as well as on a continuing basis through coaching and feedback provided by Art Osborne.

Site Training Support

One of our West Virginia Hotline associates has undergone additional cross-training as a site trainer. She works directly with IGT's NRC training department on new policy changes or procedures and delivers the information to the rest of the staff.

e-Learning Tools

Our West Virginia Hotline also utilizes e-Learning courses, which are designed by IGT's NRC training team and developed alongside NRC management. Current e-Learning courses include:

- Building Strong Customer Relationships.
- Hotline Customer Service Fundamentals.
- Communicating Across Cultures.
- Customer Service via Phone and Email.
- Effective Listening Skills.

Employees also have access to SuccessFactors Learning courses for professional development.

4.6.6

Field Technical Services

The Field Technical Service Staff is responsible for installing, removing, cleaning, refurbishing, replacing, and maintaining all Vendor equipment as needed and according to a preventative maintenance ("PM") schedule provided by the Vendor. Upon Contract award, the Lottery approves the PM schedule and any subsequent changes. In addition to the PM schedule, Field Technical Service Staff handles scheduled and emergency requests for repairs and ensures repairs are completed to make equipment operable when malfunction or inoperability is reported.

Field Technical Service Staff routinely checks mechanical security, safety, printer mechanism, reader, and all other equipment functions during a service call. All service calls are to be logged as well as all maintenance activities. The service logs interface with the System and are accessible to the Lottery upon demand.

Field technical service personnel are assigned duties that generally include, but are not limited to, the following:

- Serve as the primary contact for retailer equipment maintenance and repair;
 - Retailer coordination for equipment installations, moves, and removals by scheduling, tracking, and updating the Lottery on all progress; and
 - Prepare retailer location for all equipment installations, moves, and removals.
-

A Service Plan with a Quality Process

Our Retailer Maintenance Support program for West Virginia begins with our new Altura® Flex terminal, cutting-edge peripherals, and a robust communications network, and will be the cornerstone of our offering to the Lottery. Our equipment is "built to last," as the Lottery has seen first-hand. A further example can be found in the Commonwealth of Massachusetts, where our legacy terminal is still operational after 20 years and billions of sales transactions.

Our Field Services organization applies three principles to every aspect of its quality process. This approach, described below, will be utilized in West Virginia at all times to minimize issues and provide industry-leading uptime, even during normal daily routines or during record-breaking Powerball jackpots, when we had no loss of service in West Virginia last January 2016.

Field Service Standards

Our field service standards outline every responsibility associated with the FST's position and we built expected levels of performance for all personnel within the service organization. The standards clarify all service requirements for an FST's performance in the field, including all procedures for performing service visits and Preventative Maintenance (PM) on each piece of equipment currently serviced by IGT. Our standards include training for technicians to follow when working with retailers, Lottery staff, Hotline dispatchers, and communications personnel. These standards help every FST be prepared to provide the highest level of service consistently across your retailer base, regardless of the type of equipment being serviced.

Performance and Staffing Levels

After we establish the field service standards, we review staffing levels to ensure that we have adequate in-state staff equipped to respond to all service calls in a timely manner. We understand the importance of staffing each region with an appropriate number of technicians to match demand. Our Field Quality Process relies on the continual improvements that we implement for terminal engineering and repair staff management, so that our workforce is fully utilized and productive, thus maximizing terminal uptime.

Continual Monitoring and Validation

We constantly review statistics and trends to maintain optimal field staffing levels. Field service leadership measures the performance of each staff member as well as the team, validating every step in their day to provide guidance and feedback so they can exceed all goals and expectations. The local West Virginia field service management team will provide performance reports to the Lottery for full transparency and accountability so you, too, can monitor our staff's performance. Further details on our field service reporting is found under the "Cadence's Role in Field Service Activities" heading later in this section.

Our service strategy for minimizing downtime and degraded performance is proven by established field service programs and service levels in 25 lottery jurisdictions nationwide. Our team's priority is to be skilled, courteous, and professional in our interactions with the Lottery, your retailers, and your players, and we look forward to continuing our program in West Virginia.



West Virginia Field Services: A Dedicated and Committed Team

Our relationships with the Lottery's retailers, players, and staff are opportunities to collaborate on solutions implemented in the field today and on future business objectives and strategies. We provide in-state leadership and field service staffing to meet the requirements of the West Virginia Lottery and the needs of its retailers. Whenever we are looking to fill a position, our first priority is to find and develop local West Virginia talent, and we remain committed to creating jobs in-state.

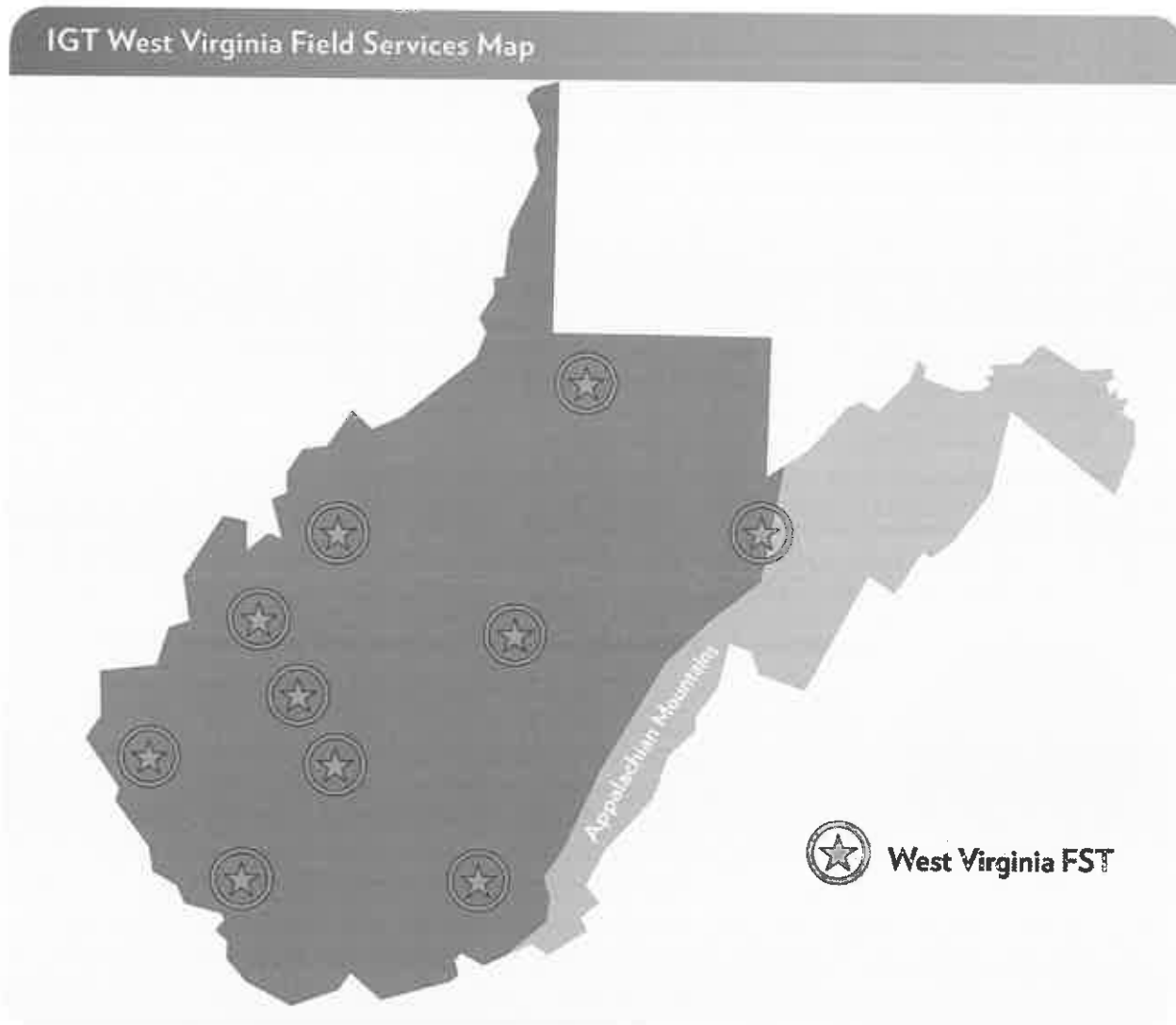
To confirm that we are continually meeting our customers' expectations, we have developed a staffing model utilizing historical data that is collected and analyzed from our customers and is complemented by the equipment requirements, service level expectations, and particular characteristics of each individual state. Our staffing model takes into consideration, among other items, the following criteria:

- Annual Dispatch Rates (ADRs).
- Geography.
- Expected time to repair.
- Expected employee work hours.
- Required visits.

Your West Virginia Field Services Team

The following map is specific to our continued Field Service organization in support of your next Contract. We have analyzed the requirements of your retailers with great attention to detail and combined that analysis with our West Virginia historical knowledge, experience, and insight.

Figure 4.6.3 - 13:



Our FSTs are strategically and geographically disbursed throughout the State, enabling them to quickly respond to service calls and lessen any down time for your retailers. Each FST provides service to a limited number of retailers in order to facilitate the best service possible. They also partner with other FSTs to best maintain and enhance coverage of their service areas. As stated in Attachment A, Section 4.5.6, Field Technical Service Staff/Field Staff, our FSTs will be on site to the Lottery's retailer locations within two actual hours of notification for Lottery-designated high-volume retail locations and within four business hours of notification for all other retail locations.



Each vehicle in our West Virginia Field Service fleet is equipped with a Global Positioning System (GPS). Our FSTs are also issued a mobile phone, with the following included features to help with their day-to-day tasks:

- Auto-dispatching service requests for expedited notifications that allow FSTs to respond faster.
- Reviewing service request details.
- Using turn-by-turn driving directions.
- Checking real-time updates of service history.
- Documenting repair details.
- Updating van and lock-up inventory to maintain accurate equipment counts in all regions of the State.
- Recording preventative maintenance performed.
- Closing calls.

A Leader in the Field



Roger Ezzell – West Virginia Field Service and Warehouse Manager

Roger has been with IGT for more than 12 years and has led our West Virginia Field Service operations since 2009. He has oversight for our local team of FSTs, Repair Logistics Technician (RLT), warehouse staff, and service vehicle fleet; has fiscal accountability for all service activities within the state; and plays a key role in the planning, implementation, and execution of equipment and firmware upgrades in the field. Roger is seen as a dependable leader within our Global Field Service organization and has been asked to participate in and lead multiple conversion efforts over the years for our customers in Arizona, Tennessee, and Michigan. He was also an integral member of a global safety initiative that spanned our Field Service organization, for which he received our Company's President's Award.

Appearance of Our West Virginia FSTs

We consider our FSTs to be representatives of the Lottery and an extension of your brand. It is important to us that the Lottery be represented in a professional manner at all times. We want your retailers to immediately know who we are and whom we represent, so they can be assured their issues will be resolved quickly and competently. We take that responsibility seriously, not only in the appearance of our FSTs but also in the quality of our service provision.

Our West Virginia FSTs will continue to have a professional appearance and be easily identified as IGT staff by wearing IGT-issued shirts or jackets with IGT logos on the front and IGT-issued badges with their names and pictures on the front. Retailers in the State have come to recognize this attire when IGT FSTs visit their locations and we want to continue this for your new Contract.

Figure 4.6.3 - 14:

Professionalism in Attitude and Attire

Identification Please: IGT Field Service Technicians are easily recognizable to Lottery retailers.



Training Our West Virginia FSTs

We place the highest priority on keeping our staff informed, trained, and prepared. The lottery industry is constantly evolving with advancements in technology, shifting job requirements, and the need to reinforce high standards; therefore, we must evolve with it. The Field Service team is assigned training annually to promote the growth and development of its staff. Each year, all team members are assigned specific work goals. The goals are personalized to strengthen each team member to exceed customer expectations. Here is a brief list of some required lottery-specific training:

- Customer service.
- Satellite training.
- Hardware training.
- Team building.
- Supervisory.

West Virginia-Specific Training through Lottery Learning Link

Our West Virginia FSTs and Field Service and Warehouse Manager, Roger Ezzell, will have access to our web-based audio and video simulator, Lottery Learning Link (LLL), for continued training on the Lottery's games, promotions, and business practices and protocols. By providing our West Virginia field staff with access to LLL, we are giving them an additional opportunity to represent the Lottery at retail and to be an informed, knowledgeable presence for both your retailers and your players.



Safety Training

Safety is a top priority at IGT not only for our employees, but also for the Lottery's employees, retailers, and the general public. Our training programs are written, reviewed, and edited by qualified individuals within Field Service, and IGT's Environmental, Health, and Safety group is fully compliant with OSHA and American National Standards Institute (ANSI) standards.

All members of Field Service are required to complete annual safety training and inspections ensuring that we mitigate the risk of injury to our employees, the Lottery's employees and retailers, and the general public. The program components include, but are not limited to:

- Competent person/OSHA compliance.
- Aerial lift training.
- Aerial work platforms: safe operation of scissor and boom lift.
- Fire safety and fire extinguisher use.
- Ladder safety.
- Outdoor heat exposure procedures.
- Portable fire extinguisher inspections.
- Safe lifting techniques.
- Safe T ladder rail extension system.
- Proper grounding techniques.
- Health hazards.

Field Service management reviews the activities being performed by its technicians on a regular basis, generating Job Safety Analysis (JSA) documents, which enables employees to employ safer methods for each task. The JSAs identify the work being performed, the risk, and the appropriate protection. We commit to take every step required to reduce the risk of accidents of any type, while creating a safe work environment through safety awareness, education, application, and enforcement.

IGT's Corporate Field and Gaming Services Support

The senior staff of our Field Service management team has more than 70 combined years of experience providing lottery field service and related projects for domestic and international customers. They will work closely with our local management and FSTs to lend assistance, knowledge, and expertise as needed.

Ian Hyatt – Vice President, Client Services

Ian has been with IGT for more than 12 years. He runs a global Client Services organization comprised of roughly 2,000 personnel that provide best-in-class service, consistently achieve service level targets, and improve expense management and resource optimization. Ian is responsible for developing strategies for all aspects of IGT's field service, as well as planning, standardizing, and implementing them. He manages activities related to achieving our Contractual service agreements to our customers' satisfaction. He also oversees all activities related to installation, repair, proactive maintenance, and field engineering changes or upgrades for all product lines.

Ian has expertise in all facets of managing operations, engineering, provisioning, and service delivery. At IGT, he has held positions in Client Services, NRC Operations, Network Operations, Network Design, Implementation Engineering, and Global Communications. He is a Chief Master Sergeant in the 143rd Airlift Wing of the U.S. Air Force/Rhode Island Air National Guard.

Chris Costanza – Senior Director, Field and Gaming Services

Chris has more than 35 years of experience in the lottery industry and has held several positions of incremental responsibility. Currently, Chris oversees more than 1,000 Field and Gaming Services personnel in our North American and Asia-Pacific operations. He thrives on each opportunity to surpass an SLA while exceeding all expectations to satisfy customers at every level. Chris constantly interfaces with General Managers, Field Service Directors, other department heads, and local staff to assist them with daily operations and reaching peak performance goals. Chris has supported 10 major site conversions and brings the extensive knowledge gained from these projects to his work.

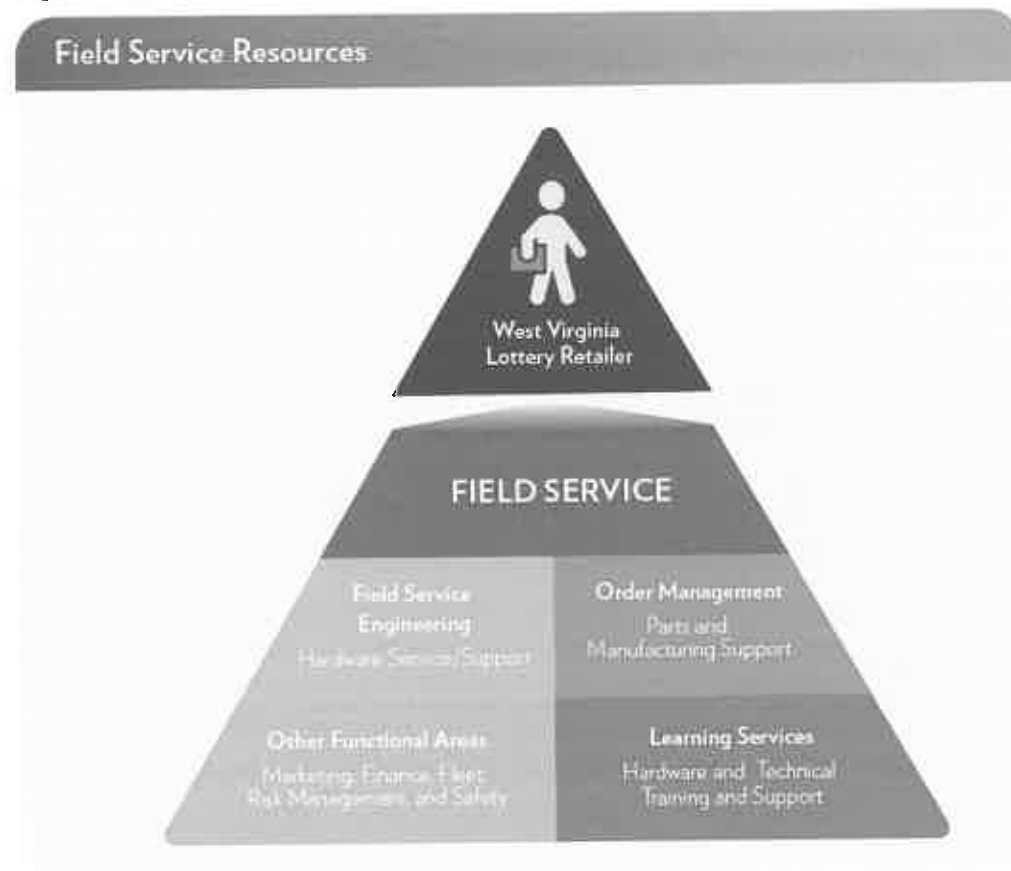
Mike Sasso – Director, Field and Gaming Services: East Region

Mike has nearly 25 years of lottery and gaming experience with IGT, having held various positions within the Company. He began his career as an FST in New York and moved up the Field Service ranks as a Bench Technician, Supervisor of IGT's Regional Repair Facility, Field Service Supervisor, and Field Service Manager in New York. His diverse field service background has earned his promotion to Director of Field Service, mentoring supervisors and managers of 12 U.S. jurisdictions (West Virginia, Arkansas, Mississippi, Louisiana, Kentucky, Texas, Florida, North Carolina, Georgia, Tennessee, the Bahamas, Kentucky, and our cruise line accounts). He is involved in day-to-day field and casino gaming activities, successful project planning and implementation, and wireless network implementation.

IGT Corporate Support Divisions

The local West Virginia team will be supported at every level beyond the Field Services organization. Their continuous interaction will have your team always moving forward and ready to serve. There are no walls at IGT separating the groups as they work hand-in-hand to exceed the Lottery's expectations. The following graphic highlights some of the teams assisting your local Field Services group.

Figure 4.6.3 - 15:



Field Service Engineering

The Field Service Engineering (FSE) department provides assistance if equipment concerns arise in the field. The FSE team supports every IGT customer worldwide, using vigilant testing, research, and historical data to quickly determine and resolve any new concerns. Once a concern in one jurisdiction is determined, FSE works to come up with a resolution and then communicates the resolution in a Field Service Bulletin to the entire service-based organization. This guarantees all IGT sites have a corrective path prior to it becoming an issue down the road. FSE provides another level of support, knowledge, and experience for the Lottery.

FSE represents the service group on numerous product development and enhancement teams, in addition to participating in various service improvement initiatives, bringing yet another level of knowledge and experience to IGT's service organization. The FSE team consists of three members with more than 75 years of collective IGT experience.

Learning Services

Our Learning Services training team provides continual support to field services staff by updating training content, providing on-site and online training, and supporting many field service initiatives. The skills and knowledge of Learning Services personnel will make sure local field service staff are prepared, not only to handle hardware issues, but also to provide training and guidance for personal skills, safety, and all functions associated with field services.

Order Management

The West Virginia Field Service team will work directly with our internal procurement office to provide an appropriate amount of spare base to maintain retailer equipment. The coordination of ordering parts, components, and whole units is managed based off of inventory usage reports and predictive ordering.

Terminal Maintenance in the Field

Our FSTs have the knowledge and equipment necessary to repair or replace any and all IGT-provided or serviced equipment and all installed assets, including retailer-activated and self-service terminals, all peripherals, and communications interface when required. In addition, during a service call, the FSTs will check the mechanical security, safety, and general operation of the terminal, printer mechanism, reader, and any other attachments provided or serviced by us.

During every visit to a Lottery retailer, the FST logs into the terminal via the Terminal Settings button and performs a series of tasks. They will also check consumables inventories and confirm ticket stock and play slips are adequately maintained with appropriate stock levels.

Figure 4.6.3 - 16:

Tasks Performed During Every Service Call	
Tasks	
Introduction to retailer clerk or supervisor/manager with explanation of reason for visit	
Speak with retailer to assess all issues	
Complete all repairs	
Provide on-the-spot training problem resolution for issue, if applicable	
Inspect and clean the printer, verifying proper operation	
Inspect and clean the exterior of the terminal and all peripherals	
Verify that all terminals and related components are operating properly	
Verify that all electronic terminal and ADU messages are correct and current	
Verify that all communications equipment is in good working condition	
Check all cable and power connections, including those on self-service terminals	
Check supply levels	
Speak with clerk or management to debrief visit, see if all needs have been met, and refer the retailer to the retailer's FMSR for any further sales-related or training issues	

To further provide the Lottery with a comprehensive overview of our FST activities in the State, we have provided a **Day in the Life of a West Virginia FST** insert, which may be found at the end of this section.

Integrated Preventative Maintenance: A Proven Methodology

Our approach to PM is to integrate PM during every service visit, regardless of whether PM is due or not, and no matter the reason for our FST's visit. Our West Virginia-dedicated staff are instructed to complete this integrated task on all IGT equipment at the retailer location. The PM consists of a simple routine cleaning and quality check. Our terminals function like a PC with an integrated, closed-case design and limited moving parts. We designed the equipment in this manner to help minimize disruption at our customers' retail locations and to maintain the equipment's original appearance.

Figure 4.6.3 - 17:

Servicing Lottery Equipment



How's It Looking?: A West Virginia FST performs routine cleaning on Lottery equipment as part of their integrated PM activities when visiting a retailer location.

Integrated PM is an industry-preferred approach. It helps reduce in-store visits and possible interruptions of sales by combining the two tasks into one visit. The only time this step is not completed is upon request by the retailer during high jackpot conditions in an effort to minimize any disruption in sales.

We understand that the Lottery has final approval over this and any subsequent changes. As we do today, we will work with you on maintenance needs and requirements based on your expectations and on equipment usage.

Terminal Provisioning

IGT's provisioning activity starts with a safety first approach. Our FSTs are required to assess the job site to attest the work being performed can be done in a safe manner, not only protecting themselves, but also the general public.



A DAY IN THE LIFE OF A West Virginia FST

Our FSTs are proud to represent the West Virginia Lottery and enjoy working in the field assisting your Lottery retailers and players. We realize that every time one of our technicians visits a retailer, we are representing the West Virginia Lottery – and we don't take this responsibility lightly.

To ensure optimum productivity and seven-day coverage, our FSTs work a split schedule: half of the workforce works Sunday through Thursday and the other half works Tuesday through Saturday. Their standard work day is 8:00 AM until 5:00 PM, but we recognize that many of your retail outlets are open 24 hours a day. We also provide standby coverage during the evening hours to minimize downtime and prevent any potential loss in revenue. Because each service visit is vital to sales and performance, we closely monitor both the performance of the equipment as well as the productivity of our FSTs. Our FSTs strive to complete four to seven service visits per day (depending on the region), while maintaining high-quality service.



IGT will maintain the following provisioning schedule for the Lottery's new Contract:

Figure 4.6.3 - 18:

Retailer Equipment Provisioning Schedule		
Activity	Equipment Description	Business Days
Traditional Retailer Installation	<ul style="list-style-type: none"> • Terminal • Printer • Advertising Display Unit • Ticket Checker (TSP) • Communications Equipment 	3-5 from requested action date
Relocation	Any terminal, peripheral, or other IGT-provided equipment	3-5 from requested action date
Removal	Any terminal, peripheral, or other IGT-provided equipment	24 hours from requested action date

Terminal Installations

Installations follow six steps to present an organized approach in bringing new retailers into the West Virginia Lottery family:

1. The Lottery sends the provisioning work order to the IGT Field Service Manager, Roger Ezzell. He will also be the Point of Contact (POC) for updates on the status of provisioning activities through completion.
2. POC acknowledges receipt of the provisioning work order.
3. POC confirms the retailer build is complete in Aurora Connect.
4. POC initiates a Jurisdiction Service Action Request. This creates the network ID and credentials specific to each individual retailer.
5. POC creates service call in Cadence that notifies field services.
6. A member of the FST team is dispatched to the retailer for installation of communications equipment, lottery terminals, and any associated peripherals. All are installed in a single visit with minimal retailer disruption.

For Very Small Aperture Terminal (VSAT) communication IGT uses non-penetrating mounts and always seeks an existing conduit to gain entry into the retailer's store. Once the VSAT, inside wiring, indoor unit (IDU), and terminal are installed, the service technician accesses Hughes' interface to commission the satellite. Commissioning the satellite ensures that signal strength is appropriate for maintaining consistent satellite communications. The IDU is then ready for the terminal to sign on to the host system.

We define a terminal install as completed once the retailer has received terminal training deemed satisfactory by the Lottery and they can issue, sell, or validate tickets without issue.

IGT works with Ventus to provide the best cellular carrier for retailers – such as Verizon, AT&T, or Sprint – based on who provides the best coverage within specific zip codes. Once the Ventus router is configured with the carrier solution, the IGT FST performs the installation by connecting the modem to the terminal using a CAT5E cable. Then the FST will power up both units and in parallel contact Ventus to activate the router.



Once activated the following steps are performed to validate connectivity:

- Retailer name, address, and phone is provided to Ventus.
- Ventus support will provide the technician with signal strength to validate carrier performance.
- The IGT FST will then sign on to the terminal to confirm that the terminal is operational.

Removals

Retailer terminations are priority visits for our team as we understand the time limitations often placed on the removal process. If it is a permanent removal we will confirm all equipment is pulled from the location. However, if it is a temporary removal, we will only remove the required equipment so that the reinstall is completed quickly.

Relocations

Equipment relocations are often guided by the needs of the retailer and our experience helps to make this a seamless process. Whether internal or external, all relocation requests will be handled expeditiously. We approach each request as an opportunity to impress a lottery retailer with the individual treatment we provide to meet their needs.

All provisioning activities will be logged in our Cadence tracking system for alerting and reporting of activity.

Terminal and Peripheral Repairs

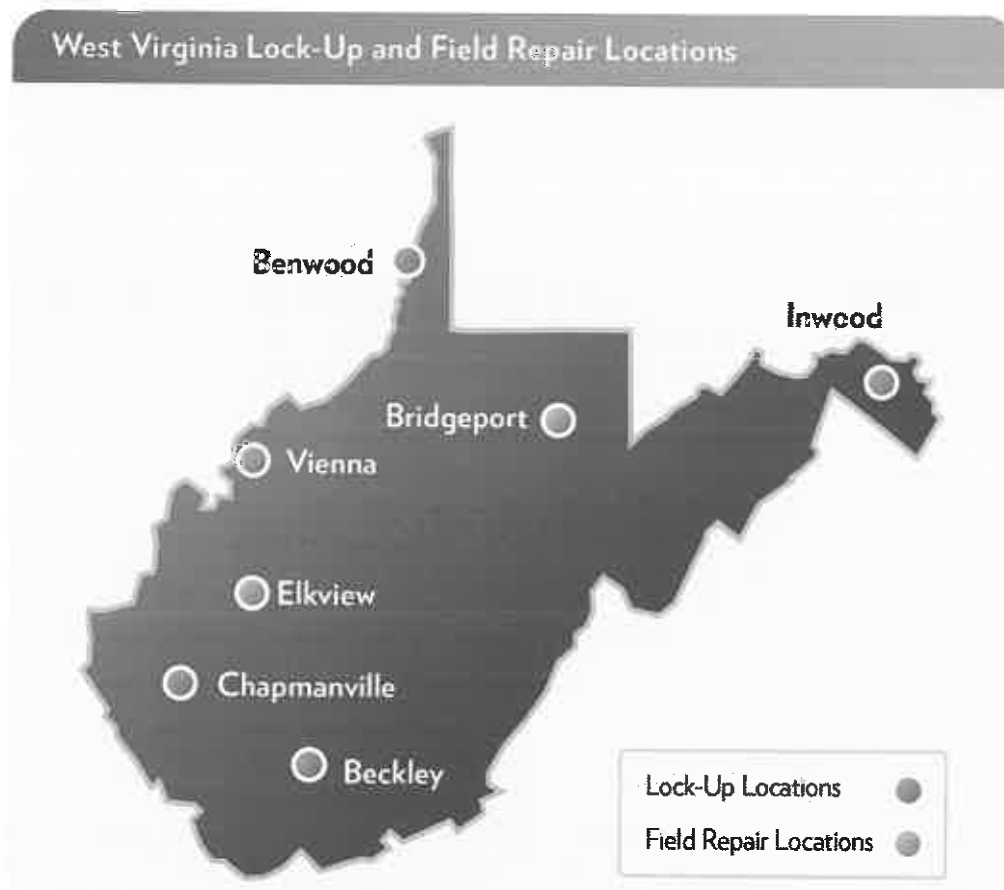
Each West Virginia FST carries sufficient spare terminals and parts appropriately organized in their vehicles to efficiently replace/repair, or “swap out,” any defective equipment. Our FSTs are trained to quickly diagnose issues and replace parts on site, and will do so if they can complete it faster than a full terminal swap. We also supply all spare parts necessary for the operation of the West Virginia Lottery’s lottery equipment.

We provide and maintain the appropriate number of spare terminals and subcomponents in FST service vehicles and store supplies and spare parts strategically throughout the State for the most advantageous operation, and also to minimize retailer downtime and guard against service interruption.

Our West Virginia Field Repair Facilities and Lock-Ups

IGT’s primary field repair facility is located in Elkview, West Virginia, and fully supports terminal maintenance, repairs, consumables warehousing, distribution, and our West Virginia field teams. A secondary field repair facility is located in Bridgeport, West Virginia, at our Backup Data Center (BDC). We also provide and operate storage units and lock-ups throughout the State to fully support our FSTs. These facilities provide a place for FSTs to store additional spare equipment as well as perform equipment repairs to ensure that Lottery retailers receive the equipment, consumables, and services they need.

Figure 4.6.3 - 19:



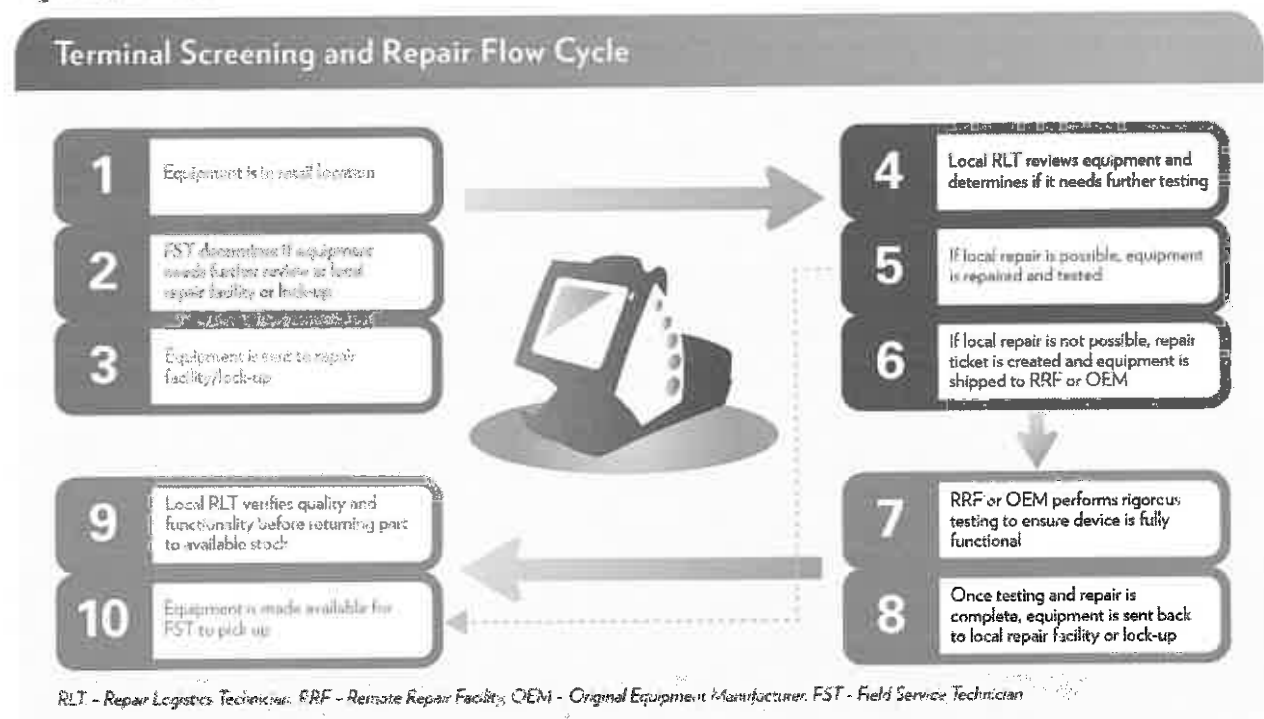
We strive to repair equipment in-state whenever possible. FSTs send all swapped equipment to the field repair facility where it is examined by our RLT to verify the reported problem. If tested successfully, the terminal, subassembly, or peripheral will be returned to the field. Local FSTs working out of this location are also trained to assist the RLT whenever time allows.

The RLT is equipped and trained to address these multiple levels of repair, from cleaning to part-level replacement and repair:

- Quickly triage incoming equipment to determine issues.
- Troubleshoot equipment to malfunctioning component/board.
- Complete minor repairs, including some part-level replacement.
- Clean and prep terminal, subassembly, or peripheral to be returned to the field.
- Ship out component/part requiring more extensive repairs.
- Manage lock-ups' inventories and part provisioning.

Our equipment repair workflow is depicted in the following figure.

Figure 4.6.3 - 20:



Quality Control Process: At our field repair facility in Elkview, we perform rigorous testing on the Lottery's equipment to ensure that each device is fully functioning before it is sent back to the retailer.

Remote Repairs

It is uncommon for our local West Virginia Field Service team to send components outside the State because of the high degree of training our FSTs receive to address issues and repair parts locally. However, should components require more extensive repairs than can be completed in-state, our Remote Repair Facilities (RRF) in West Greenwich, Rhode Island, or Reno, Nevada, and our Original Equipment Manufacturers (OEM) are available to assist as needed.

Non-consumable spare parts have a repair life cycle that creates a constant loop feeding the West Virginia spare parts base. Every part has a repair process, contract, and in/out warranty with the OEM. It creates a full circle process that enables any repairable items to be in-state at all times. This ensures that there are no issues with spare parts, as the RRF and OEM have spare bases to reduce the turnaround times on any defective items. Warranty documents for OEM components are also maintained.

Original Equipment Manufacturer (OEM)

IGT establishes and maintains strong relationships with the OEM, who partners with Field Services to preserve the equipment over the life of the contract. This assists in management of the parts provisioning loop by reducing lead times and established longer warranties.

During each product development, as OEM components are selected, IGT's Purchasing department negotiates an OEM agreement with each selected vendor. This agreement includes the terms of warranty repair. Purchasing provides the agreed warranty information to FSE for consideration when determining the service strategy for the component.

The service strategy instructions for each OEM component/product are documented in an OEM warranty document. We maintain these warranty documents in numerical order by IGT part number, which allows for easy access.

Cadence's Role in Field Service Activities

As described previously in Section 4.6.5, Hotline, under the heading "Cadence: Real Time Service Management Tool," Cadence is our field service dispatch managing system and covers the entire life cycle of a retailer service call.

Specific to measuring the performance of our FSTs, Cadence provides numerous reporting options, including historical data, to ensure that every Field Service manager and supervisor has the available tools and resources to determine the proper performance measurement for his or her staff. It provides management metrics to optimize all field activities, including visibility into the field to monitor and track field performance and daily activities to ensure premium customer service. The use of the trend reports also provides us insights for adjustments to optimize daily service activity. Additionally, it allows management to monitor and provide live project-activity updates and review chronic retailer activity in real time.

Reporting options specified to Field Service and Retailer Equipment information include, but are not limited to:

- Service reports down to the retailer level.
- Service reports down to the equipment level.
- FST metrics.
- Retailer maintenance history.
- Retailer Service Exception Report.
- Equipment/part use.
- Comments about the problem or repair.
- Time stamps for service, assignment, and repair.
- Retailer acceptance on every case with electronic signature (comments can be logged).

Inventory Tracking

IGT has a multifunctional tool overlaid on the existing Cadence platform that is used to track field assets and repair activities and provide enhanced inventory reporting and efficiency. It allows for better management of site inventory and management and can adjust the repair parts inventory based on demand.

4.6.7 Warehousing and Distribution

The Vendor provides System integrated warehousing, inventory control, packaging, and distribution services include, but are not limited to, the following features:

- *Secure receipt, off-loading, verification, and inventory of all delivered items;*
- *Entry, processing, and execution of same day packaging of instant ticket, POS, and orders for consumables;*
- *Entry, processing, and execution of one day shipping for instant ticket, POS, and orders for consumables (i.e. packaged orders must be delivered by the next business day unless geographic/holiday constraints prevent next day delivery);*
- *Delivery of instant ticket launch pre-orders to all retailers on the same day (i.e. retailers requiring two day shipping are packaged and shipped the day prior to retailers with one day shipping);*
- *Packaging and shipping quality controls for inspection of packed materials to prevent packaging errors and issuance of defective goods (e.g. print misalignment, ticket latex scratches, missing items, improper quantities);*
- *Secure expired instant ticket inventory until Lottery completion of accounting, reconciliation, and destruction of the game;*
- *Secure receipt, reconciliation, and accounting for returned items after shipment out of the warehouse that allows for items to be restocked and reshipped as appropriate; and*
- *Process and deliver instant ticket dispensers, SSTs, and other orders that require Lottery authorization at the requesting retailer's convenience.*

Vendor's field staff or subcontracted courier(s), or a combination of both, may be used for shipment or transfer within the required time limits. While a subcontracted party may be used for delivery, Vendor should provide the corporate identification for such subcontractor. The Lottery retains the right to refuse a proposed subcontractor for deliveries. Any change of subcontracted couriers should be pre-authorized by the Lottery Director or designee.

The Vendor should provide System integrated warehousing, inventory control, packaging, and distribution services which include the following additional features:

- *Real time and summary reporting on instant ticket orders and status for each day, by game name, by game number, and by price point detailing the number of packs and the total cost. Reports are in digital format and exportable;*
- *Real time and summary reporting on consumables, POS, and device orders and status for each day, by retailer, by item, by quantity, and other detail information. Reports are in digital format and exportable; and*
- *Upon the Lottery's request, Vendor should physically inventory all warehoused items and provide a reconciliation affidavit to the Lottery.*

IGT welcomes the opportunity to continue providing the West Virginia Lottery with integrated warehousing, inventory control, packaging, and distribution services. On several levels, it makes good business sense for the West Virginia Lottery to maintain its current warehouse and distribution operation in Elkview:

- **The secure, 14,000-square-foot facility was custom built to meet the Lottery's needs and ensure the integrity of all inventory stored within it.**
- **The operation is a model of efficiency and reliability. IGT's Pick & Pack system and team have an accuracy rate of 99.9%, and the warehouse staff has an excellent relationship with your auditors.**
- **Maintaining the Elkview site eliminates the risk of moving pallets and inventory and ensures business continuity.**
- **The warehouse is a key employer in the Elkview neighborhood, where every job counts and every tax dollar benefits the people of the State.**

Looking toward the future, our work plan for managing your instant ticket and gaming supply inventory features the use of IGT's Aurora Instant Processing System (IPS), which includes the latest version of our Pick & Pack order fulfillment software and all of the capabilities of our current system. This advanced software will effectively support the warehousing, physical inventory control, packaging, distribution, return processing, reconciliation, and destruction of your instant tickets.

Our plan for the future is also based on best practices developed from years providing these services – not just to the West Virginia Lottery but to other major lotteries such as those in Indiana, New York, New Jersey, and Texas. As shown in the following table, our warehouse teams supported more than \$14 billion in instant ticket sales in 2015.

Figure 4.6.7 - 1:

IGT's Cooperative Services Customers in the U.S.						
Lottery	Year Started	Instant Sales CY 2015 (Millions)	No. of Retailers	Warehousing/ Distribution	Telemarketing/ Replenishment Ordering	Field Sales Staff
Texas	1992	\$3,535.6	17,400	Yes	Yes	Yes
New York (1)	1994	\$3,867.2	18,000	Yes	Yes	
Michigan	1995	\$1,047.8	8,500 (2)	Yes	Yes	
New Jersey	1996	\$1,776.9	7,200	Yes	Yes	Yes
Nebraska	2001	\$94.8	1,200	Yes	Yes	Yes
Virginia	2004	\$1,051.8	5,300	Yes		
North Carolina (3)	2006	\$1,445.1	6,900	Yes		
West Virginia	2009	\$102.7	1,500	Yes	Yes	Yes
Arizona	2010	\$576.6	3,100	Yes	Yes	
Indiana	2012	\$831.1	4,500	Yes	Yes	Yes
Total		\$14,329.6	73,600			
Wisconsin (3)	2017	\$571.5	3,700	Yes (Beginning Spring 2017)	Yes (Beginning Spring 2017)	

⁽¹⁾ IGT has operated the instant ticket warehouse for the New York Lottery since 1994 except for the period from March 2000 until February 2002, when another firm operated it.

⁽²⁾ Excludes Keno agents.

⁽³⁾ In mid-2017, another firm will begin providing warehousing and distribution services for the North Carolina Education Lottery, and IGT will begin operation of warehousing, distribution, and telemarketing services for the Wisconsin Lottery in the spring of 2017.

As described in your RFP, our warehousing and distribution services for the Lottery will include the same features as offered today:

- Secure receipt, off-loading, verification, and inventory of all delivered items.
- Entry, processing, and execution of same-day packaging of instant ticket, POS, and orders for consumables.
- Entry, processing, and execution of one-day shipping for instant ticket, POS, and orders for consumables (i.e., packaged orders must be delivered by the next business day unless geographic/holiday constraints prevent next-day delivery).
- Packaging and shipping quality controls for inspection of packed materials to prevent packaging errors and issuance of defective goods (e.g., print misalignment, ticket latex scratches, missing items, improper quantities).
- Secure expired instant ticket inventory until Lottery completion of accounting, reconciliation, and destruction of the game.
- Secure receipt, reconciliation, and accounting for returned items after shipment out of the warehouse that allows for items to be restocked and reshipped as appropriate.
- Processing and delivery of instant ticket dispensers, SSTs, and other orders that require Lottery authorization at the requesting retailer's convenience.

In addition, if we are the successful vendor, we agree to deliver instant ticket launch pre-orders to all retailers on the same day. That means retailers requiring two-day shipping, such as those in the eastern panhandle of West Virginia, will be packaged and shipped the day prior to retailers with one-day shipping.

Delivery/Subcontracted Couriers

IGT plans to continue using United Parcel Service (UPS) to deliver tickets to West Virginia retailers and the Bridgeport, West Virginia, office. Together with UPS, we will continue to follow strict quality control processes to ensure the efficiency and accuracy of all Lottery shipments and deliveries. UPS is a well-

Instant ticket launch pre-orders will be delivered to all retailers on the same day, including retailers in the eastern panhandle of West Virginia.

recognized and highly respected package delivery company, known for its high level of customer service. In addition to using UPS in West Virginia, we currently use UPS to deliver instant ticket scratch-off games and other items from our warehouses to retailers in New York, Texas, Michigan, New Jersey, Virginia, Indiana, Ohio, Arizona, and Nebraska. More than 90% of U.S. lotteries that use a third-party courier use UPS.

IGT acknowledges and understands that the West Virginia Lottery retains the right to refuse a proposed subcontractor for deliveries. We also acknowledge that any change of subcontracted couriers must be pre-authorized by the Lottery Director or the Director's designee.

Picking & Packing Orders

IGT's Pick & Pack process, originally developed in 1994 to support Camelot in the United Kingdom, has become the industry standard for reliably filling and shipping instant ticket scratch-off games. There are fancier systems but time and again, our process has proven to be efficient and effective. The West Virginia Lottery and its retailers have benefited from our Pick & Pack process throughout the current contract.

Figure 4.6.7 - 2:

Pick & Pack Process



IGT's Pick & Pack Process at Work in West Virginia: IGT's model for filling and shipping ticket orders is a proven model of efficiency and reliability.

Our new system incorporates our proven Pick & Pack process, which, when combined with our dedicated warehouse team, will continue to support West Virginia Lottery retailers with the high level of service that the Lottery and its retailers expect from IGT.

Our Pick & Pack process is more efficient than other "Assign at Shipment" processes because only one person handles the packs. With other "Assign at Shipment" processes, an order summary can inadvertently become separated from packs collected by one employee before the second person scans them. Thus, double handling opens up the possibility for synchronization issues, resulting in the need for reprocessing.

Additional Real-Time Reporting Features

IGT will continue to provide weekly status reports that will allow the Lottery to review how much inventory is available by game and what the recent distribution pattern has been for each game, along with an estimate of when our team expects the inventory of each game to run out.

As requested, IGT will modify our existing real-time reporting to include those elements not found in the current reports. The reports will be available in digital format and exportable through our Aurora system.

The enhanced consumables reporting will be part of our automated predictive inventory management system described in Section 4.4.13, Management Applications/Inventory Management and Tracking.

The additional reporting for equipment and assets will be available through a new Inventory Management Tool, which tracks equipment, terminals, and peripherals. Please refer to Section 4.7.6, Retailer Supply Tracking Enhancements, for information about the new tool and its advanced reporting options.

Physical Inventories

By keeping the inventory on pallets and in cartons as received from the ticket printers, physical inventories can be conducted periodically to confirm the integrity of the data in the system. When requested by the Lottery, IGT will continue to physically inventory all warehoused items and provide a reconciliation affidavit to the Lottery.

Summary

We are proud of the work our warehouse team and FMSRs perform to ensure West Virginia retailers have the tickets, dispensers, and consumables they need to effectively represent and sell tickets for the Lottery. With IGT as your ongoing partner, the Lottery and West Virginia retailers will continue to experience and benefit from an efficient, well-run warehouse team dedicated to delivering the right tickets to the right retailers quickly, reliably, and in a secure manner.

4.6.8 Field Marketing and Sales

Field Marketing and Sales Representatives are hired by the Vendor and a summary of the duties performed includes the following responsibilities:

- *Visit each retailer location regularly, with minimum of one visit per month for low volume locations and more frequent visits to high volume locations:*
 - *Record each visit and any inventory recorded and other transactions performed at the retailer's site on the System;*
 - *Request, process, deliver, and issue instant game inventory for all dispensing devices as required;*
 - *Assist with game merchandising, including responding to questions, providing advice and training for the selection and location of POS materials and dispensing devices;*
 - *Request, deliver, maintain, track, and inventory POS, ticket dispensers, equipment, and other commodities; e Request, recommend, assist, and support Lottery approved promotions;*
 - *Provide retailer information and photographs for public relations purposes to the Lottery;*
 - *Collect, return, and inventory undeliverable, unacceptable, and/or unsold lottery games as requested by the Lottery within timeframes approved by the Lottery;*
 - *Supplement, support, and assist the Field Technical Service Staff by checking equipment located at the retailer locations and report any new or previously unidentified maintenance issues;*
 - *Inform retailers of instant game end and provide retailer assistance in selling or returning tickets;*
 - *Collect, return to proper facility, and inventory outdated POS materials;*
 - *Provide in-store and group retailer training for equipment operation, game procedures and policies, ticket handling, accounting, security, and other functions as requested by the Lottery or in the event of new equipment, games, and procedures;*
 - *Recover all Lottery and Vendor consumables and POS in the event that a retailer license is revoked or suspended; and*
 - *Identify and recommend new retailers that meet mutually agreed upon eligibility standards and that meet licensure qualifications prescribed by applicable statutes, regulations, and other Lottery policies.*

Vendor should provide Field Marketing and Sales Representatives with sales devices and equipment to take and transfer quality (i.e. 300 DPI), detailed photographs for Lottery use in public relations.

Vendor should provide portable/mobile devices to Field Marketing and Sales Representatives and two Lottery marketing staff which are used to provide real time inventory and sales analysis for individual retailers, territory, and groups of retailers. Inventory and sales analysis should include percent validated instant inventory, pack status, recent/last order, current inventory at location by game and price point, last call from telemarketing, snap shot of POS inventory, previous retailer (monthly, weekly, etc.) sales for 13-month period presented in chart and visual format for review with retailer.

Vendor should provide and maintain up-to-date copies of all Field Marketing and Sales training materials for all retailers, which are to be provided to and approved by the Lottery prior to use in any training session.

Field Marketing and Sales Representatives ensure an adequate supply of all Lottery products and related materials are available to retailers. The Field Marketing and Sales Representatives deliver emergency orders to high volume retailers and other retailers as needed. The Lottery currently identifies 38 high volume retailers, 10 of which are chain accounts. Key and chain accounts are provided special services to ensure their continued satisfaction with their involvement with the Vendor and the Lottery.

Field Marketing representatives are responsible for the following inventory and order functions:

- *Field Marketing representatives are responsible for the return of unopened packs of instant games for credit within 30-day mandated period. The Lottery will not accept opened instant game pack returns unless prior approval is obtained from the Lottery;*
- *Provide sales analysis, recommendations, and guidance to increase sales and manage instant game inventory and orders; and*
- *Collect feedback regarding lottery games, POS, dispensing devices, etc.. and communicate this information and recommendations to the Lottery in a monthly standardized report.*

Field Marketing and Sales Representative duties are summarized as follows:

- *Provide guidance to increase sales and manage instant game inventory and orders;*
 - *Provide sales performance updates on a monthly, quarterly, fiscal, and any other basis as requested by the Lottery;*
 - *Monitor and report non-active or under-performing retailer terminals and dispensers;*
 - *Collect, return, and inventory undeliverable, unacceptable, and/or unsold lottery games as requested by the Lottery;*
 - *Supplement, support, and assist the Field Technical Service Staff by checking and maintaining equipment located at the retailer locations;*
 - *Inform retailers of instant game end and provide retailer assistance in selling or returning tickets. Field marketing representatives are responsible for the return of unopened packs of instant games for credit within 30-day mandated period. The Lottery will not accept opened instant game pack returns unless prior approval is obtained from the Lottery;*
-

IGT acknowledges the West Virginia Lottery's description of Field Marketing and Sales Representative (FMSR) responsibilities. As the salesforce manager in several customer sites, including West Virginia, Nebraska, and Texas, and our lottery operator sites in Indiana and New Jersey, these responsibilities fall within our field marketing best practices. Our experience gives us wide-ranging perspective that we can use to effect change. As a result, the enhanced performance of – and new mobile devices provided to – the IGT FMSRs who serve retailers will adapt to West Virginia the strategies and tools that continue to sustain higher sales for those customers.

In Nebraska, for example, the Lottery's overall sales are strongly impacted by IGT's salesforce management. We guide them and provide them with the training they need to implement proven best practices – our own standards and the industry's – and they influence sales through targeted promotional efforts and strategies based on player trends. Our Nebraska Lottery Sales Representatives (LSRs) have built very strong relationships with Lottery retailers and are able to use their selling techniques to "ask" for more. Because our sales team is incentivized, they are invested in the sales growth of the business.

Since switching from standard telsell to a more sophisticated telemarketing system in 2001, the Nebraska Lottery has enjoyed year-over-year (YOY) sales increases every year, with the exception of one year in which changes to Powerball impacted sales for all U.S. lotteries. We've seen greater growth in our distribution since we have an ordering tool that is nearly real time. It has minimized outages in the field and notifies of when a retailer is "short" on a product.

“ *I know most of my retailers on a professional and sometimes a personal level. This relationship builds such trust that they have confidence in my opinion on ticket selection and how to advertise lottery products.* ”

– FMSR, Eric Oney, Charleston territory

reports, as described in Section 4.6.9, Field Marketing and Sales Reports, we will provide further transparency into the role our FMSRs play in your retailers’ success.

Summary of Field Marketing and Sales Responsibilities

“ *As manager of one of the top-ten stores in Lottery sales in the state of West Virginia, I have been very pleased with the job IGT has done as the contractor for the Lottery. My sales representative, Jason Woodruff, does a wonderful job with keeping us updated on new sales information, and he provides ideas for better sales promotion. We have worked in partnership together for many years. I am very pleased.* ”

– Wayne Davis, Manager, One Stop #101, Retailer #146512, South Charleston, West Virginia

IGT’s continual goal is to meet and exceed your service requirements, sustaining the solid and trusted working relationships established between our FMSRs and your retailers. By incorporating new tools into the service relationship and providing comprehensive

IGT’s staff of FMSRs currently serves the West Virginia Lottery’s retailers. We acknowledge the list of responsibilities set forth in the requirements of this section, and attest to the fact that our current staff, working within the existing field sales model, either meet or exceed those requirements now, with only one exception. Our staff is not currently responsible for tracking point-of-sale (POS) items, play slips, or instant ticket scratch-off game dispensers in the

system, but will take on these responsibilities in the next contract. We do currently track consumables (ticket stock) in the system, per MUSL regulations, and will continue to do so in the next contract.

Each of our FMSRs maintains a territory of approximately 100 retailers. Today, FMSRs visit each of their retailers every two weeks, which your retailers appreciate. They take every visit seriously, with the goal to assist retailers in enhancing business opportunities and sustaining growth in Lottery sales and profits. They will continue to do so as they work toward adjusting their schedules to meet and exceed your RFP requirement for retailer visits that are prioritized by assessed business needs and with the Lottery's approval.

“ I have to say that I am highly impressed with the professionalism of the employees that I have dealt with at IGT. Along with his professionalism, my representative Bruce is very polite, courteous, and always willing to help out if my employees or myself encounter a problem, which are few and far between. I could not ask for better service or support.

- Angela Dean, Manager, J&J's Mountaineer Mart #10, Retailer #117826, Mount Hope, West Virginia

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We understand that, in the coming contract, you want your vendor to take on more responsibility for sales and marketing, and IGT is fully prepared to do so, with effective tools and greater transparency into activity and results.

We emphasize that meeting and exceeding your prioritized retailer visits schedule creates the greater prospect of sustained higher sales at all retailer levels. To our FMSRs and sales leadership, this

change represents more than ticking items off a new checklist. Instead, it will present the opportunity for FMSRs to spend their retailer visits more effectively – discussing how to drive sales, optimize the lottery product within the store environment, and engage consumers, rather than assessing inventory.

“ You have to find things in common with each individual you're working with. It can take time to learn individual personalities but it's just a matter of talking to people and finding out what their interests are. From there, you begin to develop relationships based on commonalities. Building relationships builds trust and they become open to your ideas and recommendations.

- Randy Warner, Putnam, Mason, Jackson, and Roane territories

”

Supporting the Lottery's requirement will be field marketing best practices and automation tools (such as the FMSR mobile device), both of which will help FMSRs turn every visit into a truly focused sales visit. By IGT's application of these resources, the Lottery will see enhanced salesforce support of your retailers.

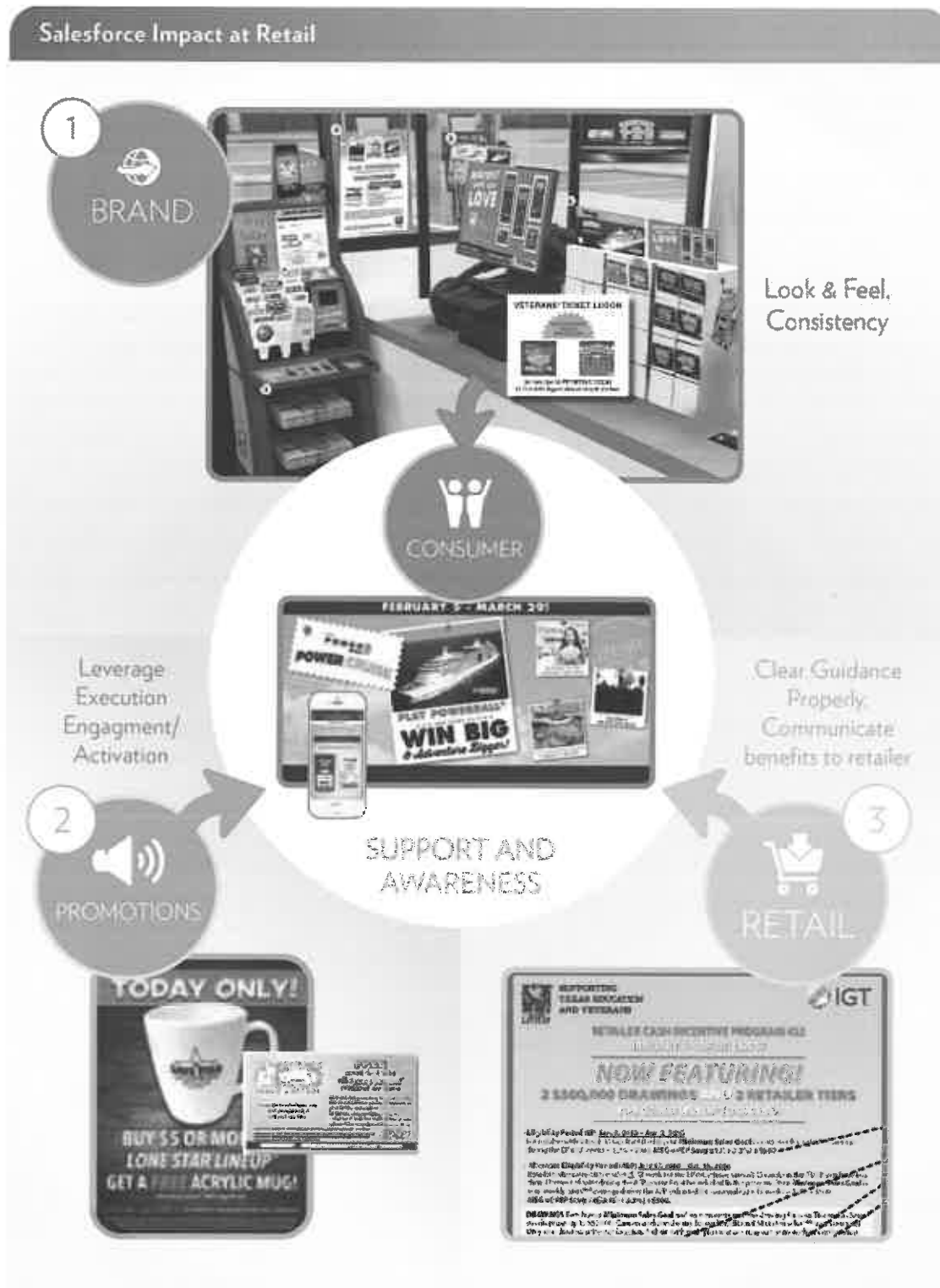
Field Marketing Practices

To meet your requirements for a new schedule of retailer visits, we expect to begin by applying a stratification plan that we will develop and finalize jointly with the Lottery:

- **High-Performing:** Top 10% in sales – two FMSR visits per month.
- **High Potential:** Next 25% in sales – one FMSR visit per week.
- **Average Potential:** Next 50% in sales – two FMSR visits per month.
- **Low Performing/Potential:** Remaining 15% – one FMSR visit per month.

We base this recommendation on our experience in managing salesforces and making strategic changes to help the salesforce help the retailers reach their lottery sales potential. These changes are intended to make the best use of time, applying proven field marketing best practices while individualizing each visit to the retail environment and relationship.

Figure 4.6.8 – 1:



Consumer-Centric Salesforce Support: Under the new stratified retail cycle, IGT's salesforce will customize their visits with West Virginia retailers to develop consistent brand awareness, provide exciting game and cross-promotions, and participate in retailer incentive programs – all with the goal of engaging consumers with the Lottery.

Oversight and Accountability for Stratified Sales Program

As your General Manager, Nikki Orcutt will provide oversight and management for this new salesforce plan and be accountable to the Lottery for its performance. As part of the execution of the plan, Nikki will conduct bi-weekly reviews with our Sales Manager and monthly reviews with the Lottery to ensure that the salesforce is meeting your and your retailers' expectations.

The top 10% within our stratification plan represents the high-volume retailers you have listed in Appendix H as well as those that will now be visited less than twice per month. The reduced visit schedule will have no negative impact on those retailers. They will be able to access the same resources and level of service they enjoy now through IGT's customer-oriented telemarketing and call center staff – all of whom are located within West Virginia.

We emphasize and acknowledge that the current list of high-volume retailers will change over time; in fact, we expect it to grow as a result of our proposed game and promotions offerings and retailer recruitment efforts. Thus, we will update the field marketing and sales plan, which will be subject to the Lottery's approval, according to changes in your network. We expect to collaborate with the Lottery in developing the final plan to ensure that the input from your management and retailers will be considered and included.

IGT's Approach to Increasing Sales in the Retail Environment

Our FMSRs will efficiently assist the Lottery's retailers with driving sales within their sales environment. We will continue helping retailers to achieve consistency in Lottery messaging and presence at retail, because we know from experience that it reinforces awareness in consumers. This approach is particularly applicable to retailers with multiple stores, which represent 80% of the West Virginia Lottery's retail base. We recognize that some national chains, such as 7-11, maintain restrictions on product placement and on-site signage, and we continue to work with those retailers – in West Virginia and many other IGT customer sites – to help them maximize lottery sales within allowable regulations.

One of the ways in which our FMSRs can assist your retailers is by discussing and demonstrating retail merchandising from the shopper's perspective. Our holistic approach allows us to take a wide view of the entire retail environment to impact purchase patterns throughout the store. IGT's Zone Impact Plan (ZIP) identifies five specific zones, from outside the establishment through the consumer's arrival at the counter for purchase, in which the Lottery can unlock the full potential of its brand to engage consumers in the lottery. Impactful messaging in each of these five zones is the key to optimizing lottery sales.

Figure 4.6.8 – 2:



Integrated Approach: Taking into account the entire retail environment ensures that you engage consumers at all points along the path to purchase.

Consistency of Lottery Messaging

In West Virginia, we see evidence that some retailers, such as Go-Mart, are long-time adopters of zone impact. The following figure illustrates how Go-Mart catches consumer attention at street level and leads them into and through the store and, ultimately, to the counter:



Awareness at Every Zone:
Go-Marts in West Virginia demonstrate how consistent use of point-of-sale material can inform consumers, even at the curb, and continue to engage them with the brand and encourage lottery play all the way to counter.

This example, along with IGT's experience in other salesforce management jurisdictions, will arm our FMSRs with information and evidence that will help other retailers enhance Lottery presence and consistency within their stores.

IGT's Zone Impact Plan defines an integrated strategy throughout the shopper's visit. Merchandising outside the establishment – such as pole signs, self-service machines, cooler clings, and gas pump toppers – announces that Lottery games can be purchased within and drive customers inside. Entry clings can welcome consumers through the door with the Lottery logo, current jackpot amounts, and specific promotion information. Once inside, items such as floor clings and coupons can “disrupt” the shopping experience with a reminder that Lottery games are available for sale or a notice that promotions are being run for particular games, and then lead the consumer to what we call the Lottery Zone. Here, a Lottery play center or self-service machine can use toppers and promote games, promotions, and how to play information, and provide play slips and coupons for immediate use. Finally, the consumer reaches the counter, the last step on the customer journey and the zone most critical to driving purchase.

Evaluation of Current Visual Merchandising Elements and Practices

Visual merchandising can be defined as everything the customer sees – both outside and inside the retail location – that creates a positive image of the Lottery's brand and products and results in attention, interest, desire, and action on the part of the customer. Visual merchandising can help create that positive customer image that leads to successful sales.

More and more businesses maintain a minimum staff to reduce costs, which means it is even more important for Lottery products to sell themselves. Greater effort must be spent on merchandise displays that make it easier for the customer to find and purchase Lottery products.

Creating and maintaining your visual merchandising plan, however, is not a simple task. It is necessary to continually determine what the customer sees. This evaluation from the customer's perspective should start on the exterior and work completely through the interior of the store, right up to the point of purchase.

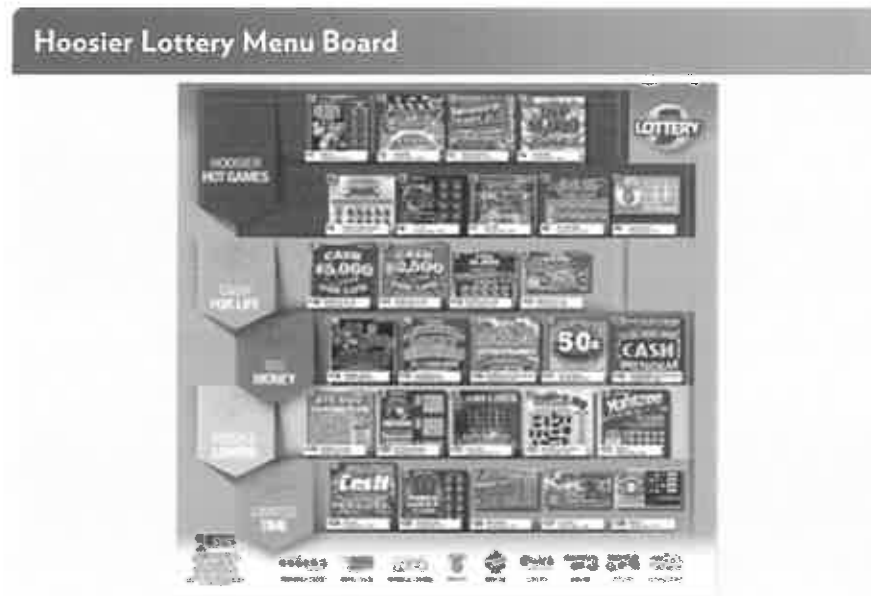
The following pages contain evidence of successful retail execution conducted through the partnership between IGT FMSRs and retailers and based on the consumer's view of Lottery at retail.

Case Study: Hoosier Lottery (Indiana) Circle K Menu Boards

Large corporate retailers sometimes resist expanding shelf space for lottery merchandising, even knowing product visibility at retail increases sales. To increase product visibility in a limited, small-footprint way, we introduced menu mats and menu boards showcasing instant ticket scratch-off games by sales priority and family.

Circle K stores in Indiana that had traditionally used under-counter black boxes for instant ticket scratch-off games added menu boards to their stores in May 2014.

Figure 4.6.8 – 3:

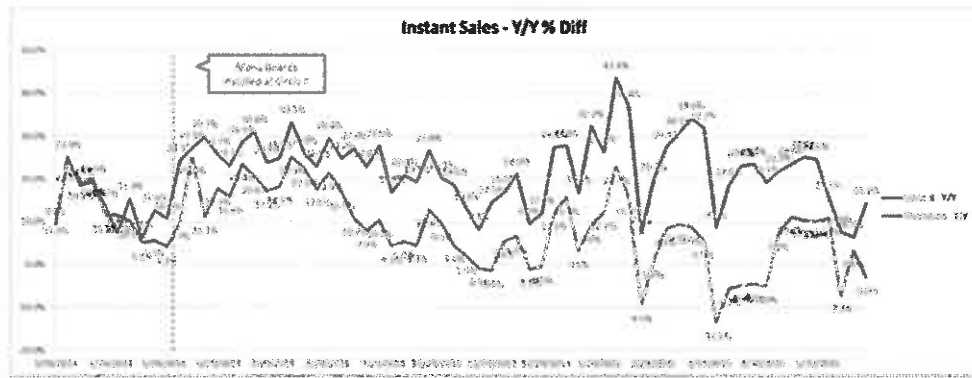


Recipe for Success: To increase visibility of the Hoosier Lottery's Scratch games while satisfying the retailer's request for a small-scale solution, we created and deployed small-footprint, high-impact menu boards.

The impact was immediate. The menu boards showcased 32 instant ticket scratch-off games and led to a 14.6% lift (\$45,250 in incremental sales per week) compared to a similar chain that did not implement the merchandising.

Figure 4.6.8 – 4:

Success of Menu Boards in Indiana



Menu boards are just one aspect of the sales program implemented in Indiana. Our experience enables us to not only optimize but also innovate the retail environment for maximum lottery exposure and an optimal player experience.

Case Study: Washington's Lottery Enhances Lottery Engagement, Increases Sales

Washington's Lottery uses a highly effective merchandising and brand-awareness program that maximizes lottery availability and presence in the places where their consumers go. The following figure depicts the various ways in which that program enhances both consistency and recognition of the Lottery's brand:

Figure 4.6.8 – 5:

Consistency of Lottery Messaging and Presence



A On Counter Dispenser with Monitor



B Digital Menu Board



C Hanging Menu Board



D Counter Wrap



E Ceiling Crasher



F Waterfall Dispenser

Consistent Look: Customizing consistent materials and merchandising has translated to increased playship and lottery sales in Washington.

With this new look, retailers in Washington report an increase in “Lottery engagement” among their customers. The first phase of the program activities resulted in \$1.9 million in topline sales (based upon expected vs. actuals).

Lottery and Winner Awareness and Signage at Retail

We have widely shared the success of our collaboration with Curb-to-Retail programs for numerous customers. To test enhanced merchandising and its potential impact on incremental sales, the Hoosier Lottery tested enhanced merchandising and its potential impact on incremental sales based on a time period in which only 32% of the population had recently played the Hoosier Lottery. The goal was to increase purchases of Powerball and Mega Millions among light and non-players, using incremental retail signage and other tactics when the jackpots reached \$100 million to \$250 million.

One of the most noticeable aspects of this program was the jackpot sign, which immediately made consumers aware of the major jackpots, sometimes even before they entered the store.

Figure 4.6.8 – 6:



The program in Indiana generated significant results:

- Draw sales increased 9% YOY.
- Awareness of Powerball rose more than 8%.

Site-Based Support: Marketing Content Manager

A key role in implementing the Lottery-approved marketing plan will be IGT's new Marketing Content Manager (MCM), a dedicated position we will add to our staffing plan and integrate into our West Virginia site. Please refer to the insert entitled **Marketing Content Manager Job Description**, located at the end of section 4.5, Vendor Administration, for a detailed job description for this new on-site resource. Because we find chemistry so critically important, both among our staff and between them and the customer, we invite the Lottery to join us in interviewing and selecting the professional who will fill the MCM role.

Working with our ADM and Marketing Manager and staff, the MCM will have specific and far-reaching responsibilities in support of the Field Marketing and Sales organization across the Lottery's draw and instant ticket scratch-off game portfolios. We view this position as playing an integral and strategic role in our marketing activity and support.

As a starting point, the MCM will manage some Lottery assets – instant ticket scratch-off game menus and sales sheets, sales brochures, game brochures, POS and other items – that are now handled by Lottery staff. By doing so, she or he will free up the time of Lottery staff to focus on its daily business. Additionally, the MCM will take on a leadership role for all of the responsibilities described in the requirement for Section 4.5.10, Marketing Content Manager, and become a daily and ongoing point of contact for the Lottery regarding marketing and retail needs and support.

Add to these tasks the MCM's role as strategic partner to the Lottery. It will be important – and a significant benefit to the Lottery – for the MCM to actively participate in strategic discussions and presentations. Those duties are referenced in the job description insert.

IGT will continually review its staffing requirements and consider changes, such as support for iLottery, in the event the Lottery opts to implement this new channel, as warranted.

Sales Force Tools: Clear Opportunity to Optimize Your Business Model

In managing the sales force that serves the Lottery's retailers, IGT emphasizes excellent service, and our FMSRs seek to engage retailers and build mutually beneficial working relationships based in trust. While their visit scheduled currently exceeds the Lottery's new requirements, we will empower FMSRs in the next contract period with automation tools that will enable them to be more involved in activities that support retailers and grow their Lottery sales.

Automation will enable each member of the sales force to spend their time with the retailer more efficiently on every visit. Discussions will emphasize business and lottery sector growth rather than inventory assessment, as their automation tools will ease the task of ordering instant ticket scratch-off games, with predictive ordering helping retailers maintain an optimal product mix. Having that knowledge of inventory and product mix in advance of retailer visits, FMSRs will have less need to carry trunk stock in their vehicles to fulfill retailer needs. This will, in turn, reduce the risk to both personnel and product. However, we will continue to direct FMSRs to carry a limited amount of trunk stock, relevant to the retailers in their respective territories, to fulfill any immediate needs on site, as the Lottery desires.

Salesforce Automation Proven to Increase Sales

"Our goal was for our Sales Reps to maximize their time in the field, achieve real results during a sales visit, increase lottery ticket sales and improve the service that the NCEL provides to its retailers. OnePlace has positioned us to be true sales representatives in NC!"

– Terri Avery, Deputy Executive Director of Sales, North Carolina Education Lottery

Our solution will enable FMSRs to meet all Lottery requirements for field marketing duties and responsibilities, as stated in the requirement of this section.

The Many Benefits of IGT's Salesforce Automation Tool: Aurora OnePlace

With IGT's acquisition of Hudson Alley Software, OnePlace – the leading sales force automation solution in the industry – has joined IGT's synchronized suite of complementary products (Aurora's Retailer Wizard, Retailer Manager, Performance Intel, and OrderStar) that leverage consistent insight and analytics across all lottery stakeholders to drive sales. All share the same set of services and the same information to provide IGT customers unprecedented integration; for instance, a retailer will see the same alerts in Retailer Wizard as FMSRs see in OnePlace and inside representatives see in OrderStar for that location.

Data accessed from OnePlace is available in the closest to real-time versus other tools whose data is a day old or more.

OnePlace easily integrates with other IGT and third-party applications as well, allowing all OnePlace users to benefit from IGT's vast resources, including its training organization, teams of analysts, and insights from its lottery operator and sales force management experience in jurisdictions around the world.

Lotteries buy sales force automation solutions for results. IGT's OnePlace mobile app and website deliver the results lotteries need to grow sales at retail and operate more efficiently and effectively:

- Visualized, up-to-the-minute reporting puts insights and compelling data into the hands of FMSRs, enabling them to coach retailers.
- Actionable alerts notify reps immediately of potential revenue-draining situations and opportunities for growth.
- Routing tools provide optimized time management.
- A Prospecting module supports active tracking and monitoring of retail recruitment activities.

With its major release in Fall 2016, OnePlace features new iOS and Windows 10 apps and has even more essential tools and features to drive best practices and provide invaluable information including instant ticket scratch-off game inventory, sales goals, retailer goals, and retailer profiles. While the following figure depicts the features and benefits of OnePlace, we emphasize that the Lottery will have immediate access to any new features as soon as they are released. IGT will perform regular upgrades, all based on the product's performance in the field, giving West Virginia the same upgrades as our other OnePlace customers, including New York, California, and Georgia, at the same time.

Figure 4.6.8 – 7:

How OnePlace Helps Drive Sales	
Feature	Benefits
Quickly identify problems and opportunities	Powerful but simple, OnePlace displays information in a way that makes it immediately actionable. For example, with a quick glance, FMSRs or sales managers will know how a retailer's sales are trending within each game category, enabling them to react appropriately and instantly
Shift FMSRs from defense to offense	FMSRs who use OnePlace walk into each sales visit with a mission, knowing exactly what they want to accomplish. This allows the rep to use the limited time allotted for conversations with store managers and owners efficiently, to the benefit of both rep and retailer
Optimize instant ticket scratch-off game product portfolio by retailer	<p>OnePlace empowers FMSRs and management to maximize sales in each retail location with a variety of tools and features that enhance:</p> <ul style="list-style-type: none"> • New game penetration: Proactively alerts reps and management when retailers have not activated a new game in the first week after launch. • Sell-in of best-selling games: Lists best-selling games by price point, allowing FMSRs to quickly ensure that top performers are carried and on display. • Removal of slow-selling games: Alerts FMSRs of stale inventory in retailer locations and provides recommendations on which games are not performing well and should be replaced. <p>Finally, OnePlace's Space-to-Sales screen takes the guesswork out of achieving a more profitable display by graphically presenting an analysis of each retailer's instant ticket scratch-off game assortment and making recommendations for adjusting the price point mix or adding facings of better selling or higher price point games</p>
Use winner awareness to drive sales	It's no secret that customers like to play in "lucky stores." OnePlace provides abundant winner awareness information, both by territory and by location, to help reps help retailers spread the news
Spark friendly competition by focusing on areas of opportunity	OnePlace can compare an individual retailer's sales by product line within its territory, region, state, zip code, and business type. This powerful dynamic provides actionable data to show where the retailer can improve and gives the retailer incentive to outperform the competition
Track what's happening – and not happening – at retail	OnePlace pioneered the use of checkboxes to document each retailer visit. This simple step provides both quantitative and qualitative information about each visit, with the added benefit of providing powerful reporting capabilities to track initiatives (such as selling in of special dispensers or increasing facings at retail). It even allows reps to take photographs and add them to their visit history, which managers can view instantly
Increase field time and maximize productivity	Because OnePlace proactively provides information on sales, earnings, credits, adjustments, settlements, pack statuses, and more, it can dramatically reduce the hours reps spend in the office or on the phone with headquarters, allowing reps to spend more quality time with retailers and freeing up office staff

In the future, OnePlace customers will benefit from even more enhancements based on the goals and desires of lotteries and IGT's experience and insights. Among the exciting new features coming to OnePlace are FMSR and retailer incentive management modules; instant ticket scratch-off game ordering; real-time, terminal-free pack returns; and other pack functions. New training programs (both classroom and in-the-field coaching) will increase the effectiveness of using OnePlace to drive sales.

Upgrade Means Uptick in Sales

With every implementation of OnePlace in IGT customer sites, sales have immediately increased. Most recently, this was the case in North Carolina, the Hoosier Lottery in Indiana, and in our Northstar site in New Jersey. OnePlace adoption provides lottery sales employees with information they can use to increase retailer sales by focusing their attention on the individual retailer and the opportunities that exist within the store to enhance Lottery brand awareness and a consumer engagement call-to-action. Several successful lotteries have used OnePlace to increase lottery sales at high-potential retailers. For these lotteries, OnePlace adoption has been a critical factor in overall sales growth.

Specifically:

- The North Carolina Education Lottery implemented OnePlace in late 2013. From 2014 through 2016, sales increased 29%.
- In New Jersey, which implemented OnePlace in early 2014, sales increased 9% from 2014 through 2015.
- The Hoosier Lottery went live with OnePlace in 2015. From launch through 2016, sales increased 16.3%.

In addition to proposing OnePlace for West Virginia, IGT will implement OnePlace in Texas, where it will replace Enterprise Series (ES) Mobile, and Italy in 2017.

Training: A Key Element to Success

Even the best tools require proper training for the people who will use them so they may help people succeed in their jobs. With One Place and new mobile devices at their disposal, FMSRs will have the Lottery's retail data at their fingertips. To make their use of these tools most effective for the Lottery, we provide formal and ongoing training.

Throughout the contract, we will ensure that the FMSRs who serve your retailers will maintain a high level of expertise in sales development and retail best practices from within the lottery and consumer goods industries. To achieve this, we will connect them with IGT corporate and other industry resources who can impart learnings that will enhance FMSR capabilities and directly benefit the Lottery's retailers.

For example, select members of the Strategic Team, described in Section 4.6.10, Research and Strategic Development, will work with our FMSRs. One of those members, Vice President of Sales Len Lorenz, will convene the salesforce twice each year of the contract to disseminate sales training to enhance the team's use of their new tools. Len is an expert on the use and evaluation of other sales automation and related tools, having successfully implemented them as part of his previous roles as longtime head of sales for both the New York Lottery and Northstar-New Jersey.

In addition, Len will occasionally join other members of the Strategic Team on their visits to West Virginia, where he can update the Lottery on the sales results with salesforce automation, both locally and across other lottery jurisdictions.

In summary, IGT is moving forward in offering sales automation and insight tools to assist the Lottery in growing sales within the context of the state's current economic environment. We will continue to build on the service relationships our FMSRs enjoy with your retailers and continue to provide formal training on the use of salesforce automation tools that have proven to increase sales in other IGT jurisdictions. These tools will help our FMSRs meet and exceed all of your requirements for field marketing and sales.

4.6.9 Field Marketing and Sales Reports

Vendor should provide a digital file daily and monthly report listing of all Field Marketing and Sales Representatives and the retailers (including counties and territories) to which they are assigned. The report includes, but is not limited to, the following:

- Name, address, and cellular phone number for each staff member;
- List of all visits and System logged activities for each retailer by each staff member;
- Summary of retailer visits, including any failures to provide adequate field coverage in any county or territory, and the date(s) such failures occurred;
- Changes in retailer assignments noting new and terminated retailers and explanation of any changes; and
- Changes in staff and schedules to address all leave, holidays, and promotions.

IGT understands the importance the West Virginia Lottery places on providing quality service to its retailers. As discussed in Section 4.6.8, Field Marketing and Sales, our FMSRs have consistently visited every retailer at least twice each month and are ready to exceed your requirements for prioritized visits.

“ Our sales success could not have been achieved without a close partnership with the Lottery and, specifically, our Lottery representative, who goes the extra mile to ensure adequate ticket stock inventory, new signage, and information about new games and opportunities.

— Dan S. Stephan, Jr., People’s News #7, Retailer
#143284, Parkersburg, West Virginia

”

We also understand that the Lottery is interested in field sales and marketing reports that provide an overall view of our FMSRs; their assignments, availability, and activity; and the sales results of their service to your retailers. We will provide this information, either daily

or on an as-needed basis, and work with you to organize the data and reports in a way that will best benefit your needs.

To meet your requirement, IGT will provide a digital file to the Lottery – daily and monthly – with, at a minimum, all of the details you require in this section:

- Name, address, and cellular phone number for each staff member.
- List of all visits and System logged activities for each retailer by each staff member.
- Summary of retailer visits, including any failures to provide adequate field coverage in any county or territory, and the date(s) such failures occurred.
- Changes in retailer assignments noting new and terminated retailers and explanation of any changes.
- Changes in staff and schedules to address all leaves, holidays, and promotions.



By integrating two new tools – Aurora Navigator and OnePlace – described in Sections 4.3, Reports and Interfaces, and 4.6.8, Field Marketing and Sales, respectively – IGT offers the Lottery the information that will drive higher sales and efficiency at retail and the service transparency it desires.

Aurora Performance Intel and Aurora Navigator

Aurora Performance Intel is the new hallmark of lottery business intelligence and reporting. We continue to refine and optimize Performance Intel's central data warehouse for improved query performance and data availability, and it now includes real-time and visual analytics. Other new capabilities and baseline content are sure to help the Lottery leverage data-driven, actionable insights. Aurora Performance Intel is accessed through Aurora Navigator, IGT's back-office solution access point.

Aurora Navigator will drive the reports you require for FMSR assignments (User Security). We can create reports in Performance Intel and will integrate the OnePlace data to report on FMSR usage and performance. Screen shots show the FMSR dashboard and specific information about each FMSR and his or her assignments and activities.

New features, such as the FMSR's photo, add a layer of transparency to the reports we will generate for the Lottery. Personalizing the reports in this small way also enables you to see the same name and face that you and your retailers have come to know.

Given the new handheld device and software the FMSRs will use in the next contract, we will be able to generate both required and ad hoc reports for the Lottery to assist in retailer management, retailer expansion, game planning, and other strategic initiatives. This reflects more than new and better technology; it reflects the opportunity to enhance and improve upon the current FMSR business model and, in doing so, add a new dimension to the relationships we have built with the Lottery and its retailers.

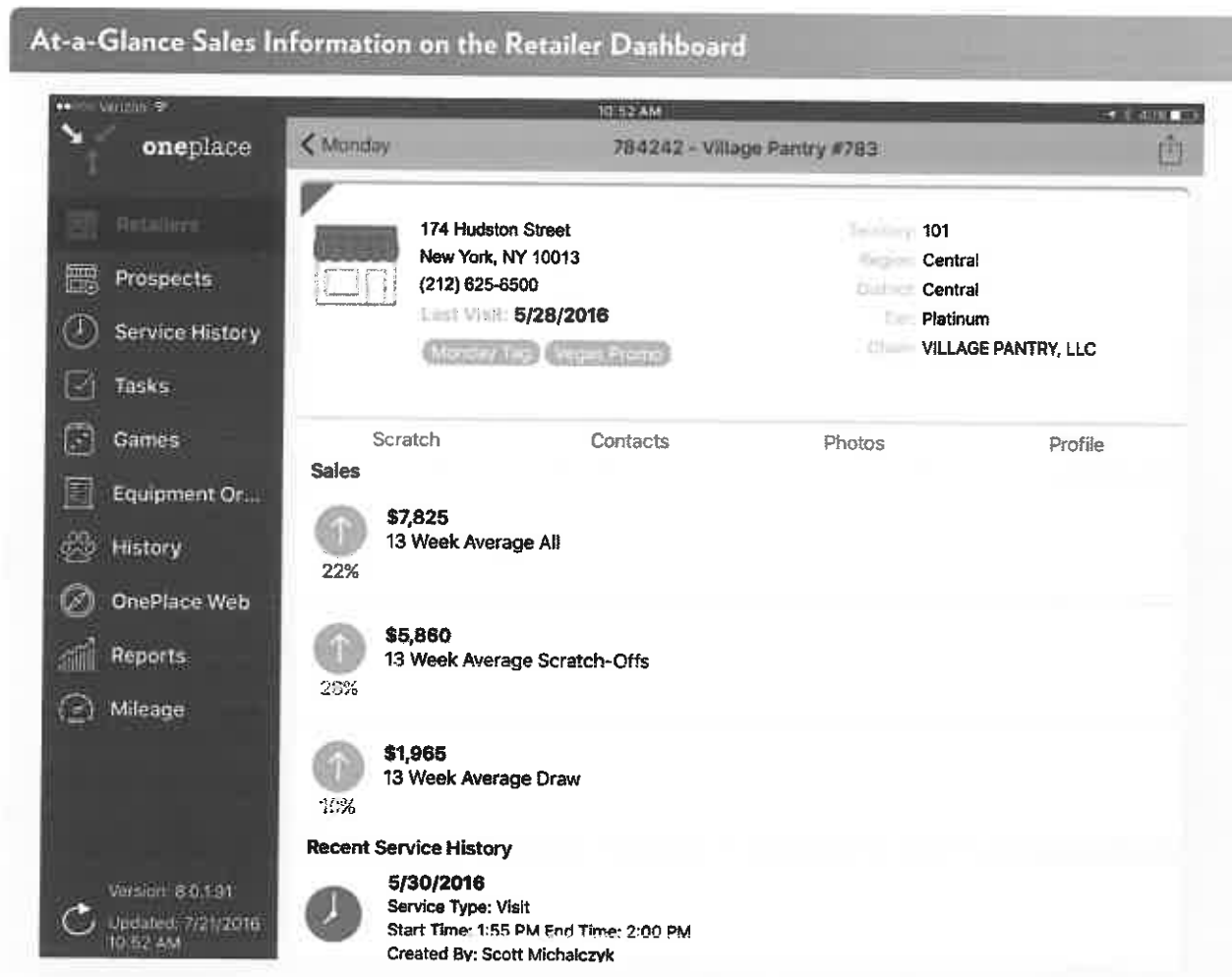
We will work closely with you to evolve the business model and relationships as well as the output of our partnership and collaboration on maximizing retailer and sales success.

Resource for Reports to the Lottery

OnePlace, IGT's salesforce automation tool described in Section 4.6.8, Field Marketing and Sales, can be integrated with Aurora Performance Intel and Aurora Navigator to provide data for reports you require for oversight and decision making.

OnePlace provides sales information in a way that allows FMSRs to instantly know if sales for each product line (sales data to retailers by game, game type, etc.) are trending up or down by using color-coded arrows with percentage increase or decrease indicators, as shown in the following figures. Sales are stored at the daily level for lotto games and by price point for instant ticket scratch-off games and can be reported on. Detailed, tabular reports are also available from an integrated reports browser.

Figure 4.6.9 – 1:



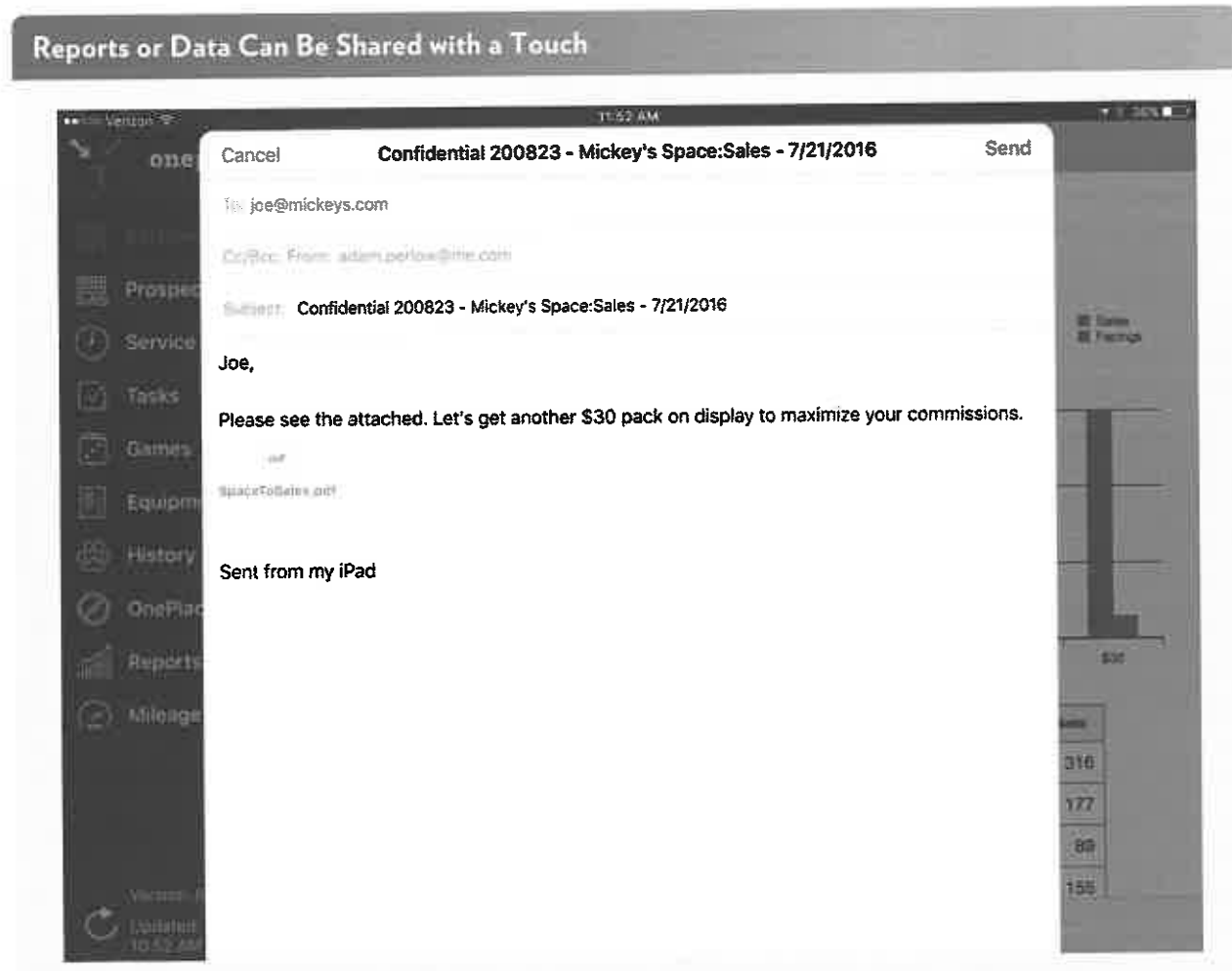
Optimizing a retailer's space for lottery products (in this case, instant ticket scratch-off games) to maximize sales is provided by unique space-to-sales data visualization and suggested optimization ideas. Space-to-sales data visualizations provide data and suggestions to optimize lottery sales. Optimizing best-selling games and the number of facings is one method an FMSR can use to assist the retailer in making informed decisions on how to increase sales.

Various statistics regarding sales and inventory are included in OnePlace. In addition, usage statistics reports are available to allow management to see how often sales representatives are using OnePlace, and the types of information they're creating in the system.

A key source of data for OnePlace is our Aurora Performance Intel data warehouse. As a result, data on promotion performance is available to FMSRs through OnePlace. OnePlace displays retailers' financial results including sales, retailer compensation, non-sufficient funds, adjustments (credits), and settlements. Various detailed reports are available from an integrated reports browser.

OnePlace provides at-a-glance reporting and key performance indicators from the OnePlace mobile app for FMSRs and sales force managers and provides a web-client link to a valuable catalog of reports. The OnePlace solution will allow the emailing of reports or data to a retailer with a simple selection of the email icon as noted in the following figure. Being a native app, OnePlace can leverage the underlying optimized email capabilities and integration of the operating system.

Figure 4.6.9 – 2:



We will also leverage our central Aurora Performance Intel data warehouse to support OnePlace data feeds to ensure data consistency for retailer reporting and business intelligence.

Complaints and issues can be easily captured using OnePlace's Service History functionality and/or its forms capability. All of this data can be quantified and reported on. In addition, if a photo is appropriate, users can use the camera on their mobile device to add a picture, which gets saved with the data. Users simply click on the actions that they performed during the visit.

In OnePlace, the list of actions that are logged is completely configurable by the Lottery and can be changed within seconds by a sales administrator without any intervention from IT. A screen would allow the Lottery to change the list of actions that FMSRs have to choose from on the Service History screen.

OnePlace's sales screens allow users to view a retailer's sales against benchmarks, including sales goals for that specific retailer as well as comparisons to other retailers in the territory, in the state, in the same chain, in the same ZIP code, and of the same trade style. Comparing a retailer's sales to benchmarks can help FMSRs find opportunities to grow sales within their retailer network.

To provide an extremely powerful and flexible "survey and forms" experience, we partnered with Formstack, a market leader in online forms and surveys. OnePlace allows a form author to create drop-down fields with predetermined lists, make certain fields required, and even add conditional logic to hide or show questions/entire sections of the form. For example, an equipment request form might have a question asking: What type of equipment is being requested? If the user selected Additional Terminal, then another question might appear asking: Is there a power outlet nearby?

Form and survey fields, such as retailer name, retailer number, physical address, sales figures, and FMSR name, can be automatically populated from OnePlace, saving users valuable time.

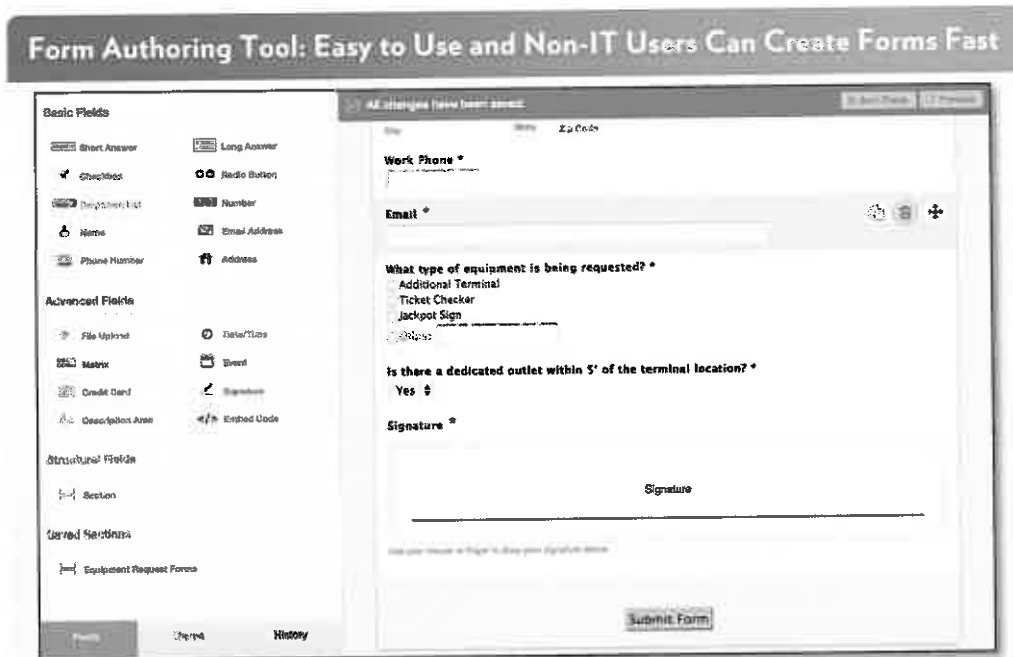
Forms and surveys can also be targeted at specific groups of retailers or prospects. For example, a vending machine-move request form could be made available only to retailers that have vending machines; users would not see this form for other retailers. Another form might be specific to a chain and would only be available for retailers in that chain. OnePlace forms also provide the ability to capture a digital signature. Form authoring is done by business users – no programming or special IT knowledge is required to create a new form.

Forms can include the following field types:

- Short answer (text).
- Long answer (text).
- Dropdown lists.
- Numbers.
- Radio buttons.
- Checkboxes.
- Date and time.
- Name.
- Email address.
- Phone.
- Address.
- Matrix.
- File attachments.

Figure 4.6.9 – 3:

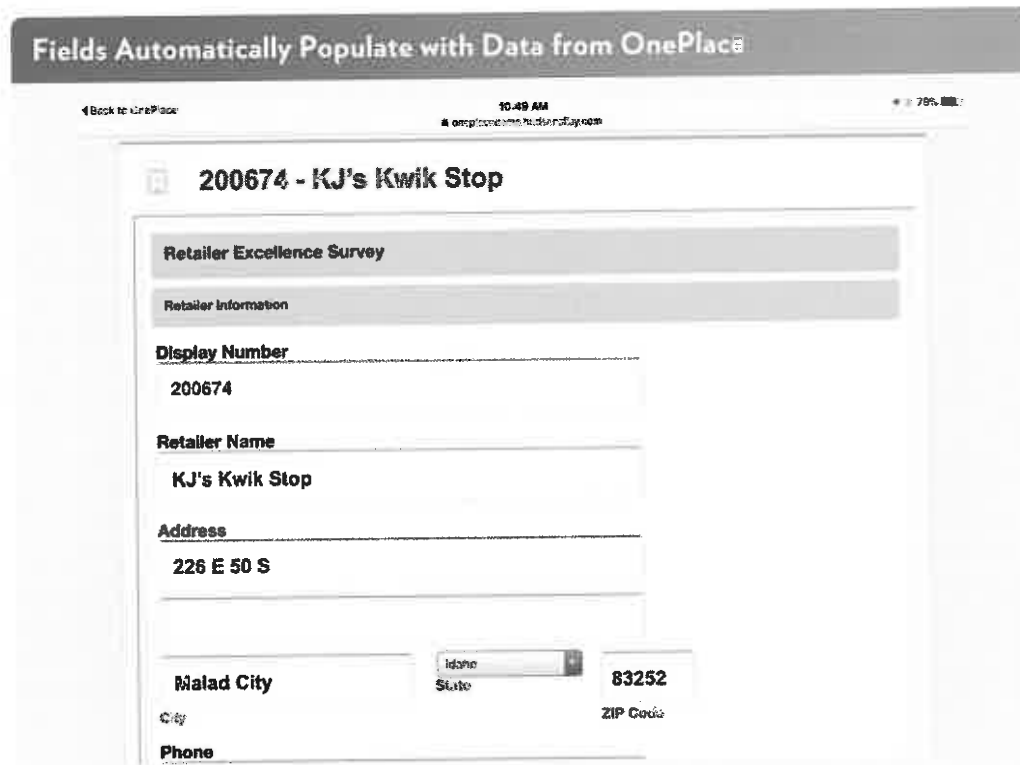
Form Authoring Tool: Easy to Use and Non-IT Users Can Create Forms Fast



The screenshot shows a web-based form authoring tool. On the left, there are three categories of fields: Basic Fields, Advanced Fields, and Structural Fields. Basic Fields include Short Answer, Long Answer, Checkboxes, Radio Buttons, Number, Email Address, Name, Phone Number, and Address. Advanced Fields include File Upload, Matrix, Credit Card, Description Area, Date/Time, Percent, Signature, and Embed Code. Structural Fields include Section. Under 'Used Sections', there is an 'Equipment Request Form'. The main area shows a form titled 'Equipment Request Form' with fields for 'Work Phone *', 'Email *', 'What type of equipment is being requested? *' (with options: Additional Terminal, Ticket Checker, Jackpot Sign, and a 'None' radio button), 'Is there a dedicated outlet within 5' of the terminal location? *' (with a 'Yes' radio button), and a 'Signature *' field. A 'Submit Form' button is at the bottom right.

Figure 4.6.9 – 4:

Fields Automatically Populate with Data from OnePlace



The screenshot shows a web browser displaying a form titled '200674 - KJ's Kwik Stop'. The form is titled 'Retailer Excellence Survey' and contains a section for 'Retailer Information'. The fields are populated with data from OnePlace: 'Display Number' is 200674, 'Retailer Name' is KJ's Kwik Stop, 'Address' is 226 E 50 S, 'City' is Malad City, 'State' is Idaho (selected from a dropdown), and 'ZIP Code' is 83252. There is also a 'Phone' field at the bottom. The browser's address bar shows 'oneplace.com:8080/retailerinfo.aspx' and the time is 10:49 AM.

OnePlace provides tight integration with IGT's Aurora system and provides a lottery's sales staff with a view into retailers' instant ticket scratch-off game inventory, Point of Sale items, selling equipment, and non-selling equipment.

4.6.10 Research and Strategic Development

The Vendor should describe its capabilities and plans for research and development in game design, new game concepts, content development, terminal design and operation, communications, and supporting hardware and functions. Vendor should also describe any recent, relative research results and propose a strategy for introducing an iLottery platform. Vendor should detail solutions proposed and implemented or in the process of being implemented in other states and foreign jurisdictions.

The Lottery plans to introduce new games, game modifications, and features throughout the term of the Contract and the Vendor shall assist to develop, install and support these games at no additional cost unless otherwise agreed to by the Lottery.

The Vendor shall present any new games or game modifications it believes will increase sales and revenue to the Lottery. The Vendor shall review games and promotions used by other lotteries and present these games and promotions to the Lottery. If the Lottery decides to implement one of these games or promotions, the Vendor shall develop a projected timeframe for its implementation and work with the Lottery to develop a plan to introduce the game to market.

The Vendor shall cooperate as fully with any third-party developer if the iLottery elects to utilize a game or promotion owned by a third-party developer and shall coordinate all communications between itself and the third-party developer to the Lottery.

The Vendor evaluates and analyzes the Lottery's operations to assist the Lottery in game development, retailer placement, strategic planning, and field services. Vendor works closely with the Lottery, its advertising agency, and other Lottery vendors to develop, strategize, and implement new games, events, promotions, features and respective schedules. Vendor is required to accommodate the Lottery's marketing plans and field strategies and provide adequate support. Vendor strategic marketing support includes, but is not limited to:

- *Provide data and attend strategy meetings with the Lottery at least once every 12 months at Lottery headquarters;*
- *Provide data and projected sales performance every six months detailing sales projections as well as actual year-to-date sales;*
- *Suggest new games, game changes, and promotions for possible introduction in the coming 12 months and summarize actual versus projected sales performance for that year, as well as actual versus projected sales for year-to-date analysis;*
- *Research, implement, and provide System integration of any licensed or branded third-party games, game concepts, and promotions, and, if needed, acquire rights, software, etc. on behalf of the Lottery. The Lottery will reimburse the Vendor for actual costs related to the acquisition of third-party hardware, software, and intellectual property rights;*
- *Monitor, analyze, and report on sales and development progress using a 12 month sales period [previous 12 months];*
- *Provide ad hoc game and promotion analysis that include sales, special features, advertising, participation, and comparative data;*
- *Provide an annual detailed quantitative study of the WV market including interviews, demographic analysis, geographic analysis, and other marketing data. The Vendor will provide any additional research requested by the Lottery through a third-party Lottery approved subcontractor provided and reimbursed at cost. Written summary reports will be provided to the Director of the Lottery in addition to other analysis provided to the marketing staff; and*
- *Provide a geocoding demographic and psychographic application for analyses of sales by game, game feature, retailer, county, region, zip code, and market. The application should provide screen views and printable and exportable documents to assist in sales and game analyses, as well as placement of new retailers. The application should be procured, maintained, and operated by the Vendor and accessible by Lottery.*



The Vendor's proposal should describe any exceptions to the current environment and provide details about any known or planned enhancements or new features that would provide better service and increase revenue for the Lottery. The proposal should include any schematics, pictures, diagrams, or organization charts that would help the Lottery evaluate the proposal.

Response Note: Vendor should describe its staffing plan and provide details relevant to specifications and terms and conditions detailed in this RFP.

The West Virginia Lottery and IGT are partners. We see your coming contract as an opportunity to strengthen our partnership, particularly in the area of game and marketing innovation. In addition to working with you through strategic planning and performance updates, we offer you new opportunities. One of those involves direct access to our product and research professionals, in the form of quarterly update calls and visits to West Virginia at least once every 12 months, for discussions on specific products and services. We also welcome you into our research and game development world – with invitations to participate in our game development process and to join other lotteries in an annual forum to discuss research results and best practices.

By offering you these opportunities to collaborate with us and with your peers, we can deepen the relationship we've built with you and further evolve the benefits of partnering with IGT. With IGT, you will also have an advocate for developing games and game enhancements not currently available due to existing legislation.

Capabilities and Plans for Research and Development

During the seven years in which IGT has served the West Virginia Lottery, it has invested significant resources – both financial and personnel – in R&D initiatives that will help the Lottery grow its business. In selecting IGT to continue as your vendor, you will notice major changes and benefits. For example, we are staffing up to provide more expansive services in the areas of product and service innovation, a refreshed approach to game development, a refreshed and sustained portfolios of entertaining games, increased collaboration and transparency, and a renewed sense of urgency in helping your business grow.

We have also invested in developing a streamlined Global Lottery Marketing Organization, with many familiar faces, several new ones, and the prospect of a deep bench of expertise to support your team and your marketing and research needs.

Game Development, New Game Concepts, Content Development

We offer the Lottery an eight-step game development process – FUTUREGAME™ – that's based in consumer research, thus assuring you that the games we recommend for your market are known to be games that will succeed in driving sales. We have numerous quantitative and qualitative research methods through which we can gather player opinions, and we will conduct studies to provide the foundation for developing your games.

Developing Games Players Want to Play

FutureGame is our latest breakthrough in identifying and developing a new portfolio of games that players want to play. It provides us a continual process for studying concepts for draw-based, hybrid, monitor, interactive, and add-on games. Our most recent round of innovation research, which engaged more than 3,000 players from 45 jurisdictions, began with 40 concepts that were narrowed to 20, then 12. The process resulted in several new games, including Wheel of Fortune and Baker's Dozen, both of which are hybrid games that are currently being readied for launch.

FutureGame: IGT's Process for Game Development Innovation

Game innovation at IGT extends far beyond the next “big” idea. Our proprietary eight-step process for innovation, FutureGame, is player focused, creative, innovative, and data driven. It is designed to increase funding to your beneficiaries, through existing portfolio enhancements that extend the appeal of your core games and through new and innovative game concepts – all done with precision, credibility, sustainability, and speed to market – and measurable results. In the past year, IGT has dramatically increased its financial investment and, more important, its human resources, to refine and focus FutureGame to provide lotteries a more diverse range of new game experiences.

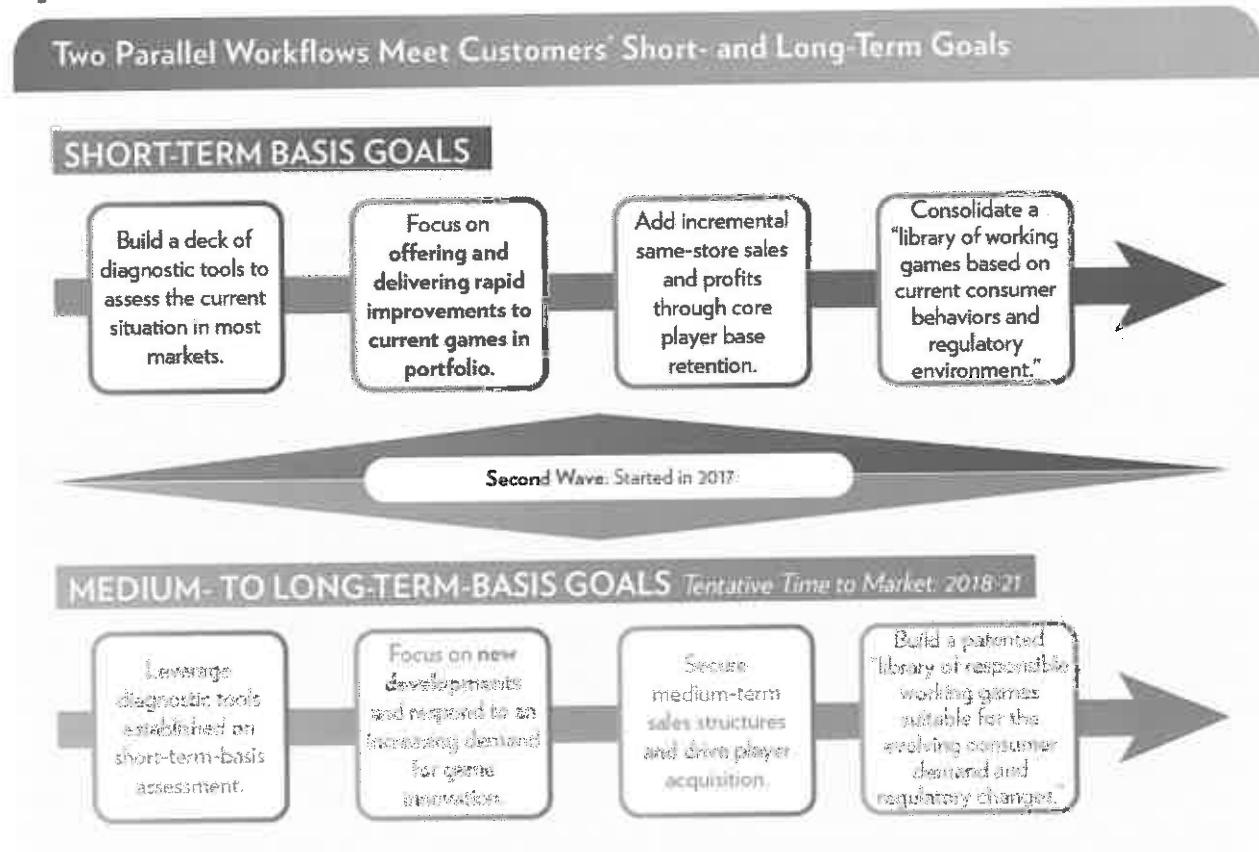
FutureGame is driven by an approach that:

- Integrates a localized *Consumer First* strategy with each customer.
- Collects, measures, and analyzes consumer preferences using a unique set of attributes for game concept development.
- Correlates those concepts into the customer's current and future portfolio management to maximize both consumer motivators and buying behaviors.

We will work collaboratively with the Lottery to develop new games through our FutureGame process. This process represents an evolution based on decades of cumulative knowledge and game development experience serving the majority of the world's lotteries.

IGT designed this eight-step process for innovation to strengthen the foundation of a lottery's existing portfolio and create innovative games now and for the future. The process, depicted in the insert entitled **FutureGame: IGT's Game Innovation Process**, which follows this page, will enable IGT to deliver enhancements to the Lottery's existing products in the short term, and work in parallel on new game innovations to accommodate your long-term development needs.

Figure 4.6.10 – 1:



Two Workflows, One Beneficial Result: By evaluating the game attributes most important to consumers, we can collaboratively develop and test game concepts and know that the games that succeed in market research will be relevant to West Virginia consumers and a go-to for player purchase.

1

COMPLETE DIAGNOSTICS



Take advantage of previous activities to identify portfolio gaps and potential opportunities.

2

UNDERSTANDING THE CONTEXT

Capture data and elicit insight on future behaviors and desires to inform brainstorming

- ✓ Lottery portfolio analysis
- ✓ Game analytics
- ✓ Market research
- ✓ Retail trend analysis
- ✓ Main brand health tracking
- ✓ Latest technology and digital developments



3

EXPLORATION & GAME IDEATION

Openly brainstorm ideas from any source and collect a large variety of concept backbones.



4

GAME FUNNELING

Involve staff in screening to identify a comprehensive line-up of potential products.

Transformation/
Improvement
of Existing
Concepts

Interactive-
Only
Concepts

New
Lottery
Concepts

Monitor
Concepts

6 SHOR

Shortlist the ideas and move into the next phase. Select the most promising ideas and involve internal staff



Retail

ATTR

5

TALK ENGINE

Check concepts from a technical and commercial standpoint and go/no-go

QUALITATIVE
TESTING
PHASE

How Does FutureGame Work?

The FutureGame process is guided by a diagnostic approach to your business that does not compromise the creativity necessary to bring attractive, fun, and exciting games to your players. In the short term, the process add incremental same-store sales through core-player retention. In the long term, it focuses on innovation to drive new-player acquisition and build a working library of games based on evolving consumer demand and regulatory changes. Following is an overview of the process.

Figure 4.6.10 – 2:



You know your lottery best. Therefore, our process will begin with a collaborative and in-depth analysis of your existing portfolio. The results of the analysis will inform the next steps of the process and enable us to make sound recommendations based on relevant data and assist us in identifying games that may benefit from an enhancement or gaps that a new game can fill.

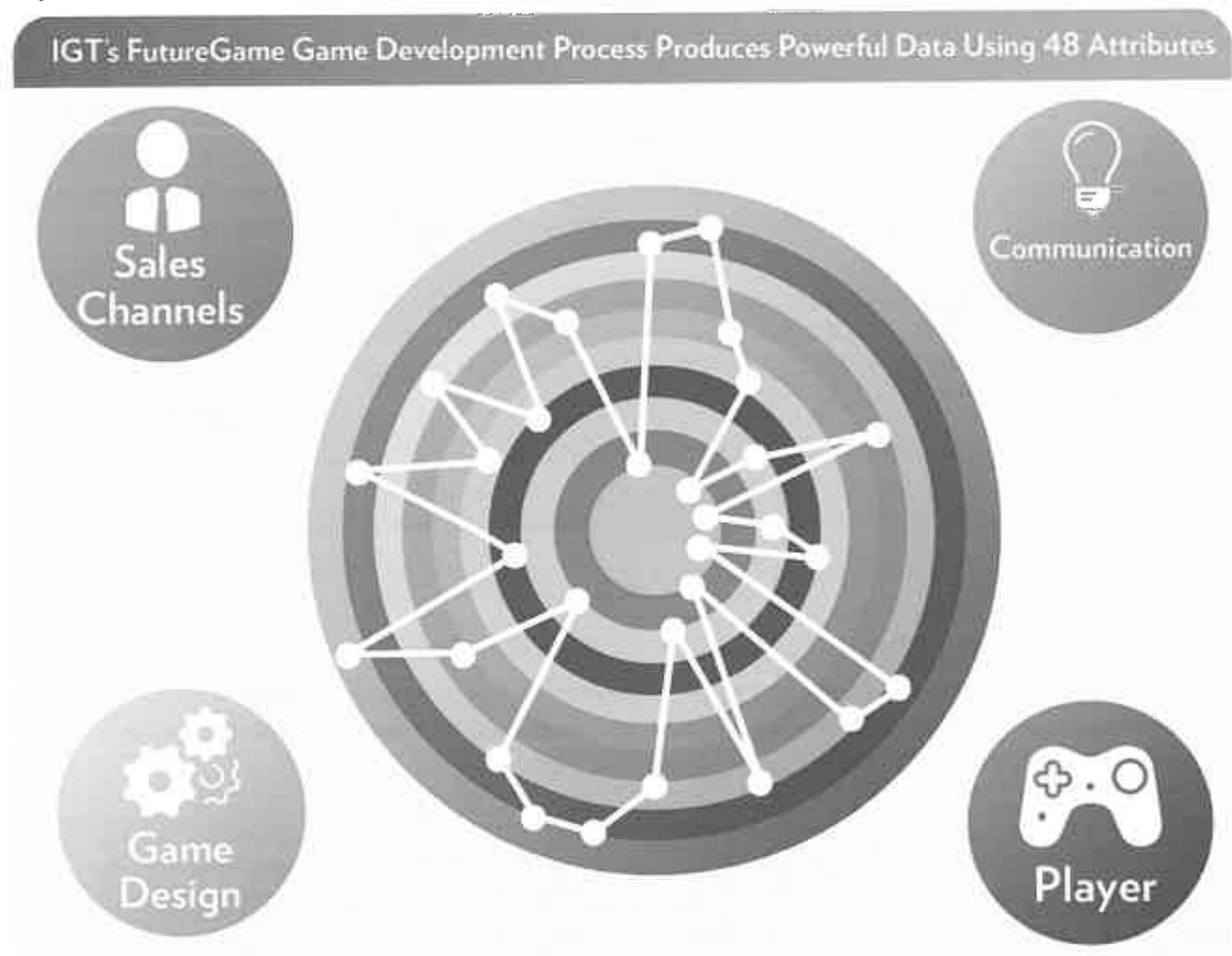
Upon completion of situational and portfolio analyses, IGT's Game Development and Product Portfolio Management teams will begin to conceptualize and develop a multitude of new draw-based, hybrid, monitor, and interactive games, as well as new game categories. This is the Game Ideation stage of the process. Next, all of the concepts are funneled through a quantitative evaluation to ensure that only qualified games pass through to the testing phase.

IGT has conducted an initial evaluation of your games. Please refer to the insert entitled **Evaluation of West Virginia Lottery Game Portfolio**, which appears after this page.

During the Game Funneling stage of the process, successful games undergo a thorough evaluation based on 48 unique attributes tied to a comprehensive scoring system to rank new games. Using these attributes, enables us to create a global approach to portfolio management and to move only the most successful concepts forward. The attributes represent the four key categories of market sustainability: Marketing, Lottery Players, Game Design, and Retail.






Additional information, in the form of specifying the 48 attributes (noted above) in the following graphic, is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclosure Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant harm to IGT and its stakeholders.

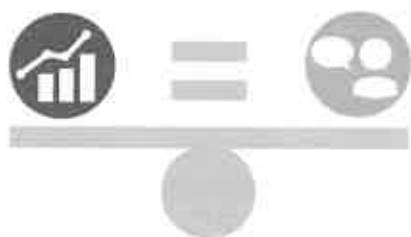
Figure 4.6.10 – 3:



Game Shortlisting Results: The four categories and 48 attributes shown above are central to IGT's FutureGame game development process. They help us map out which games should move forward and, eventually, reach the market.

EVALUATION OF WEST VIRGINIA

	MULTI STATE			FOR LIFE	
GAMES					
PRICE	\$2	\$1	\$1	\$2	
TOP PRIZE	Min. \$40M	Min. \$12M	Min. \$1M	\$1,000 a day for life	Fixed
OVERALL ODDS	1 in 24.87	1 in 14.7	1 in 17.22	1:7:8	
PAYTABLE PAYOUT	50%	50%	50%	60%	E
ADD ON	Powerplay	Megaplier	Sizzler	—	
DRAW FREQUENCY	2X Weekly (Wed, Sat)	2X Weekly (Tue, Fri)	2X Weekly (Wed, Sat)	Mon/Thurs	4) (M T
ATTRIBUTES	Large jackpot Powerplay	Large jackpot Megaplier	Substantial jackpot Good odds	Chance to win a lifelong prize 2nd prize is winnable and provides chance to win annual prize	In-st Bes odds num
PLAYER BENEFIT	Life-changing money	Life Changing money	Substantial money	—	Su W



Balance in Results

Data tells part of the story, and people tell the rest. From generating insights to internal and external testing of concepts, *people* will determine which games West Virginia consumers want to play.

Each of the 48 attributes is segmented into subsets of eight, with each subset aligned to one of the four categories. Within each category, attributes are weighted based on importance and tied to a mathematical rating scale to yield a composite score by which each concept is evaluated. Further evaluation and qualitative testing of concepts using the attributes will be conducted, both internally by our Game Development and Portfolio Management experts, as well as externally via qualitative consumer testing. This step ensures a balanced approach to your business.

Validating the Outcomes of the Process

IGT's FutureGame process will reduce the risks associated with launching products in the West Virginia marketplace before market research outcomes have been validated. In turn, it will enhance profitability because you will be confident that you are introducing the right games to your market at the right time.

Testing game concepts is one of the most critical stages of the process. During the Market Research (testing) stage of the process, concepts undergo several types of consumer testing, and their results are then combined with the latest consumer market research. We partner with respected third-party agencies focused on retail and consumer research. They provide us and our customers with customized trend analysis and insights into mainstream buying behaviors. Their input enables us to deliver results based on the "voice of the consumer" before concepts move through to the next phase of development. This additional third-party research enables IGT to improve outcomes and eliminate concepts that may not be profitable *before* they enter your market.

The Benefit of Third-Party Experts

We rarely work alone, and we bring great benefit to our customers by maintaining close relationships with expert third parties in the areas of technology, security, communications, marketing, and more.

One of those parties is the Foresight Factory, formerly the Future Foundation, which provides us with insights into consumer trends that impact the lottery category and can play a role in your strategic plans. The Foresight Factory specializes in trends consultancy. Our partnership with Foresight Factory gives us a deep pool of knowledge to leverage as we work on pinpointing product solutions, and enables us to direct our R&D team to invest in areas that will build value for our customers, now and in the future. With more than 200 trend spotters and a global network of experts, Foresight Factory dives deeply into the leading edge of trends to help clients, such as IGT, understand the direction in which consumer behavior and related technology are moving, be it six months or five years down the road.

We can collaborate with you from the beginning or at any stage of the process to design game prototypes, including reality-based draw simulation and interactive experiences that bring the products to life. Before any games are finalized, they are tested again by both players and retailers for qualitative evaluation based on real-world experiences.

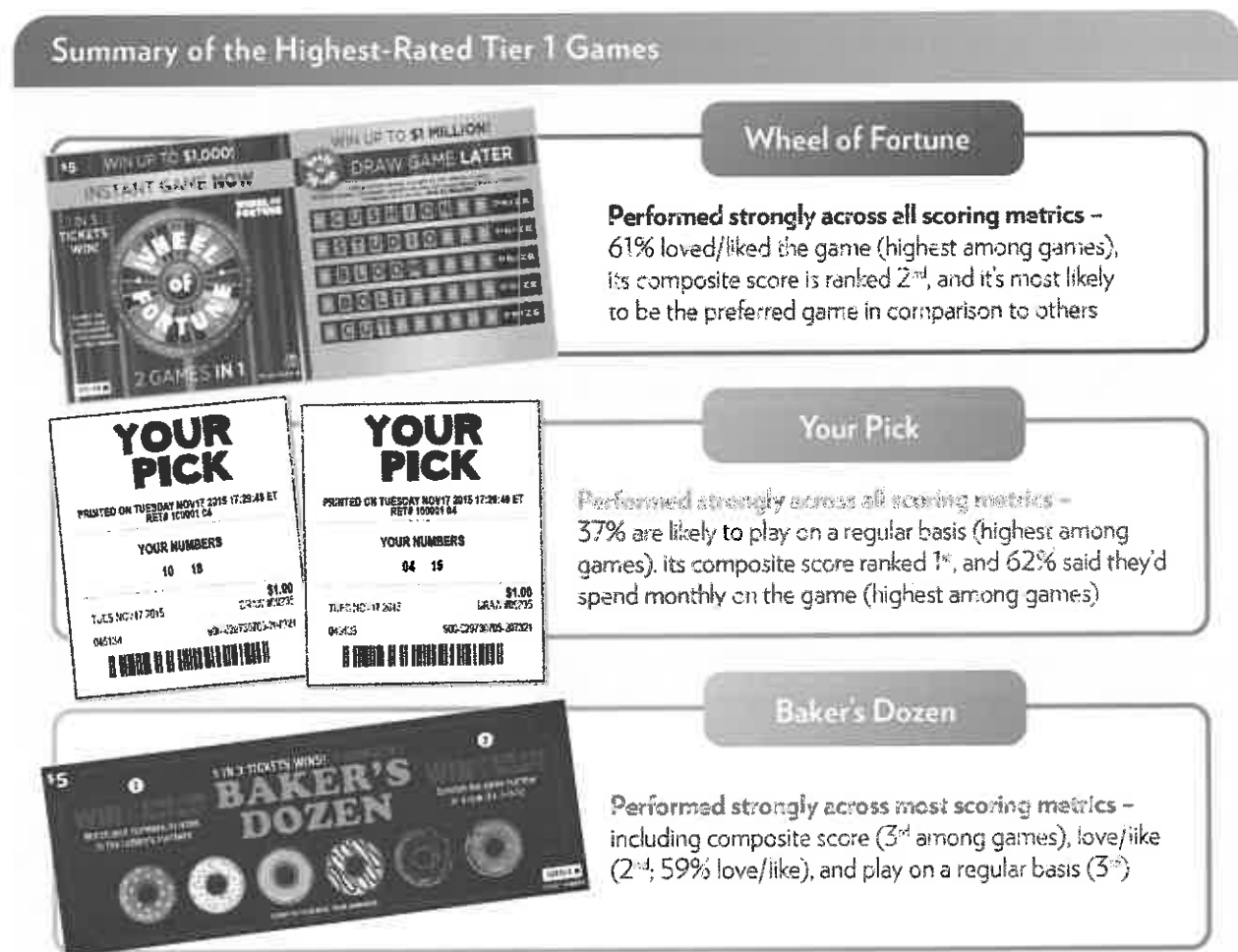
The additional and extensive research instills trust, in that we are able to further validate our recommendations and adapt game concepts based on both qualitative and quantitative consumer insights.

Delivering Results

Because we intend to create multiple game concepts simultaneously across multiple game categories, our process will be ongoing. The Lottery will benefit from a pipeline of innovative, relevant, and ready games that continually grow and improve with your participation and feedback over time.

Our first wave of consumer research for 2016 is complete and is summarized in the next figure.

Figure 4.6.10 – 4:



The results of our second wave of FutureGame research will be available in Q1 2017.

IGT Game Development Team Leaders

While the four professionals we introduce here lead lottery game-development initiatives at IGT, the act of game development also involves multi-disciplinary, multi-dimensional teams that participate in the FutureGame process during ideation sessions, testing, player research, and other steps of the process.

Francesco Parola, Vice President, Game Development & Portfolio Management



Since December 2015, Francesco has served as Vice President of Global Lottery Product Development at IGT, based in Providence, Rhode Island. He is responsible for leading the Product Development Department and supporting lottery customers with ongoing portfolio management assistance. From 2012 to 2015, he served as Vice President, Sales and Marketing, for Northstar Lottery Group in Illinois. During his tenure, Northstar achieved four years of sales and revenue growth. He helped reshape the business and the Northstar organization and drive innovation while balancing the available marketing mix and sales levers in a highly regulated environment. In prior roles, Francesco led Italian lottery game license-holder Sisal SpA in product and business innovation. His expertise extends to finance and strategic planning. He is a frequent contributor to World Lottery Association (WLA), European Lotteries, and other innovation-focused and gaming industry events.

Aaron Kcil, Director, Game Development & Portfolio Management



Aaron originally joined IGT nine years ago in its California office to provide analytical support to the California Lottery. For the past five years, Aaron has been working in the corporate Game Development and Portfolio Management group, helping lotteries in the U.S. and abroad offer draw-based game content designed for their particular market.

In addition to assisting with the design of new game content, Aaron works extensively with lotteries to maximize the profitability of their existing game lineup, including products such as in-state draw-based games, CLUB KENO®, numbers games, etc. With a degree in mathematics and statistics, Aaron is one of IGT's most sought-after statistical resources. He often helps lotteries develop more statistically robust methods for evaluating the performance of draw-based game content and simulations to help define liability expectations.

Sarah Simpkins, Director, Game Development & Portfolio Management



Sarah has worked on game development and portfolio management since beginning her career at IGT 10 years ago. In her current role, she has global responsibilities for portfolio management and manages game design and development and R&D along with IGT's proprietary marketing and game-content database. Sarah was instrumental in numerous U.S. bloc game portfolio initiatives, including cross-sell, \$2 Powerball, Mega Millions game change, and new National Game considerations. She also plays an active role in draw-based game business plan development for all of IGT's management services accounts. Sarah has spent many years in IGT's Marketing Analytics group leading forecasting efforts for major business opportunities and producing sales and profit forecasts for major draw-based game initiatives.

Brad Heathcote, Manager, Game Development



Brad worked for IGT in the Marketing Data Analytics group for more than three years and then joined the Game Development and Portfolio Management team. In his time at IGT, he has worked primarily with the U.S. lotteries to generate substantial year-over-year same-store sales growth and demonstrated a passion for growing lottery sales through innovation in game design.

He has already contributed in the areas of both instant ticket scratch-off and draw-based game development, including authoring a successful re-design of the \$20 and \$30 instant games in Michigan, contributing to the new Mega Millions game design, and developing the prize structure for the Cash 4 Life draw-based game (which most recently launched in Maryland, in January 2016) for the New York and New Jersey lotteries. In game development, Brad continues to contribute to new game design, work on establishing a content research database, and actively monitor draw-based game Key Performance Indicators (KPIs) to assist with portfolio management and game optimization.

Getting the Game Right – Data and Consumer Insights Are Key

Achieving revenue growth from draw-based games and monitor games depends, first and foremost, on getting the game right. Retail incentives and promotions driven from the AURORA™ Promotions component of our Aurora gaming system also play an important role. However, these two elements will be most effective when they are combined with games optimized for West Virginia consumers – and when the Lottery maintains a robust process for refreshing those games. Data and consumer insights can help you identify portfolio opportunities, enhance your existing games, and introduce new games that attract different player segments while appealing to the emotions that motivate your current players to purchase.

As our partner, you will continue to contribute to and benefit from the results of IGT's more than \$300 million in investments in R&D and innovation, further demonstrating to the Lottery the importance we place on innovation.

Research and Experience Regarding an iLottery Platform

IGT was the first to bring an iLottery platform and iLottery games to the U.S. market. The initial installation, in the state of Illinois, followed 2011 legislation that allowed draw-based games to be played via the Internet. Since that time, three additional lotteries have opted to launch iLottery platforms; two are IGT customers – the Georgia Lottery and the Kentucky Lottery.

IGT also brings iLottery experience from overseas, from our experienced Business-to-Consumer (B2C) marketers in digital and traditional channels on the supplier side and from experts in ecommerce and retail. One of those individuals, Ailsa McKnight, has 15 years of experience in lottery, sports betting, gaming, and video gaming. Ailsa led the development and launch of the UK National Lottery's ecommerce business in 2003, which began with an eInstants portfolio. Draw-based games were added a year later, and the player proposition evolved into a multi-channel experience, recognizing that players increasingly engage with games in the channel most convenient to them at the time. Ailsa also launched a mobile wallet for the UK; it allows players to make purchases in-store via their smartphones, as well as earn loyalty points and redeem gift cards.

Today, research into iLottery is ongoing at IGT. The questions we ask have evolved as we have seen the growth of the existing sites. Initially, we tasked ourselves with determining interest in iLottery. We found, in every jurisdiction we studied, that players want to be able to play lottery games on their mobile devices and share the experience with their friends. To date, even since launching iLottery in three states, we continue to ask iLottery questions (e.g., propensity to play, play at bricks-and-mortar retail locations, and game types) in most of our customer research, particularly Attitude & Usage (A&U) and tracking studies.

IGT innovations such as PLAYSPOT™, which lets players play on their devices when they are within a physical retail location, derived their origin from such research. So did the initial eInstant games we launched in Georgia in 2014 after performing detailed Georgia Diggi Game research – and the additional games we have launched based on game performance research.

Continual Research for Optimal Satisfaction

Recent research into iLottery products and services has provided data and insight that has helped develop and enhance our iLottery offerings:

- eInstant Games Study: Georgia, 2013.
- Georgia Diggi Games Beta Test, 2014.
- Bistre Baseline Mobile App Usability Qualitative Focus Groups, Georgia, 2015.
- Hoosier Lottery Mobile App, 2015.
- Georgia Lottery iKENO! Usability Test Review of Focus Group Findings, 2013.
- OnPremise Research Focus Groups, multiple jurisdictions, 2016.

Now that iLottery is beginning to mature as a lottery channel, we research more on player coverage, spend per user, frequency of play, and game retention measures. This data is generated from our player database. Again, customer feedback drives the development of IGT products and enhancements. We receive the best insights from player data, rather than from simply asking players for their opinions in a survey.



The system that manages our iLottery programs – i.e., the IGT iLottery platform – is detailed in Section 4.7, Retailer and Player Services. The IGT iLottery platform is a completely integrated, end-to-end iLottery system that continues to evolve based on customer feedback. It is our proposed Player Rewards system, and comes fully equipped with all the functionality for a full spectrum of omnichannel iLottery offerings, up to and including full Internet wagering. This platform currently powers the three examples we have provided of live U.S. Internet wagering (Illinois, Georgia, and Kentucky).

R&D: Terminal Design and Operation, Communications, Supporting Hardware and Functions

IGT's \$300+ million R&D budget supports our ability to continually create new products and improve or enhance existing ones. Our most valuable input comes from the people who actually use the equipment and systems every day, and we offer multiple ways in which they may provide their opinions to us:

- **Quarterly Customer Survey:** In this survey, customers volunteer their opinions about all aspects of our products and services. All levels of IGT management are involved in reviewing and acting on the customer feedback.
- **Focus Groups:** Retailers and players provide us with key insights into the look, feel, and use of terminals, vending machines, and other equipment.

Retailers Validate Our Proposed Solutions

Recent research in several jurisdictions validated that our proposed terminal provides benefits that retailers really want:

"Less time loading, more time selling." – convenience store

"It prints really quick." – liquor store

"The speed and accuracy! I'd rather have it than what I've got." – convenience store

"[The screen] is pretty and colorful, has a nice flow to it." – gas station

-
- **Field Marketing Reports:** As described in Section 4.6.9, Field Marketing and Sales Reports, our proposed salesforce automation tools will provide real-time data and generate reports directly from individual or grouped sales environments.

The equipment we propose to the Lottery, including the ALTURA® Flex terminal and Aurora system, evolved from proven, established baseline products that were continually enhanced by customer user feedback. Throughout the contract, we will welcome your feedback regarding our equipment and operations. Your feedback will contribute to the continued evolution of the solutions that will serve you in the near term and keep you prepared to adapt to future technology and market changes.

Solutions Proposed and Implemented

In the following pages, as we describe recommended new games, game modifications, and features, we include information regarding other IGT lottery customers that have implemented those solutions.

New Games and Game Modifications to Increase Sales

IGT will work with the Lottery to develop new games and game modifications to increase sales. Before we recommend any games, we will work with you to conduct a comprehensive portfolio review, which consists of the following analyses, to identify new opportunities.

- **Player Behavior Review:** As the gaming system and marketing services provider to the majority of the lotteries in the U.S., we have game performance data available from across the country and regularly participate in lottery product manager planning activities. We can use this background to help:
 - Benchmark the average wager per game to other jurisdictions to determine if there are opportunities for upsell.
 - Assess multi-state game jackpot responsiveness as well as the effectiveness of jackpot trigger campaigns and potential for improvements.
 - Assess draw time optimization – whether draw times are consistent with industry best practices to allow for adequate time to purchase.
- **Profitability Analysis on All In-State Games:** With detailed pay tables and sales data, we compile theoretical role models and conduct game matrix modeling for all in-state draw-based games. This enables us to assess and recommend strategies for jackpot management, including starting and rolling jackpot amounts by draw day, determining whether there are any underfunding issues, and understanding how each game is performing according to modeled expectations. For a Pick 3 game, for example, we perform liability limit ratio analysis to ensure the balance between availability of favorite numbers to players with the right level of payout protection to the Lottery.
- **Portfolio GAP Analysis:** Using game characteristics, such as overall odds and top prize value, we develop a value proposition matrix for the Lottery's draw-based game portfolio. Coupled with a brand awareness assessment and cross-playership estimations, we recommend new draw-based games that may fill gaps and appeal to new players.
- **Prize Table Optimization of In-State Games:** With detailed data on current game prize tables, we perform an analysis to determine the ideal matrix sizes by game according to best practice top-prize win-frequencies. For example:
 - Evaluation of daily numbers game wager options and benchmark of wager distribution to other lotteries to identify opportunities for improvement.
 - Optimization of break-even prize tiers through implementation of innovative value-added prizes.
 - Redemption rates for all prize tiers evaluated for potential re-distribution.
 - Average win amount comparison to benchmark games in the industry.



- **Current Portfolio Value-Added Opportunities:** Embedding additional value through the implementation of add-on games or additional wager types on current lottery products may optimize existing lottery products.
- **New Game Opportunity Evaluation:** We assess current industry trends and successes and their potential applicability to the West Virginia market. For example:
 - Are there other multi-jurisdictional game opportunities to consider?
 - Can we deploy games that use mobile or browser-based reveal features to extend the play value of draw games that are purchased at retail?

Timeframes and Plans

We will work with the Lottery to determine optimal schedules for games and promotions selected by the Lottery for launch, and will help the Lottery plan all aspects, including Point-Of-Sale (POS) and merchandising, of the game's introduction. An example of a typical Lottery Plan-o-Gram is provided as an insert entitled **January 2017 24 Bin Guide** following this page.

Cooperating with Third-Party Developers

IGT is open to working with any third-party developers the Lottery elects to use. We have experience working with multiple third-party vendors. Among them are Tournament One, for horse racing, and EquiLottery, a major supplier for daily fantasy sports.

Evaluate and Analyze the Lottery's Operations

IGT will assist the Lottery in evaluating and analyzing across all of its operations. We look forward to continuing to work with your designees, including your advertising agency and other Lottery vendors, and will provide our support for marketing and field strategies.

Provide Data and Attend Strategy Meetings

No less than twice each year of the contract, IGT will provide the results of our business and portfolio analysis to contribute to your strategic planning meetings.

Strategic Support for Your Games Portfolio

To support your ongoing game and portfolio development, we will provide you access to our IGT Strategic Team, a cross-disciplinary group whose members represent a spectrum of products and services – from analysis and consumer insights to game development and retail execution. The Strategic Team counts many members who are also regular contributors to the FutureGame process. Please refer to the insert entitled **IGT's West Virginia Strategic Team**, which follows this page, for an introduction to the team members and their areas of expertise.

January 2017 24 BIN GUIDE



\$20 Game #876



\$10 Game #868



\$10 Game #896



\$5 Game #872



\$5 Game #867



\$5 Game #865



\$5 Game #895



\$5 Game #879



\$5 Game #890



\$3 Game #866



\$3 Game #894



\$3 Game #875



\$3 Game #882



\$3 Game #891



\$2 Game #893



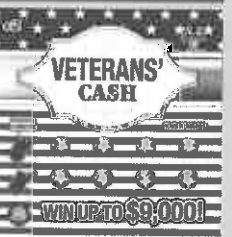
\$2 Game #907



\$2 Game #888



\$2 Game #884



\$2 Game #881



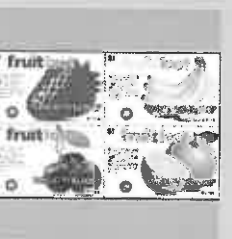
\$2 Game #889



\$1 Game #877



\$1 Game #878



\$1 Game #879



\$1 Game #880

West Virginia Strategic Team

Listen, Understand, Collaborate, and Share



Nikki Orcutt
General Manager

SENIOR EXECUTIVE



Matt Cedor
Regional Vice President



Joe Payne
West Virginia
Field Marketing Manager

MARKETING
CONTENT MANAGER



TBH

INSIGHTS 360



Gerard Caro



Al



Creative Content
and Strategic
Marketing



Analytics and



Nate Sullivan
Corporate Customer
Marketing Contact

We offer the time and expertise of these experienced and accountable leaders to perform ongoing analysis of your games. They will also collaborate with Lottery leaders to explore ways in which to grow same-store sales, expand the player base, and give consumers good reasons to play, or play more often. As part of our overall customer communications plan, we would dedicate one of our quarterly meetings to discussing the team's evaluation of your game portfolio – including instant ticket scratch-off games – in an annual, collaborative working session to identify growth opportunities and formulate recommendations. Members of the team can be available to visit West Virginia, with your approval.


Examples of Strategic Team Engagement

During the contract term, Strategic Team members will be available as subject matter experts to provide their insight and discuss with you topics that are timely and important to your business. For example, Vice President Paul Riley, an industry leader in Application Programming Interface (API) technology, and his Product Innovation team can hold a state-of-the-technology discussion. The discussion would focus on technology innovations, including new products and services ready for implementation and those currently in development – and their potential impact on your games and revenues. Your input and feedback are always welcome and critically important to the conversation as we may collaborate on technology enhancements to support your specific needs.

As technology continues to evolve, we will be able to approach discussions about any potential changes or updates with the same level of knowledge. Vice President Len Lorenz can visit annually to provide salesforce automation training to optimize the results gained from the tools described in Section 4.6.8, Field Marketing and Sales. Vice President of Business Development Susan Strouse, a long-time leader in the effort to bring lottery to major chain stores, can review regional and national chain expansion opportunities.

Provide Data and Projected Sales Performance

Through a twice-per-year portfolio review, IGT will provide data and project sales performance for the Lottery's games and promotions, as well as assessment of services, calculation of profits, and propensity to play.



We have an expanded Corporate Data Analytics Team, which we are continuing to grow to meet our customers' needs. You will benefit from this deeper pool of marketing knowledge and expertise, because they will sift through available data to find actionable strategies aimed at delivering real sales results in West Virginia.

IGT will also provide a detailed study of your market, including sales projections and year-to-date sales, in the form of an industry update presentation to be held at Lottery headquarters. Given the impact of the results on your future game planning, we propose to provide these update presentations twice per year. Please see the subsection entitled "Provide Annual Detailed Study of the West Virginia Market" later on in this section for more on these industry update presentations.

A Formal Game Performance Analysis Process

Game performance analysis is a key ingredient in ongoing game development. It enables a deep understanding of the underlying reasons why current games perform as they do and, consequently, where the opportunities lie for future game development. Game design and game performance analysis combine to create an integrated feedback loop, providing critical information to fine-tune your research or identify new opportunities for future portfolio development that will deliver sustainable growth.

We have expanded our Corporate Data Analytics Team to meet customer needs. This past year alone, we hired additional Data Analytics and U.S. Field Marketing analysis staff to enhance customer support. You'll benefit from the even deeper pool of marketing knowledge and expertise the team now has with these new additions, because they will sift through the available data to find actionable strategies aimed at delivering real sales results in West Virginia.

To effectively analyze your sales, identify areas of opportunity in your business, and maximize your returns, this team will work to answer the following questions:

- Who are West Virginia Lottery players and what games are they playing?
- Which games are performing well and which are underperforming?
- Where do games sell best?
- How much is the average play?
- What are the characteristics of the life cycle of the Lottery's products?

We will carefully review game sales and related data as a critical step toward developing the marketing initiatives that will maximize revenues and play an indispensable part in your long- and short-term planning.

We will use sales performance data to:

- Analyze your product portfolio and ensure you are taking advantage of all product optimization opportunities.
- Recognize softening game sales in time to reverse the trend.
- Place the right games in each retail location.
- Compile reports for your leaders to present to government representatives and the press.
- Customize and introduce other lotteries' game and promotion strategies if the concepts will likely succeed in your business environment.

We identify areas of opportunity within four main game value attributes. A game's "value dynamics" reflect the parameters we optimize to ensure maximum performance. These parameters include:

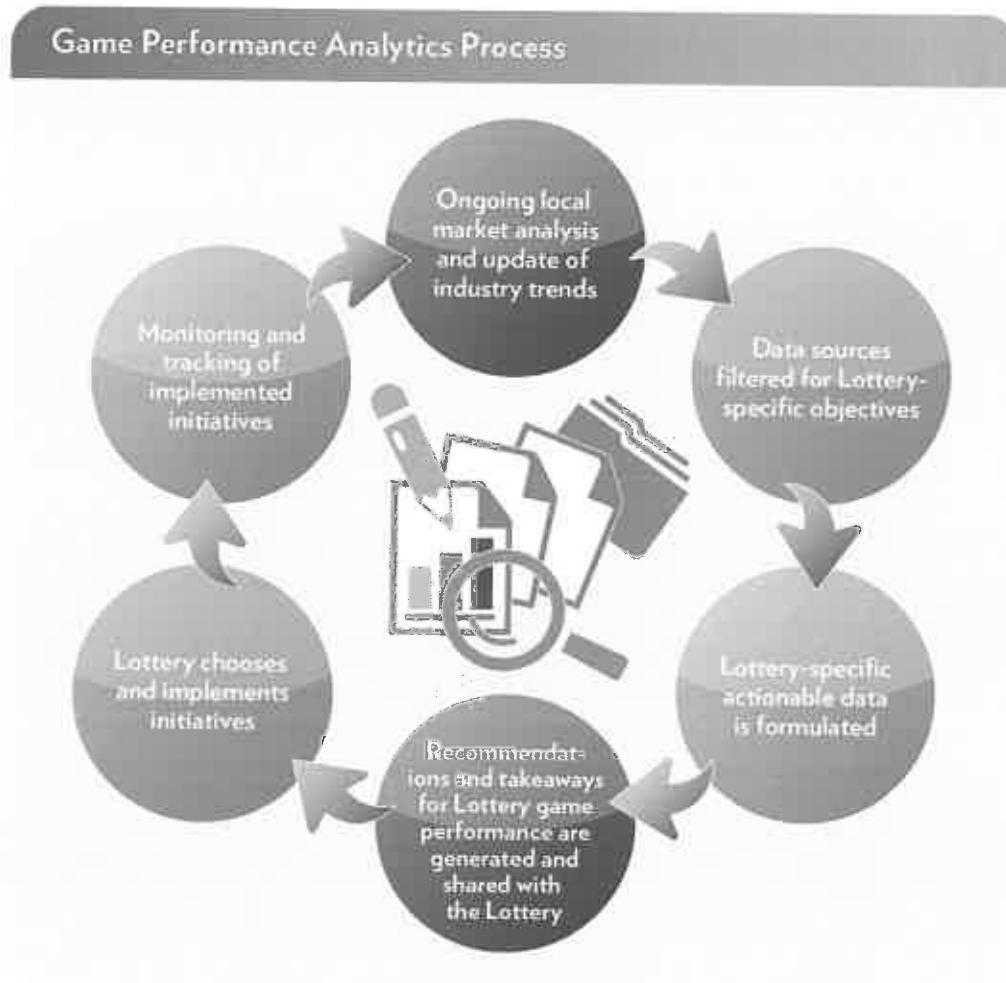
- Consumer value proposition.
- Player relevance.
- Portfolio position.
- Presentation.
- Prize structure.

The scientific approach and the process we follow for game analytics starts with our internal industry sales-trends analysis, which is continually updated to identify the factors that are lending themselves to larger areas of growth across the industry. This industry-wide analysis is continually updated to ensure we have the most recent data to determine what drives lottery sales and future growth.

For West Virginia-specific game performance analysis, our analytics teams will:

- Filter data sources that are relevant to West Virginia.
- Apply various statistical analysis methods and market data to predict sales trends.
- Formulate specific and actionable data interpretations to deliver relevant market intelligence and appropriate direction regarding West Virginia game performance.
- Monitor and track recommendations to actions to modify and drive future activity.

Figure 4.6.10 – 5:



Suggest New Games, Game Changes, and Promotions

Based on our knowledge and analysis of the West Virginia market, current research, and our experience in providing games and promotions for the majority of U.S. lotteries, we will provide suggested games, game changes, and promotions to the Lottery. In the following pages are a number of suggestions.

Nate Sullivan, Senior Manager, Regional Marketing Execution



Nate will continue to provide market execution and marketing support in the creation and execution of marketing plans, including sales data analysis, game portfolio optimization, and business plan development, to customers throughout the U.S. Nate will work closely with the West Virginia Lottery to execute the Lottery's annual marketing plan and identify new opportunities for future growth, including existing game enhancements and new game introductions.

In the following pages, we describe some of the games and game types we can make available to you. The following figure provides an overview of the proposed game types and their respective value propositions.

Figure 4.6.10 – 6:

Overview of Game Suggestions	
Game	Proposed Enhancements
Hybrids	Introduce game type with both instant ticket scratch-off and draw-based components to attract younger demographic, and to cross-sell draw-based game players to instant scratch-off players and vice versa
EZ-Match on Cash 25	Rolling jackpot add-on to give core players an additional chance to win cash instantly
Numbers	Additional mid-day draw Monday-Saturday; addition of Fireball wager option
Fast Play	Introduce suite of Instant Online games
Keno	Game modification: additional add-on (i.e., Overtime); reduced time between draws
For Life	Lucky for Life (join consortium); offer players ability to play game with a unique value proposition
Instant Ticket Scratch-Off	Optimize instant ticket scratch-off program (increase on-counter presence of games and call cycle stratification); possible cross-over from popular IGT slots games and licensed properties

Hybrid Games

Introduction of Suite of Hybrid Games

Over the past several months, IGT has developed a new suite of hybrid games. These games combine an instant-win experience and a draw-based game, and they have the look and feel of an instant ticket scratch-off game. They are designed to build on the positive attributes of Fast Play games, create a colorful point-of-sale presence at retail, and offer lower payouts and more favorable returns for the Lottery.

The key to the success of these games in West Virginia will be the ability to clearly communicate that each game offers a “two games in one” value proposition (a nightly draw and an instant-win component) – one that will appeal to both instant ticket scratch-off players and draw-based game players. The effective use of communication tools – such as in-store promotions, retailer education, and clear in-store advertising – will be critical to the success of these games. Our work across the country with jurisdictions that have launched instant-win-type products will enable us to work with you to ensure the successful execution of this game and other hybrid products.

One of the top-rated hybrid games to come out of our FutureGame research is based on the popular Wheel of Fortune game, shown next.

Figure 4.6.10 – 7:

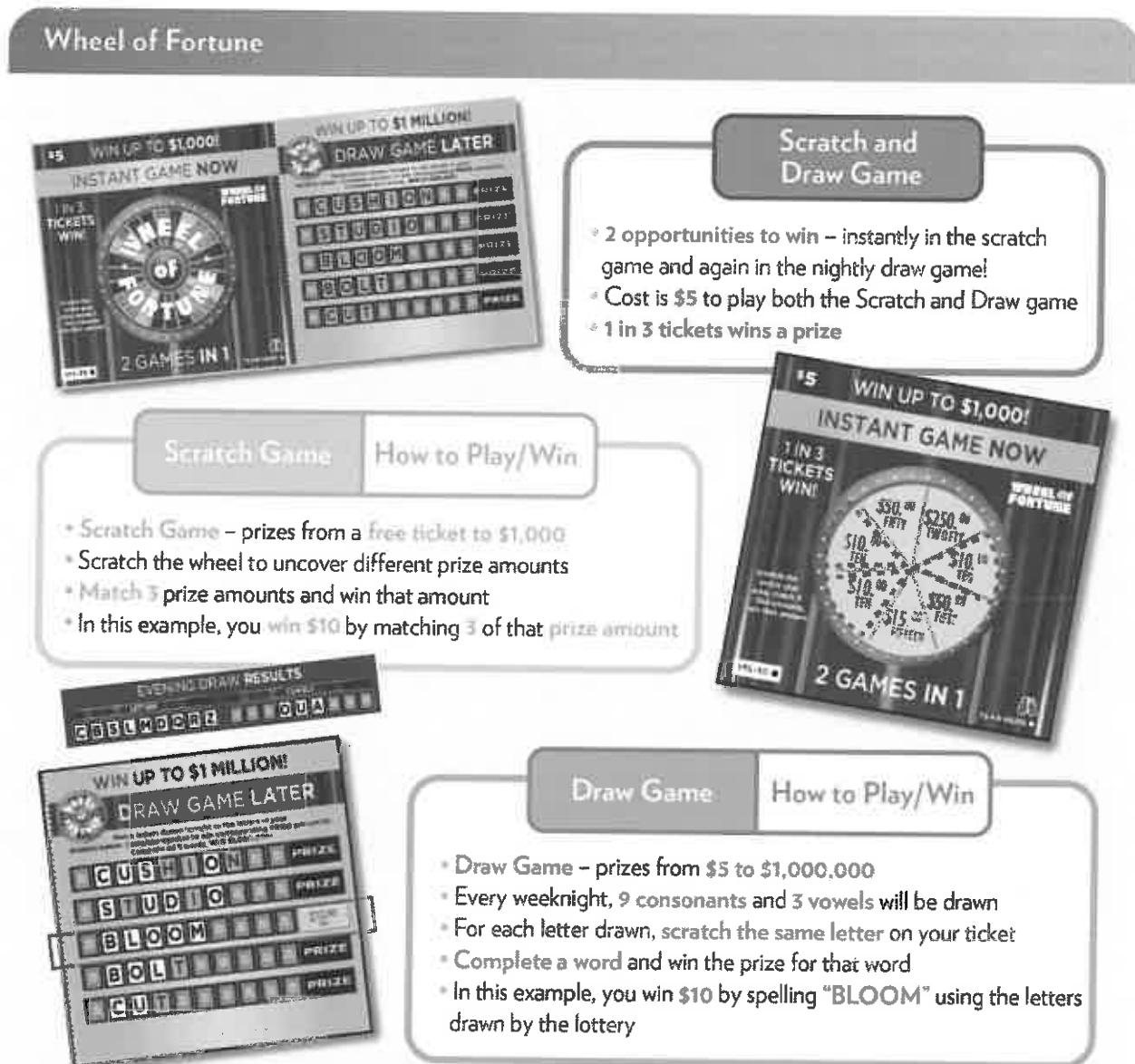
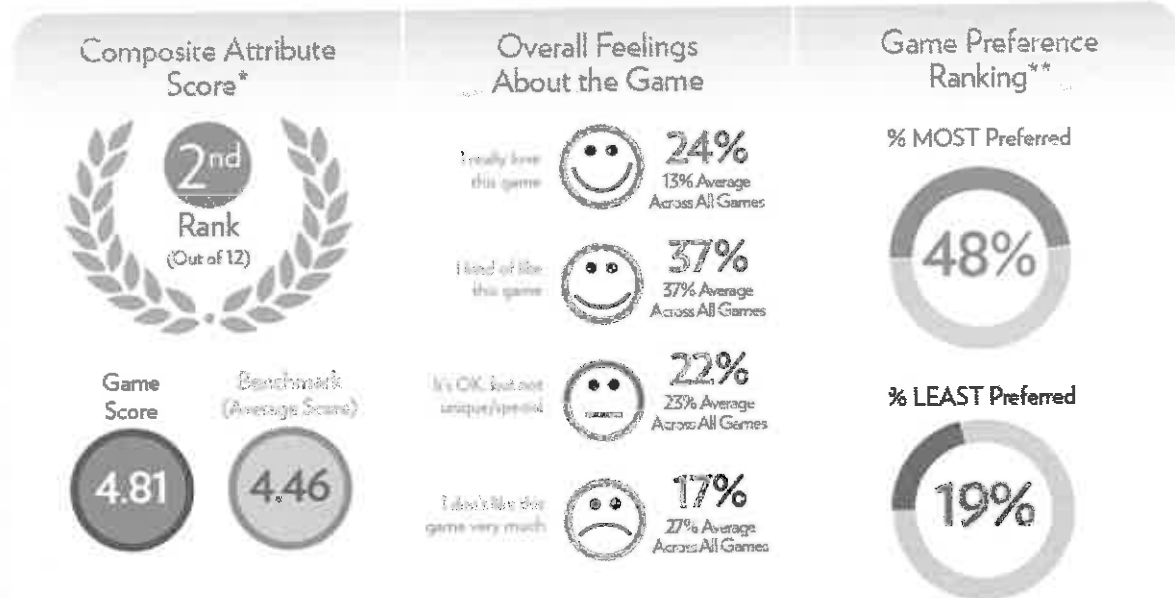


Figure 4.6.10 – 8:

Wheel of Fortune – Game Performance (Total)

61% either love / like Wheel of Fortune.
The game ranks 2 out of 12 on the overall composite score.



*Composite score = straight average of seven attribute ratings (easy to understand, fun to play, ways to win and prize amounts appealing, is unique, cost to play is reasonable, likely to try if available, play regularly if was once in a while)

**Among the three randomly selected games each respondent evaluated

Add-Ons

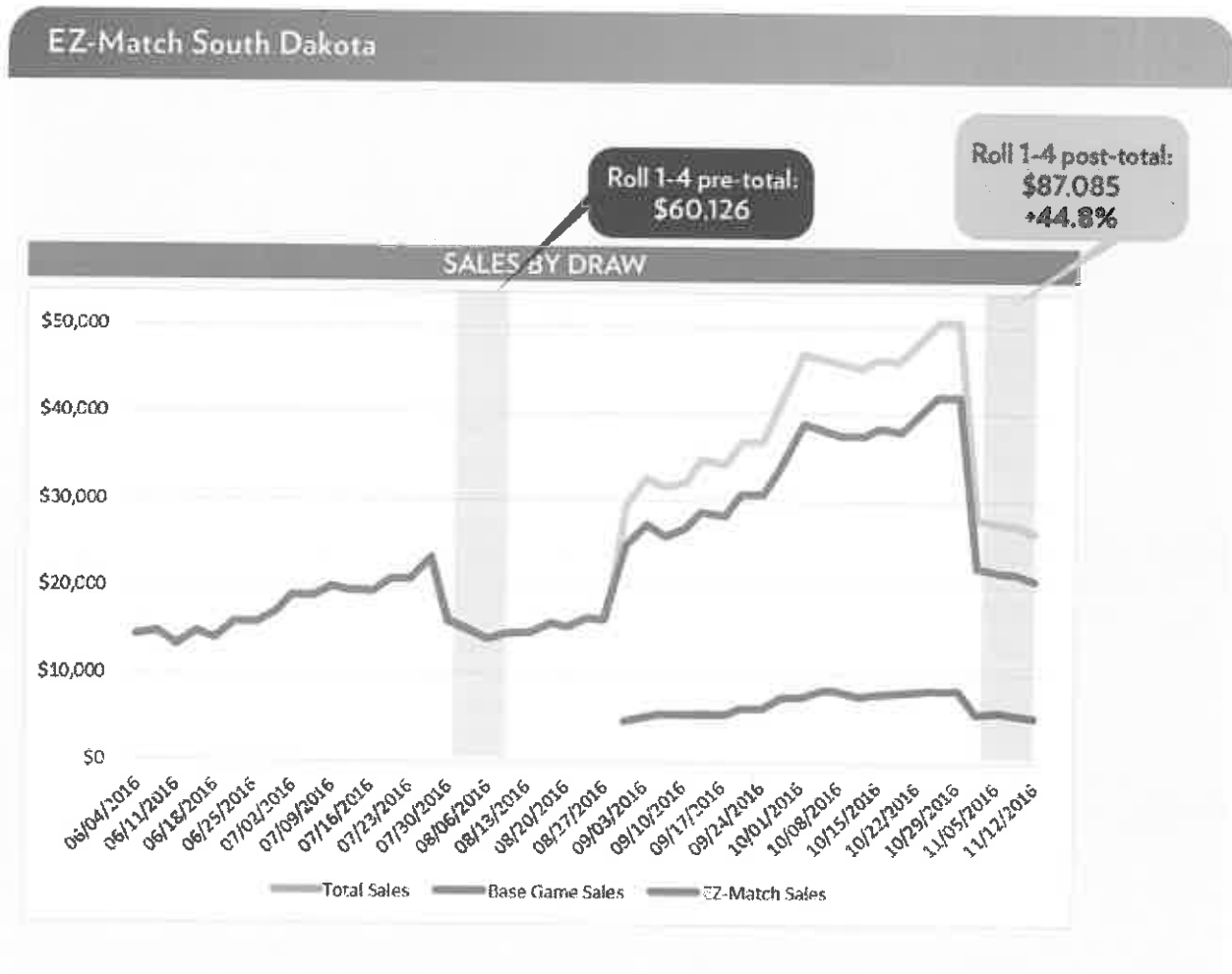
Add-ons offer a different value proposition, particularly for non-draw-based games.

EZ-Match

The Lottery may choose to add EZ-Match to its Cash 25 game. EZ-Match is an add-on game that can be made available with daily numbers games. The add-on gives players a chance to instantly win up to a particular amount of cash. By adding EZ-Match to a base game for \$1, a player can achieve a 1 in 5.1 chance to win a cash prize (typically from \$2 to \$500) that can be redeemed instantly, just by matching the EZ-Match numbers to his/her game numbers. Our customer in South Dakota experienced a 44% increase in sales from the EZ-Match enhancement.

EZ-Match sales are incremental and have caused a large increase in base wager spending, as shown next.

Figure 4.6.10 – 9:



EZ-Match can also be used as a promotional feature, as shown in Section 4.2.33, Promotion Functions.

Potential Second Cash Game


The Lottery may want to consider adding a second cash game alongside the popular Cash 25, which boasts a loyal player base. Rather than changing Cash 25 and risking alienation of core players, the Lottery could add a second game with a pari-mutuel feature to attract new players. This new game would give a new audience the chance to win a slow-rolling jackpot, e.g., starting from \$50,000 and rolling to \$1,000/week. This scenario offers a differentiated value proposition that is appealing to new players. Our experience in other jurisdictions has shown no negative impact on the existing cash game.

Numbers Games

The Lottery may want to add a mid-day draw Monday through Saturday and consider the addition of a Fireball wager option.

Figure 4.6.10 – 10:


Fireball Promotion Feature



More
Chances
to Win!


Play
Today!

February
27, 2017



FIREBALL

LAUNCHING FEBRUARY 27, 2017



FIREBALL is a new add-on feature available on Pick-3 and Pick-4. The cost is equal to the player's base wager amount. By adding FIREBALL to their regular bet, players have more chances to win a prize with an extra number drawn at random by the Lottery. Players can replace one of the Lottery drawn winning numbers with the FIREBALL number for more ways to win!

Fast Play Games

Currently available in 12 states, Fast Play games debuted in August 2015 in New Jersey, where the games showed a strong 26-week per capita sales average of \$0.13. The successful rollout was the direct result of IGT's collaboration with the New Jersey Lottery.

Since FY12, Fast Play games in the U.S. have more than doubled in per capita sales. They continue to perform well and to provide players a compelling instant-win experience. The Georgia Lottery is the latest IGT customer to launch these games (November 2016), which are proving to add incremental sales while helping that lottery expands its game portfolio.

Our customers are seeing strong sales performance from their Fast Play games. We will provide the Lottery with Fast Play games – specifically, we will give you access to any Fast Play games that have been developed, thus reducing the overall cost of providing each new game or modified game.

IGT can activate these games without the need for a scheduled software release. Should the West Virginia Lottery decide to change the game matrix or the prize levels, which are considered game modifications, a software release would be necessary to activate them.

Figure 4.6.10 – 11:

Fast Play Games from Around the Industry

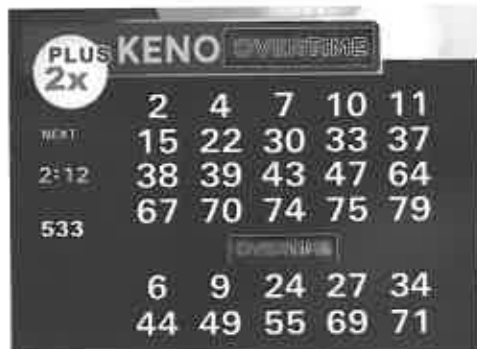


Game Modifications

Keno

IGT can recommend modifications to the Lottery's Travel Keno (Keno) game to improve Keno sales, as we did in Rhode Island (with the Keno Ad-On called OVERTIME). We have extensive experience with Keno jurisdictions in surrounding areas and in Rhode Island, which has a makeup similar to West Virginia and uses the same approach to offering other games.

Extra Chances to Win with OVERTIME



In Rhode Island, Keno players have a chance to play an add-on called OVERTIME, which offers players another chance at winning by keeping the player's winning numbers alive for additional draws. After the regular 20-number Keno draw, the Lottery would begin the OVERTIME round, eliminating the remaining numbers until only 10 numbers are left.

The game is available in bars, restaurants, and other retail locations that offer Keno. After the regular 20-number Keno draw, the Lottery will begin the OVERTIME round, eliminating the remaining numbers until only 10 numbers

remain. Players play an additional \$1 for the OVERTIME opportunity, which can net them prizes from \$1 to \$500,000.

The Lottery would find OVERTIME valuable for attracting playership from its mature Keno player base. In consumer and retailer research in Rhode Island, in December 2016, OVERTIME generated the strongest monadic ratings on key performance metrics and was preferred 3 to 1 over the other choices. OVERTIME had widespread appeal among all player types, including heavy players, light players, men, women, younger players, and older players.

According to players, OVERTIME was considered a completely different game from the base game, because the two sets of numbers were mutually exclusive. For this reason, many felt their chances had to be better. The top prize was higher and the animation was entertaining and created a sense of anticipation the other games couldn't match. All of these factors contributed to its being the strongest performer.

Among retailers, many of whom play Keno, OVERTIME performed better than the other choices, and the perception was that the game would appeal to players. OVERTIME's mean ratings were much stronger than the other choices. Retailers felt that the perception of winning was much greater than with other games, i.e., "you have multiple chances ... it offers the player the most options." Should State gaming legislation change, we can help the Lottery take advantage of opportunities such as Keno to Go. Please refer to Section 4.7, Retailer and Player Services, for more details.

"For Life" Games

We recognize that the Lottery intends to join the "For Life" consortium later in 2017. We encourage the addition of this game to your portfolio, as it has generated substantial sales success in other IGT jurisdictions.

Crossover from Legacy IGT Casino Games

IGT Slots

Through IGT's stable of iconic slot-machine game themes, the West Virginia Lottery will have an entirely fresh avenue for developing new draw-based games. IGT slots have an avid adult fan base in land-based casinos, Internet games, and in the hugely popular social casino, Double Down.

We've taken the most popular slots titles in the country and created instant ticket scratch-off games using their names and icons, e.g., Double Diamond, Triple Double Diamond, and Red, White & Blue. In addition, some of our own most popular slot titles (available at casinos) are now also available as instant ticket scratch-off games.

Figure 4.6.10 – 12:



Research, Implement, Integrate Licensed and Branded Games

Wheel of Fortune, mentioned as a possible addition to the West Virginia Lottery's game lineup, involves a license fee. We understand that the Lottery will reimburse us for actual costs related to the acquisition of the rights to use the property.

In addition to Wheel of Fortune, IGT maintains an exclusive library of current, relevant licensed properties that can be incorporated into your game plan to engage your player segments.

Monitor, Analyze, Report on Sales and Development Progress

One of the responsibilities of the new Field Marketing and Sales Manager will be to monitor, analyze, and report on sales and development progress, both locally and across the industry. Given the expanded job description and the new tools (e.g., Aurora Performance Intel and Tableau), the Field Marketing and Sales Manager can perform and update daily analyses more quickly and efficiently than in the past. What once would take an analyst a full day to complete will now take about five minutes. The Lottery will have access to dashboards with up-to-the-minute sales and trend reporting.



Provide Ad Hoc Game and Promotion Analysis

In addition to semi-annual or quarterly scheduled meetings and reports, at any time requested by the Lottery, we can meet to discuss game and promotion analysis. The Lottery will have access to the resources – including Same Store Sales and U.S. Field Marketing – who will support the Marketing Content Manager and site leadership to provide data and insights for your evaluation and decision making.

Provide Annual Detailed Study of the West Virginia Market

IGT will provide a detailed study of your market, including sales projections and year-to-date sales, in the form of an industry update presentation to be held at Lottery headquarters. Given the impact of the results on your future game planning, we propose to provide update presentations *twice per year*, thus exceeding your requirement. We have learned from experience with, and feedback from, our customers that the best industry updates generate collaborative discussion about how to meet the customer's business goals, based on the analyses and observations that both the IGT team and the customer's team prepare.

Annual State-of-the-Industry Presentation Structure

We will structure an annual State-of-the-Industry presentation for the Lottery, in a way that allows the Lottery to review products, technologies, and trends that can help drive revenue growth in West Virginia. We will also review with you, and offer input into, which of the topics you might want to consider for your Strategic Plan. Given your interest in employing innovation to grow sales, we will initially focus on:

- Involving a sample of West Virginia players, along with players from other jurisdictions, as part of the consumer testing for our FutureGame game-development process.
- Identifying consumer trends that provide a collective understanding of the environment in which consumers see entertainment and the kinds of games players want to play and how they prefer to play them.

In addition to new games, new gaming media, relevant technologies, sales and emerging trends, marketing plans, and financial data, each State-of-the-Industry presentation will cover relevant activities and strategies that have increased product sales, along with consumer and retailer research, merchandising opportunities, digital/mobile/loyalty-based initiatives, and retail expansion.

Beyond the Games: Game Profitability Analyses

In our presentation and discussion of your game portfolio, we want to help you ensure that the games you bring to market are profitable for your business and your good causes. For that reason, our twice-yearly industry update, as well as the quarterly marketing strategy meetings, will include game profitability analyses for your games and those of other lotteries. The mission of our dedicated Game Development and Portfolio Management group – under the direction of Vice President Francesco Parola – is to develop and deliver appealing games that draw in players and drive revenues for beneficiaries.

These meetings will also focus on your performance to date and opportunities for at least the two-year period ahead and beyond, as appropriate.

You may choose at which quarterly meetings you want to conduct the twice-yearly industry update presentations. No matter where it lies on the calendar, each industry update will:

- Consolidate observations that may reveal both short- and long-term opportunities for your business.
- Evaluate recent initiatives and identify opportunities for collaboration in the coming year.
- Share lessons learned from lotteries directly managed by IGT.

The following figure provides a sample agenda for a State-of-the-Industry meeting:

Figure 4.6.10 – 13:

Sample Meeting Agenda	
Current Fiscal Year Sales and Revenue	
Sales, Revenue, Budget, and Performance Goals	
Financial Results Compared Against Marketing Plan	
Future Profitability Forecast Review/Update	
Strategic Plans for the Coming Year – 24-Month Marketing Activity Calendar	
Game Launches and Product Innovations	
Annual Promotion Plan	
Review of Scratch Ticket Inventory Management (Auto-Order Efficiency, Ticket Replenishment, Plan-o-Gram Effectiveness)	
Retailer & Player Research Results and Annual Plans	
Other Marketing Communications Activities	
Retail Network Performance	
Sales Growth Opportunities	
Vending Review	
Sales Visit Review	
Expansion Opportunities	
Marketing and Sales Development	
Industry Update	
Best Practices	
Current and Emerging Trends	
Products	
Promotions	
Public Policy	
Research Results	
Initiatives	

Player-Focused Agenda: The update presents a 360-degree study of your business and game mix from a consumer-centric perspective. In other words, we look at all of the available products – draw-based and instant ticket scratch-off games and related promotions – that a West Virginia consumer can participate in.

Through meetings, we will make you aware of other developing market opportunities that you may decide to act on in the future. To give you the widest view of global, national, and local industry news, we will share information from a wide variety of other sources, with support from our corporate Insights 360 Group.

IGT will collaborate with the Lottery on market research activities, which could include Lottery-directed focus-group interview-based or survey-based research relating to general product information or new product considerations. This response defines our research expertise and capabilities, which can combine with and complement yours, to pursue West Virginia-based data for your decision making.

Research and Insights

The importance of market research to our customers' businesses has led us to take a deeper look into enhancing the already formidable responsibilities and expertise of our market research team. Led by two of the best research minds in the lottery industry, the team's province extends across our organization's disciplines and geographies. Newly branded Insights 360, this group will serve West Virginia by helping harness actionable consumer and retail insights to accelerate growth in Lottery sales and contributions to good causes.

Gerard Caro, Senior Director, Market and Insights



Since joining IGT in 1995, Gerard Caro has held various positions within the Field Marketing, New Game Development, and Strategic Marketing groups. For the past eight years, he has directed all market research efforts at IGT. By managing internal resources and a portfolio of independent market research firms, Gerard is able to leverage their experience to execute research on game content, technology, point-of-sale terminals, customer opinions, industry trends, and much more.

Audrey Pate, Senior Manager, Market and Insights



Audrey Pate is an expert in using more than 30 primary and secondary research methodologies. She has managed and executed a long list of product and service research projects for retail and consumer constituents. Bringing experience with best practices and numerous research techniques to our lottery customers, Audrey manages strategic relationships with global research partners and supports game development efforts for IGT customers worldwide.

Ailsa McKnight, Senior Director of Consumer Experience

Ailsa's expertise lies in representing the voice of the player to ensure that the player perspective is reflected in all aspects of the IGT Global Lottery Marketing group's outputs, including product management, content development, market research, and innovation. She supports IGT lottery-customer decision makers by offering an international perspective, and assists international-region customers with their multichannel and omnichannel strategies.

We offer the West Virginia Lottery the opportunity to engage in a quarterly call with Gerard and Audrey to discuss local and industry results as well as industry trends.

Research plays a central role in our ongoing game development process. We assist our customers in arriving at sound business decisions that are the result of sound market insights. IGT continues to significantly invest in market research and analytics – for draw-based and instant ticket scratch-off games as well as emerging channels – enabling us to offer experience and expertise to help the Lottery grow its business.

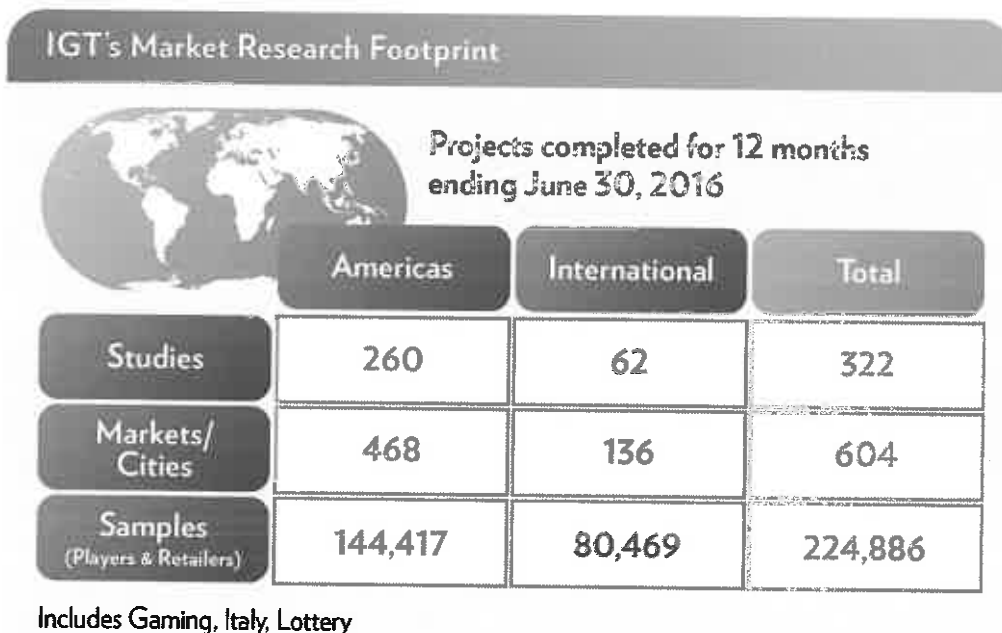
Our team of research and analytical experts, across various subject matter areas, will help you with specific studies and with ongoing analysis, and facilitate the use of outside data or research studies when relevant. Our marketing research professionals can execute studies from start to finish or serve in a consulting role on particular topics when you prefer.

Our market research support includes these areas of concentration:

- Ensuring and setting research objectives that deliver actionable results.
- Facilitating independent third-party primary research studies.
- Leveraging IGT's lottery and gaming research benchmarks.
- Tapping IGT's secondary research.

In addition to lottery information, we have access to large amounts of gaming industry data that we will interpret and share. In 2016 alone, our market research efforts stretched across the U.S. and around the world to gather information for our customers.

Figure 4.6.10 – 14:



Primary Research

Some lottery research projects require an independent perspective and objectivity that only a third party can provide. IGT makes several research methodologies available through a network of third-party research firms to better understand demographics and psychographics, including attitudes, preferences, behaviors, motivations, barriers, and unmet needs.

To support your primary research efforts, our Insights 360 group can:

- Help set objectives during research project planning stages.
- Identify and narrow research questions.
- Develop short- and long-term research plans.
- Select an appropriate methodology.
- If appropriate, develop ideas for and moderate focus groups.
- Determine outsourcing needs.
- If outsourcing, source and negotiate with the research company.
- Develop and refine research reports for management presentations.
- Monitor and manage project execution.
- Analyze and interpret data for research insights.
- Convert insights into actionable, strategic recommendations.
- Assess research program efficiency.

For primary research, the following study types will be considered based on the Lottery's objectives and information needs. IGT can help facilitate these research studies, as well as the analysis method for each.

Figure 4.6.10 – 15:

Potential Research Methodologies		
	Description	Value to the Lottery
Focus Groups	Focus groups involve asking people about their attitudes towards products, services, concepts, advertisements, and ideas in an interactive group setting	<ul style="list-style-type: none"> Focus groups are effective for acquiring feedback to screen game and technology concepts for the likelihood of market acceptance Follow-ups with retailers and/or players after equipment pilots and game launches provide ways to learn and improve
Group Audience Testing	Large numbers of consumers, chosen using established recruiting criteria, are assembled to gauge their likelihood to play, along with the games' ease of play, key product attributes, and other player acceptance and purchase factors. Group audience testing is also used to test new game concept appeal	<ul style="list-style-type: none"> Group audience testing complements focus group findings, while using more robust sample sizes (25–50 people per group), leading to more quantitative analysis than those of focus groups Group audience testing can include our Perception Analyzer. This tool enables real-time feedback from respondents and review and evaluation by lottery staff
Segmentation Studies	Segmentation studies determine similarities and differences among target groups and identify what motivates these groups' members to buy. Segments often comprise consumers who are as similar as possible to each other but as different as possible from those in other segments. Target segments are then selected and profiled	<ul style="list-style-type: none"> To have a competitive edge, it is important to be in tune with consumer wants. Segmentation studies provide insight on consumer preferences so that strategy formulation and tactical decision-making can be enhanced These studies help us understand how to market effectively. Marketing campaigns and products can be targeted to specific groups according to tastes and needs
Attitude and Usage (A&U) Studies	These quantitative studies measure product awareness, popularity, use, and perception. Items measured can include lottery campaigns, communications, and overall brand value	<ul style="list-style-type: none"> We design and use these studies to identify concepts for development and determine whether or not to move forward with game products They can show if your games need re-branding to change or reinforce their value They can help you evaluate advertising effectiveness
Tracking Studies	These ongoing studies address player spending, including frequency and other buying behaviors	<ul style="list-style-type: none"> Tracking studies help identify the impact of promotions, game launches, and the economic climate They often pinpoint game performance issues, allowing you to react if necessary They often reveal geographic and seasonal differences in lottery performance
Mystery Shopper Research	For this research, independent researchers highly trained in lottery retail identify and reward best practices in the marketplace while identifying areas for improvement	<ul style="list-style-type: none"> This research identifies attributes that influence retail performance and is used with lottery retailer optimization efforts to develop predictive sales models

	Description	Value to the Lottery
Internet Research	Internet research has become a cost-effective way in which to reach a large cross-section of player types	<ul style="list-style-type: none"> • Internet research enables concept testing among large sample sizes (400, 600, 1,000, or more) to represent an entire market. What's more, fielding generally takes only a few days, so turnaround times are fast • Community panels are typically a private, invitation-only environment for sending out surveys. Panels give lotteries easy, longitudinal access to customers • Our Game Development group uses Internet research to improve basic concepts before running them by lottery product and marketing teams. Internet surveys could be performed in West Virginia to test new game concepts, enhancements, and the appeal of promotional games in your market
Ad Hoc Internet Research Studies	There may be situations in which the Lottery needs answers to research questions quickly and inexpensively – superseding the importance of having an independent or outside perspective	<ul style="list-style-type: none"> • Internet research enables ad hoc surveys to be deployed quickly and at a fraction of the cost of many lottery research providers
Intercept Surveys	Intercept research identifies the environmental attributes that influence lottery game purchases at retail	<ul style="list-style-type: none"> • This research identifies real-world, real-time attributes that influence retailers and players on a new product's potential • It also provides valuable information about what other types of purchases, if any, are made concurrently with lottery purchases
Ethnographic Research	A descriptive study of a consumer group and its behavior, characteristics, and culture as it relates to the Lottery process. This type of research is more often qualitative in nature	<ul style="list-style-type: none"> • In lottery, this type of research can uncover the psychology of choices made in purchasing lottery products, the elements that factor into the purchase decision, and the impact the retail setting has • Through their mobile devices, players record their experience purchasing a draw-based game, and then record their experience when the winning numbers are drawn
Usability Research	This research assesses the purchase process on a computer, mobile phone, or other technology platform to make sure it is intuitive and easy to understand. This research will be important if the Lottery offers services via a new platform	<ul style="list-style-type: none"> • This research identifies components of a user interface that warrant changes or clarification based on player feedback. It also confirms whether the flows of screens and sequences of the purchase process make sense to players, thereby increasing the potential for success

Research Plan

We will support the Lottery in its development of an annual research plan. Throughout this section, we describe our capabilities and the third parties with which we contract for research initiatives. We look forward to collaborating with you, using, as a starting point, the research studies you have conducted – Scratch Game Concepts, Segmentation Study, and Lottery Retailer Study – since 2014. We can then customize a plan for testing new promotions, measuring the results of new retail initiatives, and otherwise learning more about your players and the games they want to play.

We know the Lottery continues to use the services of Repass, and we will gladly cooperate with that and any other third party recommended as a result of the Lottery's experience.

We expect to begin research plan discussions with you during the initial marketing planning meeting. From those discussions, we will work together with you to develop a multi-year research plan with studies that will align with and support your goals for maximizing dividends and becoming the top-performing lottery in North America.

Engaging Audiences

Our research organization can help the Lottery expand playership by determining what will drive lapsed players, non-players, and new demographics (e.g., the 18 to 35 market) to visit Lottery retailers and play the Lottery's games. In addition to conducting game research with your players and game and engagement research with your retailers, we can support your decisions with insights from other jurisdictions.

In Minnesota, for example, our customer identified segments among the 18-to-34-year-old population and, from there, determined which kinds of games, positioning, and messaging might attract them to play Minnesota Lottery games. Game development centered on game themes that highlighted that lottery's beneficiaries, animals, and the opportunity to share the playing experience with friends. It also identified the most dependable channels through which the Minnesota Lottery could reach the Millennial audience.

Benchmarks

We are continually conducting research with consumers and retailers around the world; therefore, we may be conducting research at any given time that may meet some of your needs and can leverage that knowledge. We also maintain a database of study measures for game research, such as "appeal," "ease of understanding," and "intent to purchase," and brand measures such as "brand awareness" and "for people like me." these benchmarks can be shared and are especially valuable when comparing your research results or for setting KPIs.

Secondary Research

Our access to third-party research databases, such as Forrester, Gartner, ORC International, and Foresight Factory (with whom we have an exclusive contract), will likely contain information that is valuable to the Lottery. When there is secondary research that we think has merit in West Virginia, or you seek out secondary research from us that may answer a question you have, we will be happy to provide you with all West Virginia-relevant information.

Other Market Research Initiatives

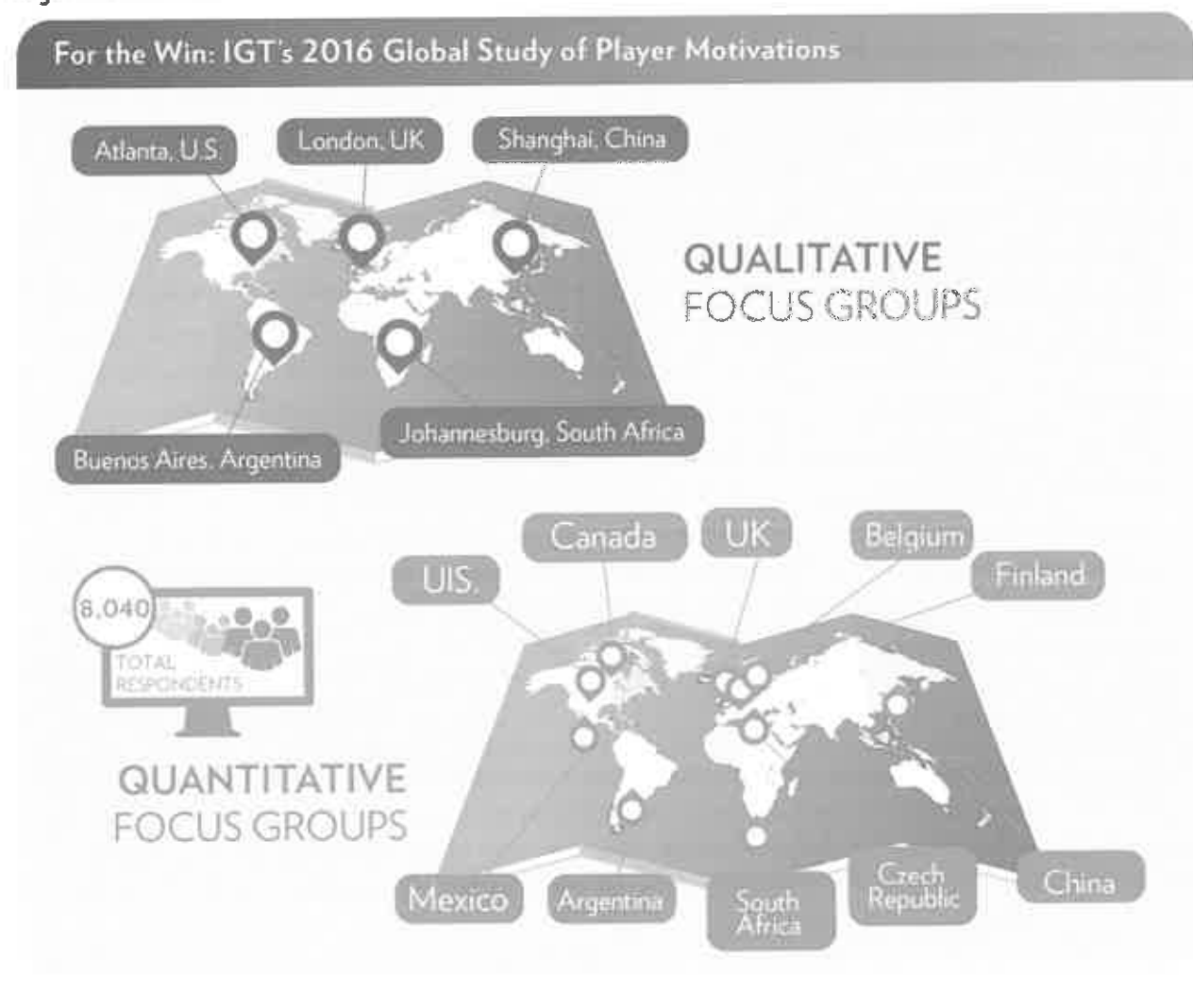
Additional IGT research efforts, which we will share with the Lottery as relevant findings surface, include the following.

For the Win – A Global Study of Player Motivations

The Insights 360 team conducts programs with individual lotteries around the world. However, it is also uniquely positioned to undertake “big picture” studies, which benefit the industry as a whole. For the Win – A Global Study of Player Motivations is such an initiative. Wholly funded by IGT, our most recent study encompassed interviews with more than 8,130 players across 10 countries. Included were 1,000 interviews held with respondents under the age of 35. The results will be available in the first quarter of 2017 (calendar year).

The study provided us with relevant information to assess playing behaviors within particular countries, both in its own context and in comparison with the aggregated World Player view (and players in nine other countries).

Figure 4.6.10 – 16:



Global Gaming Market Research Exchange

In recent years, IGT has hosted lottery customers from around the world at its Global Gaming Market Research Exchange. This is a forum that brings together lottery research professionals from around the world to share insights, improve research methods, identify common and innovative approaches, and brainstorm best practices. Topics include segmentation and brand studies, media audits, loyalty programs, and the ability to act on tracking studies, customer satisfaction studies, and visual conjoint approaches.

The sixth Exchange was held on November 4-5, 2015, at IGT headquarters in Providence, Rhode Island. The Exchange included representatives from the Kansas Lottery, Minnesota Lottery, New Jersey Lottery, Loterie Nationale (Belgium), Lottomatica (Italy), Washington's Lottery, Kentucky Lottery, Arizona Lottery, Supreme Ventures Lotteries Limited (Jamaica), Illinois Lottery, Totalizator Sportowy (Poland), and Oregon State Lottery, as well as research partners such as IPSOS and ORC International.

Figure 4.6.10 – 17:

Market Research Exchange, Providence, Rhode Island



Notable topics included technology's impact on market research, young peoples' attitudes toward gaming, the role of research and communication in the gaming research community, research methodologies for the product development life cycle, customer journey mapping, and trendspotting.

The Global Gaming Market Research Exchange has had more than 60 "graduates" since the first Exchange took place. Many have attended multiple times. We cordially invite your staff member who is most involved with market research or other West Virginia Lottery designee to attend the next Exchange, scheduled to take place April 26-27, 2017, at IGT's instant game production facility in Lakeland, Florida.

Research Tailored to Your Needs

Our first consideration in planning a research program with you is to make sure it addresses your needs and supports your growth objectives. We will leverage the combined years of research experience of our team, as well as the knowledge of our research partners, which include Axiom, Crestwood Associates, Definitive Insights, Gamer Insights, Invoke, Ipsos, KS&R, Reilly Group, Russell Associates, Strategic Research Partners, TNS, Usability Insights, Vision Critical, and YouGov. We will also identify viable providers that specialize in the area of expertise being sought. Examples of our work with these partners are provided in the following table.

Figure 4.6.10 – 18:

GTECH Supports Many Customers and Retailers	
Research Partner	Research Project
Crestwood Associates	<ul style="list-style-type: none"> • 2015 Powerball Concept Study, Online Survey, multiple U.S. lotteries • 2015 One-Off Concept Study, Focus Groups, Georgia Lottery • 2016 One-Off Concept Study, Focus Groups\Online Survey, Texas Lottery
Ipsos	<ul style="list-style-type: none"> • 2014 Attitude and Usage (A&U) Study, Online Study, North Carolina Lottery • 2015 Draw Game Concept Study, Focus Groups\Online Study, Kentucky Lottery • 2016 Cash 5 Concept Study, Focus Groups\Online Study, Texas Lottery
KS&R	<ul style="list-style-type: none"> • 2014 A&U Study, Online Survey, Hoosier Lottery, Indiana • 2014 Powerball Concept Study, Online Survey, multiple U.S. lotteries • 2016 Cash 4 Life Game Development Study, Ethnography\Focus Groups, New York Lottery
Reilly Group	<ul style="list-style-type: none"> • 2015 Self-Service Lottery, Focus Groups (2 phases), Rhode Island Lottery • 2016 Self-Service Lottery Feedback Study, Intercepts, multiple U.S. lotteries
Russell Associates	<ul style="list-style-type: none"> • 2015 Multi-State Draw Game Re-Launch Messaging Campaign Content, NY Lottery • 2015 Attitudes to Casino Gaming, Northstar New Jersey Lottery • 2016 Hybrid Game, Texas, Florida, California, and New York lotteries • 2016 Draw Game Concepts, North Carolina Lottery
TNS	<ul style="list-style-type: none"> • 2015 Concept Research (for Sportska), Focus Groups\In-depth Interviews, Sazka, Czech Republic
Vision Critical	<ul style="list-style-type: none"> • 2014-2016 Community Panels, Northstar Illinois • 2014-2016 Community Panels, Northstar New Jersey • 2015-2016 Community Panels, IGT Indiana
YouGov	<ul style="list-style-type: none"> • 2015 GEMINI® Touch Study (focused on user interface), Focus Groups, California Lottery • 2015, 2016 Tracking Study, Online Survey, Tennessee Lottery

Given our experience, we are qualified to help you meet your market research needs. We will work with you to develop a specific research program that meets your planning and growth needs for years to come.

Geocoding Demographic and Psychographic Application

IGT's RETAIL MARKET INSIGHTS®

The foundation of our cross-jurisdictional lottery retail sales analytics is our Retail Market Insights (RMI) tool and retailer program. RMI is the first lottery database to bring the power of multi-jurisdictional Big Data analytics to compare the performance of U.S. lotteries at the retailer and trade-style level. RMI combines retailer information and sales data from lotteries across the U.S. to help lotteries' sales teams identify opportunities for growth in their own state and generate data-driven presentations for chain prospects to demonstrate the likely impact of lottery on the chain's businesses.

Your Front-Row Seat for Retail Success

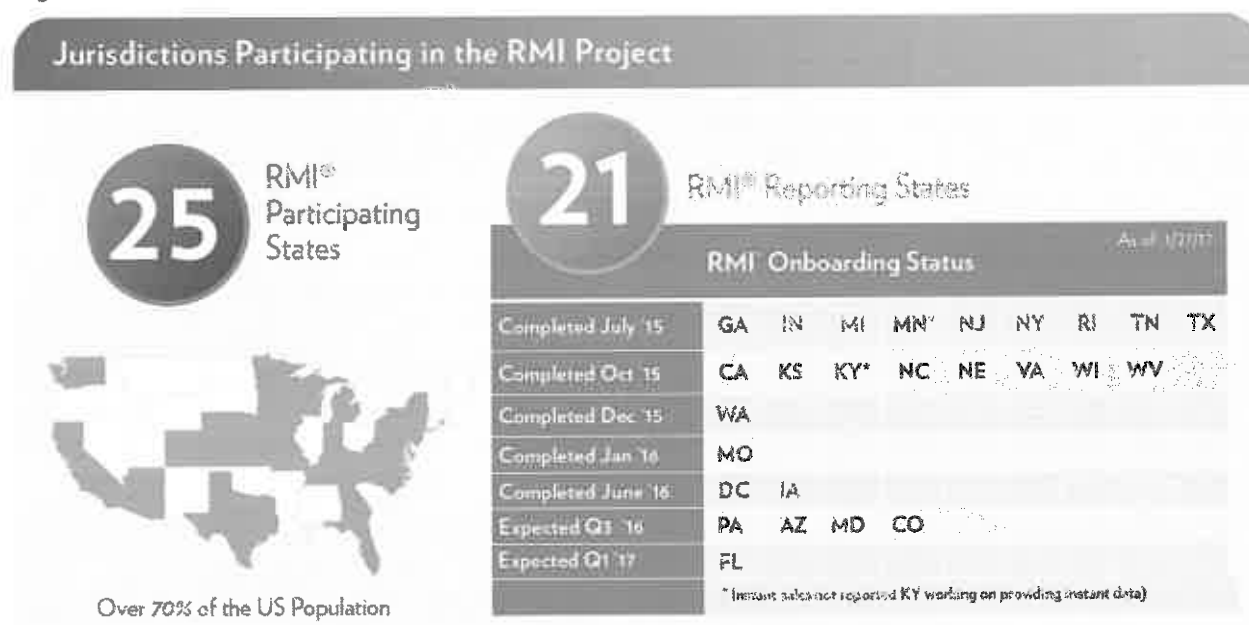
With the West Virginia Lottery signed on as an RMI member, we look forward to formally introducing you to the concept and the benefits of the RMI database and tool. Once onboarded into RMI, the Lottery will soon begin to experience those benefits first-hand. You will be able to view trends in trade-style and chain sales, both within West Virginia and compared to other states, which will shed light on your opportunities to target sales growth programs where they will have the greatest impact.

Big Data is more than a buzz phrase. It represents the enormous amounts of data that organizations such as lotteries gather to transform into actionable intelligence. Big Data can enable organizations to mine their databases, extract new insights about player preferences and behaviors, and then personalize offers to their customers.

Actionable intelligence such as this, and other actionable insights from RMI, bring quantitative, fact-based rigor to the continued expansion of the lottery industry, for retailer growth and optimization and for player base expansion, at a time when customization and relevancy are key drivers of business. The Lottery will benefit from the new Big Data capabilities through our patent-pending RMI tool, in which IGT has made significant investment to benefit its customers.

RMI generates detailed lottery sales performance data by retail chain and channel from across all jurisdictions, including many non-IGT customers, allowing a lottery to explore how games and retail locations are indexing nationally. To date, 26 U.S. lotteries are participating in the RMI program.

Figure 4.6.10 – 19:



On a deeper level, each individual chain can be analyzed to compare performance across states and across trade type within a given state. The insights gained in analyzing chain data can then be applied to improve sales at individual retail locations, as well as recruit chains in existing trade channels and expand into new ones, such as bowling alleys, restaurants, and fraternal organizations. We've adapted this tool from the Big Data efforts of major consumer product companies, including Target, Walmart, CVS, Kroger, and others, which have seen significant increases in sales from actions based on comparable data.

RMI provides normalized performance details that allow for at-a-glance analysis of:

- **Sales:** Nationwide, by state, banner, corporate parent, ownership, channel, all the way down to competitive trade region.
- **KPIs:** Average weekly sales by store indexed across all states and within state by trade type and chain.
- **Trends:** Monthly sales tracking of trade type and chain performance compared to trade and location benchmarks.
- **Expansion Opportunity:** Trade region saturation maps with market segmentation and urbanicity profile.

For the U.S. lottery industry, the normalization process is unique to RMI, since each lottery has its own set of data definitions and rules. Without the normalization on the front end of the analytics, the comparisons would often be apples to oranges. This has been a major, age-long challenge for category managers who do business across multiple states. These capabilities will allow for more detailed criteria comparisons of retail performance across states and within chains, facilitate performance measurement by trade style and across geographies, and enhance the Lottery's ability to make key strategic decisions based on actionable insights.

Figure 4.6.10 – 21:

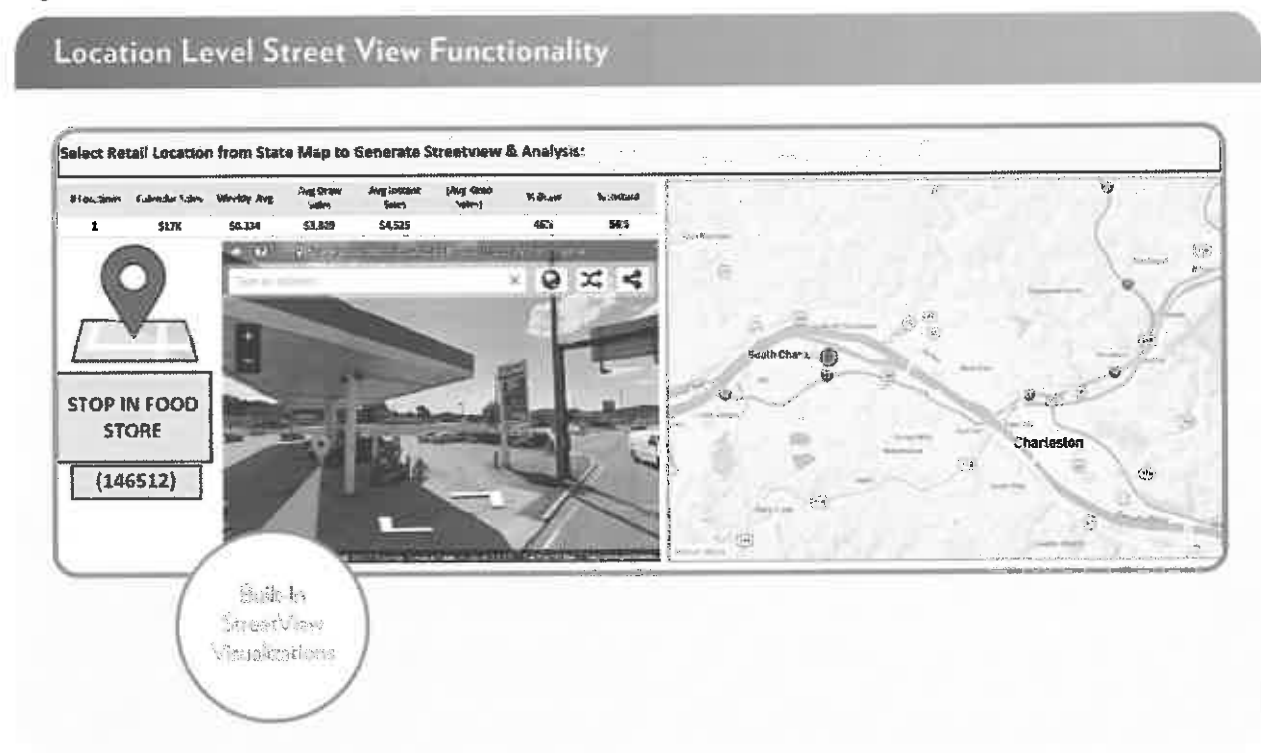


Figure 4.6.10 – 22:

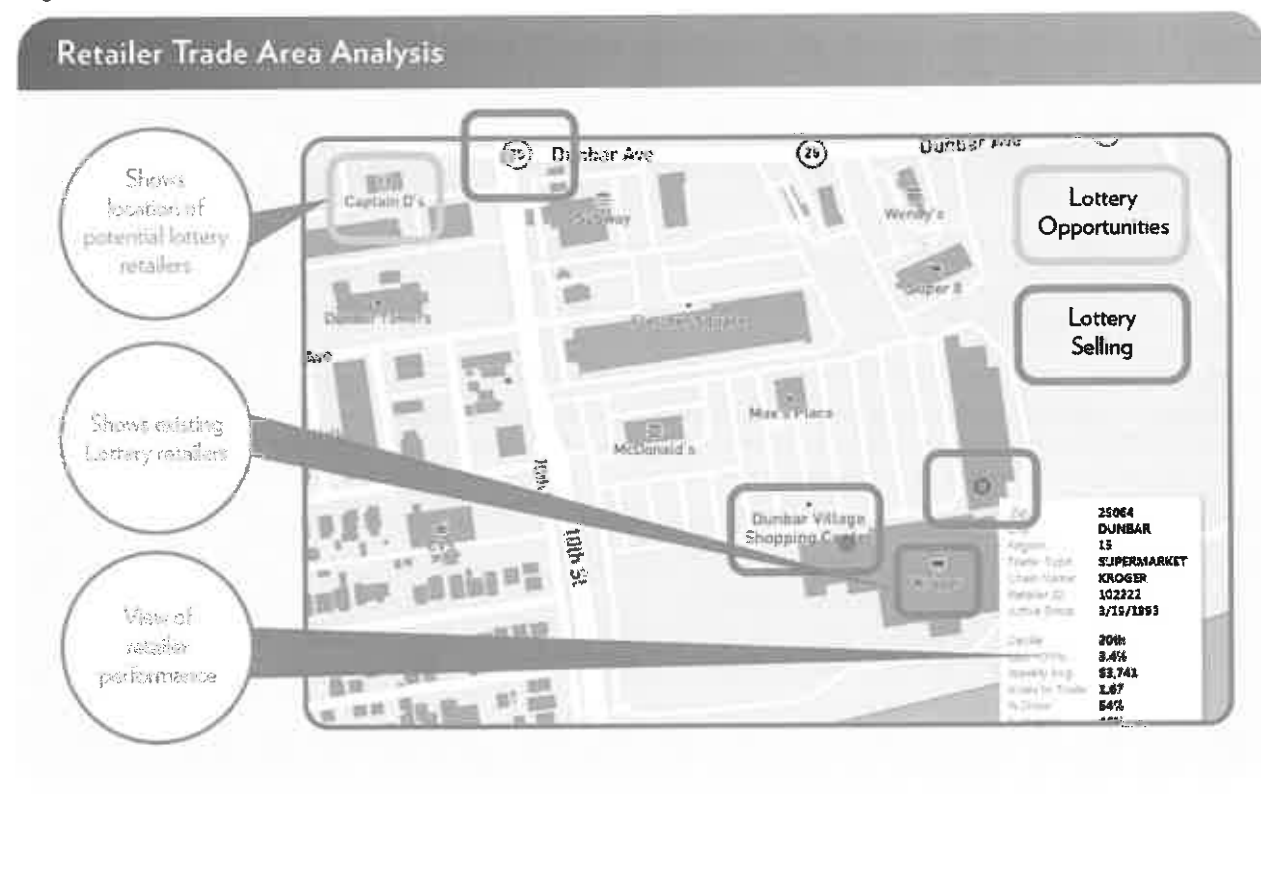
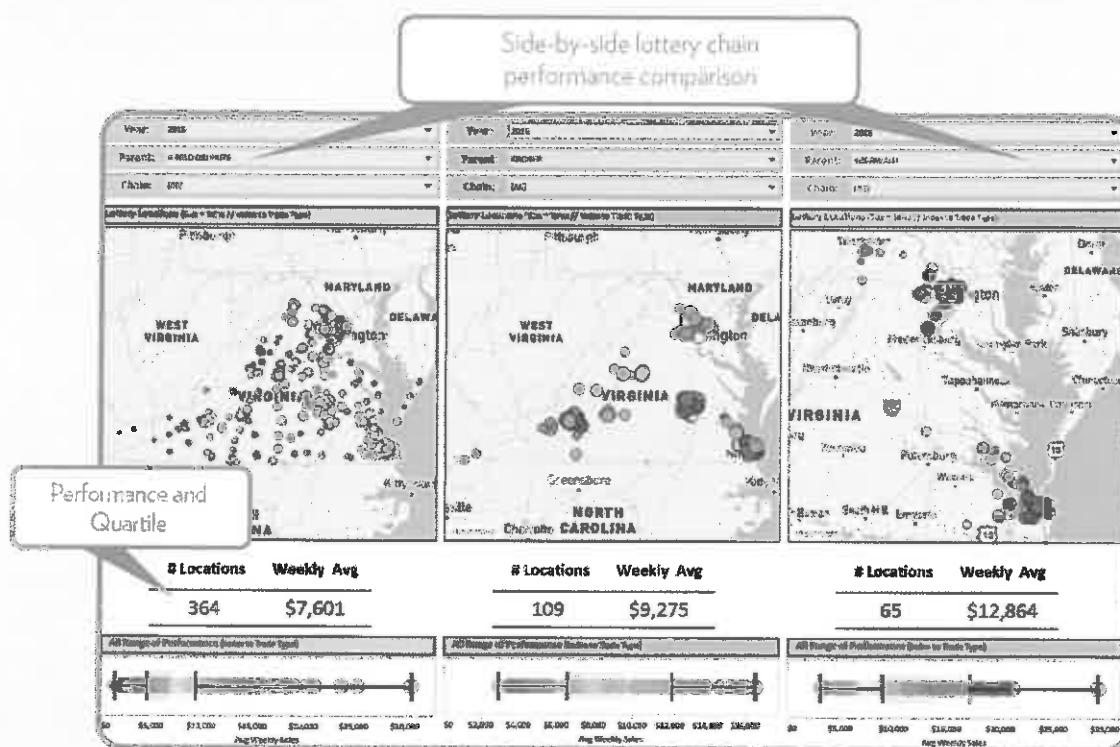


Figure 4.6.10 – 23:

West Virginia RMI Side-by-Side Chain Performance Comparison



We have many West Virginia-specific examples of data that RMI provides to further assist your teams in better understanding chain accounts and target those that are appropriate to your market.

** Additional information regarding this Section is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant financial harm to IGT and its shareholders.*

Exceptions to the Current Environment

As suggested previously in this section, our RMI tool can assist in identifying expansion opportunities. Retail expansion is one of the processes we recommend to customers as a way of increasing sales and revenue opportunities. In the case of West Virginia, we acknowledge facts that impact expansion. First, the State's economy depends on energy and other jobs in order to improve opportunities for its citizens. There is positive news in companies like Procter & Gamble establishing manufacturing facilities in the State, creating literally hundreds of jobs. Second, some retail segments in West Virginia approach saturation.



We, too, want to assist in creating opportunity for West Virginians. Along with you, we accomplish this by providing them the opportunity to take a chance to realize a dream and providing Lottery retailers additional opportunities to grow sales, and, in the process, increasing funds in support of education and other good causes. We look to retail expansion with a cautiously optimistic eye. If we are to recommend expansion, we will do so only for businesses that have the capability to achieve the Lottery's sales expectations.

We look forward to launching lottery sales at West Virginia Walmarts. As in other states, Walmart is at the top of every survey result when consumers are asked where they would like to be able to purchase lottery games. We have worked with the Lottery to bring this to fruition.

Increasing sales can also come from expanding games in existing retailers through creative advocacy in the area of additional vending and new games, such as Keno, should legislative changes allow. We will work with you to identify additional opportunities, based on our research, that make financial sense for the Lottery.

Expanding the Chain-Store Retail Network

Sales at Walmart Supercenters are on the horizon in West Virginia, and IGT is ready to collaborate with the Lottery to bring lottery sales to additional area chains, such as Dollar General, should that become a viable opportunity.

IGT will also continue to work with chain headquarters to assist the Lottery in approaching accounts for productive sales calls and technology demonstrations. Our company continues to lead the industry in gaining lottery sales in major national, regional, and local chains.

Currently, retail accounts for 99% of lottery business. For at least the next five years, it will continue to account for at least 95% of lottery sales. Even in states that allow Internet purchases, there is nothing more important than optimizing the network already in place and conscientiously expanding the footprint. That will be the foundation of our corporate retail account support to the Lottery, as we help you drive retailer expansion and same-store-sales growth, and work to build initiatives to attract new players, reach current players where they shop, and deliver the omnichannel experience shoppers have come to expect with other retail Consumer Product Goods (CPG) purchases.

Our dedicated Corporate Retail Solutions team will continue to examine your market, keep its "eyes and ears" on the retail industry, and share findings and explore opportunities with your team.

Experience and Knowledge of the U.S. Retail Sector and Creating Engaging Customer-Centric Retail Environments

For more than 15 years, IGT has invested in and developed the lottery industry's strongest corporate retail account team, a team that has the most expansive knowledge of the North American retail sector. The Lottery knows that our full-time Corporate Retail Solutions team is responsible for monitoring the retail trends, key account strategies, and shopper marketing insights that are driving growth at retail. IGT also invests a significant portion of its annual marketing budget in participating in retail industry associations, trade shows, educational conferences, and key retail database subscriptions.

Our key retail memberships and associations are listed in the following figure.

Figure 4.6.10 – 24:

IGT's Retail Memberships and Associations		
Association or Agency	Description	Primary Retail Trade Focus
NACS	National Association of Convenience Stores	Convenience
NRF	National Retail Federation	Big Box/Mass Merchant/Discount
FMI	Food Marketing Institute	Grocery/Supermarket
NGA	National Grocers Association	Independent Supermarket
NACDS	National Association of Chain Drug Stores	Drug
NARMS	National Association for Retail Merchandising Services	Provides third-party merchandising across all retail channels
Shopper Marketing Institute	Consumer Marketing Insights	Across all retail channels
POPAI	Point of Purchase Advertising International	Merchandising at retail
Kantar Retail	Retail and Shopper Consultants	Across all retail channels
Foresight Factory	Consumer Trend Consultants	Across all retail channels
Omnicom/Alcone	Consumer Activation Consultants	Across all retail channels
Gartner Consulting	IT Strategy for Retail	Across all retail channels
Nielson Claritas	Consumer and Shopper Demographics	Across all retail channels
Conexxus	C-Store Retail Standards Organization	Across all retail channels

IGT understands the imperative for growing your business, and is fully aware of the economic indicators that impact West Virginia at this time. Our dedicated team of experienced professionals, who solely focus on growing the lottery footprint of chain stores across the country, will work with the Lottery to manage this task within the context of the state's current environment.

Across the U.S., our initiatives have resulted in the expansion of lottery to more than 1,200 CVS and 500 Walmart small-format locations (Neighborhood Market stores, Fuel and Liquor Box formats). In December 2016, we received approval from Walmart's Board of Directors to move forward with expansion into their Supercenter format. We are currently supporting our Florida customer to deploy lottery in Supercenters beginning in January 2017, with plans to roll into other states as well this year. Additionally, pilots with Walgreens, Family Dollar, and Dollar General have been conducted in multiple states. These pilots have taught us valuable lessons about the solutions and business practices that will be necessary for lotteries to operate profitably in the drug and discount store trade styles and how to conform our business practices to their requirements.

IGT Retail Solutions Team

Susan Strouse, Vice President, Retail Strategy and Business Development



For 16 years, Sue Strouse has been the industry's leading advocate for influencing major national and regional chain stores' adoption of lottery sales. She designed, developed, and tested an industry-first route-service business model that was instrumental in chain pilot agreements with CVS, Walgreens, Dollar General, and Family Dollar. She acts as a key vendor-partner representative for strategic planning and expansion execution with Walmart. Sue is sponsor/host for the Retail Innovation Workgroup and co-designer of the

RMI program, which we described earlier in this section.

Bernadette Duponchel, Director, Retail Chain Development



Bernadette Duponchel, in support of Sue Strouse, is a driving force behind development of the RMI tool. Twenty-six lotteries are currently participating in IGT's RMI program. Prior to IGT investing in development of the RMI tool, the U.S. lottery industry had no mechanism to consolidate, harmonize, and integrate third-party data (i.e., Nielsen) across jurisdictions to create meaningful rankings, indexing of performance, and cross-state analytics.

Paul Fazzano, Retail Analyst



Paul is responsible for the capture, governance, and usage of all data entered in the RMI database. He also consolidates and analyzes industry trends to uncover opportunities for same-store sales growth and expansion of lottery sales for North American markets. Paul is responsible for IGT's relationship with and data coming from the Nielsen organization, keeping track of all mergers and acquisitions and analyzing retailers to help customers uncover new opportunities for same-store-sales growth and expansion. With quality data, he can provide useful and actionable analysis and insights.

The following figure illustrates not only the barriers to be addressed for each of the major retailers listed but the way forward for each as well.

Figure 4.6.10 – 25:

National Account Expansion Hurdles						
	Harmonized settlement option	Pay on Scan* accounting	Transaction date file automation (i.e. shift reports, activations, etc.)	Lower labor & cost solution	Other retailer priorities	Conflicting brand image concerns
Walmart	X	X	X			overcoming
CVS	X			X	X	CEO
Walgreens	X	X	X	X	X	COO
Target	X				X	TBD
Big Lots	X	X	X			none
Dollar Category (Dollar Tree & Dollar General)	X			X	X	none
Chain Restaurants						
Chilis	X			X		TBD
Applebees	X			X		TBD
Outback	X			X		TBD
Buffalo Wild Wings	X			X		

Approved/defined and underway in product
 In product roadmap
 Challenge not yet solved

* Pay on Scan is the ability to track all sales as they occur and the retailer pays the vendor based on sales out the door, not traditional lottery settlement terms.



Strategic Relationships

As a complement to general retail-sector tracking, IGT also has relationships with the lottery category managers at the top lottery retailers. These strategic relationships are critical to being on the front end of any strategies that will impact our business. Whether the goal is to optimize sales of existing retailers, recruit new retailers, or modernize the consumer experience, having a seat at the planning table enables us to pilot new concepts and be part of the strategic planning discussion.

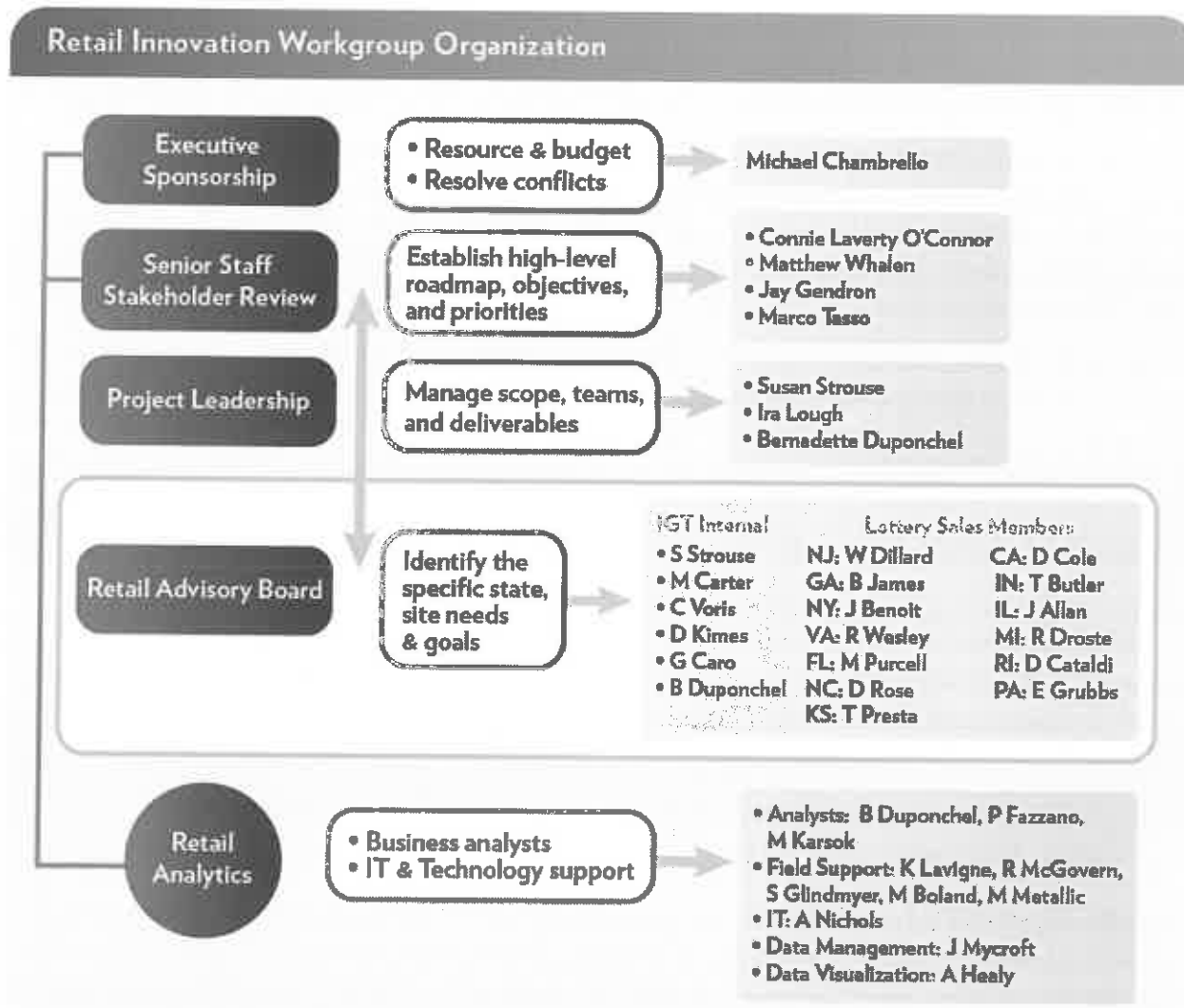
The Retail Innovation Workgroup

Rather than perform in a silo, IGT facilitates a Retail Innovation Workgroup that consists of IGT Retail and Marketing team members and the Sales Directors of 10 North American lotteries. The mission of this team is to better understand retailers' needs (existing and new) and to work together on solutions to simplify lottery management and enhance the player experience. In addition to the Workgroup members just mentioned, we also have a group of top Retail Council participants (leading lottery retailers) who provide requirements, guidance, and feedback to the Workgroup on a regular basis to ensure we are developing solutions that will enhance the value of lottery to their business.

Commitment to Thought Leadership in Corporate Chain Optimization and Expansion

As part of our Retail Business Development Expansion Plan for 2014/2015, we expanded our Retail Development group to include multi-disciplined resources who would work with the Parthenon Group to come up with innovative new ways to solve current retail challenges in the national big-box environments. From this endeavor, our Retail Innovation Workgroup was launched, with the help of key customers, including interested major-chain retailers, and the result has been a nationwide test bed for retail innovation and pilot programs.

Figure 4.6.10 – 26:



The challenge of the Workgroup is to focus on areas of improvement that will have the most impact across the largest number of retailers. Among the initiatives the Workgroup has begun to tackle is electronic delivery of invoices (to save time and the potential for human error for the retailer), harmonized settlement-term options, retailer data access via portals and mobile devices, and debit and credit challenges at retail, to name just a few. The full retailer innovation team meets bi-monthly.

With the goal to recruit and collaborate with state lotteries/NASPL to license targeted national chains beyond traditional channels and fit with lottery image/responsible gaming, we agreed, as a group, to establish new operating models for targeted national chains, addressing their needs for unified, simplified, omnichannel and customer-centric programs. The result of these efforts is the harmonized settlement option.



Harmonized settlement offers a 21-day flat settlement option, in addition to the existing settlement terms chains have available to them. This is a bridge solution for those national chains that have slowed or capped lottery expansion. It will allow continued expansion until such time as a U.S.-wide “pay on scan” solution is available from lotteries.

We are proud to say that this group successfully crafted the white paper presented to the NASPL Retail Relations Committee and, working alongside committee chair Terry Presta, led the U.S. Lottery Directors to the unanimous approval of adding 21-day flat settlement terms in all U.S. lotteries in 2015. This was an unprecedented collaboration to make doing business with the lottery industry simpler and easier for multi-jurisdictional retailers.

We are thinking differently about the present and future of retail, and look forward to working with you and the industry to find new ways to solve old problems. We need modern strategies for educating sales associates and retailers. We need to enhance the play experience for retail customers, and start by listening to retailers to better understand their needs.

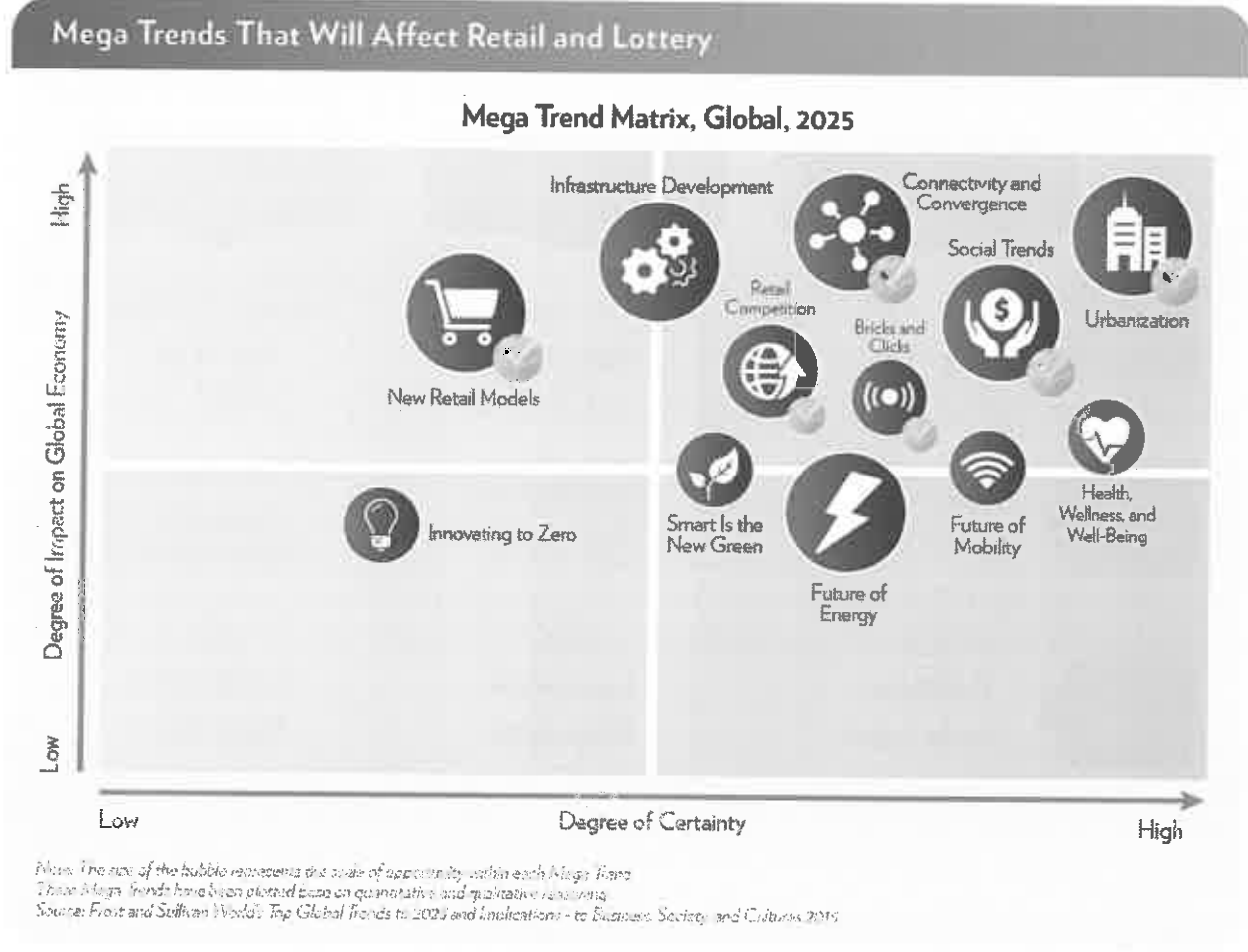
A Formalized Methodology to Analyze and Assess Retail Best Practices & Trends

The IGT retail team tracks and monitors retail best practices and trends that may have an impact on the player experience and retailer requirements. In this section, we describe the methodology we use to analyze and assess those best practices, as well as shifts in consumerism, demographic implications, and future consumer trends in retail sectors. To start the process, we narrow our focus to two primary areas:

- Top retailers currently selling lottery.
- Top retailers who don’t sell lottery today but are good candidates and have major market share, annual sales, and foot traffic – all factors that are key drivers for successful lottery sales.

If this filtering process did not occur, we could be chasing after small opportunities that do not have enough volume to support a profitable business case. Additionally, the team uses a wide variety of sources to monitor mega-trends and review each to determine the potential impact on lottery players and retailers. The following figure depicts a set of Mega Trends that Garner is monitoring globally. Not all of these trends will impact lottery, so the next step in the process is to filter for those most likely to influence shopper and retailer behavior in the lottery space.

Figure 4.6.10 – 27:



The next figure depicts economic, demographic, and technology trends that are impacting retailers. And the figure after that depicts the same for lotteries.

Figure 4.6.10 – 28:

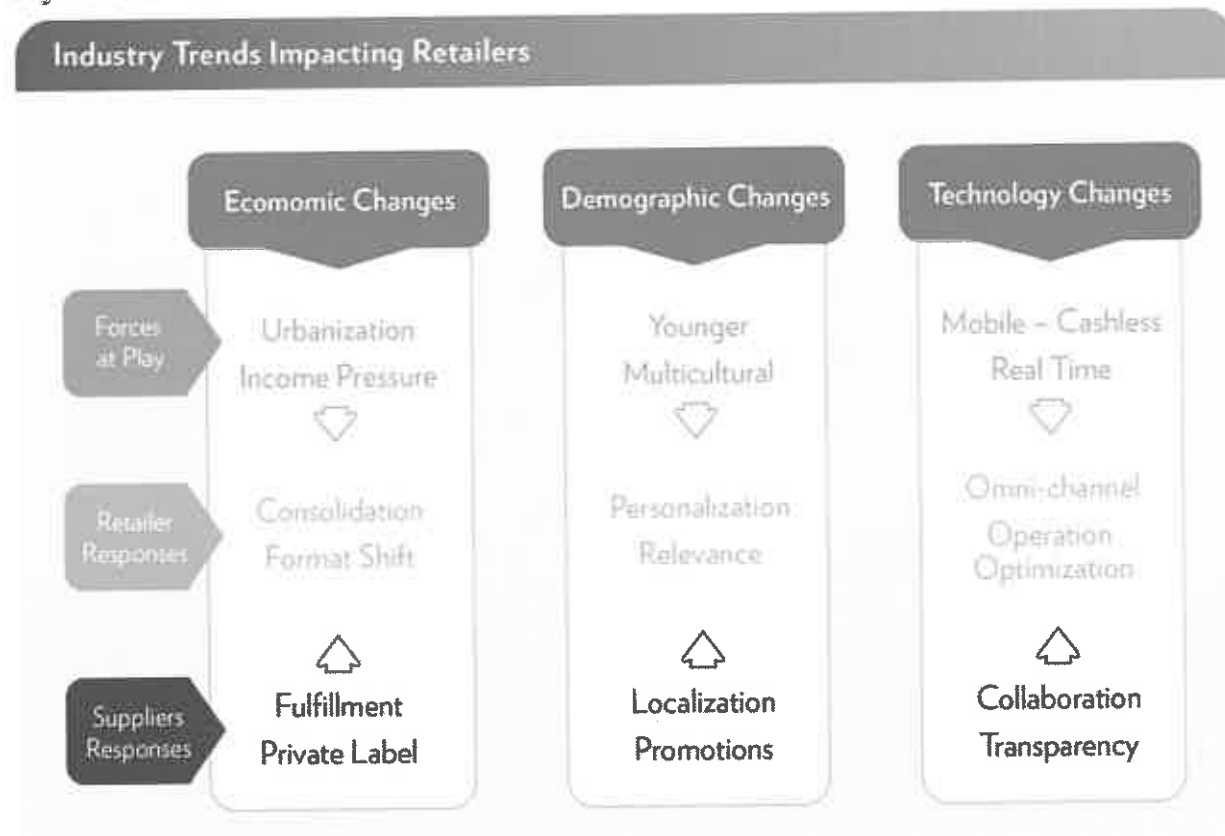
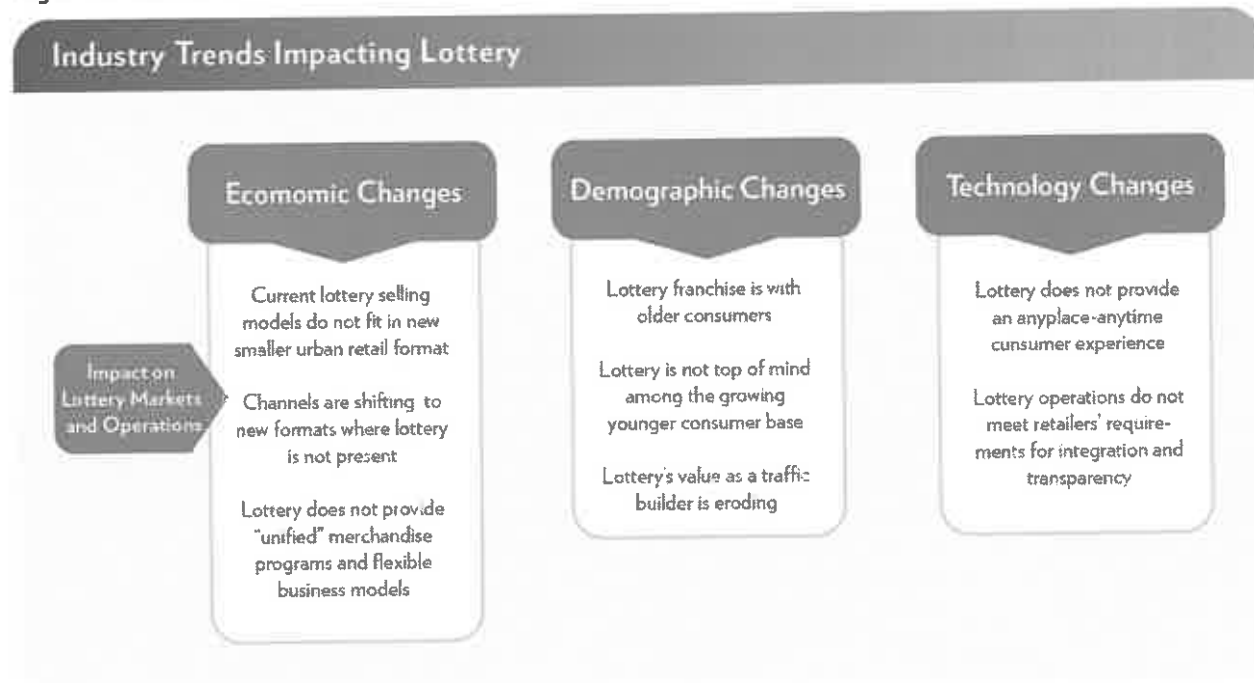


Figure 4.6.10 – 29:

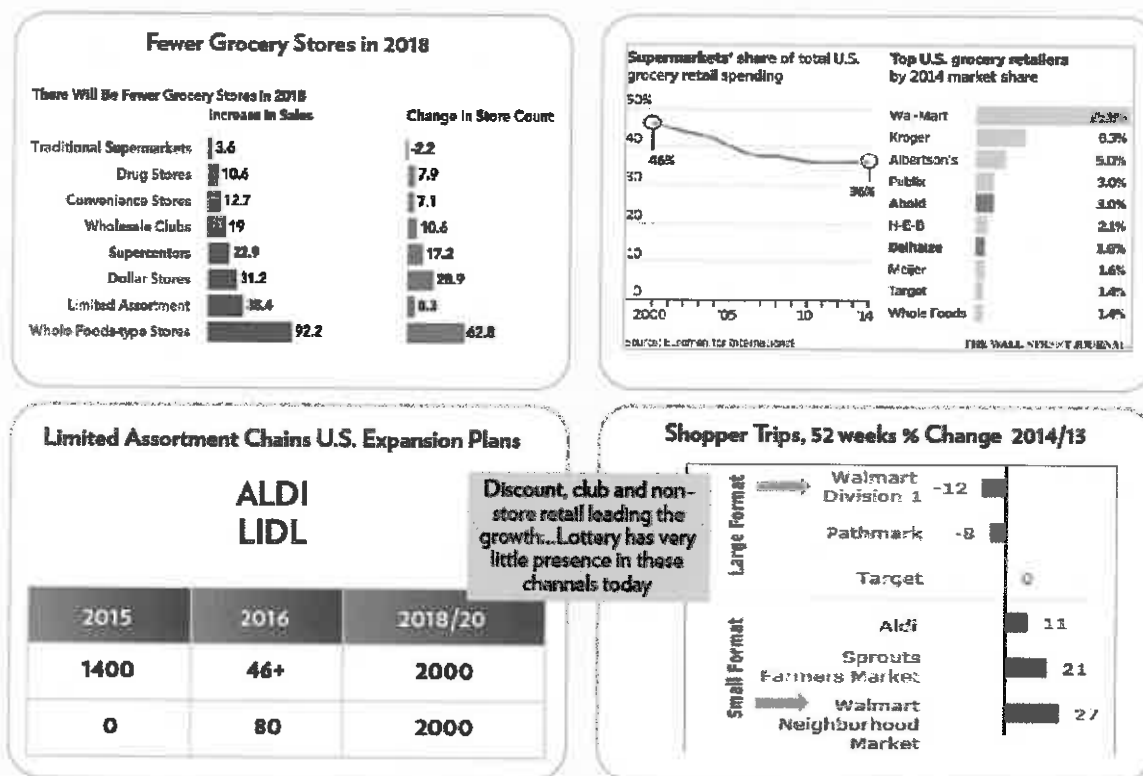


The next figure includes charts showing how the retail landscape is shifting.

Figure 4.6.10 – 3C:

Retail Market-Share Shifts Toward Alternative, Discount, and Smaller Food Retailers

Income disparity and convenience are fueling sales growth “from chains” with little lottery presence today



You can see from the figure above that some smaller chain retailers like Aldi and Lidl will continue to eat into traditional grocery business market share. The business model for these retailers is different, and we must be prepared to offer selling flexibility that appeals to their unique store operations – i.e., route service models similar to that being used with CVS in California, Illinois, and Indiana.

Retailer are also moving aggressively into the eCommerce space, and lotteries need omnichannel solutions that will enable these shoppers access to lottery products in every retail channel served.

Consumer Trends Drive Key Retail Trends

We are also monitoring consumer trends that will have an impact on retail and consumer expectations of service delivery at retail.

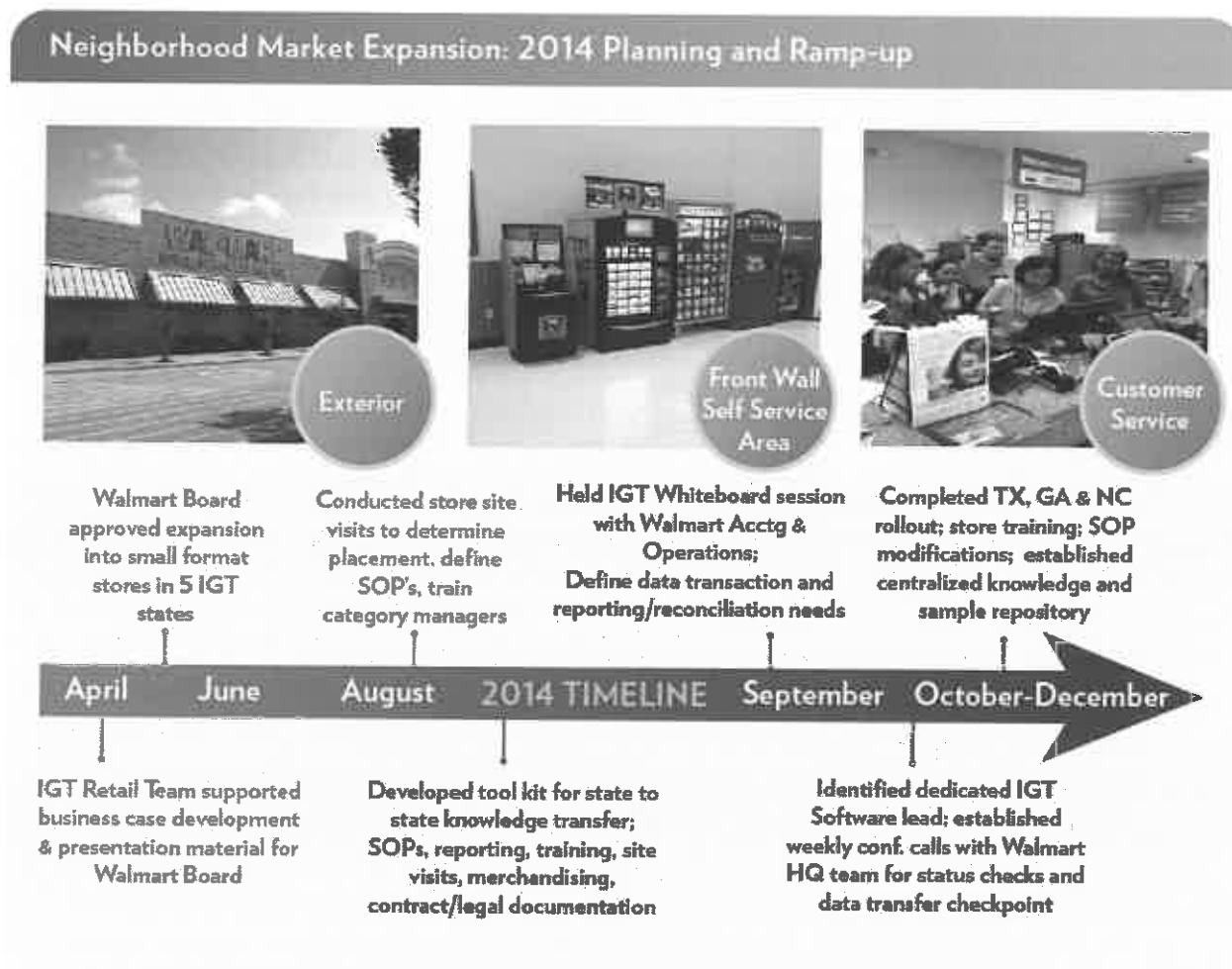
** Additional information regarding this Section is trade secret and/or highly proprietary and confidential commercial information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize IGT's competitive position in the marketplace and cause significant financial harm to IGT and its shareholders.*

The RMI tool enables retailer performance indexing against the country for each trade style to identify both outstanding performance for benchmarking and retailers with same-store sales growth opportunities. The RMI database includes retailers who are not selling lottery today in the most desired channels of trade for lottery expansion.

Delivering Retailer Requirements: Walmart Case Study

In April 2014, IGT's retail team began collaborating with Walmart with the goal of building an expansion template that would be tested in Texas. Walmart had launched the pilot test in Florida without a national view and, once expansion beyond Florida was approved, they needed to put procedures and processes in place that would enable consistency across the Walmart footprint. With the Texas rollout's success, the template became the model for expansion across the entire country. Currently, there are 14 IGT jurisdictions that have deployed lottery in Walmart stores: Florida, Texas, North Carolina, Georgia, Arizona, Virginia, Missouri, California, Colorado, Kentucky, Tennessee, New York, Washington State, and Indiana. The following figure shows how we rolled out lottery sales in Walmart Neighborhood stores, and how that led to rollouts in other states.

Figure 4.6.10 – 31:



To enable easy transfer of best practices, we created an implementation toolkit comprising three components being shared with each state at the time Walmart begins lottery operations in that jurisdiction:

- Template of Walmart and lottery Store Operating Procedures (SOPs) that has been approved by Walmart and only needs state-specific modification.
- The Smartsheet solution that enables each site to effectively track each store's implementation requirements for each location, including required photos for equipment placement and electrical needs, training, etc.
- A baseline of marketing, POS, and store operating-procedure templates that have been approved by the retailer and need only slight modification for each state logo, game mix, etc.

Using Walmart as the benchmark, IGT has now developed a cross-jurisdictional toolkit for launching regional or national chains that require business models that complement their existing systems and infrastructure. Additionally, the IGT team participates in weekly calls with the Walmart team to define, test, and automate back-end reporting and transactional file data transfers that are required for national lottery expansion to continue.



As Walmart moves toward further expansion into the lottery category, IGT will be ready to support the West Virginia Lottery with a solution set already tested, deployed, and Walmart-approved in other IGT jurisdictions, ensuring a smooth and speedy onboarding of this important expansion retailer.

This peek into the methodology and research being done on an ongoing basis ensures IGT products and solutions stay aligned with and relevant to both lottery players and retailers. It is imperative that this monitoring be done on an ongoing basis and not as a one-time effort. The speed at which technology is influencing consumer behavior is remarkable, and we are committed to constantly updating and refreshing our database of information. As an IGT partner, the Lottery will continue to be privy to these insights and updates on an ongoing basis. We will refresh as new data becomes available throughout the year for your strategic planning purposes.

Staffing Plan

As described earlier in Section 4.6, IGT will welcome the Lottery's participation in hiring a new Marketing Content Manager for our West Virginia site. To demonstrate the importance we place on this role, we have developed and supplied a detailed job description for your review. Please note that the job description expands upon your recommended requirements. This role will add a dynamic component to our experienced on-site customer-facing leadership team. General Manager Nikki Orcutt and Field Marketing and Sales Manager Joe Payne, for example, will work side-by-side with this experienced, multi-faceted professional (while having greater flexibility to focus more closely on their core responsibilities).

IGT new, expanded Marketing organization will support your goals and the dedicated team that serves you every day. Our company's acquisition of IGT in 2015 gave us the opportunity to review our service to customers. That review led us invest significantly in product and service innovation and to bolster our leadership and professional teams to better support the needs of our customers and other modern-day lotteries. These changes are deliberate in their creation and implementation, and are based on many factors, primary among them are our customer relationships and the ongoing feedback they generate.

2016 Customer Satisfaction Survey

The results of our 2016 Customer Satisfaction Survey, which included 33 U.S., 11 Latin American, and 19 international jurisdictions, indicated, in part:

- **Record-setting customer satisfaction levels:** Indicators such as "worth what we paid," "would select again," and "likely to recommend" reached the highest level since the study's inception with the IGT Loyalty Index attaining a 4.2 on a 5-point scale.
- **Our people make the difference:** The key contributors to these record-setting indicators are the breadth and quality of IGT personnel and their commitment to customer excellence. Quotes such as "they never let us down," "willingness to work with the customer," and "the local staff is very engaged" show that our *Customer First* philosophy has permeated the organization at every level, helping turn our customers into loyal fans.

Our customers trust us to assist them in prioritizing new channels, expanding their retailer bases, attracting new players, and developing new games to grow their businesses.

Investments in Enhanced Levels of Corporate Support

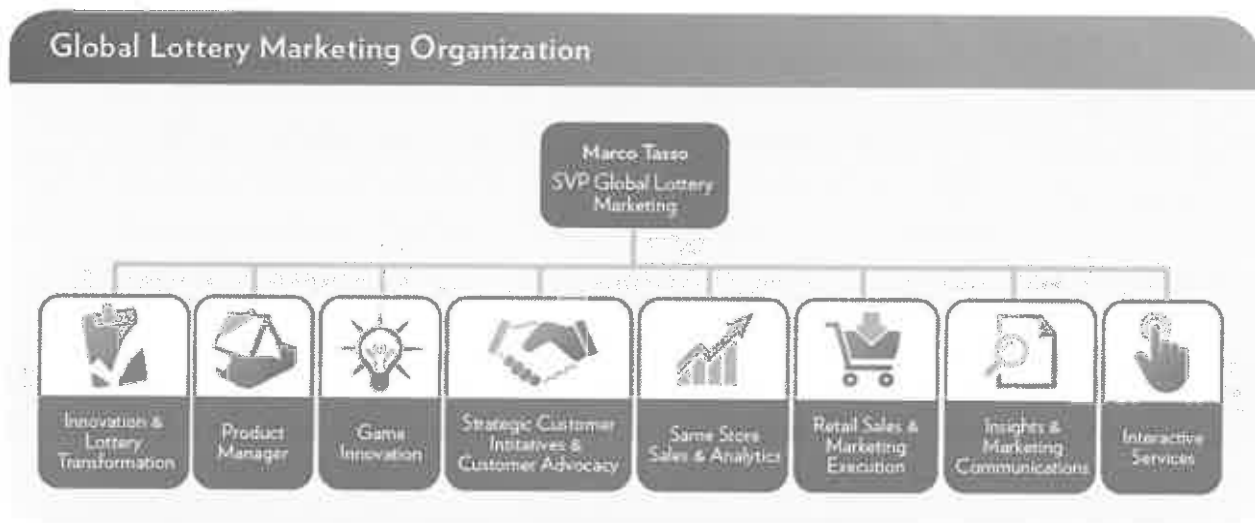
Among the changes just announced in January 2017, is a streamlined yet expanded Global Lottery Marketing organization restructured to provide customized attention and support across the marketing value chain. This new organization enhances our capabilities, in that the ongoing collaboration among our Corporate product, service, analytics, and marketing professionals and our West Virginia site team will focus on analyzing your market, identifying opportunities, and developing and implementing meaningful solutions that will enable you to reach your sales and profit goals.

Specifically, Global Lottery Marketing is now structured to further ignite collaboration within the organization and inspire a new level of execution among IGT customers worldwide. The new structure enables IGT to collectively do more to drive growth and innovation with business partners and customers. The team has been restructured to support three critical paradigm-shifting pillars: Product Evolution, Customer Support, and Global Relevancy.

Global Lottery Marketing Organization

The following figure depicts the expanded organization and the specialized services it will offer to the Lottery.

Figure 4.6.10 – 32:



The mission of the new organization, which is led by Senior Vice President Marco Tasso, is to create the most engaging products and provide more actionable insights, analysis, and tools to IGT's lottery customers to deliver maximum levels of revenue to good causes.

Marco oversees the marketing organization's focus on data analytics that drive higher same-store sales and innovation for IGT customers. In this role, he will guide the Marketing Analytics and Same Store Sales groups to glean insights that will translate into valuable recommendations for the West Virginia Lottery's business.

Marco came to IGT from Northstar Lottery Group in Illinois, where he served as CEO. Prior to joining Northstar, he was Vice President of Lottery and Services for Lottomatica, the lottery manager in Italy. In that capacity, he was responsible for the Scratch and Win brand, the fastest-growing segment in the Italian gaming market. Marco was instrumental in transforming the brand and for its significant revenue growth, from €200 Million up to €10 Billion, the single largest instant ticket scratch-off game business globally. During this period, he also led the brand transformation of the 500-year-old Lotto product by introducing the 10ELotto, an innovation that resulted in 40% growth in draw-based game sales. Marco, who holds a doctoral degree in mathematics, also previously worked for Bain and Co. in Italy, consulting with various clients ranging from Fiat to Telecom Italia.

In addition to the leaders identified previously in this section and the ongoing organization described in Section 4.5, Vendor Administration, the following individuals are key to the success of their respective areas of responsibility and, ultimately, the new Global Lottery Marketing organization.

Innovation and Lottery Transformation, led by Paul Riley, looks inside and outside the industry for innovative solutions that can enhance the player and IGT customer experience. Paul has been with IGT for more than 21 years in a variety of product development and product marketing roles. He led the team that developed our ISYS terminal and the first version of the Altura family of terminals. Paul also led the development team for the IGT ProSys V8 lottery gaming system, which formed the nucleus of today's market-leading Enterprise Series and Aurora lottery central and back-office systems. For three years, Paul worked in our Commercial Services division, expanding our offerings in Latin America and Europe.



Product Management, led by Paul Kallis, provides the strategic vision and complete life cycle for global lottery products and solutions, and works with Sales, Business Development, Engineering, and Account Management teams to develop go-to-market strategies and define pricing and competitive positioning. Since joining IGT in 2013, Paul has been the Senior Director of iLottery Management, overseeing the iLottery Marketing Services team that is working with the Illinois and Georgia lotteries to help manage their iLottery business. Before joining IGT, Paul was the Director of eCommerce Product Management at Sears Holding Corporation, where he lead the product management team responsible for the search-and-browse customer shopping experience, developed product strategies and roadmaps, and managed cross-functional teams focused on driving conversion, AOV, increased traffic, and customer satisfaction.

Game Innovation, led by Francesco Parola, will work in accordance with the overall Lottery strategic plan. The Game Innovation group delivers IGT proprietary FutureGame solutions to our customers worldwide, identifying current portfolio solutions and designing new games. Please refer to the subsection entitled "Game Development, New Game Concepts, Content Development" earlier in this section, for a complete description of FutureGame and the Game Innovation team's experience with it.



Strategic Customer Initiatives & Customer Advocacy, led by Michelle Carney, assuming primary responsibility from Connie Lavery O'Connor, leads efforts to advance industry relationships, improve competitive positioning, and provide strategic input and feedback into product development efforts. The group is also responsible for benchmarks and tradeshows.



Same Store Sales & Analytics, led by Enzo Arena, focuses on existing customer partnerships by identifying sales/profit opportunities across the entire lottery value chain to increase global same-store sales revenues. The group identifies and customizes instant ticket scratch-off game product recommendations in support of IGT Printing sales.



Enzo has restructured and leads the expanded analytics group at IGT, now called Global Same Store Sales. He is responsible for research and deep fundamental analyses across the entire lottery value chain. Enzo develops operational metric dashboards to track customer performance and opportunities. His teams perform detailed diagnostics to identify opportunities for revenue and profit growth, operational improvements, and cost savings.

Retail Sales & Marketing Execution, led by Nat Worley and Tom Stanek, works with IGT lottery customers to identify, develop, execute, and measure marketing, merchandising, and retail execution programs that increase lottery revenue, enhance their brand, and increase consumer engagement. Nat and Tom work closely with IGT sales and marketing execution staff members from IGT customer sites to execute coordinated growth initiatives.



Since joining IGT in 1997, Nat has held several positions in our Corporate Marketing Group, including in the areas of field marketing, retail and strategic marketing, and business communications. As Vice President of North America Marketing, he has strategically grown the team of regional marketing managers, marketing analysts, and retail data specialists who provide marketing support to our U.S. customers. His leadership will assure the Lottery of targeted and customized support services, including game and portfolio management, retailer selection and optimization, market research, player and retailer analysis, and any other service that can help you expand your player base and diversify your product offering.



Tom returns to IGT Global Marketing after a highly successful 14 years as Senior Director of Sales and Marketing for IGT's Texas site. There, he was responsible for multiple operations during the conversion, ensuring that daily operations performed without interruption, and played a key role in the overall strategy of the project delivery. With direct responsibility for IGT's sales, marketing, and business development groups in Texas, he managed the industry's most successful lottery salesforce. Based on his Texas and prior IGT corporate marketing

experience, Tom will support the Lottery in optimizing the retail environment and executing the right products, programs, and promotions at retail.

Insights & Marketing Communication, led by Jessica Powell, is an internal, full-service marketing-communications agency. The group ensures that insights garnered through market research are actionable for our customers, used across the organization, and showcased in a way that reinforces IGT's leadership within the industry worldwide.



Since joining IGT in 2011, Jessica has directed the teams that work with the Hoosier and Illinois lotteries and are responsible for product development, research, advertising, promotions, and public relations for those lotteries. Prior

to her employment with Northstar, Jessica managed the gaming and tourism group at David & Goliath, a Los Angeles advertising agency, and served as Vice President at Energy BBDO in Chicago, where she was responsible for prospecting and acquiring new business for BBDO.

Interactive Services, led by Andrew Karonis, is responsible for managing IGT's North American Interactive services for iLottery and iGaming. The group's services include player marketing, game marketing and selection, and network management.

The Global Lottery Marketing team works in collaboration with **Matt Whalen, Chief Technology Officer**, for the execution of the product offering. The team continues to work with **Connie Lavery O'Connor** and **Don Stanford** in their *Customer First* and technology advisory roles.

4.7

Retailer and Player Services

Retailer and Player Services should provide services to support sales by retailers including websites, ordering, tracking, rewards, and player services. Please describe your plans to achieve the goals related to retailer and player services.

IGT will continue to provide services to support retailers and players and expand those services under the new Contract, according to the West Virginia Lottery's specifications. In the areas of retailer and player services, IGT recognizes the need to provide enhanced solutions to improve retailer and player satisfaction. We have listened to your concerns – and those of our other lottery customers – and our offer proposes vastly improved processes, programs, and tools aimed at responding directly to your needs.

Our solution-development approach is based on our analysis of consumer, technology, and lottery-industry trends, which has yielded key insights into the needs of retailers and players.

Figure 4.7 – 1:

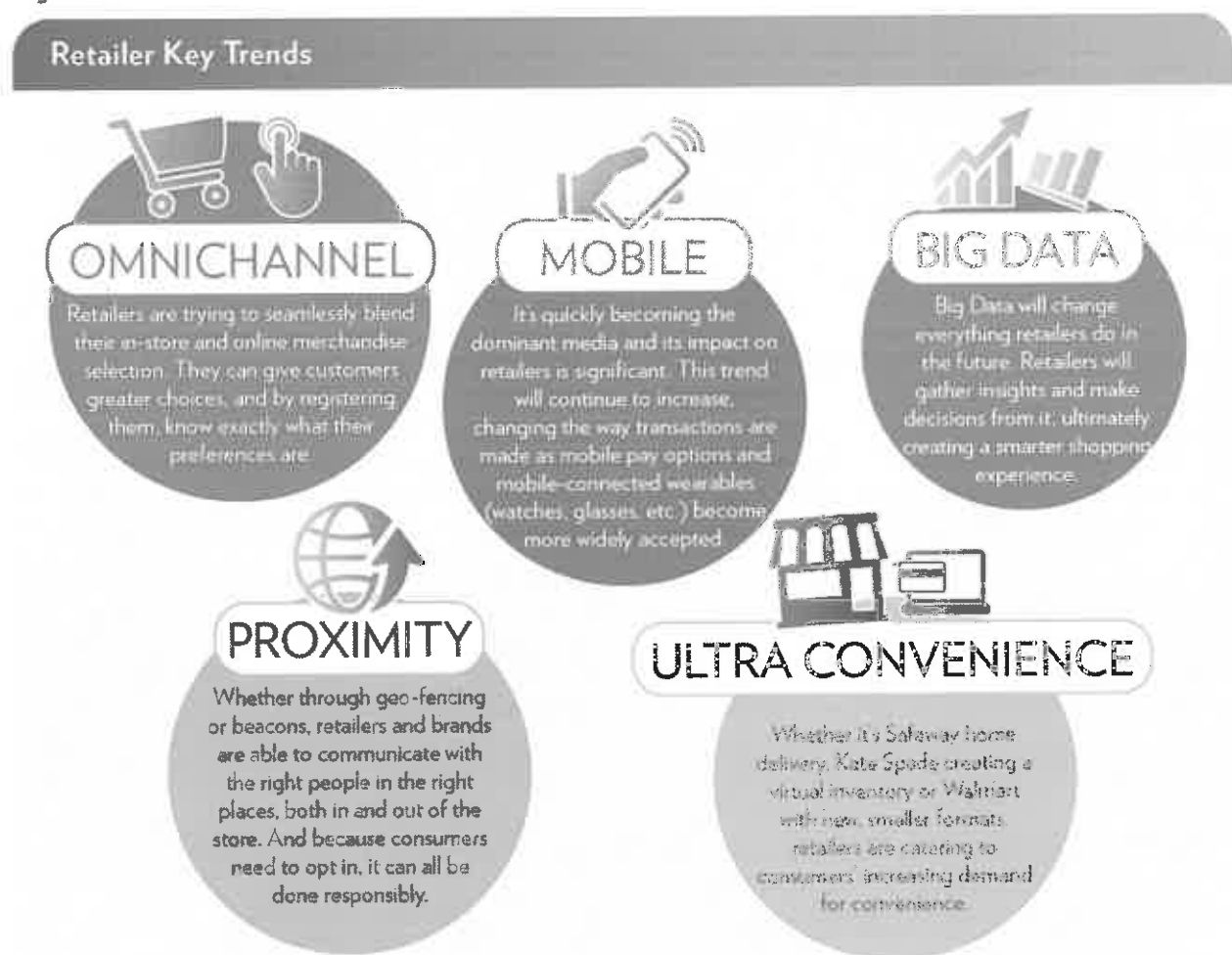
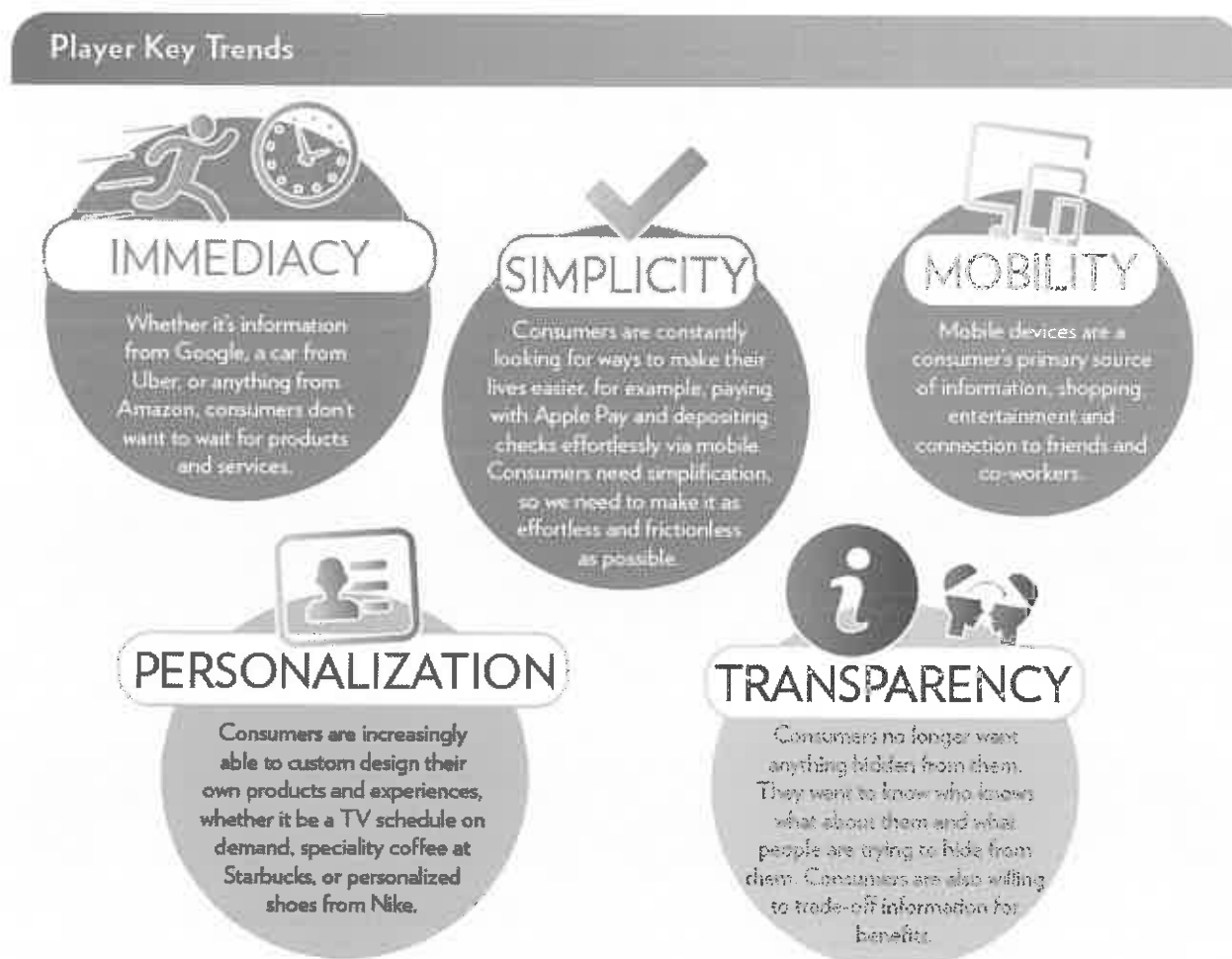


Figure 4.7 – 2:

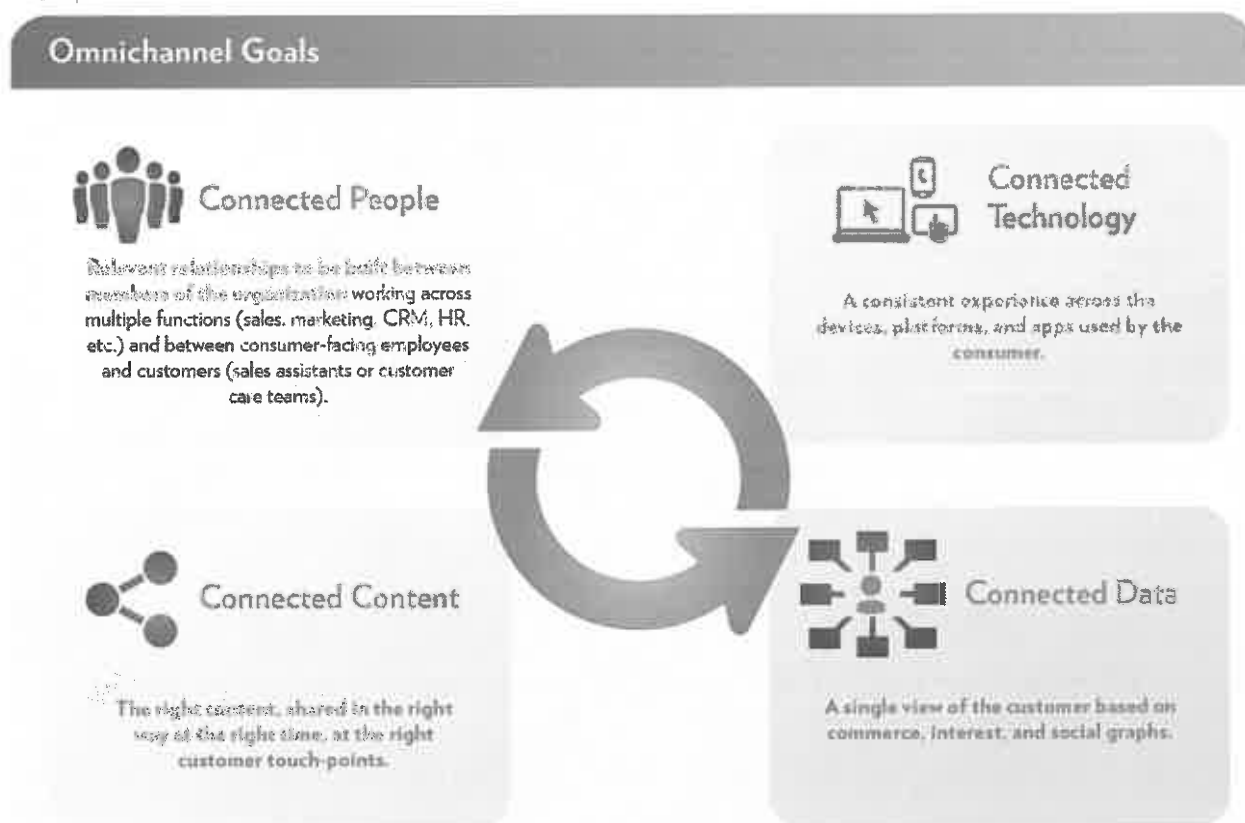


Our advanced retailer and player services solutions build upon these insights to benefit:

- Retailers:** The Aurora™ modules detailed in this section will enhance your retailers' engagement with the Lottery with robust promotions and retailer-rewards functionality.
- Players:** The IGT iLottery solution will enable the omnichannel experience characterized by convenience and personalization.
- The Lottery:** Together, these solutions leverage our Player Account Management (PAM) and Business Intelligence (BI) tools, using data to enhance player convenience, personalize lottery engagement, maximize the retail experience, and provide the Lottery with unparalleled insight into its business.

IGT designed its iLottery and Aurora solutions to work in concert, representing a true omnichannel ecosystem that facilitates the give and take of communication and engagement among the Lottery, its players, and its retailers. While encouraging players to engage with the Lottery wherever and whenever they choose, this ecosystem harnesses the power of the Lottery's data so the Lottery can generate the most value from each player engagement.

Figure 4.7 – 3:



Highlights of IGT's expanded services and functionality, detailed throughout this section, include:

- Retailer Services:**
 - Retailer Wizard:** IGT's latest retailer website, Retailer Wizard, will vastly improve the Lottery's current solution with enhanced user administration functionality, a streamlined retailer licensing and renewal feature, and at-a-glance dashboards that will give retailers a comprehensive view of their lottery business.
 - Enhanced Supply Tracking and Ordering:** Our improved tracking system will ensure that the Lottery and IGT have a real-time view of all Lottery assets, including equipment, consumables, and POS inventory, at all times. Retailers will receive enhanced ordering capabilities and place orders from their terminal through Field Service and Marketing Representatives and through the predictive ordering feature of IGT's Consumables Management System (CMS).
 - Retailer Rewards:** Our solution for working with the Lottery to build a robust retailer rewards program will offer retailers exciting, non-cash incentives through promotions and contests, all aimed at driving the Lottery's bottom line and creating excitement about Lottery products.

- **Player Services:**
 - **Player Rewards:** IGT's offering includes significant Player Rewards program enhancements with a focus on increased player engagement and leveraging the interactive channel to enhance the retail experience.
 - **Mobile Convenience App:** To realize the omnichannel approach for Player Rewards, the IGT Mobile Convenience App includes a Virtual Player Card for simple onboarding of players into the rewards program, as well as our PlaySpot solution, both of which vastly enhance the player experience at retail and bridge the digital and brick-and-mortar channels. It also includes a wealth of convenience features and comes ready with wagering capabilities whenever the Lottery chooses to implement such services.
 - **Player Account Management:** Our PAM solution will work in harmony with our Aurora solutions to enable you to track all player activity with a single player view across all channels.
 - **Enhanced iLottery Solutions:** In addition, we discuss a wealth of features and functionalities of IGT's full iLottery solution – including second chance promotions, subscriptions, iLottery wagering, group play, and instant win games – for the Lottery's future consideration.

4.7.1

Retailer Website

The Vendor currently provides a website where the retailer has access to certain reports. This application meets NASPL certification standards and serves as the basis of NSI XML accounting information reports.

IGT will continue to provide the Lottery a retailer website – with significant enhancements – giving retailers access to all necessary reports. IGT's latest retailer website, Retailer Wizard, meets NASPL certification standards and will continue to serve as the basis of NSI XML accounting information reports. Full details of our offering are described throughout this section. Additional information on Retailer Wizard's reporting functionality can be found in Attachment A, Section 4.3.8, Retailer Website Reports.

Highlights of our Aurora Retailer Wizard (described fully in Section 4.7.4, Retailer Website Enhancements) include:

- An intuitive, easy-to-navigate User Interface (UI) with customizable dashboards, providing retailers an at-a-glance view regarding all aspects of their lottery business.
- Enhanced user administration functionality, such as role-based permissions and password resets.
- A device-agnostic website, Retailer Wizard, that is compatible with Internet Explorer, Google Chrome, Safari, and Firefox.
- Robust reporting functionality with the ability to automate report generation through Retailer Wizard's subscription feature. Reports can be exported in multiple file formats, including XML, Excel, PDF, and CSV.
- A streamlined licensing application process. Prospective retailers will no longer need to fill out physical applications to obtain a Lottery license, providing both cost and time savings for the Lottery. In addition, Retailer Wizard contains a widget that appears automatically on the Retailer Wizard dashboard that reminds retailers when their licenses are about to expire.



In addition, Aurora is built on a Service Oriented Architecture (SOA), meaning, in part, that data and services can be shared across the system easily. As such, these shared services common to Aurora Navigator Back-Office (containing the Aurora Retailer Management application) and Retailer Wizard, will be used by both systems. Due to the SOA, access to retailer data by Retailer Wizard will be via the same repository that is used by Navigator Back-Office's applications. As a result, back-office changes in this data will be reflected immediately in the retailer's profile in the Retailer Wizard system.

Aurora Retailer Manager will allow the Lottery to manage all aspects of its retailers' businesses. The solution provides automated management of the complete life cycle of retail locations, retail owners, clerks, and terminals. Retailer information is logged automatically and visible for authorized front- and back-office users

The Retailer Licensing process is tailored to the Lottery. New functionality is applied to systematically move the user through the application and licensing process, allowing the Lottery to bring retailers online faster.

Claims and Payments

Finally, to further enhance all retailer services, we will implement Aurora Claims and Payments, an integrated solution that will allow the Lottery to validate claims, generate payments, write checks, and report payment information for draw games and instant ticket scratch-off games. This component will present the Lottery with a single view of its players' claims and payment history, including their associated claims, payments, and annuities.

The application is customized to Lottery business rules, providing the efficient processing of multiple claims and outstanding checks and balances to ensure the integrity and auditability of the claim and payment process.

For full details on Aurora Retailer Manager and Claims and Payments, please refer to Sections 4.2, System, and 4.2.26, Privileged Validation Hardware and Software, respectively.

4.7.2

Retailer Supply Tracking

Tracking of retailer supplies through the System is currently not available, and requires Field Marketing and Sales Representatives to record inventory and POS/consumable needs during on-site visits or as reported and requested by a retailer. System tracking and analysis will be part of this Contract and specifications for new functionality are detailed below.

IGT will provide tracking and analysis of retailer supplies through our Aurora system with significant enhancements. This will be accomplished via the following solutions:

- **Cadence:** Cadence's new Inventory Management Tracking (IMT) tool monitors all major components installed, from terminals to all peripherals (i.e., jackpot signs, Aurora MultiMedia, etc.). All of the inventory is itemized by serial number and entered by the Help Desk Associate or Field Service Technician (FST) upon adding the specific inventory piece into Cadence. The entire life of the equipment is maintained and can be tracked via Cadence by inventory number. IGT will give the Lottery access to the tool via a read-only portal. This is a significant enhancement from the Lottery's current system, as IMT will track and monitor – in real-time – all items' movements, at all levels, from depots and vehicles to agents.
- **Consumable Management System (CMS):** IGT's CMS combines high-tech predictive ordering for consumables, such as ticket stock and play slips, with hand deliveries by FSTs.
- **Aurora OnePlace:** All POS inventory will be tracked via Aurora OnePlace, a field-proven Sales Force Automation (SFA) tool that will be fully integrated with Aurora and its related applications. With OnePlace, Field Marketing and Sales Representatives (FMSRs) will be able to track retailer POS inventory easily and can place orders during site visits using the OnePlace app on their IGT-supplied tablets.

These tracking methods are described in detail, below, in Section 4.7.6, Retailer Supply Tracking Enhancements.

4.7.3

Retailer Rewards Program

The Lottery incentivizes retailers who sell winning jackpot driven draw game tickets and other high level prize winning tickets with a Bonus Incentive Plan that provides a bonus of 1% of the prize value capped at \$100,000. This practice will complement any new Retailer Rewards Program incorporated into the Vendor solution, and the System should be designed with appropriate functionality to identify retailers entitled to cashing bonuses, log the transactions, and provide appropriate payment with the flexibility to accommodate any policy changes throughout the duration of the Contract. Any new incentives shall complement this required practice and comply with applicable State regulations.

In addition to the Lottery's Bonus Incentive Plan, IGT proposes a Retailer Rewards Program that provides non-cash incentives for selling and cashing draw-based games, ordering instant ticket scratch-off games, and other activities in varying combinations. We will design this program with appropriate functionality to identify retailers entitled to cashing bonuses, log the transactions, and provide appropriate payment with the flexibility to accommodate any policy changes throughout the duration of the Contract. New incentives will complement this practice and comply with applicable State regulations. Further details on our proposed program can be found in Section 4.7.7, Retailer Rewards Program Enhancements.

4.7.4

Retailer Website Enhancements

The Vendor should describe the design, hosting, and maintenance of a flexible retailer website to provide retailers with information, reports, applications, planograms, messaging, and XML accounting reports.

Vendor should provide a secure, core web-based application for retailer licensing and accounting functions, in addition to POS and consumable inventory tracking and reporting. The Vendor should work with the Lottery to design, develop, launch, maintain, and improve the retailer website. The website should be targeted to both current and prospective retailers. The retailer website reports are to be exportable as well as have an automated email function for the retailers.

Reoccurring, frequent updates to the website are to be automated with little to no manual intervention. The Vendor hosts the retailer website as well as provide support, including end-user support.

The Vendor should provide support and assist retailers in the use, log-on, and trouble-shooting of the website, including automated emails, providing assistance to retailers Monday through Friday 8:00 am through 5:00 pm. The application must meet NASPL certification standards and serve as the basis of NSI XML accounting information reports.

Introducing Retailer Wizard

Unique in the industry, Aurora Retailer Wizard is a robust, innovative, and interactive lottery retailer website that provides all of the tools and location-specific data for chain and independent retailers – including those who own multiple stores – that need to successfully start, manage, and grow their lottery business. Retailer Wizard will not only meet all of your RFP requirements, but also exceed them significantly in many areas and provide effective, user-friendly solutions to current pain points, such as retailer licensing, inventory management, communication, and reporting.

This powerful tool combines all that IGT has learned from its experience managing retailer networks and lottery sales forces in multiple jurisdictions and building retailer extranets for lotteries worldwide. With Retailer Wizard, retailers will be able to devote more time and energy to engaging players – after all, that’s what sells tickets and drives lottery growth.

Figure 4.7 – 4:



Retailer Wizard enables retailers to self-service their activities related to the Lottery, increasing their efficiencies as well as the Lottery’s. The proposed solution is automated, meaning that all users of the Lottery’s current retailer website will be transferred to the Retailer Wizard site without needing intervention from the Lottery. Active retailers not currently registered can securely self-register and view their updated information regarding sales, earnings, inventory, and more – a truly self-service solution. Frequent updates to the website, including sales, earnings, and Electronic Funds Transfer (EFT) data as well as inventory management and new game information, will be automated with little to no manual intervention.



“ *This will help me big time.*

– Retailer Wizard focus group retailer participant

”

Retailer Wizard also includes an administrative portal through which Lottery users with access can view, at a single glance,

dashboards and reports for all registered users, as well as a complete set of administrative reports. Summaries of detailed usage report statistics are provided via Google Analytics.

Value to the West Virginia Lottery

It's no secret that accounting, inventory management, and lottery best practices can be challenging for retailers, leading to less-than-optimal sales, retailer dissatisfaction, and attrition. With Retailer Wizard, IGT's comprehensive, dedicated, and secure retailer website, everything retailers need to manage and grow their lottery business is just a click away.

The Lottery will benefit from Retailer Wizard to **alert, engage, train, and inform** its retailers; to **drive sales** and implement **best practices**; and to **help retailers manage their lottery category**.

Retailer Wizard will provide the Lottery's retailers with a single location from which to obtain and interact with the sales, inventory, invoice, news, and other information they'll need to manage their business in a user-friendly manner; to share that information with employees, accountants, or others as they see fit; and to increase Lottery sales. Retailer Wizard will also:

- **Drive Lottery Best Practices:** From winner and jackpot awareness to reports on lost sales from empty Full Service Vending Machine (FSVM) bins, Retailer Wizard supports in-store execution and sales performance via at-a-glance dashboards, detailed reports, and actionable alerts.
- **Reduce Out-of-Stock and Other Revenue-Draining Situations:** Actionable alerts notify retailers – in real time – when they have not activated new instant games by launch date, when they have an empty bin in an FSVM, and more.
- **Provide Inventory Management Support:** An entire dashboard devoted to instant ticket scratch-off game sales and inventory management provides retailers with real-time information about instant ticket scratch-off game inventory, including by-game and by-pack details, sales trends, an instant ticket scratch-off game tracking solution, comprehensive reports, actionable alerts, and the ability to confirm, activate, and settle directly from the Retailer Wizard, without the need to access the sales terminal, reducing the burden of inventory management and freeing retailers and FMSRs to attend to activities that drive revenue.
- **Simplify and Streamline the Entire Lottery Process:** Existing retailers will have all of the information, reports, applications, planograms, POS and consumable inventory tracking and reporting, messaging, forms, and other essential tools at their fingertips. Prospective retailers will also have messaging, forms, and other essential tools available and will enjoy an easy and seamless recruitment process.
- **Expand Winner and Jackpot Awareness:** Retailer Wizard generates printable posters and shareable social-media content to spread the good news about recent winners and jackpot amounts to drive Lottery sales.

- **Create a Knowledgeable Retailer “Front Line”:** New game information, Lottery communications, and IGT’s interactive Lottery Learning Link (LLL) are integrated in Retailer Wizard to deliver vital training and information directly to retailers and their staff so they can better serve players.
- **Increase Retailer Engagement:** Retailer Wizard enables a new level of engagement with retailers. It facilitates two-way communication between the Lottery and its retailer partners, letting them know exactly where they stand, even between sales calls, via the Retailer Wizard’s dynamic, customizable Home page, messaging, automated emails, and Contact Us features; a forms and document repository; and live chat with the IGT Hotline.

The Retailer-First Website Solution

From registration to log in, to reports and inventory management capabilities, Retailer Wizard is the most user-friendly retailer website in the industry. Retailer Wizard is device- and browser-independent; its responsive design ensures that its UI works and displays seamlessly on desktop, laptop, tablet, and smartphone, and across the last three versions of the top five most popular browsers. Retailers will have access to Lottery news, sales and earnings data and trends, winner awareness, inventory management features, and more, instantly, right at their fingertips, from anywhere with a web connection.

Because the needs of a local “mom and pop” market are different from those of a corporate accountant, dashboards are customized for each type of user – independent retailers, chain subordinate retailers, chain headquarters users – and for Lottery staff. Primary retailers (e.g., independent store owners and chain subordinate store managers) can further customize the views and privileges of their staff to enable, for instance, clerks’ access to training and other communications without worrying that they will see the store’s financial information.

Figure 4.7 – 5:



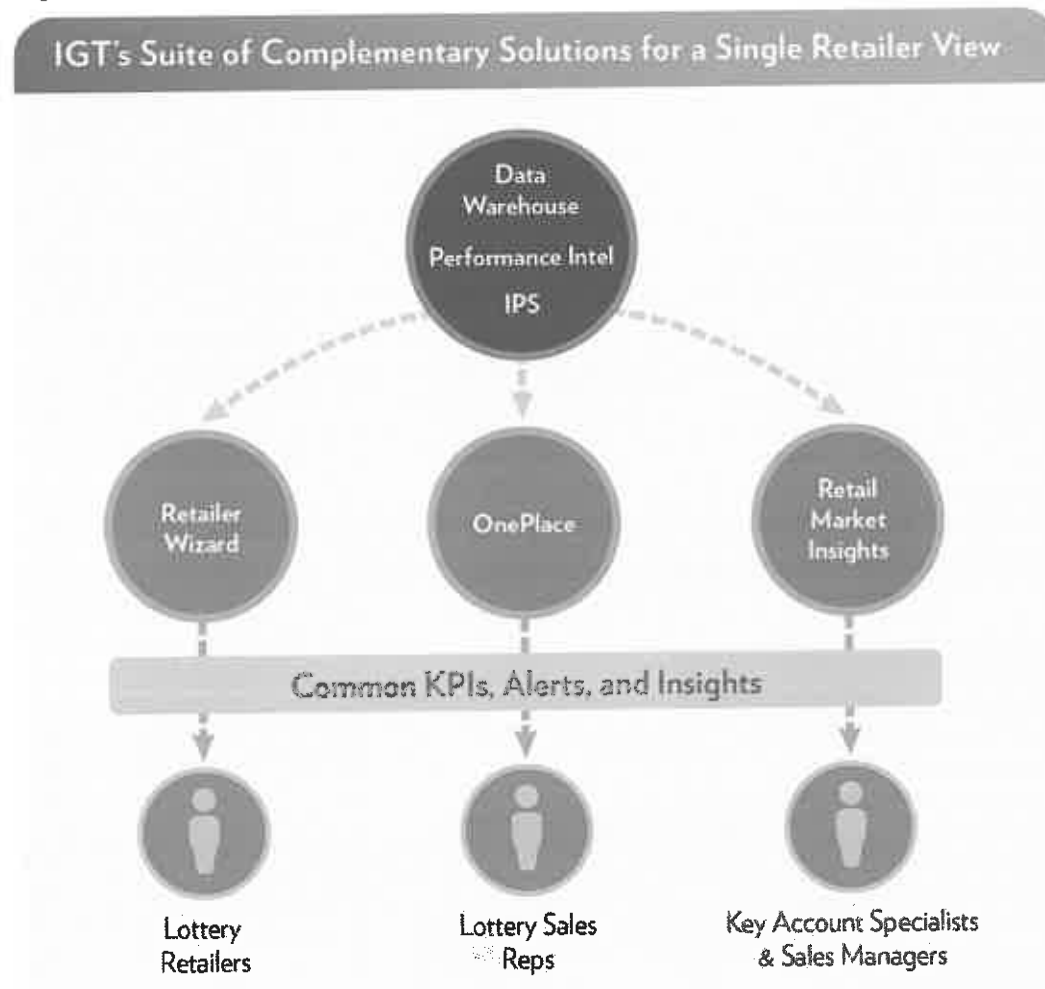
Easy Access: The Retailer Wizard website has a responsive design that adjusts to display seamlessly across any device and browser.

The content, structure, and UI/portal of Retailer Wizard have been enhanced from previous implementations to facilitate two-way communication between the Lottery and its retailers, increase website usability, and boost sales.

Providing a Single Retailer View

Retailer Wizard fully embodies the smart, open, agile solutions IGT has developed to drive lottery profitability and growth. Since IGT's Aurora technology enables extending back-end services across multiple applications, Retailer Wizard, Aurora Retailer Manager, Aurora Performance Intel, Aurora Instant Processing System (Aurora IPS), and IGT's sales force automation solution – Aurora OnePlace, acquired in 2016 from Hudson Alley Software – will all share the same service and the same information to provide a single retailer view and make sure the Lottery presents a unified front.

Figure 4.7 – 6:



Of course, as part of the Aurora suite of open, innovative products, Retailer Wizard easily integrates with other IGT and third-party applications as well, allowing retailers to reach new heights with more control and greater access to data – whenever, wherever, and however they choose.

Architecture and Design

IGT's entire Aurora system uses an SOA. The web tier and application tier use various services to perform their functions. Services are exposed using Representational State Transfer Application Programming Interfaces (REST APIs). SOA enables applications to share the same data repository. As a result, changes in this data will be reflected immediately in all applications.

For example, if a prospective retailer submits an application via Retailer Wizard, it is automatically uploaded in real time into the Aurora Navigator back-office system. Likewise, if a retailer is created in the Retailer Manager back-office application of Aurora Navigator, the retailer can immediately register for Retailer Wizard. Retailer Wizard will access all information about retailers in real time. If a retailer's status changes (e.g., ACTIVE, INACTIVE, TERMINATED) in Navigator, it is immediately reflected in Retailer Wizard.

Retailer Wizard also integrates with the Aurora Performance Intel system to ensure that all information is up to date. Importing the report data is automated.

Furthermore, Retailer Wizard's responsive design works across any browser or device, allowing retailers access to all of its sales-driving and lottery-management benefits instantly, via desktop, laptop, tablet, and mobile – from anywhere with a web connection. Retailer Wizard is Americans with Disabilities Act (ADA) compliant and compatible with the last three released versions of the top five web browsers. New web browser releases will be accommodated as soon as possible.

Retailer Wizard: Dedicated, Access-Controlled, and Highly Secure

Retailer Wizard will be hosted in the IGT private cloud in a secure setup and separate from the central gaming system. IGT designed the infrastructure with redundancy and high availability, and the IGT operations team manages and monitors it.

All access to Retailer Wizard will be logged. Any activity performed for the retailer will be included in the log.

Access to Retailer Wizard will be web-browser based, highly secured, and access controlled (i.e., individual access, role-based).

IGT uses the following secure hosting setup:

- Web servers are placed in the Demilitarized Zone (DMZ) between firewalls to isolate and secure access from the Internet.
- Behind the DMZ are application servers with business logic accessing other services as well as the database.

Retailer Wizard is device agnostic and follows industry security protocols. We continually maintain and improve our security protocols with advanced registration and access procedures that protect the sensitive data required for each retailer and ensure the security of the information on the website. Ongoing efforts will be taken to protect security and data integrity.



Our security protocols are founded on managed user roles and permissions that leverage state-of-the-art technology controls. Primary independent retailers (i.e., store owners), chain subordinate primary retailers (managers or franchise owners), chain-headquarters users – and those secondary users who have been assigned user management privileges (e.g., store managers) by their primaries – as well as Lottery Retailer Wizard administrators, can add and manage users and their access roles from a menu of easy-to-use selections.

Retailer Wizard is Hyper Text Transfer Protocol Secure (HTTPS) certified. HTTPS uses Transport Layer Security (TLS) as a sub-layer under regular HTTP application layering to secure data as it travels between the Retailer Wizard server and the user's browser. All communications between the user's browser and the website are encrypted. The use of HTTPS protects against eavesdropping and man-in-the-middle attacks. In addition, initial user sign-up to Retailer Wizard includes CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart) authentication to prevent website hacking and other automated website security attacks. Audio CAPTCHA is available for vision-impaired users.

Retailer Wizard also includes access-control security features to ensure that retailers can only view information regarding their own accounts.

Many industry-standard security features are used to protect sensitive data, including but not limited to, data hashing, TLS, HTTPS, authentication methods, role-based authorizations, etc.

Maintenance and Improvements

IGT will host the Retailer Wizard website and provide support, including end-user support, throughout the life of the Contract.

Retailer Wizard is deployed as a standard software product, with features that are highly configurable to meet each lottery's specific needs and business rules. Most terms are also configurable.

Continual Enhancements

IGT continually adds features to the Retailer Wizard product and makes those features available to all customers. The product roadmap is influenced by feedback from lotteries and retailers, and new features are designed to meet the needs of different lotteries and are made available and configurable to all of our Retailer Wizard customers.

When IGT has an update to its Retailer Wizard solution, IGT will work with the Lottery to determine if the update is beneficial to its retailers. If it is, we will then implement the update(s), as appropriate, and as agreed to by the Lottery, in order to provide the latest version and functionality to the Lottery's end users.

When new versions of Retailer Wizard are released, they are immediately made available to all existing customers.

The advantages of this approach are clear: rather than spend our time and resources maintaining custom "consulting-ware," our development team works to make Retailer Wizard better for everyone, adding new features and tweaking existing ones to make the product even faster, easier, and more accessible for retailers and Lottery staff alike. As an additional benefit, the Lottery will spend less time testing new releases and more time getting results.

Customers can choose to upgrade to new versions immediately or defer to a time that suits them best. Before installing an upgrade, we will (with your approval) upgrade Retailer Wizard in your test environment, with all configuration options maintained. Once the Lottery has performed its testing, the Lottery and IGT will agree on a day and time for IGT engineers to upgrade the Lottery's production environment. At no additional cost, IGT can include a webinar-based training session with Lottery staff on the new Retailer Wizard features.

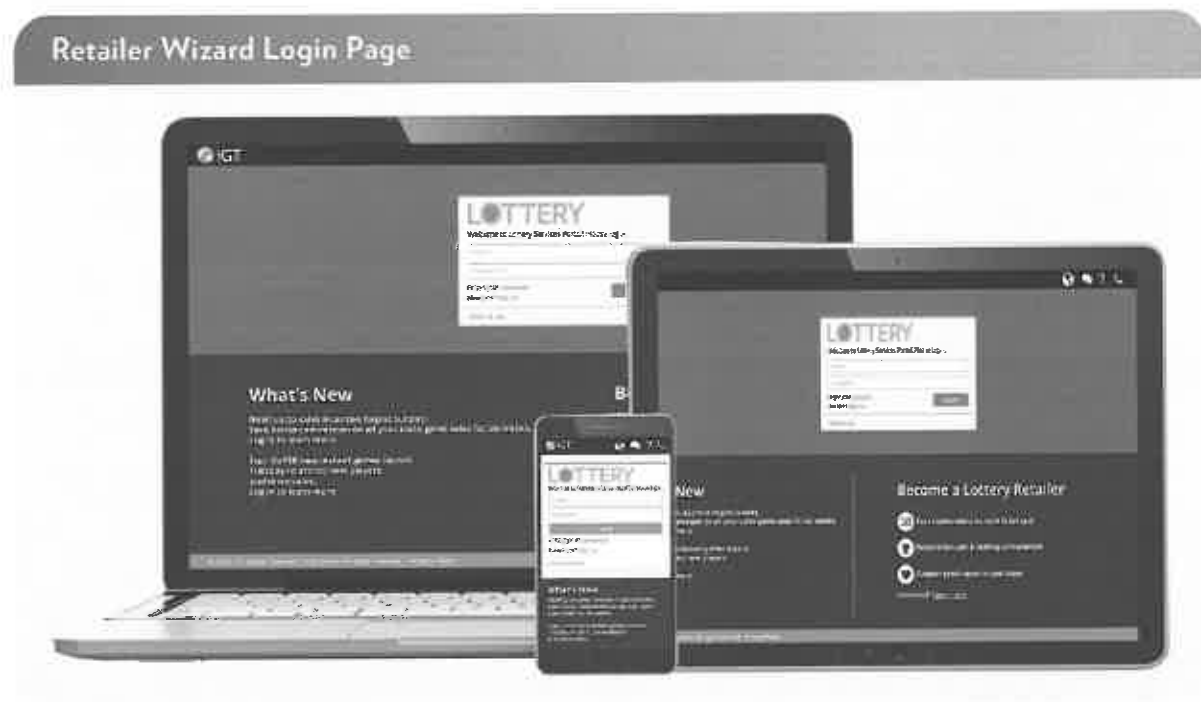
The Smart Solution for Current and Prospective Lottery Retailers

With Retailer Wizard, prospective retailers will enjoy an easy, streamlined recruitment process, and existing retailers will have all of the information and tools they need right at their fingertips, so they can devote more time and energy to engaging players.

User experience matters – a lot. That's why we made Retailer Wizard the most accessible, engaging, and user-friendly retailer website in the industry. Engagement and ease of use begin with Retailer Wizard's appealing, dynamic Home Page, enabling the Lottery to include banners (displayed on a loop) and informational widgets to provide visitors with engaging visualizations of Lottery news and information (benefits of becoming a Lottery retailer, upcoming instant games launch, retailer incentives, draw-based game changes, player promotions, etc.) and other messaging it may choose to present, including "Where the Money Goes" contributions reporting, etc. Such news, information, and associated images can be easily added, changed, and maintained by way of Retailer Wizard's robust Content Management Solution (CMS). During our collaborative requirements process, we will develop key data and business workflows to ensure Retailer Wizard content is well managed and kept up to date.

The Home Page also provides a simple login box and link to a single-page registration form to simplify the sign-up process for both current and prospective retailers.

Figure 4.7 – 7:



In addition, the Home Page allows users access to important information and functionalities (including Lottery communication tools such as FAQs, Contact Us page, and Live Chat) even before logging in, via links in the top navigation bar. Retailer Wizard also allows users to view this information in a language other than English (at the Lottery's discretion) before logging in.

What Will Retailer Wizard Do for Current Retailers?

Once signed in, independent and corporate account retailers, including independent retailers who own multiple locations, will have their sales and earnings data, inventory management support, winner awareness, and other sales-driving information available to them instantly, all in one place, without being tied to the lottery terminal. Your retailers will know exactly where they stand, with the training and tools they need to grow their lottery businesses and alerts to revenue-draining situations in their locations.

“If you own more than one location, you have an overall picture of what’s going on, more control.”

➔ Retailer Wizard focus group retailer participant

Figure 4.7 – 8:

The Benefits of Aurora Retailer Wizard



This innovative retailer website was created based on input from sales staff, sales management, operations staff, training resources from four U.S. lotteries, and from retailers themselves, including six focus groups with independent retailers and corporate account users, usability studies with 10 retailer users, and continual feedback from retailers in multiple jurisdictions.

Independent Research Gives Retailer Wizard “An Unqualified Thumbs Up”



Four standard focus groups, two each in New Jersey and Indiana, each two hours in length, all moderated by an outside facilitator, were conducted by the Reilly Group, an independent market research firm, to assess the Retailer Wizard. The participants included:

- 29 retailers, all independent (vs. chain or corporate).
- A mix of single- and multiple-location owners.

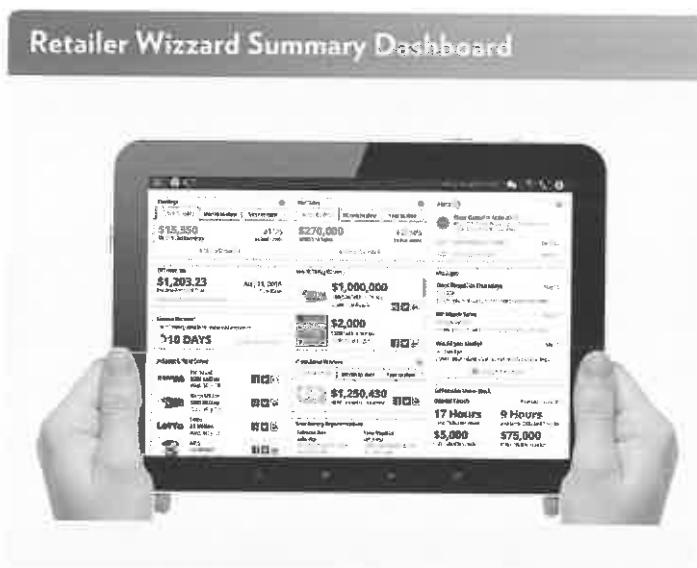
The results? Retailer Wizard was given “an unqualified thumbs up,” lauded by all retailers in attendance for being “a true diagnostic tool to pinpoint where and how to boost lottery ticket sales” and “a real and significant improvement over the tools these retailers currently have.” Retailers were quick to see the benefits Retailer Wizard brings them, as the participants’ remarks (shown in the illustration) testify.

Retailer Wizard Features and Functions for Current Retailers

Personal Dashboards

Upon logging in, Lottery retailers are taken directly to the first of their two personal dashboards, the Summary Dashboard, which provides at-a-glance insight into their lottery business.

Figure 4.7 – 9:



Clear, Comprehensive, and Portable: Retailer Wizard gives retailers ready access to their accounting, sales, and inventory management information, wherever, whenever, and however they want to view it.

Dashboards are customized for independent retailer users, chain subordinate retailer users, and chain headquarters users. Owners of multiple stores and chain headquarters users can quickly and easily access the dashboards for each of their locations through a single sign-on.

Each user is provided with two separate dashboards:

- **Summary Dashboard:** Provides account-specific actionable alerts, sales and earnings data, winner and jackpot awareness, and other critical information needed by retailers to manage and grow their overall lottery business.
- **Instants Dashboard:** Presents real-time information about a retailer's instant ticket scratch-off game business/inventory and provides the ability to confirm, activate, and settle ticket packs.

All Retailer Wizard dashboards feature “widgets” with data graphics specific to that user's business. (A widget is a small application within a website that displays information and allows the user to interface with the system. Widgets common for smartphones include, for example, clocks, calendars, and weather updates.)

Dashboard widgets include links to extensive details and reports to provide a complete picture of each retailer's and corporate account's lottery business.

Plus, Retailer Wizard allows for even greater personalization by enabling users to easily change the look, layout, and feel of their own dashboards.

Summary Dashboard

Retailer Wizard provides everything retailers need to know, not only to perform basic management tasks but also to obtain a true, deep understanding of how they are selling.

“

A better picture of what you're doing right vs. what you're doing wrong [vs. today].

– Retailer Wizard focus group retailer participant

”

Retailer Wizard's Summary dashboard widgets provide all of the critical, account-specific information needed for retailers and corporate users to manage and grow their lottery businesses.

Several of these widgets are discussed in broad terms below. We look forward to demonstrating these and additional dashboard widgets during the oral presentation.

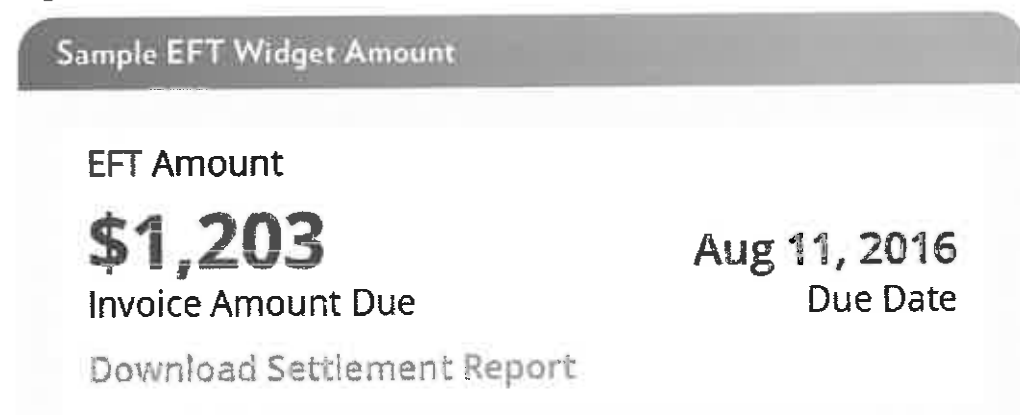
At-a-Glance Earnings and Net Sales Widgets

These widgets provide snapshots of the retailer's week-to-date, month-to-date, quarter-to-date, and year-to-date earnings, sales data, and trends. Data is updated daily.

Notifies of EFT Amount to Cut Down on NSF's

This widget puts the retailer's amount due to the Lottery each week front and center, potentially cutting down on Not Sufficient Funds (NSFs). No longer will your retailers need to run to their terminals or have their employees fax them copies of the settlement report each Tuesday morning; all of the information they need will be right at their fingertips.

Figure 4.7 – 10:



Actionable Alerts Drive Lottery Best Practices

The Alerts widget drives Lottery best practices and notifies retailers **in real time** if they have potentially revenue-draining situations in their store, such as:

- **New Game(s) Not Activated:** Appears if any pack of a new game has not been activated X days after launch date.
- **Gemini™ Bin Not Selling:** Alerts of empty or nonfunctioning Gemini or Gemini Touch bins.

In all, Retailer Wizard includes 10 alerts.

These are truly “actionable” alerts, because they notify users of issues in their stores and encourage them to take action to correct the situation, and in most cases, the retailer can actually perform that action directly from Retailer Wizard.

“Tools here will be useful for the sales person as well, not just back office.”

– Retailer Wizard focus group retailer participant

Expands Winner and Jackpot Awareness

Two winner awareness widgets immediately inform retailers when they sell a winning ticket with a large prize and provide the total prizes-won amounts for their location. No longer will your retailers have to wait for the Lottery or their FMSRs to inform them when they have sold a big winner or wait until posters arrive before informing their customers. The amount that constitutes a “Big Winner” is configurable by the Lottery. Retailer Wizard also enables, and encourages, retailers to spread such good news instantly via attractive, printed posters and social media.

Retailers will also be able to leverage the attraction of large jackpots to drive sales via social media sharing and auto-filled, printable posters, with the touch of a finger or a mouse click, in the same manner as they do for winner awareness.

Message Center

Retailer Wizard includes a full-featured Message Center for West Virginia Lottery communications. With Retailer Wizard, creating messages is simple and intuitive – just like sending an email.

Instant Ticket Scratch-Off Games Dashboard

For each retailer and chain headquarters user, Retailer Wizard includes a dedicated instant ticket scratch-off game dashboard for instant ticket scratch-off game and pull tabs sales. By providing dashboard widgets with at-a-glance data on instant ticket scratch-off games, sales, trends, and more – as well as detailed information through dedicated inventory screens and detailed reports – Retailer Wizard gives retailers a true picture of their instant ticket scratch-off game business and empowers them to make informed, educated decisions.



The following are a select few of the widgets found on the instant ticket scratch-off games dashboard. We look forward to demonstrating these and additional instant ticket scratch-off game dashboard widgets during the oral presentation.

My Instant Ticket Scratch-Off Game Sales

Through this widget, retailers have access to the sales data, trends, and comparisons they need to analyze and understand their sales performance from one year to the next and in relation to other retailers in their zip code and within their trade style.

New Games

The New Games widget shows instant ticket scratch-off games that the Lottery will soon introduce, as well as games that were launched recently. This information aids retailers with new game-launch preparation so that adequate bin space can be planned accordingly and notifies retailers of new games that have been launched so they can activate those packs.

My Slow-Moving Games

This widget informs retailers about slow-selling (stale) instant ticket scratch-off games to afford them the opportunity to swap them out for other games.

Top-Selling Games Widget

The first tab of this widget informs the retailer which instant ticket scratch-off games are the best-selling throughout West Virginia in total sales and compares these rankings to sales in their retailer location(s).

The second tab shows the top two sellers at each price point. This tab also indicates if a retailer is not selling one or more of these top-selling games.

“ Has enough information to make it easier, when you can boost sales, so you can know your weaknesses, your strengths. ”

– Retailer Wizard focus group retailer participant

Store Profiles

In addition to aggregated data on the Chain Headquarter's dashboards, Retailer Wizard allows chain users to access individual (store profile) dashboards for each store in their chain. The Store Profile dashboard will present additional information for the benefit of the Chain Headquarter's user.

Main Menu

Moving away from the dashboards, even more essential information is just a click away through the menu on the left panel. On all devices, this menu can be displayed or hidden, according to user preference.

Easy Access for Owners of Multiple Stores

Owners of multiple stores can quickly and easily view the dashboards for each of their locations with a single sign-on. Users simply toggle between their locations.

“ By managing it all from one screen, one location, I don’t have to call five locations to say okay, fax me this, fax me that. ”

– Retailer Wizard focus group retailer participant

Robust Reporting

Retailer Wizard’s functionality includes the provision of extensive invoices and reports. In addition to detailed reports accessed directly through dashboard widgets, Retailer Wizard includes “Wizard only” reports that can be easily downloaded, printed, shared, or saved. Data can also be exported for use in other applications. These are accessible through a searchable, sortable report browser that provides retailers with sales, earnings, and inventory data -- including returns and orders, in easy-to-access, easy-to-read, and easy-to-understand presentations. Reports are available in a variety of formats: Excel, PDF, TXT, and Comma Separated Values (CSV), or, in the case of the Invoice Details Report, XML. (This NASPL Standard Format is available for the Invoice Details report to provide chain back-office accounting systems with a consistent lottery data feed.) Retailer Wizard can also schedule and email any or all of these reports (through its subscription functionality) and provide an exclusive XML data download of retailer statements.

Reports that are batched and delivered through the Retailer Wizard portal are also retained historically for easy access and are selectable by report creation date. Baseline Retailer Wizard report categories can include:

- Instant ticket scratch-off game inventory.
- Invoices.
- Sales.
- Incentives.
- Full Statements.

Retailer Wizard will provide reports that cover terminal and instant ticket scratch-off game accounting information with breakdowns by validations, settlements, cancels, credit, commissions, returns, and other adjustments for a full view of how revenue and expenses are computed. The solution will also support the terminal reports that retailers have today.



Retailer Wizard retains data to recreate point-in-time reports that can be downloaded as various data file formats. Data from the Aurora Performance Intel Data Warehouse will be the primary source of data for reporting and can be leveraged for additional retailer-level reporting or data access.

Retailer Training

Easy access to and tracking of training are essential to improving sales and to retailers having optimized equipment and inventory. In addition to manuals and other training materials available via the Documents and Files repository (discussed below), Retailer Wizard includes the interactive web-based training program Lottery Learning Link (LLL), a featured IGT product developed by our Technical Training and Support Services and Learning Services experts for retailers and their staffs.

LLL is fully integrated with Retailer Wizard; access will be provided to your retailers through a single sign on. Retailer Wizard will track your retailers who have completed the training and alert them when new LLL training videos and/or webinars are available. Notifications will be sent via the website's messaging functions or appear directly on the website's public-facing Home Page.

Effective Training Tool Developed In-House

IGT's web-based LLL training application adds an efficient and convenient dimension to retailer training – and Retailer Wizard puts it into retailers' and clerks' hands anytime, anywhere.

In short, LLL offers the classroom experience online, delivered via Retailer Wizard, to retailers and clerks on their computers, tablets, or phones whenever they are available. Retailer Wizard and LLL empower retailers and their staff to learn at their own pace whenever they like, and to practice as often as they like. For more on LLL, please refer to Section 4.6.2, Lottery and Retailer Training [Conversion and Ongoing].

Documents and Files for Lottery Communications

Enhanced retailer communications is an integral part of Retailer Wizard. Retailer Wizard provides general (not retailer-specific) information through its Documents and Files repository.

Whatever the Lottery chooses to provide its retailers – e.g., retailer newsletters, operations and training manuals, planograms, business application forms, Lottery logos, new game sell-in sheets, how-to-play videos, game and terminal information, incentive and consumer promotion information, even information on Retailer Wizard itself – can be easily accessed from the Documents and Files link on the dashboard left-panel navigation menu. User-friendly browsers enable quick searches and sorts.

Uploading and managing documents and files is just as simple, through Retailer Wizard's administrative management pages and its in-app CMS. No Information Technology (IT) experience is needed.

User Management

Independent store owners and partners, chain franchisees and/or store managers, and assigned chain headquarters users can self-register as primary users of Retailer Wizard accounts through a simple but secure process.

Retailer Wizard provides all primary users with the ability to add, view, and edit secondary users associated with the Retailer Wizard Retailer Account from a menu of easy-to-use selections. This includes assigning and editing access privileges.

Top Bar Menu Correspondence and Communications Avenues

In addition to Lottery information and communications accessed through the Documents and Files link, Retailer Wizard includes several avenues of correspondence/communication with the Lottery via icons on the top bar menu.

FAQ Pages

Retailer Wizard contains two FAQ pages:

- One that can be accessed by the general public (i.e., non-registered users or registered users before login) directly from the public-facing log-in screen.
- A second that is accessed after a registered user has logged in, which can be used to provide more detailed information that only Lottery retailers need to know.

The FAQ pages can be easily customized with your own categories, questions, and answers specific to the Lottery's business rules. FAQs can be created and updated via the Retailer Wizard Administrator Home Page.

Contact Us

Logged-in and anonymous users can contact the Lottery through the Contact Us feature of Retailer Wizard. The first Contact Us tab includes an inquiry form; the second tab displays addresses, email addresses, and phone numbers of locations your Lottery opts to present.

Settings

Retailers can add or change their profile information, report subscriptions, and more, through the Settings page. The Settings page includes a Manage My Account screen that allows users (retailers and chain heads, primary and secondary users) to make account updates, e.g., reset passwords, change password hint questions, and update personal information.



Retailer Wizard for Prospective Retailers: Automated, Streamlined Processes to Get New Retailers Selling Lottery Products Sooner

Retailer Wizard is a one-stop shop for prospective Lottery retailers. It provides all of the information and functionality they need to manage all aspects of the licensing process. This continues throughout the entire retailer life cycle.

Even before prospective retailers begin the licensing process, Retailer Wizard offers many opportunities to communicate the benefits of being a Lottery retailer. The public-facing Home screen can include the benefits of being a Lottery retailer and of the retailer website itself – and whatever other information the Lottery wants to include (e.g., commission and bonuses rates, good causes contributions, incentive programs) as well as FAQs, Contact Us functionality, and links for the prospective retailer to access more information and the new retailer sign-up page.

Licensing Made Easy to Get New Retailers Selling Lottery Sooner

Prospective retailers can sign on to the Retailer Wizard website to apply for, renew, and pay for the Lottery retailer license processing fee, equipment install fee, communications fee, bond fee, etc. They and the Lottery staff can also track the approval process. We currently provide this same functionality through our Lottery Services Portal retailer website for our customer in Texas. IGT will work with the Lottery to integrate its unique application rules and processes as part of our collaborative requirements process.

Other functionality, after retailers complete the application process, includes the ability to review and change information, such as banking information, and renew licenses. Our automated processes are especially helpful for retailers who own more than one store.

An automated, highly visible, and easy application process on the Retailer Wizard website – integrated with IGT's Aurora Navigator Back-Office solution, including its Aurora Retailer Manager component – gets prospective retailers signed up and selling fast and easy.

The proposed system is automated. It requires little manual intervention by retail users. With no intervention on the Lottery's part, new and prospective retailers (independent, chain head, and chain subordinate) will have immediate access to Retailer Wizard over any Internet connection and can then securely self-register. The Retailer Wizard licensing feature provides functionality that enables a retailer to manage all aspects of licensing, from applying for the first retailer license to renewing and maintaining an existing license (including updating Change of Ownership information).

Retail owners will be able to complete a new license application, track the progress of their application, view and edit license information, renew their license, and more, all by simply accessing Retailer Wizard. Retailer Wizard is linked with our Aurora Retailer Manager solution, allowing all prospective retailers with a Retailer ID to view and update application information.

This automated paperless licensing functionality will:

- Eliminate the current manual paper processes for these activities, while actively engaging retailers in their Lottery business through Retailer Wizard.
- Improve the speed and accuracy of accepting retailer applications, maintaining up-to-date retailer information, and reducing lapsed retailer licenses.
- Reduce the labor associated with recruiting and maintaining Lottery retailers and increase prospective and new retailer satisfaction, which ultimately allows more retailers to sell Lottery products sooner and thus more funds to be generated for education, senior citizens, and West Virginia state parks and tourism.
- Enhance the Lottery-retailer relationship, as retailers will appreciate the transparency and faster turnaround time on applications.

This step-by-step application process is simple and straightforward:

- Step 1: New retailer – Get a retailer ID.
- Step 2: Begin the application process after self-registering and selecting Retailer Licensing.

Prospective retailers will be taken directly to their customized Prospective Retailer landing page.

Details of our Retailer Wizard licensing module processes and screens are proprietary and confidential. We will be happy to share them with you during the oral presentation.

4.7.5

Retailer on-Demand Ordering

The retailer should have the ability to place orders for instant games through Tel-Sell, Field Marketing and Sales Representatives, and through the retailer terminal. On-demand ordering refers to the issuance of packs from the warehouse directly to a retailer. Any method of ordering provides evidence of the order and produces an order confirmation upon delivery.

As IGT does today for the Lottery, our system will continue to support retailer ordering through Tel-Sell and FMSRs and provide new functionality to support ordering via the retailer terminal. All retailer orders will produce evidence of the order and confirmation upon delivery.

Tel-Sell Ordering via Aurora OrderStar

IGT welcomes the opportunity to provide greatly enhanced telemarketing services to the Lottery. Our new system will continue to provide all of the functionality described in your requirements and provide specific individual order recommendations for each of your retailers using our advanced predictive ordering algorithms.

Our Tel-Sell team is already familiar with the attributes of the Lottery's instant ticket scratch-off games and has established credible relationships with your retailers. They know how sales are trending and understand your sales goals. They are hard-working citizens in their community who help IGT assist the Lottery in having a meaningful impact on the State's economy.

Aurora OrderStar: How It Works and How It Will Help the Tel-Sell Team

Today, our Tel-Sell reps can perform all of the functionality you describe in Section 4.6.3, Telemarketing, related to status tracking and ticket ordering records including shipped orders, pending orders, instant ticket scratch-off game pack lookup, retailer inventory, returned inventory, settled inventory, inventory validation, game definition, sales activity, ended games, FMSR route listings, and ticket images.

At the heart of our enhanced Aurora OrderStar software is our advanced predictive ordering algorithms, which will provide the Tel-Sell team with retailer-specific, intuitive order recommendations based upon the retailer's sales history, Lottery objectives, and each retailer's available inventory. Aurora OrderStar also supports a fully automated ordering methodology when and where appropriate. Further details on some of IGT's customers who have greatly benefitted from predictive ordering can be found in Section 4.6.3, Telemarketing.

With our predictive ordering software, we expect many of the Lottery's retailers to quickly rely on the suggested orders recommended by our West Virginia Tel-Sell team, making them more efficient. We also believe that a major portion of your retailers will be willing to have their inventory replenished "automatically" without the need to speak with the Tel-Sell team, freeing up valuable time to build retailer relationships, provide better customer service, and support critical West Virginia initiatives such as retailer promotions, retailer recruitment, and more.

An Easier Way for Tel-Sell Reps to Create Orders

The new OrderStar will make it easier for Tel-Sell staff to create orders. In most cases, Tel-Sell reps will only need to access the Order Entry screen to enter an order. Should a retailer ask a question or the Tel-Sell rep want to check additional information, it is readily available with the click of a button.

Placing Orders through Field Marketing and Sales Representatives

Under the new Contract, our FMSRs will be supplied with Aurora OnePlace, a tablet-based Sales Force Automation tool. In addition to providing detailed sales reports for individual retailers and comparative data for similar trade styles or district-level sales data, this new tool will allow FMSRs to enter retailer orders without needing to call our Tel-Sell team. Our FMSRs will have access to the same predictive ordering recommendations available to our Tel-Sell team.

The synergies between Aurora OnePlace and Aurora OrderStar open the door for closer communications between our Tel-Sell reps and our FMSRs, which is critical to moving your business forward. For more information on other benefits and advantages of the OnePlace sales automation tool, please refer to Section 4.6.8, Field Marketing and Sales, and 4.6.9, Field Marketing and Sales Reports.

Placing Orders through the Retailer Terminal

Because of their busy schedules, some retailers might appreciate the ability to enter orders for instant ticket scratch-off games themselves. For example, retailers might want to create an order for a game when they activate their last pack on a Saturday afternoon rather than having to remember to call to place an order on Monday morning. Our new system will provide that option, with field-proven controls to ensure that human data-entry errors do not inflate a retailer's liability. Retailers in New York and Michigan have been using IGT terminal ordering software for instant ticket scratch-off games for more than 10 years each. And, retailers in New Jersey have been taking advantage of this feature for more than two years.

In addition, retailers can view (and print, when necessary) a series of inventory and sales reports on their new lottery terminals. With our proposed new retailer website, retailers can view information about their business well beyond the reports available from their lottery terminal.

4.7.6

Retailer Supply Tracking Enhancements

Vendor provides the tracking of retailer supplies, equipment, game inventory, POS, and any other component or peripheral through the System. This method of tracking allows updates to a retailer's recorded inventory during on-site visits by the Field Marketing and Sales Representatives. The Vendor provides a solution to estimate the rate of use of supplies to obtain the approximate time when the retailer runs low on supplies.

IGT is pleased to provide the Lottery with significant enhancements to its management applications/inventory management and tracking systems. Our tools have improved greatly and will work to give the Lottery a real-time, comprehensive and holistic view of all equipment, consumables, and POS inventory at all times. To achieve this, IGT will use three applications:

- **Equipment:** With Aurora MultiMedia screens, terminals, and jackpots, we will use a newly enabled feature of our Cadence hotline application, the Inventory Management Tool (IMT). IMT is a premium capability that will track field assets and repair activities in real time. With read-only access through the Cadence UI, the Lottery will understand asset statuses across all retailers and can run reports based on a number of parameters.
- **Consumable Management System (CMS):** IGT's CMS combines high-tech predictive ordering for consumables such as ticket stock, with personal hand deliveries by Field Service Technicians. Delivery via FST is integrated with preventative maintenance and service events as they occur.
- **Point of Sale (POS):** POS inventory, such as signage, adjustment forms, claim forms, ticket dispensers, etc., will be tracked and managed by IGT's powerful and intuitive Aurora OnePlace. With OnePlace, upon retailer visits, FMSRs will access the OnePlace application on their tablets to easily update inventory and place orders for retailers.



Below, we describe these tools in greater detail.

Cadence's New Inventory Management Tool (IMT)

As a component of our Cadence hotline application, IGT has implemented a new IMT that we will enable for the Lottery to vastly improve asset tracking and management. This premium capability, the Inventory Management Tool, will track field assets and repair activities in real time. The Lottery will receive read-only capability to the IMT UI, allowing for a real-time view of all assets and their statuses. In addition, the Lottery will be able to run reports based on a number of parameters. IMT improves management of site inventory, knowledge of material location, and reporting on repair trends and parts orders. IMT is fully operational in most U.S. jurisdictions where IGT has a presence and will integrate with your Aurora system to monitor all major components installed from terminals to all peripherals. This means that all item movements are monitored and tracked at all levels, from depots and vehicles to agents.

Our solution supports tracking serialized and non-serialized assets. Inventory can be itemized by asset number or quantity and entered by the Call Center Associate or FST into Cadence. In the field, FSTs will use their mobile phones to communicate with Cadence in real time. In this way, asset management is neatly integrated into Field Service activities, as FSTs are already responsible for preventative maintenance, terminal provisioning, terminal repair, etc., allowing for precise, real-time tracking and giving FSTs a more comprehensive view of their territory. The entire life of the equipment is maintained and can be tracked via Cadence by inventory number.

Activities Prior to Go Live

Prior to Go Live, IGT will order all necessary equipment for retail and establish a temporary warehouse in West Virginia. From there, IGT will perform the following:

- IGT will establish asset types based on the technical strategy (e.g., terminal configurations).
- Once serial numbers are recorded, IGT will establish an interim process for deploying the infrastructure. Our Network Rollout Organization (NRO) will work in concert with the Cadence team to synchronize all serial numbers, which will enable asset tracking within Cadence and will also, in turn, provide FSTs with the most accurate information to execute standard terminal maintenance procedures.
- After equipment (i.e., terminals, peripherals, etc.) arrives at the temporary warehouse, IGT's NRO will roll out equipment to retailers and record all serial numbers.
- The FST organization will use and maintain the asset inventory throughout the transition period in conjunction with the NRO rollout. At Go Live, all assets will be accounted for within retail locations and the warehouse.
- After Go Live, the FST organization will continue to maintain serialized tracking.

Consumables

Our FSTs are trained to complete a maintenance visit each time they enter a retail location, no matter what the retailer originally requested. This efficient approach to terminal maintenance allows us to identify and resolve potential issues before they turn into a service call. While at retailer locations, FSTs also check consumables inventories to ensure ticket stock and play slips are adequately maintained. However, with our predictive inventory management program described below, retailers will always have the proper amount of such consumables on hand.

Predictive Inventory Management Program

IGT has developed an automated predictive inventory management system that maximizes operational efficiency. The system measures the movement of paper through terminal devices and uses the usage statistics to calculate when new supplies are necessary. This is an inventory best practice, standard throughout the retail and manufacturing industries.

Our solution is described as a Push model. It uses a calculation to define material use at each retailer and manages the distribution based on reorder point logic. The model “pushes” inventory to our retail network based upon calculated need. Retailer inventory is adjusted on a daily basis as actual usage, collected from terminal reporting, “nets” against retailer on-hand inventory. As on-hand inventory falls below planned levels, replenishment orders are created. In place of a retailer calling the customer hotline to order, an order requirement is automatically generated when the retailer’s inventory level drops below a predetermined minimum days of supply.

As the orders are put together in the MUSL-approved cage area, the serialized items are scanned via barcode scanner into the Aurora Transaction Engine. This data is then time-stamped for historical reporting and for any investigations needed by the Lottery. The local FSTs will keep the on-hand inventory current in the system by conducting an audit count and entering the data in the locations’ lottery terminals which load the new inventory into the system.

FSTs, if requested, can usually respond to ad hoc supply requests within the same calendar day. FSTs will carry emergency stock for any emergency deliveries.

Ticket stock is delivered to retailers in cartons having a barcode and carton number. Each roll in the carton has a unique barcode allowing the ticket stock to be received at the retailer terminal. This information is used to confirm delivery of ticket stock orders.

Our solution frees retailers from having to manage their consumables inventory because it recognizes their inventory position and replenishment needs in advance of a stock-outage. The solution allows retailers to maintain sufficient on-hand quantities of all supplies and not be concerned with running out. IGT manages all supply needs for the smooth and effective operation of sales.

Reporting

The tracking system will generate various reports for both ticket stock and supply inventories. Following is a list of available on-screen reports:

- Locate Ticket Stock.
- Retailer Delivery History – Ticket Stock.
- Ticket Stock Inventory.
- Retailer Delivery History – Supplies.
- Supply Inventory Summary.
- Sales Representatives Delivery History – Ticket Stock.
- Delivery History – Ticket Stock.

Our ticket-stock tracking system's standardized and specialized reports add a powerful dimension to tracking. The system generates operational and management reports in either summary or detail format, enabling ticket stock inventory to be organized and analyzed.

The system's stock tracking provides numerous on-screen reports. For example, users can run Locate Ticket Stock Reports to determine if the stock is in a specific location, damaged, stolen, in transit between locations, issued to a distribution representative, or issued to a retailer. Or, users can generate reports to locate and verify an individual ticket stock serial number (the number preprinted on the back of the stock) when high-tier winners are identified. The user enters the Vendor ID, the stream code, and the individual serial number, and the system responds with the details of the current location of that serial number.

These reports can search for an entire skid of ticket stock, a carton, a roll, or even a single ticket. The tracking system retains historical data online. The maximum data retention time frame varies among jurisdictions, depending on available disk space and performance criteria.

Delivery Method

The consumables delivery will be facilitated by FSTs and integrated with preventative maintenance and service events as they occur. In addition, our FSTs can usually respond to ad hoc supply requests within the same calendar day, as opposed to the standard 24-48 hours often required by United Parcel Service (UPS) or FedEx.

Removal and Destruction of Consumables

IGT will pick up and destroy existing ticket stock and play slips. Any material that is removed from a retailer, deemed not usable or recyclable, or slated for destruction is isolated in a MUSL-compliant cage. All movement of ticket stock is recorded and signed off by a lottery security person. Once ticket stock is destroyed in compliance with MUSL standards, it is given a destroyed status in our CMS system. Only Lottery-authorized personnel will be able to mark a roll as destroyed.

IGT will select a highly secure and reputable vendor to perform the physical destruction of ticket stock.

Our Commitment to the Lottery

IGT understands that the sensitivity of ticket stock makes it essential that the location of a skid, carton, roll, or individual ticket be traceable at all times. IGT commits that it will provide the Lottery with an accurate picture of where each roll of ticket stock is located at any time. When the Lottery contacts IGT with an individual ticket number, IGT will be able to track the number to a single retailer. Within 15 minutes, we will report back to the Lottery the name, location, retailer number, and date of delivery for the retailer to whom the ticket stock was delivered.

Field Marketing and Sales Representative Automated Ordering

While our Push model solution described above will alleviate the need for retailers or FMSRs to have to proactively place orders, IGT will ensure FMSRs and retailers can place orders both via the retailer terminal and through devices used by FMSRs. The terminal will have an option for the retailer to order consumable supplies, and Aurora OnePlace will have consumable and POS inventory ordering capability on the tablets carried by FMSRs.

Tracking, Viewing, and Ordering POS Inventory via IGT's Aurora OnePlace

Tracking and seeing that retailers are appropriately stocked with POS inventory is critical to ensuring that there are no delays in posting any signage or advertising items and that they are being used by retailers appropriately. A quick lookup of POS items available in the warehouse will be accessible using IGT's new Aurora OnePlace. FMSRs will be equipped with tablets containing the OnePlace app. The app allows FMSRs to order POS inventory directly from their iPads. The order is automatically passed along to the central warehouse system, which in turn creates a pickup request for the items from the POS warehouse.

Tight Integration with Your Aurora System

OnePlace will provide tight integration with Aurora, and its dashboard will give FMSRs a view into POS inventory at retail locations in their territory. The OnePlace Inventory History screen provides a cumulative history of POS inventory at each retailer based on the FMSRs' input, which they can, in turn, cross-check with the Aurora system and any other POS inventory data.

IGT will track retailer supplies through available content on the OnePlace sales force automation tool. The OnePlace Inventory History screen allows further oversight of retailer supplies with FMSR inputs at the retail location – and will enable updates to a retailer's recorded inventory during on-site visits by the FMSR.

In addition, during the on-site visits, FMSRs will coordinate each retailer's current inventory with the retailer so they can estimate when each retailer will run low and order the supplies that are needed.

There should be little need to process retailer consumables orders because we use our SAP consumables management Push system, which calculates use of ticket stock and play slips. Based on an algorithm containing usage, on-hand counts, and preset min/max inventory levels, the system automatically determines when a reorder is needed.

4.7.7

Retailer Rewards Program Enhancements

Vendor should work jointly with the Lottery to establish a retailer rewards program and events that provide non-cash incentives for selling and cashing draw games, ordering instant games, or other activities in varying combinations that may be subcontracted in part or in whole and approved by the Lottery. Vendor plans, implements, provides adequate personnel, and bills the Lottery at actual cost without markup for retailer incentives and events.

Each reward is maintained in detail on the System, generally summarized by retailer, by day, and then reported in total for chain accounts. The rewards program provides reporting, point redemption, account point balance(s), and redemption reports that link to the retailers' Federal 1099 tax forms at year end.

Vendor evaluates and provides the Lottery with reports on the retailer rewards program, suggests modifications, and provides alternate programs at the Lottery's request. The retailer rewards program activities are designed to be activated, deactivated, and modified at the Lottery's request. Program updates and modifications are approved by the Lottery.

IGT will work jointly with the Lottery to define a retailer rewards program, identifying what retailer activities the Lottery wishes to incentivize and a rewards structure that will entice retailers to engage with the Lottery's initiatives. Based on these efforts, we will together establish a program and events that provide non-cash incentives for specific retailer activities (e.g., selling and cashing draw-based games, ordering instant ticket scratch-off games, and other activities in varying combinations). Depending on the precise nature of the jointly defined program, we understand and acknowledge that it may be subcontracted in part or in whole, subject to the Lottery's approval. In this capacity, we will plan, implement, provide adequate personnel, and bill the Lottery at actual cost without markup for retailer incentives and events.

The resulting modernized retailer rewards solution will maintain each reward in detail on the system, and we will configure the solution's data summaries to meet the Lottery's needs (e.g., summarized by retailer, by day, and reported in total for chain accounts). The solution will facilitate rewards-program reporting, point redemption, account point balances, and redemption reports that link to retailers' Federal 1099 tax forms at year end.

IGT will evaluate and provide the Lottery with reports on the retailer rewards program, suggest modifications, and provide alternate programs at the Lottery's request. Our system is highly flexible to accommodate various potential rewards models, and we will work with you on an ongoing basis to ensure that you have the program that best suits your business needs. We understand and acknowledge that the retailer rewards program activities shall be designed to be activated, deactivated, and modified at the Lottery's request – and that program updates and modifications are to be approved by the Lottery.

For further consideration, the following discusses our approach to retailer promotions and examples of successful programs we have helped our lottery customers implement.

Retailer Promotions

There are several ways in which we can help the Lottery provide promotions that motivate retailers to enthusiastically advocate for the Lottery and its games:

- With the Aurora system, users can select from a range of retailer promotions that they can quickly and capably develop and launch.
- Understanding the importance of in-store retailer promotions that support the Lottery and help retailers build their businesses, our marketing staff is at the ready to invest the materials, training, and manpower needed to ensure successful events.
- From the jurisdictions in which we manage the sales force, among them West Virginia, Illinois, Indiana, Texas, and Nebraska, we can contribute innovative ideas for retailer promotions that are proven to generate excitement and maximize sales. For more information on how our FMSRs, expertise, and sales force tools can optimize retailer performance, please see Section 4.6.8, Field Marketing and Sales.

IGT Retailer-Promotion Expertise – Texas Lottery Commission

Our experience running the sales force in Texas has yielded an array of successful retailer-promotion programs – experience we can bring to bear on behalf of the Lottery. Examples of such programs in Texas include:

- **Loyalty Program Offerings:** Executed through retailers with established loyalty programs, these focus on stand-alone lottery offerings or cross-category promotions (including Buy X Get Y with lottery products, Buy X Get Y with consumer package goods, Buy instant/draw game Get coffee/fountain drink or food item free, lottery as part of a combo offering, free lottery product with a X gallon fill-up, cents off per-gallon offers with purchase of specific lottery products, and chain-driven and -executed free-fuel giveaway promotions).
 - **Mobile App Offerings:** These offers run through retailers' established mobile apps, using their database to push lottery products (e.g., a free \$1 instant ticket scratch-off game coupon) to retailer-app registered customers aged 18 and over (some targeted offers are only to 21+ customers). Another example is a Buy X Get Y offer of a specific lottery product on the Mobile Promotion Page.
 - **Spin & Win:** Our Texas sales team conducts two-hour Spin & Wins at retail locations each quarter. Consumers purchase a lottery product to spin a wheel and win a prize – uniquely, every spin results in a win. Retailers donate prizes, e.g., free instant ticket scratch-off game, free Quick Pick, or store merchandise.
 - **Ambassador Sales Program:** These events, held on an ongoing basis, drive awareness and knowledge to the customer base and retail associates surrounding lottery offerings and how to use lottery equipment.
 - **Traditional Co-Op Promotions:** The lottery and participating chain/retailer associations sponsor and fund components of these promotions.
 - **Co-Branded Chain-Specific Promotions (Co-Op Promos):** A jointly sponsored promotion between the lottery and a retailer chain or retailer association, these promotions typically run between two and four weeks with a Buy X Get FREE promotional offer featuring draw-based games. An example from Texas is "Free \$1 MegaMillions® with purchase of \$5 or more of Lotto Texas® on one ticket."
-

Building on our experience and understanding of best practices, our customers have greatly benefited from collaborating with our team of retail innovators. Their work has resulted in a greater understanding of how integral retailer promotions are to strategic plans to increase draw-based game sales.

Our approach, fine-tuned in Illinois and Indiana from even earlier successes in jurisdictions such as New York and Georgia, comprises a few simple principles that have helped drive retail sales:

- Promotions must be clearly aligned with your business goals. For example, if you plan to raise non-jackpot draw-based game sales, then retailer promotions should be tied to growth of that product line.
- Promotions should reward actions that tie directly to your proceeds – activating more games, displaying POS, and actively asking customers to buy lottery products.

We have gathered and developed best practices and strategies to optimize your retailer promotion programs. The most common form of incentives that appeal to retailers and help drive sales are free instant ticket scratch-off game packs, themed prize packages, and premium seats to sporting events based on retailer performance criteria. Most frequently, retailers qualify for chances to win these prizes based on the performance criteria for the particular contest; usually, they will have multiple chances to win as their performance level increases.

Working with other jurisdictions, we have developed best practice strategies for promotions that reward the retailer with cash incentives:

- Keep the incentive program’s “action message” simple, define targeted objectives, and identify the activities involved with strict measurement and success criteria.
- Award incentives often enough – and to enough retailers – to promote new winners.
- Advertise the program to retailers and support these initiatives with an aggressive retailer winner awareness program.
- Develop promotions based on the annual calendar of events and quarterly product focus.
- When possible, localize by FMSR, region, sales volume, chain account, or other priority.

Available Retail Promotions

The following figure describes some of the retailer promotions that our system will support and have enjoyed the most success across our customer jurisdictions:

Figure 4.7 – 11:

Retailer Promotions			
Contest/Feature	Benefit to the West Virginia Lottery	When to Utilize	IGT Experience
Retailer Incentive Games Instant ticket scratch-off games specially targeted and designed for retailer sales associates; can be shrink-wrapped into game packs. These are not sold and provide a play experience for the retailer and employees	<ul style="list-style-type: none"> Encourages sales associates or retailers to do the things that you want them to do, whether selling the new \$30 instant ticket scratch-off game, wearing buttons or stickers, keeping dispensers full, or building a pop-up display to promote your instant ticket scratch-off games during the holidays Allows SRs to provide prizes “on the spot;” this can also be developed as a mail-in incentive Recognizes retailers and sales associates for a job well done 	Use within four to six weeks after launch of initial distributions or when specific game sales start to slump or need a push to close. Can also be used in conjunction with a statewide promotion effort to align retailer goals with your promotional objectives	Georgia, Michigan, Minnesota, New York, Rhode Island, Tennessee, Texas
Sales Associate Voucher Promotions Rewards sales persons for promoting and selling lottery products, on an every Nth basis, with a voucher for a free promotional item, e.g., free T-shirts, tool kits, etc.	<ul style="list-style-type: none"> Drives or maintains sales momentum of lottery products Promotes sales associate investment in driving lottery product sales Motivates sales associates to provide game awareness and benefits among existing and new players Creates excitement about the lottery and encourages a positive public attitude toward the lottery and its mission 	This is launched prior to a planned player promotion such that the practice of asking for the sale continues into the player promotion	Illinois, Indiana

Contest/Feature	Benefit to the West Virginia Lottery	When to Utilize	IGT Experience
Ask for the Sale Reward for retailers for asking customers if they would like to purchase a lottery ticket	<ul style="list-style-type: none"> • Drives or maintains lottery product sales • Promotes retailer investment in driving lottery product sales • Initiates game awareness among existing and new players • Encourages existing and new players to try new games • Creates excitement about the lottery and encourages a positive public attitude toward the lottery and its mission • Preserves current players' interest • Motivates current retailers with rewards • Rewards current players and attracts potential new players • Limits investment liability to enforce recommended behavior • Gains extra POS footprint in retail locations 	At regular intervals to prompt sales associates to ask for the sale of lottery products until it becomes standard practice. Also effective at the launch of a new game to generate awareness and trial of the new product	Illinois, Indiana, New Jersey
Partner Play Promotions For every Nth ticket generated statewide, an identical ticket is generated for the retailer to play	<ul style="list-style-type: none"> • Allows retailers to join in the excitement of playing the lottery • Increases retailer involvement with the product portfolio; as this happens, retailers will transfer their excitement to players and enhance the play experience 	At regular intervals to help drive particular products, especially those products with decreasing sales	Georgia, Michigan, Missouri, New York
Sell, Sign, and Win Rewards sales associates for achieving specific product sales goals, shift by shift, for a modest budget	<ul style="list-style-type: none"> • Incentivizes retailers to get behind a specific lottery product 	At the launch of a new game to increase awareness and engage both retailers and players	Illinois, Indiana, Minnesota
Variable Commission Rates A temporary or permanent commission rate that is higher than the regular commission rate that a retailer receives	<ul style="list-style-type: none"> • Focuses retailers on higher-commission product • Motivates retailer to sell more of the higher-commissioned product 	Best used with the launch of a new game to maximize trial among players	Michigan, Minnesota, Wisconsin


Contest/Feature	Benefit to the West Virginia Lottery	When to Utilize	IGT Experience
Retailer Pack Incentives Rewards those retailers who meet and exceed set sales thresholds for a specific game or suite of games with free packs	<ul style="list-style-type: none"> • Drives or maintains sales momentum of specific games/game themes • Promotes retailer investment in driving lottery product sales • Encourages retailers to provide game awareness and benefits among existing and new players • Gives any retailer a chance to earn free packs • Involves limited financial liability • Features easy sell-in and simplicity for retailers to execute and measure performance 	Use within four to six weeks after launch of initial distributions or when specific game sales start to slump or need a push to close	Georgia, Michigan, Minnesota, New York, Rhode Island, Tennessee, Texas
Cashing or Selling Bonus	<ul style="list-style-type: none"> • Retailers cashing mid-tier winning tickets receive a cashing bonus or commission • This can apply to instant ticket scratch-off games as well 		California, Georgia, Missouri

A representative example of one of these retailer promotions took place in Texas:

Figure 4.7 – 12:

Sample Variable Commission Rates Promotion

Texas Pick 3 Retailer Cash Incentive Program



Pick 3[®] Retailer Cash Incentive Promotion
MARCH 8 – APRIL 18, 2015

Earn 15% on Every Pick 3 Sale over Target*

Target

- Earn 15% on every Pick 3 sale over your Target* sales. (See standard 10 tier down to 10% Pick 3 Retailer Cash Incentive Promotion payment.)
- Your Target is your Average Weekly Pick 3 sales (for the 8 weeks Sunday, November 23, 2014 – Saturday, January 3, 2015) a 6 weeks' duration of Pick 3 tickets or payments of 5% Target = (Avg. Weekly Pick 3 Sales x 6) + 5%

Eligibility

- To participate in the Pick 3 Cash Incentive Program, a retail location must have Pick 3 sales during all 6 weeks of the Target period (Sunday, November 23, 2014 – Saturday, January 3, 2015).
- A retailer who started selling lottery after November 23, 2014, is not eligible to participate in this promotion.
- A retailer must be in active sales on April 18, 2015, to be eligible for payment.

Tracking Sales

- A Pick 3 Retailer Cash Incentive Promotion Statement will be available for tracking your status.
- Use the Terminal Daily sales report to track your Pick 3 sales and receive your progress on the tracking sheet on the back of this flyer.



Identifying the most effective promotions for any local market is a dynamic process:

- The lottery should be able to set the goals/targets for retailers.
- The system should generate reports showing progress based on the given criteria.
- There should be a widget on the dashboard where retailers can see progress against the set goals/targets.

We can help the Lottery try different promotion types with different objectives, definitions, and management priorities. We find this to be the best way to evolve and move toward optimal use of your promotions budget. Some individual processes will be more successful than others measured in isolation. However, with the right BI tools and attention from experienced analysts in West Virginia, IGT can contextualize even disappointing promotions to be part of a program of continuous improvement.

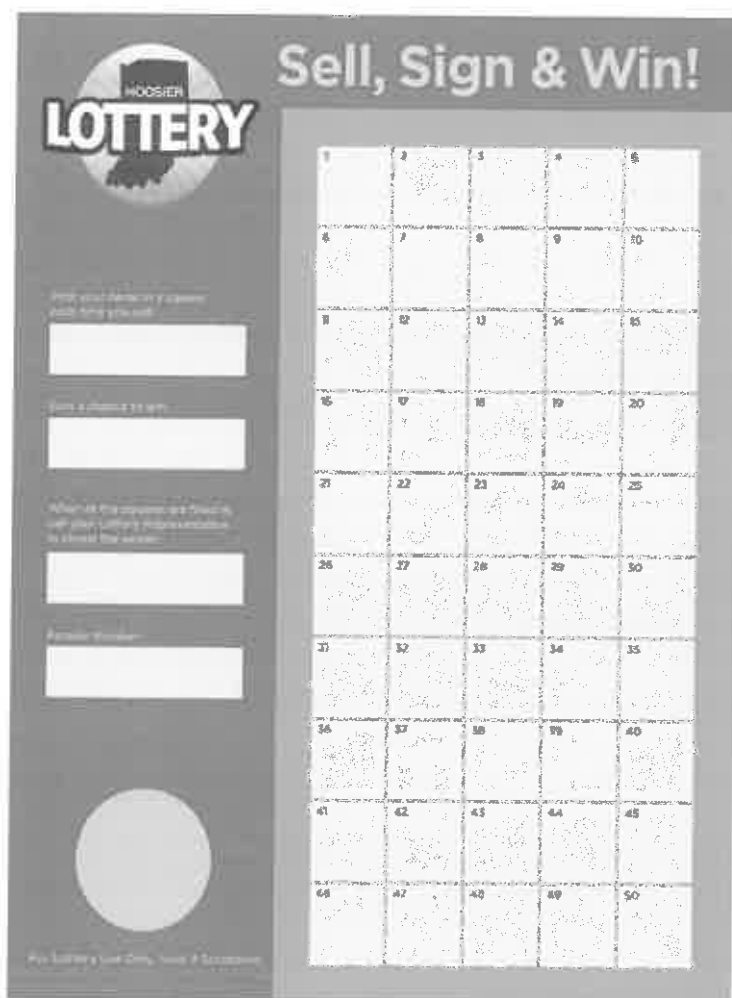
As we work together to explore retailer promotions and incentives, IGT will provide you with research on current initiatives in other lottery jurisdictions, recommend solutions for new programs, execute incentives at retail, help develop funding and budgeting strategies, follow up with reviews that measure the effectiveness of each incentive investment, and explore opportunities to improve future initiatives.

The Sell, Sign & Win Retailer Promotion Has Seen Significant Success in Indiana.

The Hoosier Lottery has achieved strong results with this promotion, which works as easily as it sounds:

- **Sell:** Retailers ask for the sale.
- **Sign:** Each time sales associates sell a pre-determined number of designated tickets, for example, 5 Poker Lotto tickets, they write their name in one of the 50 blocks on the promotion sheet.
- **Win!** After all the blocks have been filled, the FMSR scratches the latex circle to reveal the winning box. The retailer whose name appears in that box will win a prize.

Hoosier Lottery – Sell, Sign, & Win



The promotion sheet features the Hoosier Lottery logo and a 10x5 grid of 50 numbered boxes for signing. To the left of the grid are four input fields for retailer information and a large circular scratch-off area.

HOOSIER LOTTERY

Sell, Sign & Win!

How many tickets you want to sell today (minimum 5):

Write a message to win:

Write the name of the retailer who sold the tickets in this box:

Write the name of the retailer who sold the tickets in this box:

Scratch off the latex circle to reveal the winning box.

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	32	33	34	35
36	37	38	39	40
41	42	43	44	45
46	47	48	49	50

For more information, visit www.hoosierlottery.com



In-Store Promotions

Our promotion support extends to player promotions that take place in the retail environment. These promotions are important at retail, as they help retailers grow their businesses by generating awareness of and excitement for the launch of new games and game features.

Typically, you might find an IGT marketing representative working alongside a Lottery FMSR and talking about the games with consumers and retailers alike to produce a positive experience that maximizes game sales and affords retailers the opportunity to receive rewards. We can also recommend additional in-store activities to inject interest and fun. Even before the promotion launches, you can find our team collaborating with yours to optimize retailer communications and education to set the promotion up for success.

In states where we manage the sales force, we have supported our customers with a variety of retail-based events, including those described below.

Hoosier Lottery Shopper Experience Rewards Program

We worked closely with the Indiana sales team to educate retailers on exhibiting the best practices that encourage lottery sales and foster a positive player experience. In this promotion, the sales team and individual retailers agreed upon a customized list of key measures that would help them improve lottery sales.

Examples of key measures included:

- Full instant ticket scratch-off game bins.
- Winner awareness that is appropriately posted using approved POS equipment or materials.
- Current marketing POS that is properly displayed.
- Self-service reports that show less than 3% out-of-stock conditions.

Once agreed upon, the key measures were entered onto a program chart to track progress. FMSRs then looked for these key measures to be in practice during five consecutive visits to the retailer. After the five visits, the retailer won rewards based on the total number of measures accomplished. Reward items, such as Lotto key chains, mugs, and umbrellas, were distributed by the retailer to sales staff and consumers.

Figure 4.7 – 13:

Key Measures Tracking Chart

Shopper Experience Rewards

LOTTERY

Retail Location Name _____

Retailer # _____

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Date of Visit	Key Measure 1	Key Measure 2	Key Measure 3	Key Measure 4	Key Measure 5	Total
Visit 1	1	2	3	4	5	/5
Visit 2	1	2	3	4	5	/5
Visit 3	1	2	3	4	5	/5
Visit 4	1	2	3	4	5	/5
Visit 5	1	2	3	4	5	/5

You achieved out of 25 Key Measures during the past five (5) visits.

This collaboration between the Hoosier Lottery, our sales staff, and retailers drew enthusiastic participation and contributed to positive results in both sales and player satisfaction.

4.7.8

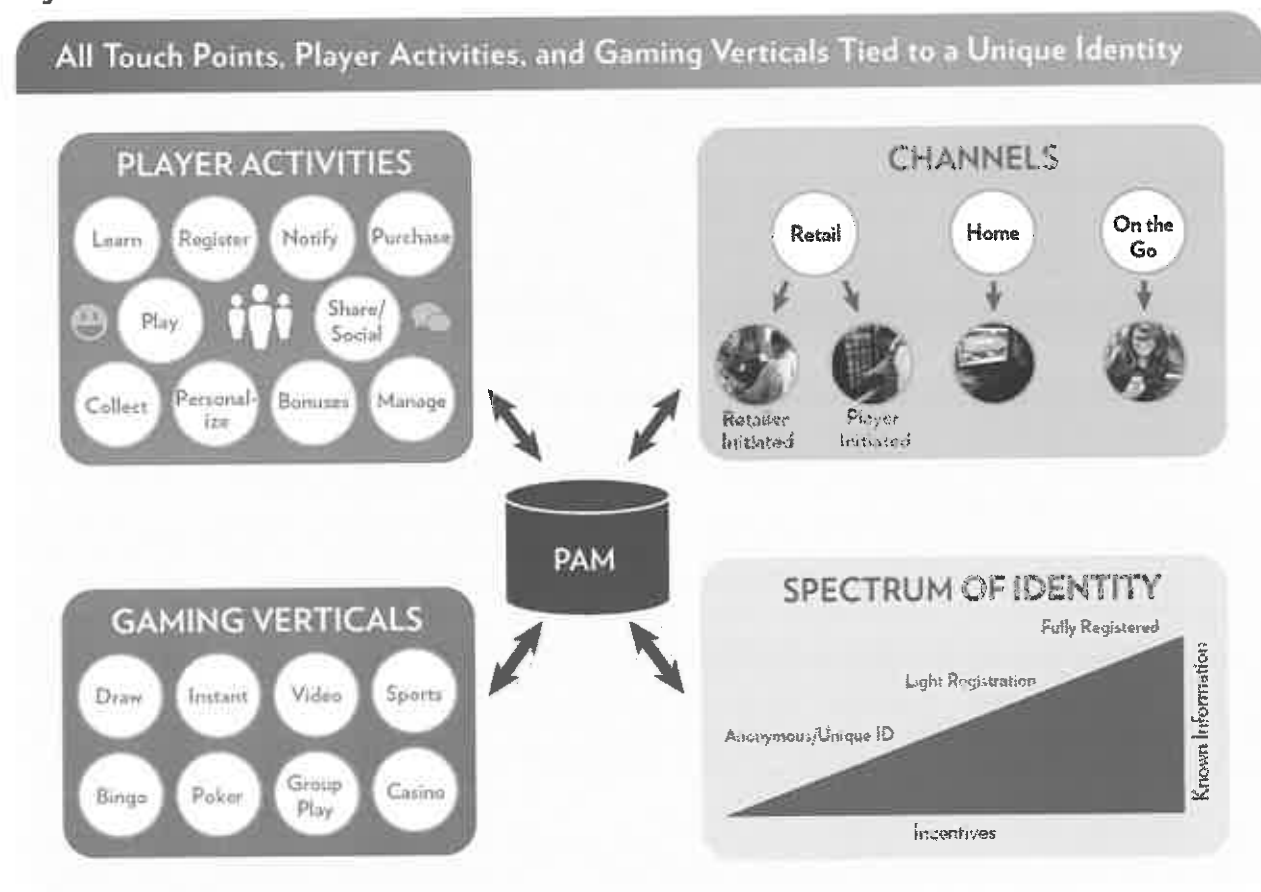
Player Services Enhancements

Vendor provides basic player services to increase play engagement and sales. The System is designed to interface with a player subscription program and accommodates multi-length subscriptions across multiple platforms.

Bringing “Omnichannel” to Life

“Omnichannel” is the buzzword that describes the ideal player experience across all channels, modernizing lottery in a hyper-digital world. The digital landscape presents many challenges, and leading advertisers will tell you that consistent and engaging brand messaging must be top of mind. Creating this omnichannel player experience allows the Lottery to understand players through “Big Data,” which presents new insights and opportunities to enhance the relationship between the Lottery, its players, and its retailers. One of our focal points for our partnership with the Lottery is to bring together player behavior data from all channels into a central repository, enabling a single player view that provides a seamless player experience such that players can access the same functionality via all touch points and channels.

Figure 4.7 – 14:

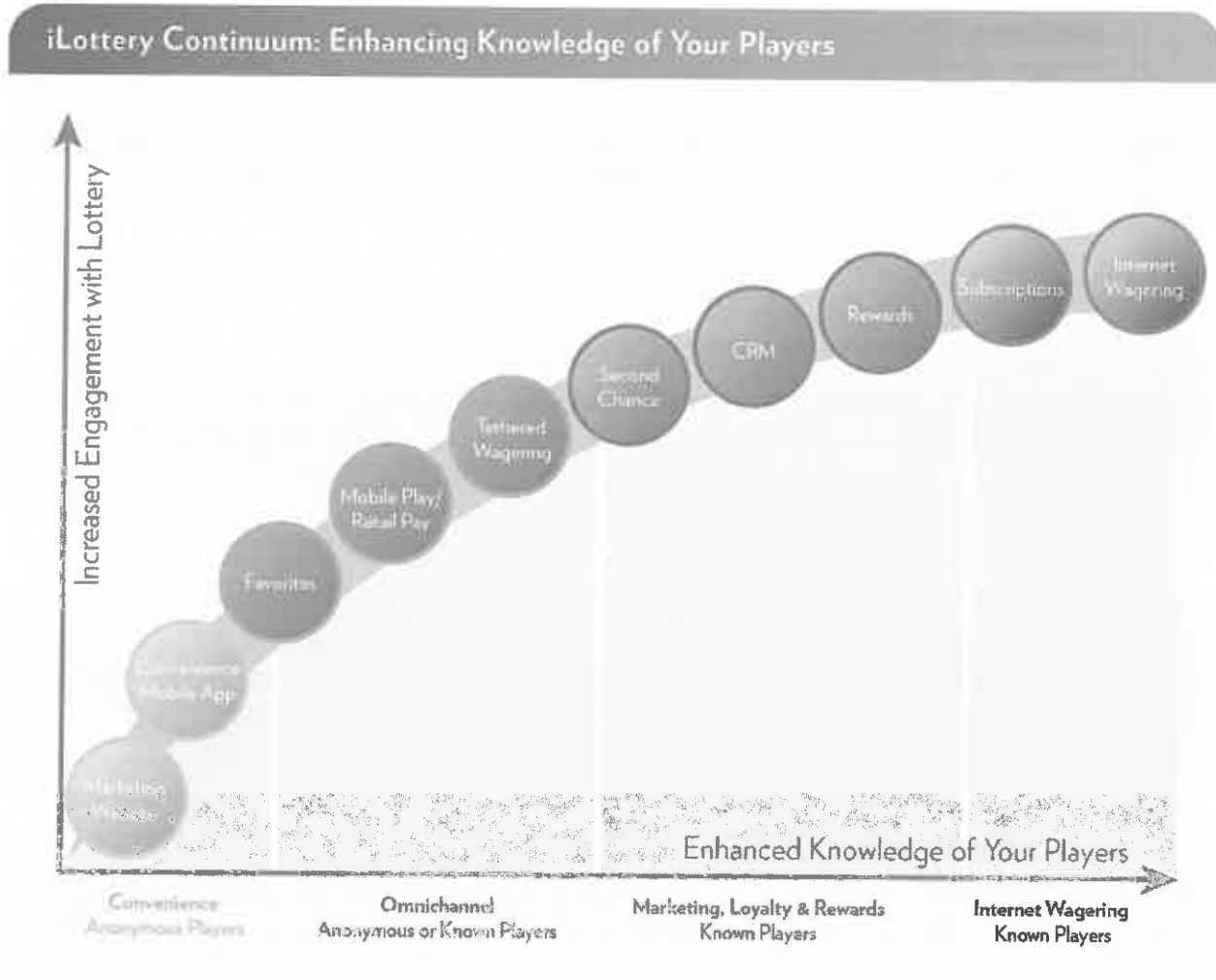


The omnichannel approach carries benefits for:

- **Players:** The **convenience** of interacting with the Lottery on their terms.
- **Retailers:** The enhanced **revenue** driven by the fact that omnichannel players are known to spend more at retail.
- **Lotteries:** The **customer relationship management** tools to consistently acquire, reward, and retain players.

The following figure highlights the omnichannel trajectory.

Figure 4.7 – 15:





IGT can offer a robust suite of player services – for both immediate implementation and for potential future consideration – that will increase player engagement and sales across channels. Our IGT iLottery solution will provide you with:

- A full-service Player Rewards program to enhance your existing Player's Circle database, including:
 - **Digital rewards** through our proposed system, which are designed to keep players in the Lottery ecosystem with incentives that encourage continued play.
 - **Physical rewards** via our third-party fulfillment partners.
- A platform equipped with functionality to provide a range of player-engagement opportunities to be launched if and when you choose, including multi-length subscriptions, second-chance offerings, full Internet wagering, instant-win games, and group play.

The IGT iLottery platform will leverage our IGT Command™ PAM product, enabling you to take full advantage of the most advanced Customer Relationship Management (CRM) and Know Your Customer (KYC) tools to maximize insight into your players' behaviors and preferences and engage them with strategic, targeted marketing and promotions.



In addition, our mobile convenience app – included in our base offering – will place all of this immediate and future functionality at players' fingertips, creating a simple, fast, and fun engagement for players.

In short, you will be able to enhance the player experience and evolve your players from anonymous to known customers, creating a positive relationship with the player base to strengthen and sustain the Lottery brand for years to come.

Ownership and Conversion/Transfer of Data

Player information and all other data collected and used during the Contract term is the property of the Lottery and may not be used without the Lottery's consent. All data should be converted and/or transferred to any subsequent Vendor at the conclusion of this Contract.

IGT understands and acknowledges that player information and all other data collected and used during the Contract term is the property of the Lottery and may not be used without the Lottery's consent. At the conclusion of this Contract, we will convert and/or transfer all data to any subsequent vendor.

Rewards Program and Services: Complementary Features, System Interfacing, and Convertibility

Vendor should detail how player rewards program and services will complement one another. System interfacing for each service, and the convertibility of player information to any subsequent System vendor. To provide these player services and program, Vendor may use a third-party subcontractor in part or in whole.

IGT programs are developed in tandem with a lottery's current player engagement strategies so that the entire player rewards environment works seamlessly. IGT Interactive Marketing Services has created promotional opportunities for players in both Georgia and Kentucky. The IGT system is robust and configurable, allowing for multiple variations of player interaction.

The second-chance engine, for example, allows players to enter into additional draws and join in a community whereby they can earn points and rewards for other Lottery game purchases. Coupons can be rendered, and virtual gift cards can be generated to share with other players within the player portal.

No Clear Marketing Funnel

"People usually don't just discover great products. Contrary to the famous saying, if you build a better mouse trap, the world will not beat a path to your door.

You need to develop a way to cost-efficiently attract leads, and then convert some of them. This seems so basic, but hundreds of thousands of businesses start with no clear marketing funnel and then have to rely on luck or referrals to get customers in through the door."

– Simon Reynolds, *Forbes*

When we enable our players to speak for the games and products provided by the Lottery, they are also including a testimonial that validates the relevancy of the organization. Your best sales people are your players.

4.7.8.1

Player Rewards and Subscription Services

The Vendor should detail a complete solution for player rewards program and services that will convert and expand the Lottery's current player database ("Player's Circle").

The IGT iLottery solution comes fully equipped with a Player Rewards system, including:

- A robust PAM system to track players and engage them more efficiently.
- A mobile convenience app – with a Virtual Player Card – to enhance the player experience and bridge the iLottery and brick-and-mortar retail channels into a single ecosystem where players are rewarded for purchases across multiple channels.

With a responsive player-rewards portal, players will enjoy convenient and engaging interaction with the Lottery while enhancing loyalty to the Lottery's brand and products.

The iLottery platform comes with all the functionality needed to expand future interactive offerings, from subscriptions and second chance to adding new game content from anywhere in the marketplace to full Internet wagering. Whatever interactive capabilities you choose to adopt, IGT iLottery can accommodate you. Throughout this section, we detail each of these features and their benefits to the Lottery.

IGT iLottery Platform: An Integrated Solution for the Entire Lottery-Channel Spectrum

IGT's iLottery platform is an extension of the proven, dependable, high-performing Aurora technology detailed throughout this proposal, and includes player rewards, subscriptions, and Internet wagering functionalities. It supports the same fundamentals that Aurora does – with security and performance at the forefront to safeguard your brand integrity – while accommodating the challenges that the iLottery channels and their players bring to the table.



Our platform's API-based approach to draw-based game purchases enables enforcement of liability limits for numbers games across all sales channels.

The platform is field-tested, proven, continually improved upon, and geared towards lotteries' needs. To position the Lottery for future growth, the platform will build a complete database of lottery players through unmatched player functionality, benefits, entertainment, personalization, new channels, and interactive play.

Most important, the platform features Responsible Gaming (RG) safeguards across all channels. Without a single view of players, introducing controls between the iLottery and lottery retail channels is impossible.

To provide a complete spectrum of service to our customers, the solution encompasses three core dimensions across multiple channels:

- **Functionality:** By capturing player information and developing a player portal, we implement a range of games – draw-based, Instant Win, Rapid Draw Keno, and more, all the way to Peer-to-Peer (P2P) Bingo, as directed by the Lottery.
- **Channels:** Delivering functionality over various channels requires specialized solutions and expertise. A good example is geo-location for tethered Internet Protocol (IP) vs. mobile IP.
- **Services:** The development of skillsets, tools, and investments specific to the omnichannel and iLottery space is crucial to maximize the opportunities they present.

IGT iLottery will support the Lottery's draw-based games using the following components:

- Gaming Integration System (GIS), which handles all games and game systems.
- Transaction store.

The platform supports the purchase of all lottery draw-based games, including lotto-style and numbers games, exposing those services through APIs that can connect to our own and external clients. Draw-based purchases will be injected directly into the Lottery system, providing it with a consolidated view of sales and the ability to view sales by channel (retail, web, mobile).

IGT iLottery platform functionality highlights include:

- Internet account wagering for all draw-based, numbers, monitor, and Instant Win games.
- Wagering for the supported games via the Lottery's Easy Picks.
- Purchase of wagers and Easy Picks individually or via a shopping cart.
- Lottery voucher promotions.
- Ticket details.
- Players' game-play history.
- Players' transaction history.
- Configuring, editing, and deleting favorite wagers.
- Winning prizes automatically paid to players' accounts. This can occur when all divisions are payable for a draw and does not need to be at day-end.
- System balancing.

Our iLottery platform is vertically and horizontally scalable. Over the past few years, we have adapted our systems and integrated them with the systems of many third parties, including loyalty vendors such as ePrize and message vendors such as Silverpop and ExactTarget.

The system is fully Internet-wagering-capable for the web and mobile channels, allowing the Lottery to evolve beyond online subscriptions to full interactive wagering using the same platform. Behind the games, you'll have a virtualized Lottery gaming system that will enable you to sell lottery products on the Internet and manage all transactions, beginning when a player registers to play your iLottery games. The virtualized central system will integrate with your central system, the player portal, and to the financial transaction entities.

Our Suggested Approach to Player Rewards

Historically, lottery has been based on marketing and advertising to an “anonymous” consumer base. Over the last several years, we have transitioned into a different marketplace whereby registered play and personalized experiences now govern our approach. The goal is to create, engage, drive, and extend player participation with an omnichannel strategy that expands the touch points to include the Point of Purchase (PoP) and beyond.

IGT iLottery includes a fully integrated, end-to-end Player Rewards platform that represents a bridge from brick-and-mortar to interactive player engagement – a 360° win:

- **Players win** with a better experience and more value. They can receive point rewards and redemptions and manage point balances through the Internet and mobile channels (via responsive design sites for multiple platforms) as well as the retail channel.
- **Retailers win** with increased store traffic and player loyalty to retailers.
- **Lotteries win** with increased revenue and brand loyalty, and with the ability to choose desired player behavior and incentivize and reward that behavior accordingly while capturing all of a player’s journey and delivering customized communication in real time.

To maximize these wins, our approach:

- Encourages loyalty and positive emotions toward your brand and then incentivizes those emotionally engaged players.
- Enhances your relationship with existing players via relevant engagement and retention strategies.
- Supports the acquisition of new participants (particularly among emerging demographics) through a well-run CRM.
- Evolves anonymous players to known players, providing a single view of the player across all channels and allowing you to better understand and drive your players’ behaviors across all products.
- Helps you promote products, increase engagement across your portfolio, and methodically reward players.
- Adds value to all tickets sold – winning and non-winning, instant ticket scratch-off game or draw-based game – thus providing a winning experience to all players and increasing average player spend.
- Maintains the highest standards of RG, security, and integrity.
- Makes the business model a game in itself, with the ongoing challenge to the player of achieving the monthly point level, providing a sense of heightened activity and greater engagement with the program.
- Builds upon the success of IGT’s iLottery work with the Illinois, New Jersey, Georgia, Oregon, and California lotteries, as well as our Premium Club Rewards program in Italy.

Steadily Building Player Engagement with a Holistic Approach – The Starbucks Example

There are no magic bullets for dramatically expanding the player base or revenues. A Player Rewards program, in itself, should not be expected to yield windfall profits based on a prize pool reduction. When implemented thoughtfully and within the context of a wide-reaching and consistent, holistic business strategy and aligned CRM strategy, IGT's player loyalty offering can steadily increase your player base and resulting sales by expanding the quality and means of player engagement with the Lottery.

“ A Player Rewards program, in itself, should not be expected to yield windfall profits based on a prize pool reduction. ”

Starbucks, one of the world's most successful brands, offers a rewards program aimed at boosting revenues from its frequent customers. In April

2016, it switched its rewards model to reward the amount its customers spend, rather than the number of store visits. The Starbucks Rewards program provides the incentive of providing a free beverage or food item from its in-store menus to members of its rewards program whenever they accumulate 125 stars. Rewards can be redeemed through customers' mobile app when using the Mobile Order & Pay functionality or by asking the barista when paying at a participating store.

The percentage of Starbucks rewards members has more than doubled in the last three years (according to NASDAQ, January 4, 2017). Furthermore, the number of purchases made without a reward card has consistently gone down.

Key to Starbucks's success is that its rewards program is a component in a holistic **Digital Flywheel** campaign, which aims to use customers' digital touch points and corresponding customer data for its rewards program, payment via mobile app, increasingly personalized messaging and rewards, and simplified and convenient ordering.

IGT brings solutions for all these areas and can leverage them for the Lottery in a manner that, like Starbucks, integrates them into a holistic strategy that aims to steadily increase efficiencies and brand synergies across your business.

Making It Happen: The Virtual Player Card

To harmonize the omnichannel approach via Player Rewards, we present the IGT Virtual Player Card. An extension of the mobile convenience functionality detailed later in this section, the Virtual Player Card provides a way to enhance the lottery retail experience by:

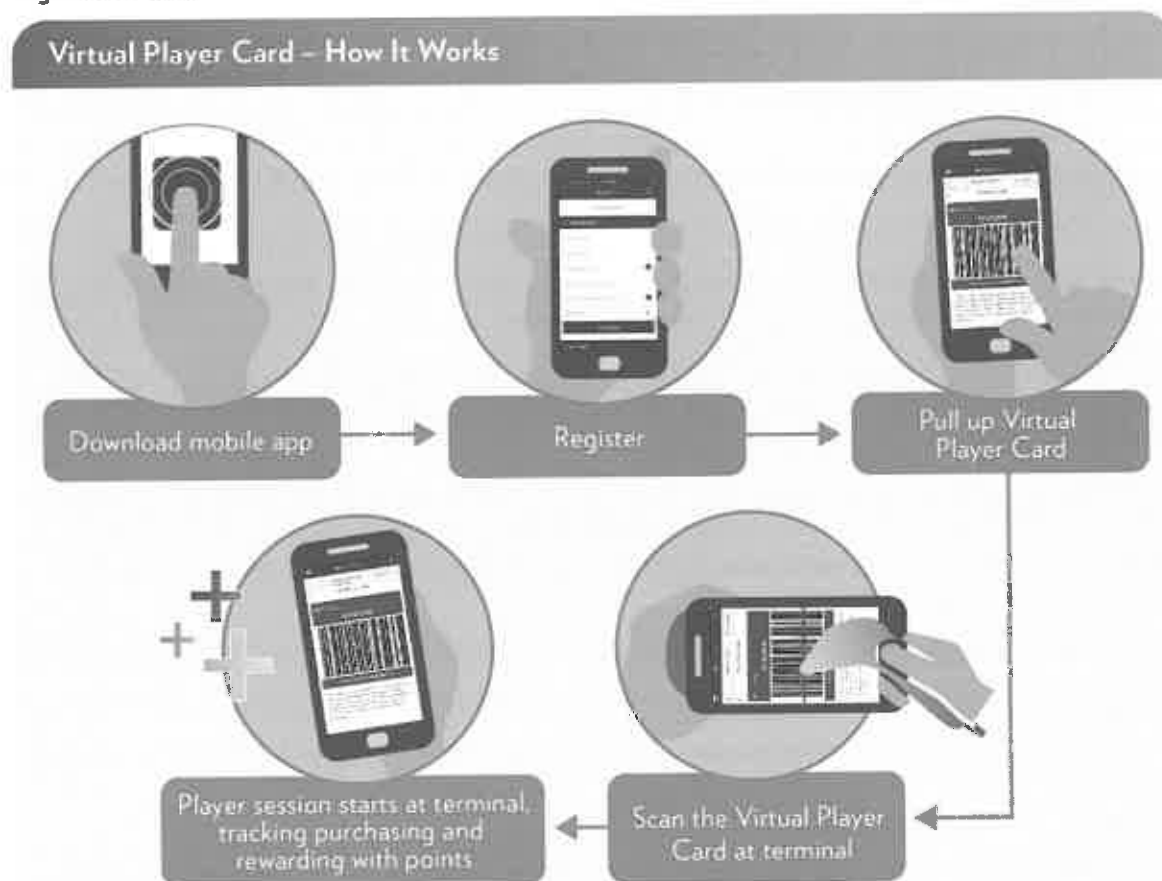
- Providing a bridge from traditional retail play to iLottery.
- Integrating with the Player Rewards program as well as new iLottery game concepts, eCommerce subscriptions, second chance programs, Internet wagering, and other omnichannel solutions you wish to implement in the future.
- Driving relationship marketing and player support through actionable analytics.

Virtual Player Card:
Just download,
register, and start
earning points.

The process is simple. The player downloads the Lottery mobile app and registers to create an account. In the app, the player goes to the Virtual Player Card, which contains a barcode that represents the player's unique ID. Scanning this barcode initiates a terminal session at retail; the player's purchases are thus associated with the player's Player Rewards account. The Lottery can begin tracking the player's activity, and the player can begin earning points.

That's it. Just download, register, and start earning points.

Figure 4.7 – 16:



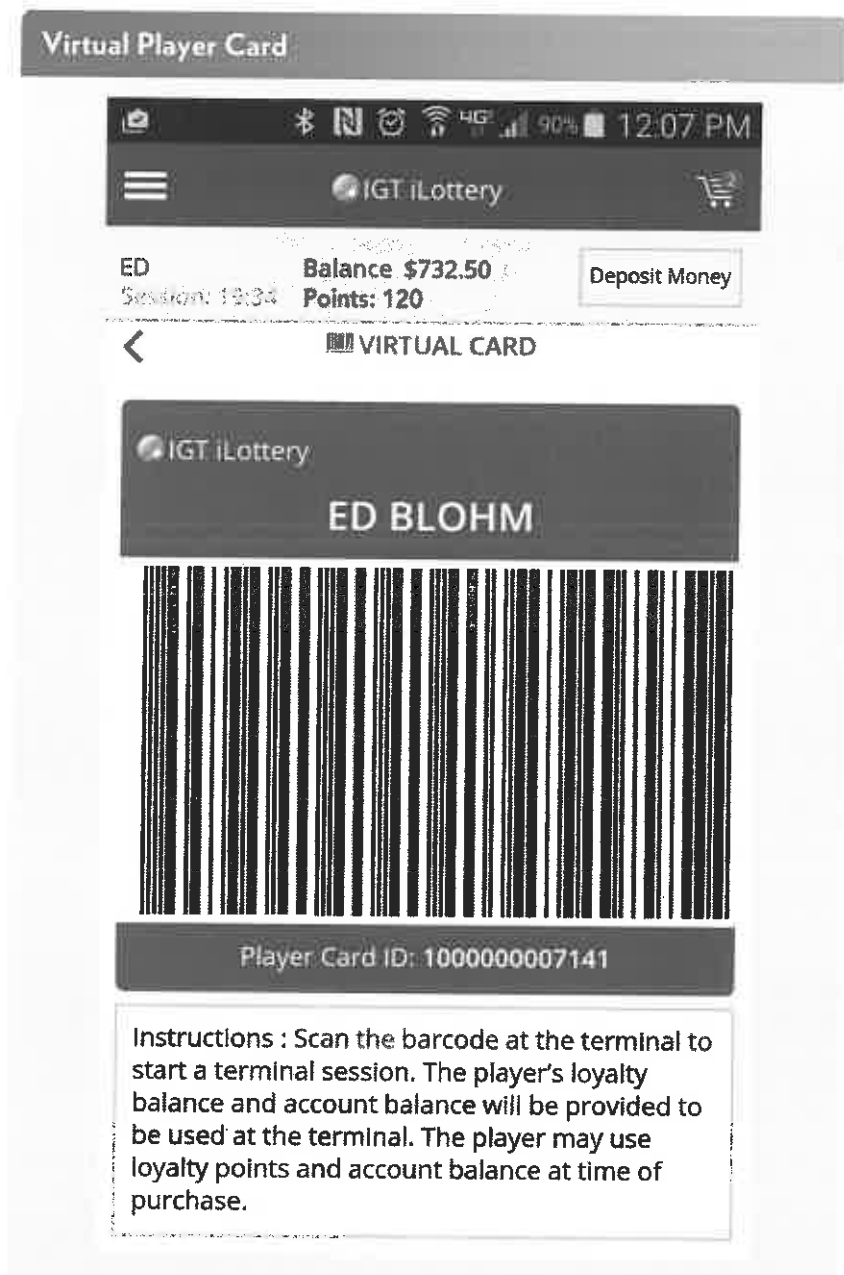
The player can pay via a digital wallet (although cash payments are also an option), turning the mobile app into a “virtual debit card” that players can use across the retail network.

The Lottery can then provide players with discount promotions, free plays, unique second chance entries, or other offerings as a way to reward their loyalty.

Winning instant ticket scratch-off games can be validated and paid to the player's account once the player has revealed the ticket's outcome.

The Virtual Player Card looks like this:

Figure 4.7 – 17:



Funding the Virtual Player Card

Virtual Player Card accounts can be funded using cash at Lottery retailers and connected to a player wallet with top-up/fund insertion via credit, debit, and/or Automated Clearing House (ACH) transfer. To purchase Lottery products at retail, players simply launch a Lottery app on their mobile devices and select the Pay Now function. The app presents a barcode to be scanned by retailers using their terminals' 2D barcode readers, or by players using the 2D barcode readers on self-service terminals.



IGT can also provide an option for player accounts to automatically “top up” when they fall below a certain funds level. Furthermore, since all draw-based game purchases made with the Virtual Player Card app are linked to that player, the solution enables automatic payment of winnings to the player’s Lottery account and integrates with the Player Rewards system. This is all predicated upon the Lottery’s requirements and safeguarding the brand with KYC verification.

A Streamlined Player Card Solution

Based on our IGT iLottery platform, a Virtual Player Card will eliminate many of the expenses associated with maintaining and administering physical card inventory. Player origination and registration are managed via the Lottery’s Internet portal. The mobile app is delivered electronically, directly to the players’ iOS or Android mobile devices. The automated electronic process of contacting players through the app allows you to quickly be advised that players are using their accounts, which a physical card program cannot achieve.

Additionally, the Virtual Player Card reaches your players through a channel they already use every day: their mobile devices.

By eliminating distribution of cards at retail, our Virtual Player Card program enables the Lottery and retailers to focus their time, effort, and investment on the marketing and promotion of the Virtual Player Cards to players.

Focus on Player Engagement

We can work with the Lottery to focus our combined efforts on:

- Incorporating a Virtual Player Card program into the Lottery’s general marketing efforts (retail signage, multimedia advertising, etc.).
- Establishing a strong promotional structure for retailers:
 - Incentives for originating registered players.
 - Increased “cashing bonus” for manual validations paid to Virtual Player Card accounts.
 - Bonus sales commission for lottery sales paid for via the Virtual Player Card.
 - Commission for retail cash top-ups.
- Promoting the program via extensive digital marketing, beginning with the Player’s Circle database.

Promotional Benefits

By establishing a direct relationship with players, you will be able to analyze actual player behavior, driving segmentation and targeted marketing campaigns. Performance can be monitored to measure the Return on Investment (ROI) of your marketing investment. Your Virtual Player Card program can be further enhanced with offers from retail partners.

Big Data Analytics – A Key to the Competitive Edge

The power of Big Data analytics in enhancing CRM, customer personalization, and business efficiency is among the leading drivers of growth and innovation on the world stage – and represents a key strategy for maintaining the relevancy and excitement of the Lottery brand in an increasingly competitive and fast-evolving marketplace.

To remain current and gain a competitive edge, the modern lottery needs agility and the ability to work faster. This means tapping into the intelligence inherent in the data it collects every day.

The concept of Big Data has been around a long time. Most organizations recognize that they can significantly enhance value by applying analytics to the data that streams through their business. What has changed is the speed and efficiency of the analytics available – and the immediate benefits that can be gained.

It has been shown that companies that implement a Big Data and advanced analytics strategy are more profitable in the consumer market: looking forward, this business approach is becoming one of the most relevant in the new digital era.

Big Data and Advanced Analytics: Facts



Sources: McKinsey, Gartner, Capgemini, MIT, Harvard & Deloitte

The mobile tools and approach to Player Rewards and iLottery detailed throughout this section are designed to leverage the power of data in alignment with our BI platform. For more information on our approach to analytics, please see Section 4.3, Reports and Interfaces.



How Revenue/Profits Are Generated for the Lottery

The Lottery can realize revenue from the deployment of IGT's Virtual Player Card by:

- **Incremental Sales:** It is expected that the many player benefits of the Virtual Player Card will transform the retail lottery experience and drive increased sales:
 - Auto-pay of winnings for draw-based game wagers placed with the Virtual Player Card.
 - Drive cashless transactions.
 - Enable automatic Player Rewards credits or second chance entries.
- **Player Fees:** The Lottery will be able to charge reasonable fees to players for optional features and/or services, which could help offset marketing costs. Examples include:
 - Issuance fees.
 - Monthly fees.
 - Transaction fees for certain "open loop" (i.e., non-lottery) transactions, such as ATM withdrawals.

An Engaging Player Rewards Strategy

IGT proposes a quality program for the Lottery that creates a tiered strategy to incentivize and reward desired behavior and achieve the goals highlighted in the following figure.

Figure 4.7 – 18:



IGT's Player Rewards Program: Its goal is to drive incremental revenues and player engagement with the brand.

Our core competencies and experienced team (both internal and third-party partnerships) encompass an in-depth understanding of Player Rewards programs that have reached millions of consumers worldwide. IGT will incorporate marketplace loyalty strategies and align with your vision to achieve continued revenue growth.

IGT will use six core program strategies in developing your Player Rewards program.

Figure 4.7 – 19:



These strategies are designed to:

- Drive affinity with the Lottery brand.
- Achieve a critical mass of active players.
- Identify the player base and other sources of player data.
- Apply techniques that will motivate purchase and other desired player actions that promote awareness, education, positive word of mouth, and advocacy.
- Provide highly relevant and attainable rewards, including real-time redemption of points for tickets at retail to increase engagement and enhance the Lottery's retail partnerships.
- Continuously analyze and segment your player base to deliver highly relevant messages and promotional overlays that drive continued engagement and sales.

Key Program Differentiators for the Lottery

IGT's approach is driven by four key differentiating principles:

- **Convenient and Fair:** Players earn points for all products (both winning and non-winning, instant ticket scratch-off games and draw-based games). We also propose a structure that drives, incentivizes, and rewards the Lottery's desired player behaviors.
- **Omnichannel:** It is crucial to engage players where they interact with the brand, which is primarily at retail. In addition to desktop and mobile interactive channels with a user-friendly, customizable dashboard, the retail channel plays a strong role in program awareness and adoption. And of course, our approach also capitalizes on the expanding role (and tools) of social media to drive program success.
- **Value-Driven:** IGT's program is based upon actual redemption of points, as opposed to a lump sum associated with prize pools. In addition, transparency with respect to rewards costs – coupled with rewards that are more lottery-focused – drives value for the Lottery and provides a better experience for its players.
- **Focus on KPIs:** Our program is based on a set of KPIs that are the true measure of a Player Rewards program. These KPIs will be jointly determined with the Lottery and provide the focus for measuring success. Our model's performance indicators will expand brand awareness and:

A rewards program should be accessible when, where, and how the player wants it, whether in-store, online, or on a mobile device.

- Increase revenues and incremental net profit.
- Increase player participation, engagement, and redemption.
- Enhance player satisfaction by driving increased rates of redemptions.
- Increase retention of existing players.
- Enhance retailer collaboration by driving incremental return.

Most importantly, our Player Rewards program allows lotteries to have a clear view of the program's costs and benefits and measure results. It's a profit-driven business model with less risk. Prizes are paid for on

redemption, instead of pre-paid. For example, rather than taking a percentage of funds out of the prize pool, the Lottery can choose to print more tickets. *You* decide how much you want to invest in each promotion.

Player Rewards programs are long-term commitments, requiring internal alignment with a vision that produces a culture of integrated marketing, operations, data management, sales, business partners, legal, and RG compliance. Our goal is to work with you to define player-focused strategies that benefit retailers and players.

You decide how much you want to invest in each promotion.



Driving Loyalty Behaviors

There are three types of loyalty behaviors that drive lottery growth and long-term commitment among players:

- Advocacy.
- Purchasing.
- Retention.

IGT focuses on all three in the development of its Player Rewards programs.

Advocacy: The Next Generation

An engaging, omnichannel Player Rewards experience is about increasing sales as well as leveraging the power of consumer advocacy, providing a means by which players can act as ambassadors for the Lottery brand.

“ At American Express, one of the most important customer measurements is referrals, or Net Promoter Scores. That’s because the highest achievement in loyalty – the next generation, if you will – is advocacy. At that point, people aren’t just brand supporters – they are brand promoters, believing so strongly that they have a sense of pride in introducing others to what you offer. According to Steve Jobs, the secret to advocacy is simple: **“Provide an insanely great product.”** Advocacy starts with having a product or service people are eager to recommend.

In today’s age of social media, online networking, bloggers, and ratings and reviews, advocacy has become an increasingly important and powerful metric.

So whether you’re committed to your vision like a successful pop star, forming great partnerships like co-branded concert tours, or exceeding expectations like the latest TV series craze, you can use these strategies to apply the lessons of fandom to improve customer loyalty.

”

– Megan McKee, Vice President Consumer Charge and New Business Development at American Express Canada

We will work with you to develop strategies such as social media-based campaigns to leverage this advocacy power to attract players and expand the consumer conversation about the Lottery.

Expand Reach and Impact: Drive Sales and Player Engagement with an Omnichannel Experience

IGT will develop a multi-channel communications plan to engage, retain, and grow profitable player relationships.

We deliver a simple value message that players understand, with clear strategies to move players up in terms of tiers, spend, and engagement. Players will know what it takes to earn rewards. Based on player research, we will provide a mix of benefits, including benefits both hard (points, free plays, merchandise, entries to drawings, discounts with partners etc.) and soft (store favorite numbers, players get automatic notification when they win a draw-based game, etc.).

We will also continue to reinforce messages to core player segments at the POS via social media and provide marketing support that is persistently executed to sustain impact.

The Lottery's Player Rewards program will be concentrated on a seamless approach to the consumer experience through all available channels. The channels that we propose using for the Lottery's Player Rewards program include:

- Computer.
- Online Microsite.
- Social Media (Facebook, Twitter, YouTube, Blogs).
- Email Communications.
- Mobile Devices (Smartphones and Feature Phones).
- Mobile Optimized Site.
- Mobile App (Fully Integrated into a Lottery App and/or a Player Rewards Program-Specific App).
- Mobile Short Message Service (SMS) Communications.
- Lottery Call Center.
- In-Store.

We will leverage the Lottery's distinctive assets to engage players at the POP by:

- Engaging retailers in the loyalty value proposition.
- Providing frontline training and incentives.
- Updating POS technology to facilitate self-service.
- Providing messaging via terminal receipts, Aurora MultiMedia, and a communications strategy that drives players to benefit from promotions.

An omnichannel experience brings many benefits. First, it engages the player, which ultimately drives player retention. Players will engage when and where it is most convenient to them. Secondly, it creates a more knowledgeable player. A more knowledgeable player will be more engaged in the Lottery's Player Rewards program and easier to service at retail.

Last, an omnichannel experience results in increased spend and loyalty. According to a recent study from IDC Retail Insights, "Omnichannel shoppers exhibit strong brand loyalty, often times influence others to patronize a brand, and spend up to 15%-30% more."

Retail Channel

A strong call-to-action to enroll in the program will be prominently displayed on POP displays and via ticket messages. A QR code could be prominently displayed at POP with a call-to-action to the player to “Join the Lottery’s Player Rewards program – <Scan this QR Code to Enroll Now>.” The player scans the QR code with a smartphone and is directed to the Lottery’s mobile-optimized site to continue enrollment. The same process could be used with the code being displayed on a ticket message.

Motivate the Relationship

We recommend that the Lottery provide incentives that reward the holistic relationship with its players. The following table outlines the benefits of motivating this relationship.

Figure 4.7 – 20:

Provide Incentives that Reward the Holistic Relationship		
Incented Behavior Category	Point Earning Action Examples	Strategic Value
#1 Purchase	<ul style="list-style-type: none"> Retail purchases (Captured via Virtual Player Card) Entering unique codes from winning and non-winning lottery tickets 	<ul style="list-style-type: none"> Highest economic value Generates incremental sales Cross-sells lottery portfolio
#2 Enrollment	Program registration	<ul style="list-style-type: none"> Critical to program success High hurdle behavior
#3 Communication	<ul style="list-style-type: none"> Email opt-in Mobile opt-in Follow-on Twitter Download mobile app 	<ul style="list-style-type: none"> Cornerstone to ensuring ongoing program awareness and engagement Multi-channel members have stronger long-term participation rates
#4 Insight	<ul style="list-style-type: none"> Poll Survey 	Generates deep member insight on an ongoing basis
#5 Education	<ul style="list-style-type: none"> Watch a YouTube video Trivia 	Understand Player Rewards program, specific lottery games, and the Lottery at large
#6 Advocacy	<ul style="list-style-type: none"> Member referral Product reviews <ul style="list-style-type: none"> Facebook Tweets 	<ul style="list-style-type: none"> Most credible and effective form of marketing Drive awareness and credibility for the Rewards Program and the Lottery

Maintain Program Relevancy

At the heart of any successful Rewards Program is a core business asset: customer data. Assuring that player data is captured in a consistent manner for all purchase transactions and other triggered player actions will promote better business decisions, provide the explicit information to segment, and target specific promotional activities to players. Within this focus is the added advantage of self-regulation: the more you know about your player, the greater the ability to manage RG. To enable any type of segmentation, customer profile data must be captured; at a minimum, name and contact must be tracked, which will be used for marketing, promotions, and points allocation posted to the player account.

Campaign Management System

Advanced Campaign Management System (CMS) tools are recommended at every phase. These tools allow more sophisticated targeting capabilities. Some of these features include:

- Filter, segment, and create a list of players based on any variable tracked in their profile or tracked behavior in the program.
- Set up a promotion (i.e., coupon, message, ad) for that list, including timing parameters, code creation for coupons, and start and end dates.
- Upload an image and any appropriate links necessary to track said image.
- Deploy the promotion (via e-mail, SMS, a messaging “hub” on microsite).
- Actively track and report back member activity associated with promotions.

Email

Players could receive monthly newsletters complete with account statements and any other relevant information to drive engagement and purchase such as special promotional announcements, partner offers, or featured products (both lottery and retailer products to increase basket size). In addition, players could receive ad hoc “surprise & delight” offers that are highly targeted to them based on their past purchase behavior and/or member profile attributes. These communications could also be triggered via the previously mentioned CMS.

Reporting & Analytics

Key to any kind of segmentation or optimization is reporting and analytics. The Lottery’s Player Rewards program will have a robust real-time reporting dashboard, available 24 hours a day, 7 days a week for client interaction. Prior to implementation and development of the program, we will consult with the Lottery to determine the optimal program metrics and KPIs that will be measured. We will build the dashboard to measure the variables most important to the Lottery based on its objectives.



Enhancing Player Engagement

Player engagement is borne out of building and maintaining relationships with players. This means recognizing who your current and desired consumers are and aligning your game portfolio, your mode of communication, and your rewards program to their wants and needs. By providing your players with relevant information, engaging experiences, and meaningful rewards, you can build loyalty and encourage them to engage more with your brand and products. IGT's solution will provide the Lottery with the tools needed to create engaging experiences for players.

IGT recommends the following multi-tiered approach to creating player engagement:

- Increase player communications on all levels.
- Expand Player's Circle offering to include:
 - Special member offers and premium player rewards.
 - Integration of second chance entries with additional local contests for more prizes.
 - Player rewards expansion to include the retailer via coupons and vouchers.

Implementation

Vendor should describe implementation.

IGT recognizes that the data already collected through your current Player's Circle program is vital to reaching your players. We have extensive experience in migrating Player Clubs for lotteries worldwide. In California, we converted more than 5 million players to the California Lottery's Second Chance program. It is imperative that this process be seamless, and we have identified key components in our solution that will allow the Lottery to grow its Player Rewards program platform via agnostic third-party integration that leverages the Lottery's existing data.

We will comply with the current West Virginia regulations regarding playing or participating in lottery drawings within the boundaries of the State.

Moreover, we will manage, connect with, and integrate with the Lottery's current Player's Circle by leveraging our Aurora Anywhere solution, which acts as a gateway for third-party devices on Internet and mobile channels. This technology will allow us to work with the Lottery to provide database-driven features, such as VIP, stored value, tracking capabilities, subscription, and smartphone proximity alerts.

The technology that underpins this new lottery paradigm is the API. APIs can be thought of as the interface to the Internet that allows various software applications to "plug in" to various software applications running on multiple devices. APIs expose different services to the Internet; the applications that want to use the APIs simply need to comply with API specification standards in order to access the lottery system, assuming that they have been approved by the Lottery and provided a valid developer key.

Aurora Anywhere exposes APIs to the back-end systems and applies security measures to keep the system safe from Internet attacks. It is highly modular, allowing for the development of new services and adaptation to different systems in the back end.

This allows third-party app and website developers to have access to public lottery information. We have also built-in capability to interface easily with third-party retail terminals in jurisdictions that can support this architecture.

Maintenance

maintenance.

IGT uses third-party software, Adobe Experience Manager (AEM), as its CMS solution for creating, managing, and delivering personalized iLottery experiences.

The market-leading AEM brings the following advantages:

- Modular framework to develop and manage web portals.
- What You See Is What You Get (WYSIWYG) rendering.
- User-friendly interface with colored tagging in code, assisted HTML coding, and a site-map tree view with user-friendly navigation.
- Multi-lingual, -channel, and -site management.
- Support for structured template documents that indicate how text will conform to a specified format.
- Digital marketing feature: Search Engine Optimization (SEO), analytics.
- Re-usable templates and components library.

The content management system can be managed by the Lottery or by IGT. We can provide the required AEM CMS training to the appropriate Lottery staff. The CMS will allow your staff to update text and graphics on your player portal.

AEM is an enterprise-grade web CMS with a wide array of powerful capabilities, including:

- Building, authoring, and publishing websites, complete with enforcement of corporate design and user access control of editing and publishing rights.
- Defining and implementing workflows for content creation, editing, and publishing.
- Managing a repository of digital assets such as images, videos, and documents, and integrating these assets into your website.
- Using search queries to find content no matter where it is stored in your organization.
- Setting up social collaboration tools such as blogs, user groups, and calendars.
- Organizing digital assets and web pages using tagging.
- Planning, designing, launching, and optimizing marketing campaigns.
- Providing maintenance/site management.
- Providing content updates on the player portal.

AEM consistently ranks as a leader in the Magic Quadrant for Web Content Management published by Gartner.



One of the most important aspects of this CMS is that it ensures timely website updates. AEM will allow you to keep your content fresh while monitoring and tracking player usage. AEM will enable Lottery staff to make content updates to apps through its self-administered, web-accessible tool. AEM will keep your app and portal relevant by providing updated content every time a player logs in. They will be easy to design, look great, load quickly, and have web content that will optimize search engines so that site indices appear at the top of player search results.

Personnel

personnel.

IGT will devote corporate resources with expertise in the areas addressed in this section to support the on-site Marketing Content Manager. This Manager will be available on the ground to work directly with the Lottery on its marketing campaign and outreach efforts. The Marketing Content Manager will align with our corporate resources, leveraging IGT's expertise in data analytics and marketing to maximize your marketing efforts' reach and impact in an increasingly media-driven and technology-powered landscape. This West Virginia-located IGT support will schedule, update, track, and implement all Lottery-approved content in a socially responsible manner for use across all platforms and distribution channels, including:

- Retail.
- Website.
- Social/Mobile/Interactive.
- Customer display messaging.
- Ticket messaging.
- Terminal messaging.

Player Marketing Services

Player Marketing Services create added value by maximizing the benefits of technology platform investments. The purpose of Player Marketing Services is to provide support on how to optimally leverage provided technology and how to capture opportunities enabled by those solutions. Such support will provide you with access to experienced professional staff that can accelerate the learning curve and put focus on areas with the greatest potential impact.

We have strong experience in the iLottery and iGaming spaces, working with clients to support their needs across product and marketing processes. Player Marketing Services cover the entire operational spectrum – from analyzing data to making decisions on products and marketing to execution and measurement of their impact.

Services can be customized and scaled for specific Lottery needs and resource requirements, with the scope ranging from consulting to full-service outsourcing. Services can be delivered from on-site or through a centralized service model.

Typical services include, but are not limited to, such areas as:

- **Program Management:**
 - Day-to-day operational management and program deployment after project delivery.
 - Coordination of various internal/external partners.
- **Analytics and Reporting:**
 - Developing and running basic reporting (daily, weekly, monthly) to provide ongoing and on-the-spot understanding of business performance.
 - Development of KPI measures and reporting views to support long-term performance improvement.
 - Data mining to provide insight on data and segment players for marketing purposes.
- **Product and Player Management:**
 - Player journey and user experience optimization across touch points.
 - Game/content roadmaps and product life cycle and profitability management.
 - Product/platform/portal feature roadmaps.
- **Marketing:**
 - Strategic marketing planning.
 - Marketing and promotion programs to acquire players, optimize player yield, and prevent churn.
 - Marketing operations across owned media – operating CRM, social media, and portal content.

Rewards Structure

rewards structure,

IGT's approach to Player Rewards centers on keeping players in the Lottery game-playing mindset. We use methods that enable the Lottery to recognize players' actions to reward them with points that can later be used towards the purchase of more games in the Lottery's product portfolio. Or, if the Lottery chooses, players can select from a range of gift items.

Earning Points

It is important to make it as easy as possible for players to earn points. To that end, we have established two broad categories by which players can earn points, the specifics of which can be customized according to the Lottery's needs:

- **Purchases**, such as:
 - Draw-based games.
 - Instant ticket scratch-off games.
- **Activities**, such as:
 - Registration; opting in to various communications channels.
 - Referrals and social interaction.
 - Entry into second chance drawings.
 - Surveys and participation in product/Lottery education.

Earning Points: Fraud Prevention and Responsible Gaming (RG)

IGT has a longstanding commitment to develop and implement RG programs. The Company is a leader in employing industry best practices and applying international standards to achieve its RG objectives. As an operator and lottery services provider, we have designed and administered detailed RG programs. As a technology provider, we have worked cooperatively with gaming regulators, operators, and treatment service providers to successfully develop technology solutions that enable robust RG programs for our customers and their players.

Proven player protection, system security, and fraud prevention tools are embedded in IGT's lottery, gaming, sports betting, and interactive platforms. In collaboration with various research organizations, consumer associations, and expert problem gambling treatment providers, IGT focuses on the social impact of gaming by contributing to the following:

- Prevention of problem gambling.
- Prevention of underage gambling.
- Support for problem gambling research.

IGT recognizes that an RG approach should incorporate and govern all business management activities to safeguard the interests of players and the community in general. We will uphold our RG principles to help prevent fraud within your Player Rewards program, particularly when it comes to earning points for purchases.

Retailers are prohibited from participating in lottery rewards programs. We can employ a database tracking system that will provide the Lottery with real data to monitor possible abuse and offer support to players. In addition, we can establish timeframe limits that directly correlate with a maximum purchase amount. From within the portal, point maximums can be configured based on days, weeks, or months.

In California and Oregon, we monitor for multiple entries by setting limits and using reporting features to find and flag players who push those limits so that we can restrict their access.

Managing Point Balances

Player Reward programs can evolve over time with the introduction of additional earning/redemption options and the modification of overall program Terms and Conditions (T&C) to reflect a program sponsor's evolving goals and needs. IGT's rewards engine is configurable and provides many options for lotteries to create special point opportunities for players from bonus play hours where perhaps the points are doubled to earning points when a player submits more than "x" number of games. Programs implement these changes in a variety of forms:

- **Additional Earning Options:**
 - Adding a new retailer partnership, e.g., dollars spent at restaurants.
 - Launching a co-brand credit card.
 - Adding hotel properties from which the member can earn points.
- **Additional Redemption Options:**
 - Option to use points for "special events" tickets.
 - Option to redeem points for gift cards.
- **Bonuses and Promotions:**
 - Offering bonus points to encourage spending on the underlying product.
 - Offering promotional redemption program where points have increased value to encourage redemption and build brand loyalty.

The following examples focus on possible expansions to earning or redemption options. Player Rewards programs also can implement changes in T&C to limit their overall offering. These changes often relate to the programs' cost structures and the sponsors' abilities to sustain increasing costs. The following are examples of "levers" frequently used in various industries:

- Change in number of points required to qualify for a reward.
- Change in points thresholds for various membership levels.
- Introduction of "blackout" dates or high-season dates (e.g., more points needed to get an award).
- Capacity restrictions (e.g., reduction in number of available seats on flights or reduction in the number of rooms available for a free night).
- Introduction of points expiration date or inactivity period rules after which points are forfeited.



Redeeming Points

It's important to offer a variety of options for players to use their points before they expire (the expiration period is configurable according to the Lottery's wishes).

Prizes and Choices

Our prize offering focuses on driving redemption of lottery products and seizing the opportunity to build awareness, encourage trial, and enhance the entertainment experience while fulfilling a prize of perceived high value to players, but less costly to the Lottery. Not only does this make it faster and easier to attain rewards, but it also encourages cross-sell and upsell of other Lottery products, leading to deeper engagement with the Lottery brand. This approach is complemented with unique programs that set the stage for many prizes and rewards featuring top brands, digital prizes, and multi-value retailer gift cards, including cards from Lottery retailers. Our use of customer segmentation data provides customized, relevant prizes for distinct audiences.

Point-Redemption Process

Continuing with the true omnichannel experience, catalog items and Lottery tickets can be redeemed by players in the following ways:

- At the terminal (Lottery tickets can be bought with rewards points).
- On a microsite (that is integrated on the Lottery's website).
- On a mobile device.

Bonus Play

Players can select *Bonus Play* to use their points to buy free lottery plays. Players will be notified of the Bonus Play at the POP for real-time redemption or via their preferred communication channel (phone SMS, text, email, etc.).

Experiential Reward Draw

Players can use their points to buy entries into that month's Experiential Reward draw, which is often tied in with existing lottery affiliations (e.g., West Virginia University Mountaineer teams).

Prize Catalog

If the Lottery chooses to offer prizes away from its gaming portfolio, players will have the opportunity to use their points by choosing an item from the Prize Catalog. See the section entitled "Point Redemption Process" for more information.

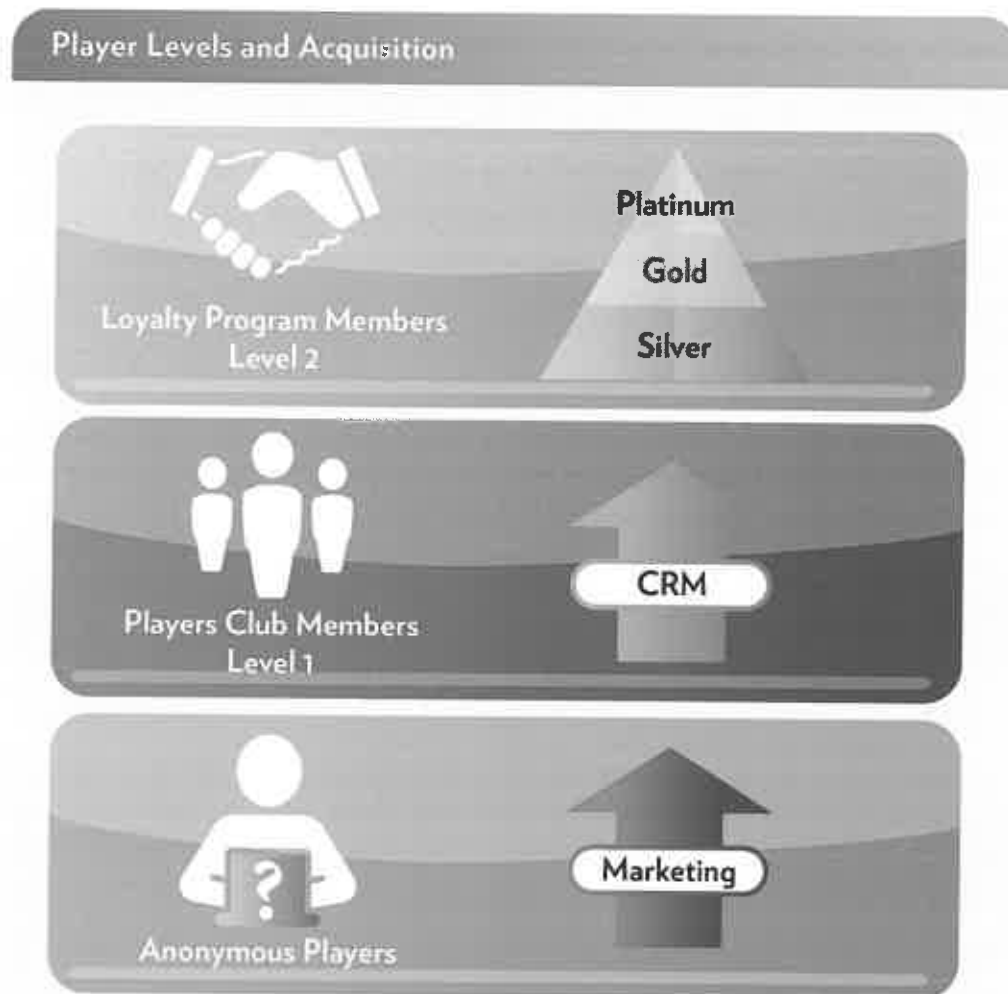
Surprise and Delight

To keep those with no points engaged, players will receive a Birthday Bonus of a free \$1 lottery play without having to redeem any points.

Flexible Player Tiers

The Lottery can define player levels (tiers) that are used to group players. Player levels are used for rewarding players. The Lottery can define as many player levels as it wants and can name each of them as desired (Bronze, Silver, Gold, and Platinum, for example).

Figure 4.7 – 21:



The point-earnings ratio is defined per player level, allowing players to earn more points for the same amount played for higher player levels. However, point redemption uses the same ratio for all players.

Tiered Player Rewards programs offer members the right to be in certain tiers, such as Bronze, Silver, Gold, or Platinum, by earning a specified number of qualifying points in a specified time. Earning is based on purchase behavior and how the player engages with the Lottery. Members get additional benefits for being in higher tiers; higher-tier members earn access to higher rewards for the same purchases as other players. Once members reach a higher level, they are notified of new benefits. After redemption, players do not drop levels for the next three months as long as they maintain active status.

Fulfillment

fulfillment,

Although IGT and its partnership with Augeo (described below) can provide a state-of-the-art rewards catalog, we propose to keep your players in the Lottery ecosystem and reward them with your products so that they become more familiar with your portfolio and contributions to good causes generated by their participation. There are three major concepts to evaluate when designing a rewards catalog:

- **Brand and Consumer Alignment:** Catalog items are complementary to overall brand messaging and align with the target consumers' passions and aspirations.
- **Attainability:** Catalogs have a selection of rewards that are attainable for all players – with high point balances and low point balances to avoid unclaimed/un-redeemed prizes.
- **Instant Gratification:** Digitally fulfilled rewards (such as virtual gift cards, coupon codes, music/movie/ebook downloads) or free game plays.

Third-Party Collaborations to Maximize Value

To provide the Lottery with the greatest value and most innovative ideas for physical prize fulfillment – based on extensive experience in the Player Rewards space – IGT brings its partnerships with industry leaders Augeo and Linkable Networks. We leverage these partnerships to expand the range, depth, and style of loyalty-driving innovations for you and your players. To integrate their programs and services with our offering for the Lottery, we can use our Aurora Anywhere solution to expose APIs for seamless transfer and processing of data.

Augeo

Our fulfillment partner, Augeo, brings proven platforms, flexible technologies, and data-driven insights to a diversity of industries to drive loyalty and consumer engagement, with a focus on all things digital, mobile, social, and measurable along a number of key verticals, including sports, marketing, and gamification expertise.

Augeo designs and manages complex enterprise-grade solutions that activate, energize, motivate, and create sustainable organizational performance. With more than 15 years of managing rewards programs, it is a nationally recognized leader in engagement, loyalty, and incentive solutions with a reputation for originating new ideas and innovative technology. Augeo has:

- More than 1,200 active programs in more than 55 countries.
- More than 28,000 card-linked offers at thousands of locations nationwide.
- More than 9,000,000 end users with more than 33 billion points on file.
- A record of participation, with an average 45% increase across its programs.

Augeo's rewards programs are developed within its proprietary existing rewards platform and are fully customized based on each client's product, service, customer segmentation, and overall program goals. They offer all categories of rewards including gifts cards, merchandise, e-gift cards, debit, travel, experiences, charitable giving, and more – which can provide the Lottery with exciting options for rewarding its players. IGT and Augeo will leverage expertise bridging gaming to consumer behaviors and aligning programs that are credible. For instance, Augeo's FAN.i.AM program connects sports fans to other fans, athletic departments, and sponsors – mobile, social, and local – via game mechanics.

By tracking all levels of customer activity from individual Stock-Keeping Unit (SKU) to social and mobile preferences gathering numerous data-capture items, Augeo enables IGT to award points for transactional data (such as second chance submissions) as well as from in-store, online, app, and self-reported sources. Via IGT's partnership with Augeo, the Lottery can access its program information via scheduled reports, reporting portals accessible to credentialed client managers, or through a customized admin site.

Linkable Networks

As another way of incentivizing players and synergizing with the retail channel, Linkable is an all-digital shopper-attribution platform that bridges the digital and retail environments by directly saving, or "linking," offers and coupons to a consumer's account. This represents a highly convenient way to offer all manner of promotions for an array of consumer goods, engaging, incentivizing, and rewarding consumers directly across any channel – online, mobile, and in-store. Linkable Networks programs include a full spectrum of consumer products – from beverage and restaurants to entertainment and movies – enabling the creation of actionable ads, coupons, offers, promotions, rebates, and more.

Our partnership with Linkable Networks can enable you to tie Lottery promotions to purchases of consumer goods. Here's how it works: consumers (lottery players) recognize a Linkable™ offer wherever they see the company's "Links" logo. The loyalty offer or coupon (from item-level to store-wide) is instantly linked to their credit card. Such shopping can take place wherever players want – in-store, online, or via mobile device.

For example, a company such as Red Bull could run a campaign in which, if someone bought a 6-pack of Red Bull, that person would get a free lottery ticket. In this scenario, Red Bull would pay for the ticket, while IGT would provide the barcode for the free ticket, and the IGT system would correctly process it based on the coupon.

Player Tracking

player tracking.

As mentioned earlier, the Virtual Player Card's barcode represents a unique player ID. By providing a barcode on the player's phone that can be scanned by retailer terminals or devices (e.g., a ticket checker), we open up the possibility of various consumer engagement experiences – all of which are tracked in detail.



By eliminating data silos, the Lottery will get a 360° view of all player activity across channels, metrics it can use to drive business decisions. IGT's Rewards program enables lotteries to:

- Test and measure results.
- Identify where the biggest opportunities exist.
- Segment customers and customize programs accordingly.
- Make better decisions and realize marketing efficiencies.

Aligned Player Account Management (PAM) and Business Intelligence (BI)

IGT Command is the power behind IGT's interactive portfolio, built around player and operator needs. A key component is the PAM system. IGT's PAM platform has a fully scalable and powerful open architecture that works seamlessly across platforms and pulls all player, reward, and financial activity across all channels together into one place. Our PAM system allows you to focus on your player, instead of worrying about the technology.

IGT Command allows a full view of the player across all channels, including retail and digital play. IGT PAM's 360° view of player activities includes:

- Player life cycle management.
- Player activity audit log.
- Player sales and financial reports.
- Player accounts/digital wallet management.
- Responsible gaming management.
- Subscription management.
- Player Rewards campaign management and tracking.
- Communication functionality for player/player segment email/push notifications.

IGT will use IGT Command to expose back-office UIs that will allow Lottery staff to create, renew, and manage all aspects of your current and future Internet-driven player lottery games and player benefits. Our highly flexible and configurable PAM system can be integrated with almost any other system on the market, including existing back-office systems such as the one the Lottery is currently using for basic registrations. Supplemental configuration work may be necessary, but the sophisticated architecture keeps the effort to an absolute minimum.

IGT's latest PAM solution is built upon the foundation of our earlier PAM solutions, which provide comprehensive PAM services and solutions for:

- The first three U.S. lotteries that have gone live with Internet wagering: Illinois, Kentucky, and Georgia.
- The California Lottery as part of the world's largest second chance offering, with nearly 5 million registered players.

Aurora Performance Intel's cross-channel capabilities, meanwhile, will serve as a marketing tool for player CRM analytics, gathering player information from the website and social media interactions (web analytics) and from the proposed PAM system. IGT's PAM and Aurora Performance Intel systems inherently support and will help you manage a full eCommerce website should you elect to go forward with future Internet-based lottery solutions.

Aurora Performance Intel also provides additional analytic views of Internet players and integrates IGT's PAM transactions and activities data to support marketing analytics, player segmentation, and analytics across lottery channels. This single player analytical view provides a conduit to support the Lottery's need to have a player-centric marketing tool with intrinsic reporting and analytics capabilities and content that supports player-specific CRM. Aurora Performance Intel includes data for all Aurora back-office applications in addition to sales transactions from Aurora's Transaction Engine and data from any third-party or lottery data source that includes player-specific data such as:

- Facebook, Twitter, Pinterest, and Instagram followers.
- Text promotions.
- Mobile app users.
- Player's Circle members.
- Second chance contest entries.
- Email subscribers.
- Event attendees.
- Subscription purchases (future).
- Phone calls (logged by customer service staff).
- Proximity marketing/messaging alerts.

Categorization of Players

The Player Groups feature of IGT Command will enable the Lottery to group or categorize players (for reporting, searching, etc.) based on pre-defined and Lottery-configurable player profiles. These groups are the heart of the player segmentation in IGT Command. This functionality will enable you to target profiled users with promotional incentives and/or sales-related encouragement to try other products. Player Groups can be used as a filter for promotions, notifications, and reports.

Player groups can be created based on any number of player characteristics such as registration date, birthday, player frequency, value, and games played. By storing player information in the form of a large number of categories, IGT PAM provides great flexibility to dynamically group players according to any criteria you wish. Due to tight integration with the reporting solution, any data that is stored about players can be used to create player groups.

Player groups are not mutually exclusive; therefore a player may belong to any number of player groups, and any number of player segments can be created (both automatically and manually).

As a result, the possibilities for segmentation and related marketing initiatives are nearly endless. The following table highlights examples of the kinds of segmentation that can be performed.

Figure 4.7 – 22:

Segmentation Examples			
Segmentation Objective	Segmentation Basis	Purpose	Action Example
Improve player yield by increasing cross-product use	Single product or product category users (e.g., draw-based games only)	Improve yield from current players by identifying cross-sell opportunities	Based on next-best-offer business rules, send email campaign targeting identified players with cross-sell messages
Prevent high-value player churn	Players with average weekly wagers of \$100 or more, but with no wagering activity during the past two weeks	Early identification and prevention of churn among high-value players	Send “we miss you” email campaign with \$X free play promotion to reactivate identified churning players
Improve player yield with add-on-based up-sell	Players who do not purchase game add-on features (PowerBall without PowerPlay)	Improve player yield by up-selling game add-on features	Send email to identified players making promotional offer to try add-on feature. Highlight add-on features at the website during the campaign period
Improve player yield with frequency-based up-sell	Players that made draw-based game wagers in each of the past four months, but had on average less than three active days per month <i>and</i> do not use extended play features	Improve player yield by up-selling extended play features	Send email to identified players with promotional offer to try extended play (Buy X, Get Y). Highlight extended play or subscription features at the website during the campaign period
Improve conversion from registered players to depositing players	Registered and Know Your Customer (KYC)-passed but non-deposited players	Encourage registered but non-depositing players to make their first deposit	Send “almost there” email campaign to identified players with promotional deposit offer (deposit \$X, get \$Y bonus)

As indicated in the preceding table, player groups are often used to target promotional campaigns and/or sales-related encouragement so particular campaigns can be pushed towards players who frequent certain gaming domains or do not play as regularly as desired. Notifications targeted to specific groups can be triggered by events or sent instantly on demand. The event notification sends email, SMS, or player portal messages, as well as Apple or Android push notifications. After an event notification is created, IGT PAM administers it automatically without any assistance. Similarly, rewards can be targeted to players on their birthdays or the anniversary of their initial registration.

Types of Communication Used in the Player Program

and types of communication that would be used in the player program.

With IGT iLottery, the Lottery can communicate with players through the player portal via a variety of channels including SMS, push notifications, email, or messaging. The following categories of events are supported by corresponding communications/alerts (via SMS, email, or IGT Gate) that IGT iLottery can automatically send to players:

- Account-related events (e.g., registration, change to player details).
- A player funds deposit.
- A player funds withdrawal.
- A game transaction (e.g., a win).
- Jackpot amount (per game).
- Player Rewards/bonus events.
- Any promotional campaign that a player qualifies for (e.g., welcome bonus, deposit bonus).

In addition, IGT iLottery can include RG messaging by providing the player with notifications or alerts when any lottery- or self-established limits are exceeded. Upon reaching these limits, the player can be notified through the aforementioned channels.

Notifications can be triggered by events or sent on-demand to both individual players and groups of players. The event-notification sends messages to players upon set conditions such as registration, login, deposit, withdrawal, winning numbers, and player birthday. After an event notification is created, IGT PAM administers it automatically without any assistance.

Winner Notification Methods

There are three ways to receive draw-based game results on our mobile solution:

- Scan the barcode from the physical ticket to see results of that game (or multiple games).
- Manually enter the draw number in the provided search to view that particular game.
- Through subscriptions purchased via the website or mobile app.

For a draw-game ticket that has been scanned prior to a drawing and for subscription tickets purchased via the interactive and mobile app, the system can generate player notifications after the draw has been held to let players know that they have winning tickets that have not yet been redeemed. Similarly, the system can generate player notifications for winning instant ticket scratch-off games that have been scanned but not yet redeemed once the game has ended. Players can be notified via email and/or push notifications.

Registering Tickets

IGT will develop functionality that allows players to register their draw-based or instant tickets so that they can be notified if their tickets are winners.

Configuring Notifications

The message-preferences functionality in our solution allows players to control the frequency and manner in which they receive Lottery communications, as well as the type of communications. Players will not receive notifications through any medium until they expressly consent to receiving Lottery communications either through the player portal or mobile app.

The player account can be configured to allow the player to opt in or out of any services the Lottery desires. Within their accounts via the player portal or mobile app, players can navigate to the My Preferences section and choose which notification types they desire, how frequently they wish to receive them, and how they wish for them to be delivered (e.g., SMS, push notifications, portal notification, or email). As new services become available, they will be added to the My Preferences section so that players can continue to control their messaging preferences.

The system does send out a small number of mandatory alerts. These include functions such as password reset emails and notification verifications (emails sent to players after they have chosen to opt-in to notifications).

Before alerts are sent to a players' preferred channel, they must verify their email addresses, phone numbers, or enable push notifications. In addition, during registration, our solution requires players to verify their email addresses in order to validate that the email is real and those players will receive the notifications. During geo-location, we require players to opt-in over SMS, ensuring that they do indeed own the opted-in mobile number.

Registering and Engaging Players

The Vendor should include the methodology, process, capability, and ease of use for registering and engaging players.

IGT understands that many consumers are initially leery of providing organizations with their personal information. Our platform makes it easy to design flexible player registration processes (and define player-data attributes associated with each level). This design allows the registration pages to collect only those player-information fields necessary for a particular registration level, thus optimizing the registration experience.

The Virtual Player Card (described earlier in this section) provides a means for anonymous registration. Such player activity is still tracked via the Virtual Player Card's barcode that functions as the player's unique ID.

Once players are in the system and engaging with the Lottery, it is easier to incentivize players to evolve to fuller forms of registration. Full registration includes information such as name, date of birth, email address, nickname, etc., as well as documentation of identity for account verification. We will then look to expand the player data set by encouraging players to tell us more about themselves – gender, marital status, education level, mobile phone number (please note this information will be required to engage with the program via SMS communications), and retailer of choice.

IGT iLottery will give players a single registration and log-in for access to the enhanced Player's Circle, as well as any current or future second chance or other player-based offerings. This simple registration will minimize registration abandonment.

Figure 4.7 – 23:



To maximize successful registrations, we will make the most of our experience implementing player portals and iLottery solutions (including in Georgia, Kentucky, and Illinois) to deliver an optimal player-registration process. The process will leverage best practices to make it easy for players while meeting your program objectives, including those for security and integrity.

Optimizing the registration experience is a constantly evolving process, and we will continue to review the insights gleaned about the Lottery site from Aurora Performance Intel. We will also review each channel to leverage the strengths and improve on the weaknesses that come with it.



Player Self-Certification

As part of registering an account with the Lottery, players must accept the Lottery's T&C and privacy policy. It is recommended that the T&C notify players of the West Virginia law violations that may apply if players are not within the State at the time of purchase (along with consequences, including forfeiture of funds, termination of player account, and other penalties).

In addition, IGT recommends players be presented with a self-certification statement that they must agree to prior to making the purchase. The self-certification will state that players agree that they are at least 18 years of age, the owners of the accounts, and located within West Virginia. For purchases via a shopping cart transaction, this self-certification will be presented each time players check out. For purchase of instant play games (Instant Win games, Keno, etc.), the self-certification will be asked during the first purchase of each game but not on any subsequent replays of that game so as to not hamper the player game experience.

Rapid Registration via Mobile App

IGT's iLottery solution also allows players to register through a mobile app. By leveraging a third-party application service, players can register by using the camera on their phones to capture an image of their photo ID (passport, driver's license, or other government ID card), which is sent to a third party to confirm identity.

Invite a Friend

Our promotions offering will allow you to reward players who refer a friend to your iLottery program – once the friend registers and meets the Lottery's criteria for membership. Upon the friend's successful registration, the system will activate a reward to the initial player. The new player can also receive a reward after successfully registering. Our solution supports a comprehensive Invite-a-Friend functionality that will enable the Lottery to set additional requirements regarding rewards for players who successfully refer a friend to sign up for an iLottery account. The types and amounts of reward prizes are determined by the Lottery.

Retail Functionality and Additional Player Services

The Vendor should describe how programs and/or program features may be functional at the retail locations and provide additional services for the player (i.e. a player may use the mobile application to select "favorite numbers" that are generated as a QR code that is readable by the terminal and saved to that player's account.) Vendor should include and describe a ticket self-check application to be used by the player on mobile and tablet devices for draw game and scratch-off games.

IGT specifically designed its iLottery solutions to add convenience for players and added value for retailers. Our Mobile Convenience App – which includes the Virtual Player Card (described earlier in this section), as well as favorite-number and ticket-checking capabilities and our unique PlaySpot solution (described below) – provides the means for a holistic Lottery ecosystem that bridges the retail (retailer- and player-initiated activities) and interactive channels. Moreover, all such activity will feed directly into the Player Rewards program.

IGT's Mobile Convenience App

As mentioned earlier in this section, our Mobile Convenience App will provide Lottery players with all of the enhanced Player Rewards functionality – as well as an array of means with which to engage the Lottery – right at their fingertips. It includes convenience features players know and appreciate – with the ability to easily include subscription and full wagering capabilities if and when the Lottery chooses – to keep your current app users engaged and excited, while attracting new players with a fun and intuitive user experience.

Mobile is increasingly at the center of the consumer experience, inspiring IGT's mobile-first product-development philosophy. The mobile space is extremely complex; handsets and operating systems are continually and rapidly evolving. Navigating this highly dynamic environment requires a continuing substantial investment to track upcoming releases, test them, and obtain approvals for public release from relevant app stores, thus keeping our mobile solutions fresh and relevant for the Lottery and its players. IGT has embraced the transformation to mobile in the lottery industry and has ***deployed and currently supports more lottery convenience and wagering applications than any other vendor in the industry.***

Our iLottery capabilities – including our Player Convenience solutions described in this section – are available via a downloadable mobile app for both iOS and Android devices. With its commitment to and investment in the mobile channel, IGT can leverage its experts, tools, and insights for the benefit of the West Virginia Lottery.

“ This past year demonstrated the continued maturity and growth of the mobile app market. While worldwide downloads grew by 15% from 2015 to 2016, time spent in apps grew by 25%, driving app store revenue paid out to publishers from Google Play and the iOS App Store up by 40%. ”

— App Annie Mobile Report 2016

Focus on Player Convenience

At the core of our iLottery strategy, which includes player convenience, is the flexibility for the Lottery to choose best-in-class solutions and providers and adapt to the numerous technologies and diverse solutions required to support mobile player interaction. For maximum player adoption, IGT considers the intersection between lottery retail (retailers and self-service) and mobile. Our systems are rich data repositories of information and, together, we can gain unique insights that will add value to your products and further broaden their appeal among players.

Player convenience means that everything must be about the player experience, making it easier, more exciting, and more fun to engage with Lottery. Player convenience can include a wide range of app features that provide capabilities such as:

- Leveraging a device's knowledge of location to auto-populate geographic information, such as "Find my nearest store" and "Lucky stores."
- Using "push notification" technology to provide timely alerts of pending draws or draws going off-sale, prompting players to buy their tickets for that day's game – or (where available) to purchase an entry from within the app.
- Notifying players of draw results, prompting them to come back to the app to check results and potentially "ride their luck" by playing Instant Win games or other high-frequency games, or pre-buying for the next draw.
- Providing barcode scanning for:
 - A ticket checker that indicates whether or not the player's ticket is a winner.
 - Auto-entry into second chance draws.

The process is quick and simple. In the same way one enters a draw number or ticket reference into a search engine, the scanner scans a barcode and automatically does the lookup, saving the user from having to type it out.

The Importance of Mobile Player Convenience Apps

Even in the absence of Internet wagering abilities, the Lottery can use a player convenience app to drive growth in other areas, such as:

- **Player Acquisition:** A consumer might investigate the Lottery's app for its convenience features and then move toward becoming a regular West Virginia Lottery player.
- **Player Engagement/Marketing:** The Lottery will be able to leverage the notification functionality of the app to communicate with players in the way in which those players prefer to receive information.
- **Convergence:** Mobile can drive players to the Lottery's bricks-and-mortar retailers. Specifically, the mobile channel can be leveraged to augment the retail gaming experience, which we have done in Indiana for the Hoosier Lottery.

IGT's Mobile Convenience App Experience

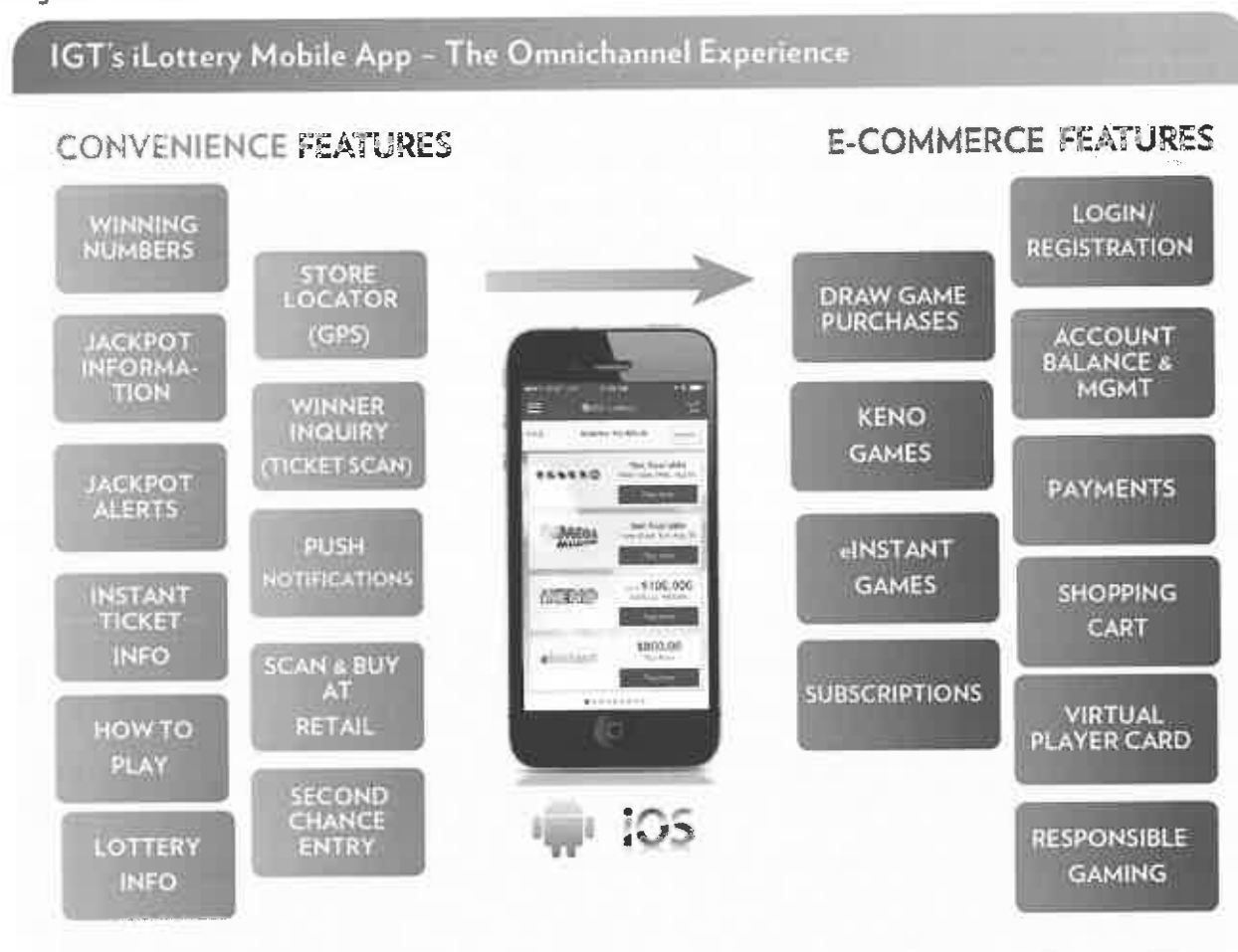
Customers who use our Player Convenience (non-wagering) solutions rely on IGT to provide a range of features that make it convenient and fun for players to obtain information from their lottery via responsive websites and mobile apps. Customers using our Player Convenience solutions (with Georgia, Kentucky, and Illinois also offering our iLottery wagering) include:

- **Illinois Lottery:** In partnership with IGT, the Illinois Lottery launched mobile web sales in September 2013 and its first-of-a-kind mobile app in January 2014. The Illinois Lottery app, with more than 300,000 downloads, is the most successful in the U.S.
- **New Jersey Lottery:** With the website and mobile convenience app that we created for the New Jersey Lottery, New Jersey players can now access draw-based game and instant ticket scratch-off game information, winning numbers, jackpot amounts, retailer locations, and the Lottery Winners Circle. Our mobile convenience app also enables players to scan their draw-based game and instant tickets to see if they are winners.
- **Indiana (Hoosier) Lottery:** IGT's mobile convenience offering for the Hoosier Lottery was successfully deployed in 2014.
- **Rhode Island Lottery:** The mobile convenience app developed by IGT gives Rhode Island players quick access to real-time jackpot information, winning numbers, lottery retailer locations, instant ticket scratch-off game information, and details related to responsible gaming.
- **Tennessee Lottery:** Launched in the fall of 2015, the Tennessee Lottery's mobile convenience app provides players the convenience of real-time information for draw-based games and instant ticket scratch-off games, along with locations of nearby retailers.
- **Georgia Lottery:** The Georgia Lottery launched its mobile wagering app in December 2015.
- **Kentucky Lottery:** The Kentucky Lottery went live with its mobile app – including wagering and convenience functionality – in November 2016 and has already reached 15,500 downloads.

IGT's Mobile Convenience App – Features and Functionality

IGT has already implemented and expanded upon three major categories of iLottery solutions: Player Convenience, Player Engagement, and Wagering. Our player convenience features can be used in all lottery jurisdictions, whereas our wagering features are specific to those jurisdictions that allow Internet wagering. Our baseline mobile app is constantly evolving to expand the features available and to enhance those that already exist. This allows existing sites that have deployed apps to leverage new functionality within the baseline, so they can provide new and enhanced features to their existing apps on an ongoing basis. The following image depicts a high-level overview of the features inherent to our convenience apps and full-wagering mobile apps. Note that our full-wagering mobile app includes all of the functionality built into the convenience apps.

Figure 4.7 – 24:



Complete Player Experience. IGT's proven iLottery Mobile App includes a complete suite of both player convenience and wagering features.

IGT developed its current suite of player convenience features based upon player research, retailer research, market analysis, and a focus on providing convenience and entertainment to players. IGT is continually expanding its suite of player convenience features based on market research and ongoing reviews of the latest developments of existing lottery and non-lottery applications. We also conduct focus group testing with regular lottery players who own smartphones for input on the convenience features and functionality most important to them.

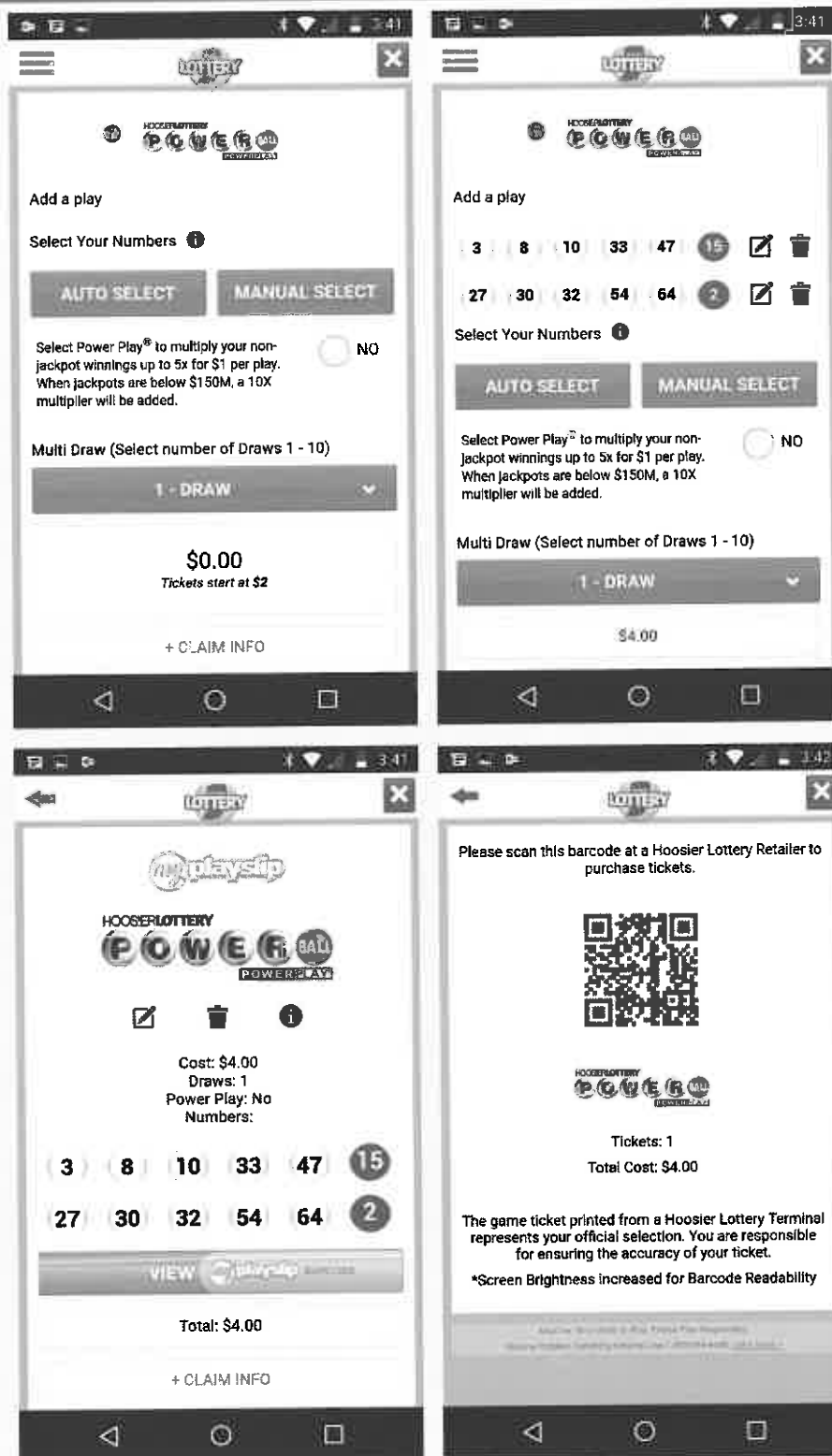
Favorite Numbers

Our Mobile Convenience App (detailed later in this section) will allow players to select “favorite numbers” generated as a QR code that is readable by the terminal. These numbers are then saved to players’ accounts. Players simply present the barcode from their mobile phones at retail for scanning by the terminal; the favorite numbers are saved to the player accounts. The system can also recognize the barcode on one play slip that players can present repeatedly at retail.

All of IGT’s current terminals, equipped with 2D image scanners, can read barcodes from cell phones. Our mobile app provides the ability for players to build electronic play slips on their phones, which can then be scanned at retail. This mobile solution adds value for players and retailers by automating the play slip function, allowing players to save and quickly replay their favorite numbers and wager preferences, as shown in the following figure.

Figure 4.7 – 25:

Mobile Digital Play Slip Makes It Easy to Play Favorite Numbers



Ticket Self-Checking

Retail locations with high foot traffic and those that support various other non-lottery functions such as groceries, mobile top-ups, bill payments, etc. are less likely to be enthusiastic about long-drawn lottery purchase flows or winning ticket-checking functions. In such cases, giving players a self-service option to check their own tickets (or a mobile app to play at retail) will increase player retention and result in new registrations (because players like to share their positive experiences via word of mouth and social media).

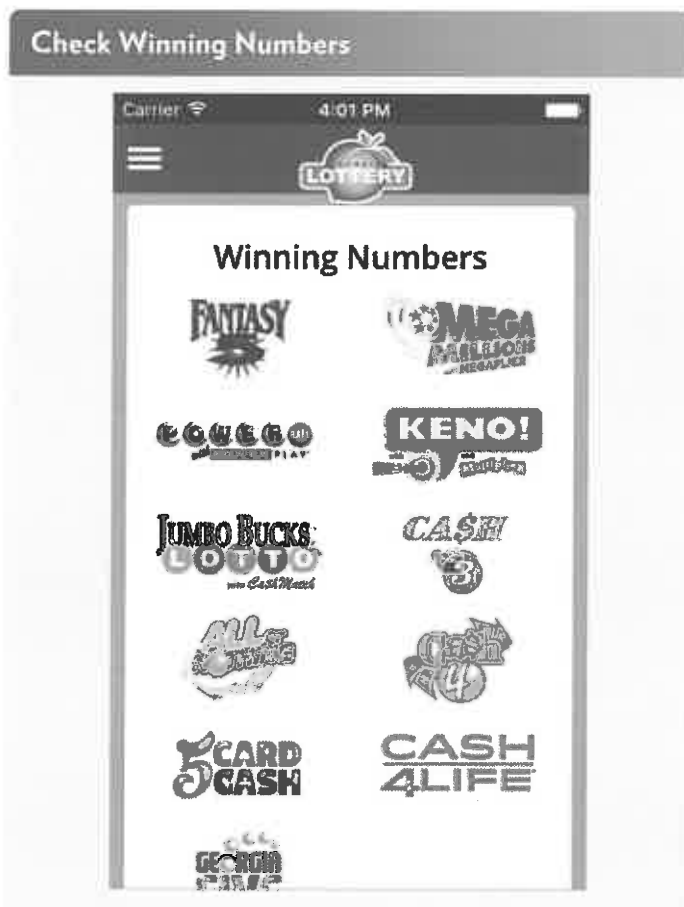
The IGT mobile app (the full functionality of which is detailed later in this section) supports such convenience functionality with two types of barcode features:

- **Ticket Scanning:** Players can check whether a retail-purchased physical ticket (draw-based and instant ticket scratch-off games) is a winner.
- **Digital Play Slips:** Players can purchase new games using a barcode that represents their wager without the need to fill out a paper play slip.

This functionality illustrates our commitment to improving and simplifying the player purchase experience and enables anonymous play at retail.

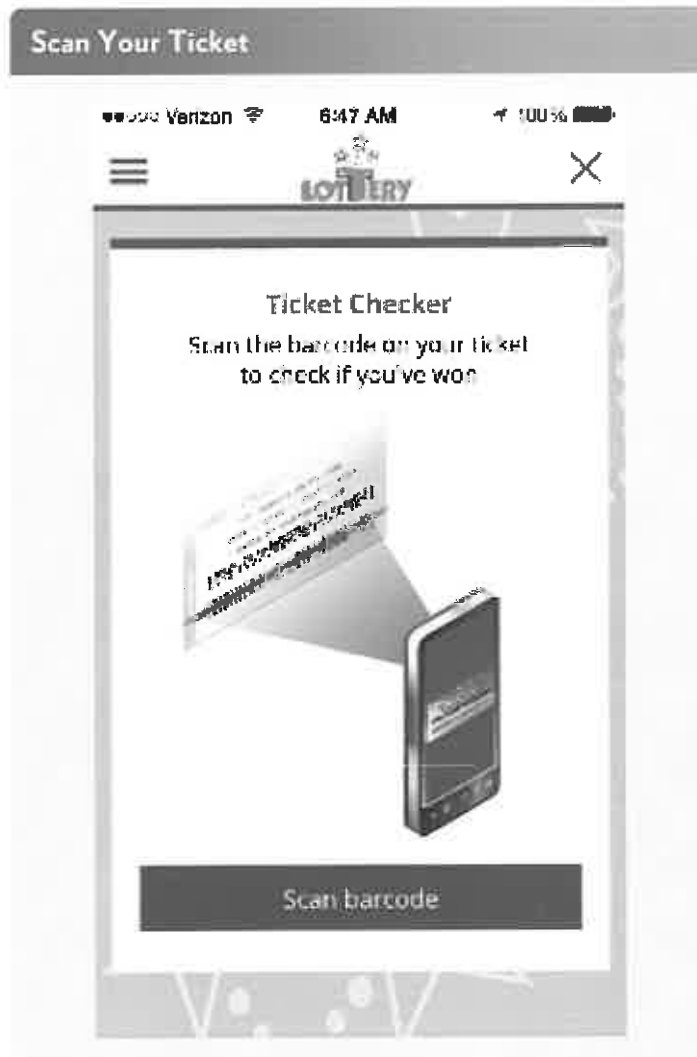
The convenience functionality most desired by players is the ability to scan their tickets (draw-based and instant ticket scratch-off game) to determine if they are winners.

Figure 4.7 – 26:



The scanning process is fairly simple. When a retailer scans the barcode on the player's app, the scanner automatically looks up the ticket number. Our digital play slips use a QR Code and allow our system to save and reuse the player and wager information.

Figure 4.7 – 27:



Our Mobile Convenience App comes with a barcode scanner that allows players to scan the barcodes of their retail-purchased physical tickets to determine if the tickets are winners.

Figure 4.7 – 28:



This functionality provides a multitude of features and solutions for today's lottery players, who can use smartphones as an additional functionality to further enhance lottery play and brand awareness via digital play slips, promotions, second chance participation, Player Rewards programs, Virtual Player Cards, subscriptions, and more.

If players are winners, they will get specific messaging based on the level of win and information on how to claim the prize. In the case of low-tier wins, the winnings could be deposited directly into the player accounts. In the case of non-winning tickets, players can be given the option to enter their tickets into eligible second chance drawings – or be automatically entered if the ticket qualifies, with messaging to sign in or sign up.

Draw-Based Game Information

Our player convenience app provides players with the ability to easily access information on available draw-based games (as shown in the next figures). For example, players can view any draw result by simply entering the draw number. Once entered, the player simply clicks on Click To Watch to see an animation of the winning numbers being selected. The player also has the option of seeing the winning numbers without animation.

Figure 4.7 – 29:



Instant Ticket Scratch-Off Game Information

By providing key instant ticket information to players, such as prize structure, remaining high-tier prizes, and, potentially, availability at local retailers, we make instant ticket scratch-off games even more compelling and convenient for them. This functionality will depend upon metadata provided by the Lottery.

Figure 4.7 – 30:

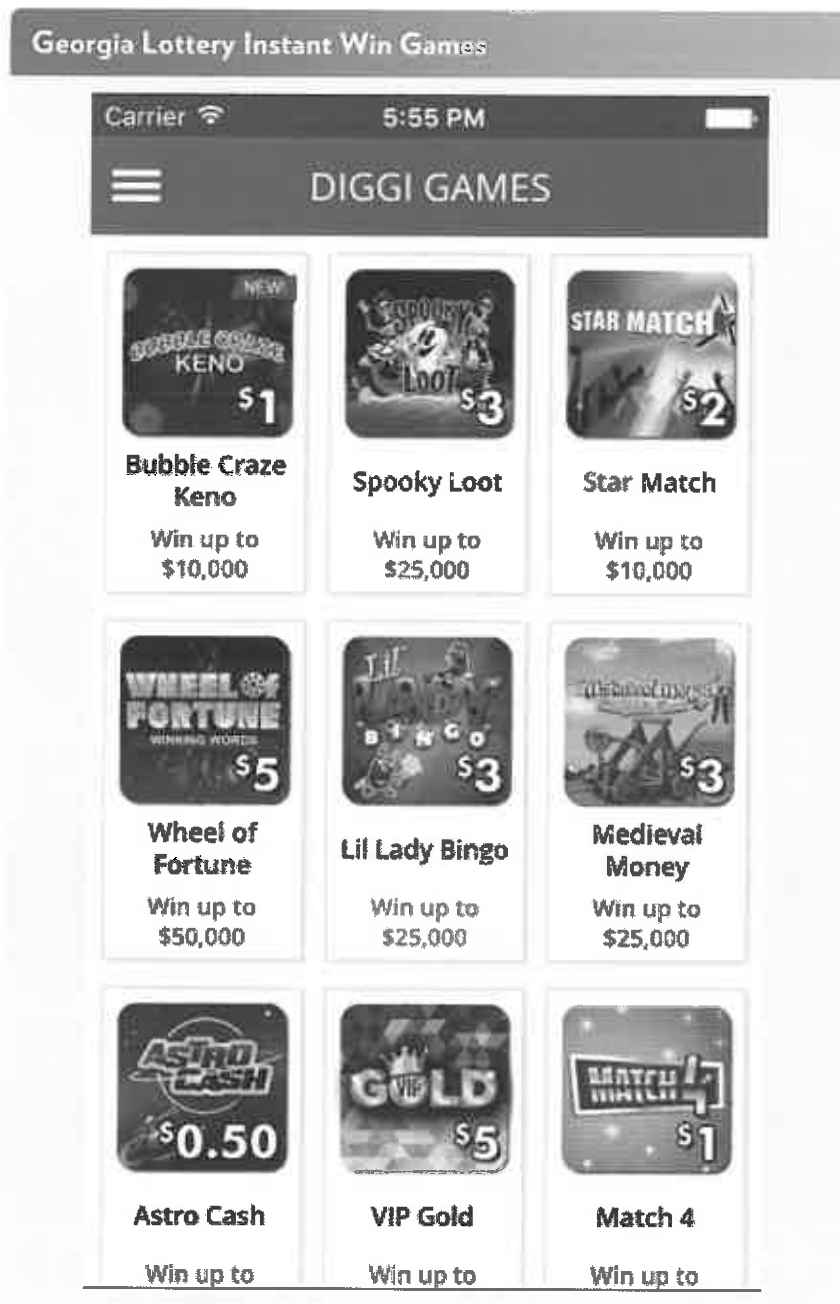


Figure 4.7 – 31:

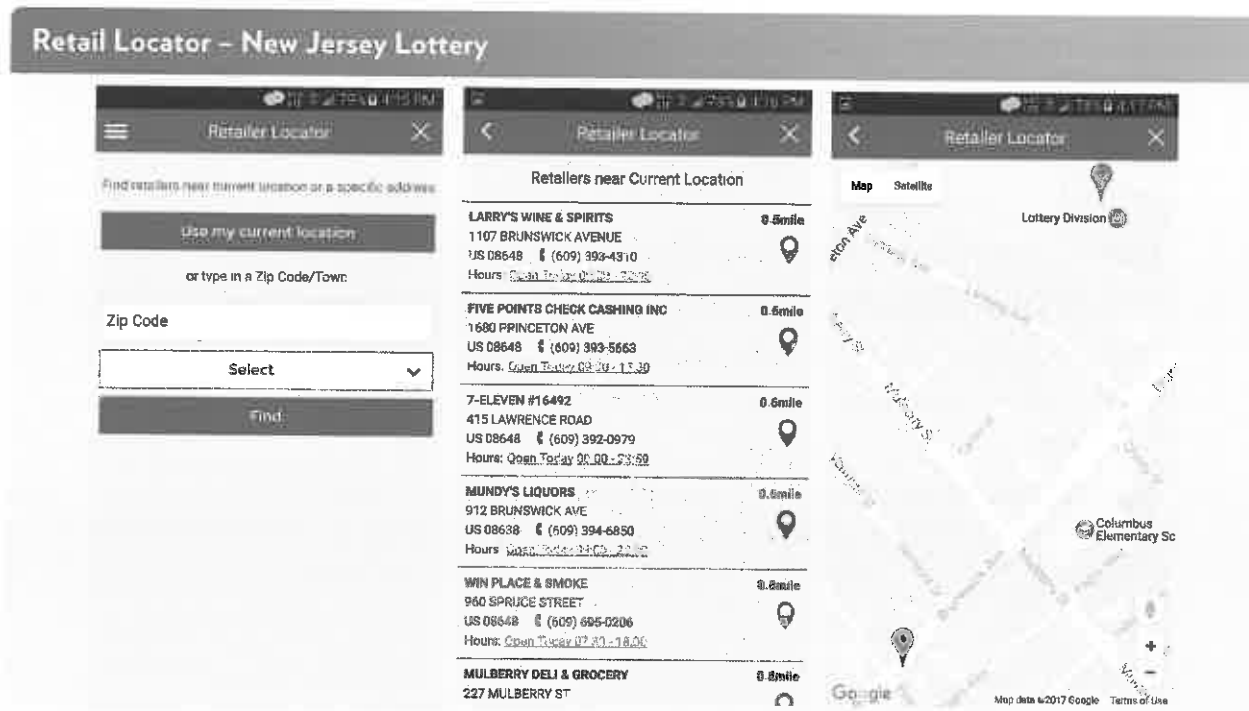


Retail Locator

Rather than take sales away from lottery retailers, a mobile iLottery solution can make visiting a lottery's traditional retailers very compelling. One such mobile solution is our retail locator functionality. This product can provide players with the location of the nearest retailer(s) based on the current GPS location of their mobile device. This functionality is dependent on having the latitude/longitude coordinates of your retailers, which can be accomplished by receiving a nightly interface file from your retailer management system containing that information.

Our retail locator is embedded into the app and uses the mobile device's built-in GPS and mapping software. Players can find the lottery retailer closest to their physical location, or they can type in a ZIP code to find all lottery retailers within a certain geographic area. The app then pinpoints the player's location and displays all valid retailer locations based on the store data provided to the Lottery. The following figure demonstrates this functionality.

Figure 4.7 – 32:



It is also possible in iOS to link an app to certain locations, such as retail outlets. The iOS device's Suggested Apps feature can show the app icon on the lock screen when the owner of the device is in the vicinity of a certain lottery retailer location, as in the following figure. This function can be done using geo-location but needs Apple to enable it, or can be done using iBeacons for a more reliable implementation. An example is shown in the next figure.

Figure 4.7 – 33:



Lottery Information

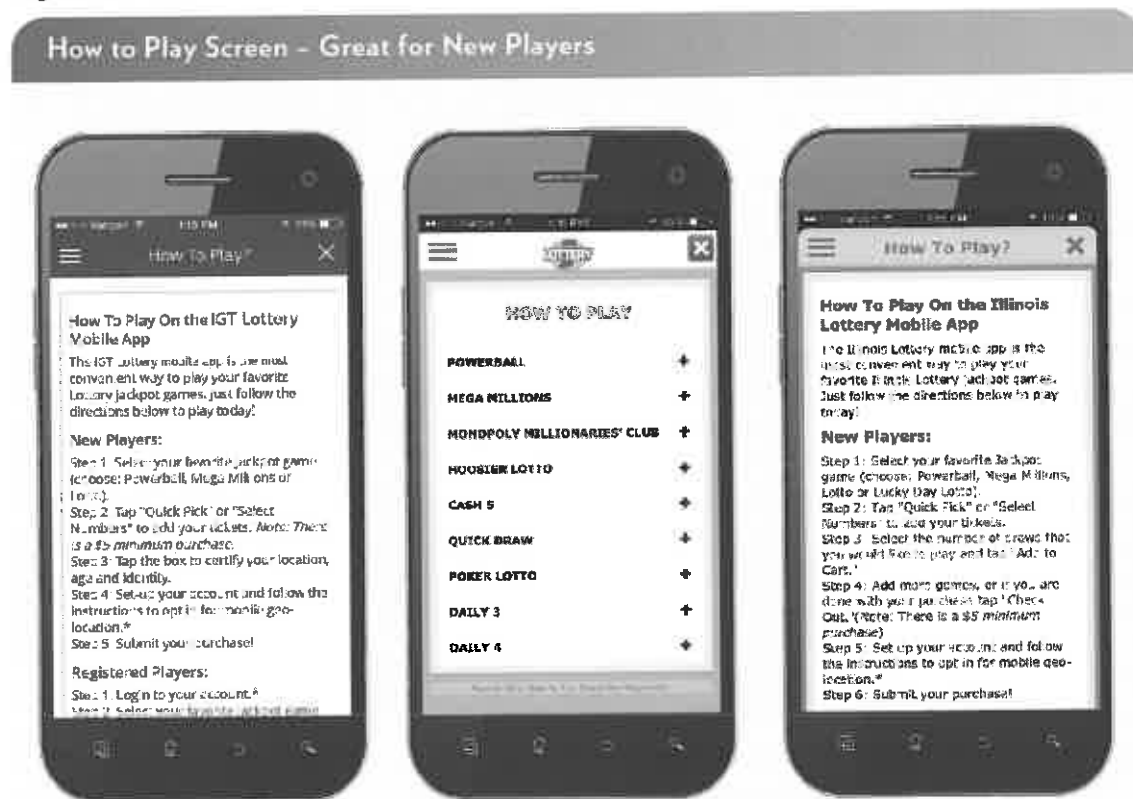
Players will have ready access to many types of Lottery information via the following functions:

- **Contact Us:** Players may view contact information for the Lottery, along with a link to send help requests and inquires to you. Selection of the presented contact link displays a blank email form populated with the contact email address.
- **About Us:** Details on the Lottery and its core mission and beneficiaries.
- **Responsible Gaming:** Provides information and links to the Lottery website for details.
- **Terms & Conditions:** Links to the web page posting T&C.
- **Privacy Policy:** Links to the web page posting the privacy policy.
- **Claims:** Information on submitting claims to the Lottery.
- **Events:** Details on upcoming events.
- **Frequently Asked Questions (FAQ):** Provides players with access to a help page that contains pre-populated answers to common questions on how to use the website. The content displayed on the FAQ page will be provided and maintained by the Lottery.

How to Play

Tutorials on how to play games, particularly for players who are new to lottery games, can help engage players by showing the ease and fun of playing.

Figure 4.7 – 34:



Notifications

For a description of notification functionality, please see earlier in this section under the heading “Types of Communication Used in the Player Program.”

Lucky Stores

Some players believe passionately in the concept of lucky stores. We can leverage our host of BI solutions to determine which stores meet specific lucky criteria and then make that information available to players. Winner awareness is also information we make available on the desktop. It can also be delivered via an app. Please note that this functionality is dependent upon integration with a lottery’s online gaming system.

Social Sharing Component

Young adults are accustomed to effortlessly sharing their lives and day-to-day experiences with friends through social media such as Facebook and Twitter. They spend a lot of time on social networks with both real and virtual friends. Their purchase decisions are often influenced more by the recommendations of their friends than by advertising. IGT’s mobile app can integrate with popular social networks to allow players to post information such as the fact that they are lottery winners. This functionality is currently available in the Hoosier Lottery App. We will work closely with the Lottery to identify areas in the app that make sense for the addition of social sharing capabilities for players.

Mobile Promotions Encourage Lottery Play While Cross-Promoting a Chain’s Showcase Products



With 91% of Americans using cell phones, the IGT Indiana team and the Hoosier Lottery made leveraging the mobile channel an immediate priority. In parallel with building its mobile app, the Hoosier Lottery implemented an innovative strategy using the existing mobile applications of its corporate convenience and

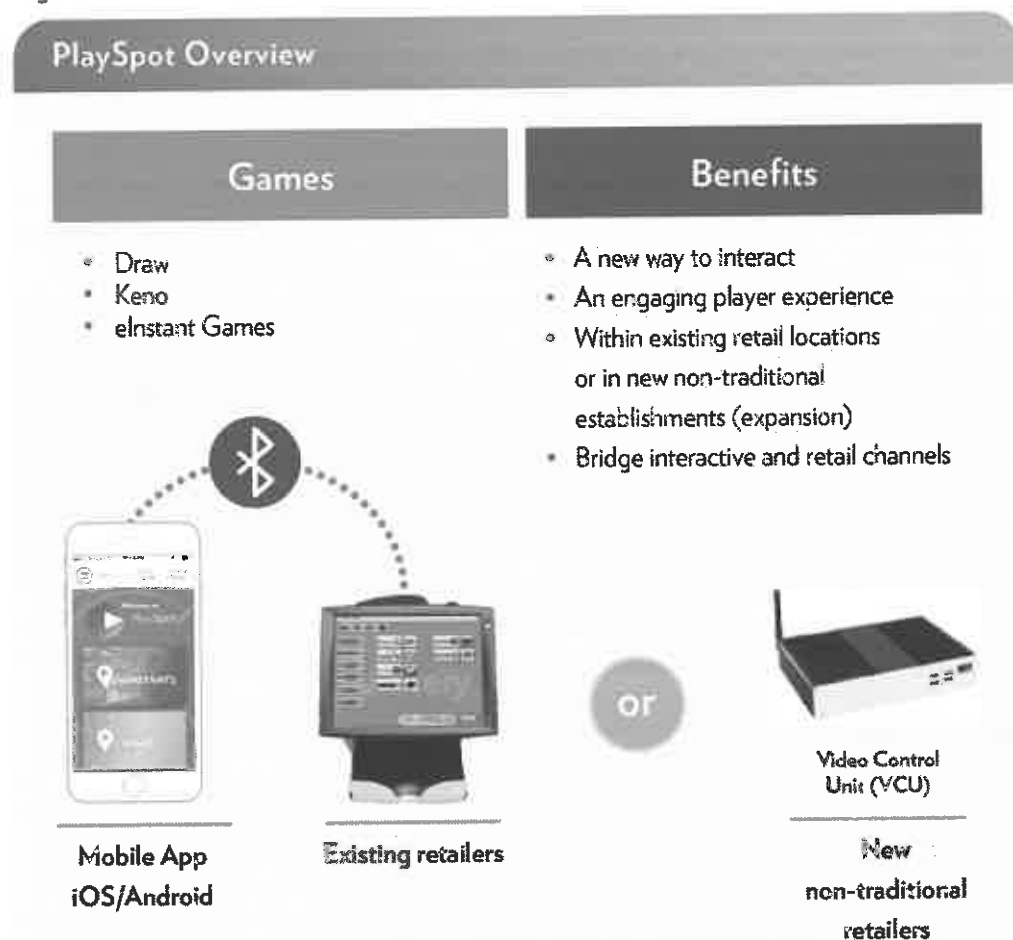
grocery-store retail partners. Advertising, contests, and couponing programs were offered through these apps. The programs encourage trial among non-players and offered the additional benefit of cross-promoting showcase products belonging to the convenience and grocery-store chains.

For example, a recent couponing program with Family Express for a free Cash for Life instant ticket (shown in the photo of the cell phone) netted a 7.4% redemption rate – double the average of prior efforts on the part of the chain. This strategy effectively cultivated playership and appeal among infrequent and non-players. Circle K is another of the Hoosier Lottery’s retail partners that offered a coupon as part of its couponing cross-promotion program.

PlaySpot™: Omnichannel Mobile Solution

IGT's PlaySpot solution – which recently went live for the Rhode Island Lottery – furthers our Mobile Convenience App's bridge between the retail and digital channels, leveraging the functionality of IGT PAM's single player view to provide added convenience for players (who can register anonymously) and retailers, as well as the Lottery (as a tool to penetrate new and non-traditional retail establishments). It integrates with a Bluetooth connection to a hot spot at the retail location.

Figure 4.7 – 33:



Convergence of the retail and interactive channels is a central component of a comprehensive iLottery solution. PlaySpot is designed to enhance the lottery retail experience for current players and simultaneously appeal to new players interested in high-frequency games.

Innovative features of our PlaySpot solution include:

- **Retail Pay/Mobile Play:** This integrated mobile-retail experience will allow players to use the Lottery's mobile app to conveniently store their favorite games and then play them at retail with a swipe of the Quick Response (QR) game code.
- **Tethered Wagering:** The convergence of digital and physical environments provides players with access to interactive games while complying with regulatory or political environments that do not allow Internet wagering. With our Tethered Wagering solution, players will be able to use the Lottery's mobile app to play existing and new digital games when they are at a retail location that offers a Lottery bluetooth "Hot Spot" connection. And the Lottery will be able to expand its retail network by offering this self-service, clerk-less option for high-traffic and social establishments and offer a new line of interactive games for play at these locations as well.
- **Geo-Location-Based Push Messaging:** This solution uses a player's location – i.e., near a lottery retailer location – to trigger and send targeted wireless Lottery messages and promotions to the player to use at that location.

We can work with you to devise the optimal, compliant solution to engage players and retailers.

Retail Pay/Mobile Play

A solution featuring paperless play and player convenience, our Retail Pay/Mobile Pay solution will enable players to play (reveal) all of your draw-based and Instant Win games, and/or follow iKeno draws on the go. Players can use their Lottery mobile app to select games they want to play, add them to their shopping cart, go to a Lottery retailer, scan their phones, and pay to purchase their games.

Retail Pay/Mobile Play proceeds when the player downloads the iLottery mobile app. The player registers with what we are calling "light registration," which is simply an email, password, and date of birth. This "light registration" is different from and less cumbersome than a traditional full registration, which encompasses email, password, date of birth, and full Social Security Number (SSN). Full registration can occur when a player wins a high-tier prize and claims it at the Lottery's claim service center.

When the purchase is executed via the retailer lottery terminal, players' game wagers are entered into the system. Players can view the game reveals at their leisure outside of the retailer setting. Draw-based game players can view the results once the draw has occurred. Player winnings of \$599 or less (low-tier winnings – configured and determined by the Lottery) are loaded into the player's eWallet. Winnings of \$600 or more (high-tier winnings) follow the Lottery's normal lottery claims and payments process.

Purchases made via Retail Pay/Mobile Play are stored in the player's Order/Transaction History under My Account.



Tethered Wagering

Our Tethered Wagering solution can allow the Lottery to offer games in high-traffic and social environments (including bars and restaurants) without requiring a sales associate to spend time handling any Lottery wagers or requests. A completely self-service solution requiring only the most minimal footprint at the venue, our Tethered Wagering solution uses a Bluetooth interface between players' mobile devices (using the Lottery's mobile app) and the establishment's hot-Spot connection. Typically, a venue will feature signage announcing it as a Lottery Hot Spot.

This solution offers particularly strong potential for Instant Win games, for which content is especially compelling and dynamic, and other exciting social games that can be tailored specifically to such environments.

Low-tier winnings are loaded to the player's eWallet, and can be used for future purchases online. High-tier winnings are processed manually via the Lottery's claims and payments system.

Benefits include:

- **Players:** Convenience, self-service, top-up at eWallet at retail.
- **Retailers:** Labor-free revenue stream, increased foot traffic, cross-promotions.
- **Lottery:** Expansion into new retailer networks and trade styles, a new line of social interactive games to attract new players, incremental sales growth, cashless and paperless features as needed in compliance with regulatory environment, digital and physical environments connected to engage players interactively in lieu of full Internet wagering, new social-type games, game portfolio expansion, and new players coming to retail shops and venues.

Geo-location-based Push Messaging

IGT built its own messaging platform that uses geo-location functionality to allow for push notifications based on a player's location in proximity to a retail location. The system has the ability to push any type of messaging (via a marketing CMS) to the app, including winning numbers, jackpot notifications, winner notifications, and new games or game promotions. Players can use the app to opt-in to the type of notifications they want to receive.

This functionality should be used for short, concise, and targeted messages (such as jackpot alerts, winning ticket information, targeted promotions, and Player Rewards points) that provide players with a means to personalize the app and their engagement with the Lottery.

IGT is also working with third-party providers to integrate the IGT app functionality into their communications tools.

Ongoing Innovation in the Mobile Space

Since we believe so strongly in the power of the mobile channel, we are continually looking for additional "player convenience" features to add to our on-going baseline mobile product. These new developments can then be implemented into future releases of the product for each customer on a site-by-site basis.

Availability Across Devices and Operating Systems

With IGT iLottery, all games, Internet wagering, game information, etc. will be accessible to players through the Lottery's website from all popular computer and mobile Operating Systems (OSs) and web browsers. Currently, in terms of browsers, our solution supports:

- Microsoft Edge (formerly Internet Explorer).
- Chrome.
- Safari.
- Firefox.

Our mobile app supports all devices with iOS or Android OSs. Support for other OSs, such as Windows, are on IGT's mobile app roadmap. We also review devices and OS support on a quarterly basis. Lottery players will have a seamless experience across all of these touch points.

IGT also takes a proactive approach to testing pre-release OSs and browsers. We rigorously and comprehensively test beta versions in the run up to the production release.

Having player-facing applications available in the market creates new challenges. Devices are constantly being introduced, and vendors such as Google and Apple are constantly releasing new OSs, as well as iterations of the currently dominant iOS and Android.

In addition to the normal course of developing and testing features of apps per lottery needs, it is critical to constantly validate that the app will perform at the highest level in this very dynamic environment. Responding to this need, IGT created its Device Testing Lab. The lab leverages cloud solutions to access physical devices and a broad spectrum of the most popular devices on the market to provide a solid test bed. The lab makes use of a variety of industry-standard tools and processes to perform compatibility, performance, and security testing. The lab will give the Lottery the confidence that it is publishing the most valuable mobile app possible in the market.

IGT's Mobile Roadmap

We bring a defined roadmap for our mobile apps that includes a full complement of wagering and convenience features. IGT constantly updates its baseline app functionality, allowing sites to leverage the new features. As we develop our baseline app functionality, we look to integrate the new features into our existing app deployments – in other words, if the Lottery is authorized during the Contract term to expand app functionality, the proposed platform will support it.

If the Lottery is authorized during the Contract term to expand mobile app functionality, our proposed platform will support it.

This has the added benefit of continually providing consumers with fresh features and functionality, which helps maintain player engagement and enhance the app's relevance. The mobile space is extremely complex; handsets and OSs are continually and rapidly evolving. Navigating this highly dynamic environment requires a substantial investment in order to track upcoming releases, test them, and obtain approvals for public release from relevant stores.

Third-Party Solutions

The global investment in mobile solutions is substantial. We want to leverage third-party solutions and services (such as Apple Passbook) if they are applicable to our business.

Mobile Services

As your partner in the mobile space, we bring differentiation that can give you confidence in our ability to provide compelling solutions for this extremely important channel. In addition to our industry leadership described earlier in this section, we bring expertise in:

- **Research:** We conduct research to determine the features and functionality that players want. We also engage third-party experts to conduct usability analyses of our apps.
- **Engineering:** We completed extensive engineering analysis of third-party providers to select the best possible barcode scanning algorithm.
- **Analytics:** We constantly analyze data associated with our apps to look for ways to improve adoption and player engagement.

IGT will work with the Lottery's advertising companies as partners to research other Lottery-specific market opportunities.

In addition to providing apps, we also work with retail partners on *their* apps to cross-promote lottery, expand lottery reach, and provide a mutual benefit to retailers. As described in the following example, IGT Indiana and the Hoosier Lottery worked with Family Express to provide a joint retailer/lottery benefit to their consumers.

Mobile Promotions

In parallel with building its convenience app, the Hoosier Lottery implemented an innovative strategy using existing mobile applications of corporate retail partners. The advertising, contests and couponing programs offered through the chains' apps aided trial among non-players and had the additional benefit of cross-promoting showcase products belonging to convenience and grocery stores. A recent couponing program with Family Express for a free Cash for Life instant ticket netted a 7.4% redemption rate, double the average of prior efforts from the retailer. This strategy created effective ways to cultivate playership and appeal to infrequent and non-players.

Analytics

There should be a constant analysis of data associated with mobile apps to look for ways to improve adoption and player engagement. Our mobile app has built-in integration for Google Universal Analytics. Currently, the app tracks page changes and player interaction on the page. Lotteries can view real-time data through the Google Analytics dashboard. This information can track the player's use of the app and provide valuable information on the tendencies and behavior of players.

Also, leveraging credible published research, test devices should be reviewed on an annual basis and the mix of devices changed to reflect any material changes in market penetration.

Basis for Rewards and Trigger Events

Player rewards should be based on Lottery transactions and specific trigger events (e.g. Lottery promotions, players' birthdays, etc.).

When your existing players are converted to the new Player Rewards program, they will receive an immediate points reward. Other triggers for receiving rewards can include:

- Completing registration.
- Referring a friend.
- Entering a second chance ticket.
- Responding to surveys.
- Lottery promotions (including Free Play promotions, described earlier in this section).
- Player's birthday.
- Player's anniversary of registration.

We will work with the Lottery to determine the package of triggers that result in Player Rewards.

Web-Based Solutions

The Vendor should include and describe web-based solutions to support new games, special games, and promotions including, but not limited to, second-chance promotions, play-for-fun games, retailer interactions, and Internet wagering.

Our proposed IGT iLottery offering will provide the Lottery with a fully integrated platform to support web-based solutions for current and new games, special games, and promotions. As discussed earlier in this section, the IGT Mobile App and Virtual Player Card open up a wealth of opportunities for enhanced retailer interactions with player-tracking capabilities and means for the Lottery to continually promote increased retail foot traffic. We can grow the system for you in any areas that you choose, continuing to tie in points and rewards. The following describes many of IGT iLottery's capabilities that are available to you in the future as non-costed options pending further discussion and coordination between the Lottery and IGT.

The interactive space is dynamic and continually converging, with rapidly evolving Information Technologies (ITs), new eCommerce solutions, infinite consumer behaviors, and ever-changing consumer devices. IGT has the experience and pioneering spirit to expand lottery systems and portfolios from traditional platforms and gaming experiences to the new, exciting interactive space, engaging players whenever and wherever they prefer to play.

IGT was the first company in the U.S. to launch a mobile app that allows players to responsibly purchase lottery tickets. Additionally, more than a billion players have used our "mobile convenience app" to scan their lottery tickets and enter second chance drawings. Today, IGT has more than 120 interactive customers worldwide and the largest portfolio of interactive gaming verticals in the industry:

- iLottery.
- Instant Win games.
- Poker.



- Bingo.
- Casino.
- Sports Wagering.
- Player Account Management (PAM).
- Payments.
- Customer Relationship Management (CRM).
- VIP/Player Rewards Clubs.

To maintain our leadership in a constantly changing market, IGT has invested more than \$500 million in the interactive business. Based upon our experience and research, we are able to provide sound recommendations to the Lottery for future Player's Circle Features.

IGT's iLottery solutions include the systems, tools, and capabilities needed to create a player-centric, omnichannel, interactive offering that is firmly supported by RG principles.

Building Player Engagement for Our Lottery Customers

Our Player Engagement customers turn to IGT for features and tools that enable them to engage their players and create a database for direct relationship-building. Customers include:

- **New Jersey Lottery:** In addition to a new website, we created a new players' club for the New Jersey Lottery. Members of the New Jersey Lottery VIP Club have exclusive access to second chance drawings, "opt-in" contests, and certain draw-based games.
 - **Oregon Lottery:** The Oregon Lottery has our Single Scratch Game Second Chance Program, including full administration functionality and the ability to offer players all of its games or just a few via the website.
 - **California Lottery:** Our second chance solution for the California Lottery supports close to 5 million players. In an average two-week period, there are, per day, 1,400 new registrations, 83,000 draw-based game submissions, and more than 390,000 Scratch Ticket submissions. Furthermore, in less than a year, the transaction volume has grown to 22.8 million for draw-based game entries and 96.6 million for Scratch Games. Players can submit entries via their mobile phones, iPads, or PCs.
 - **Illinois Lottery:** Players can register if they are a first-time player or login if they are a returning player, enter their payment information, and complete their purchase. The Illinois iLottery also has iPromo functionality, enabling it to include promotional offer codes in its marketing efforts to attract new players and deepen interest among its current audience.
-

IGT's second chance program allows lotteries to include *any game in their portfolio* – not just instant ticket scratch-off games.

Second Chance Promotions

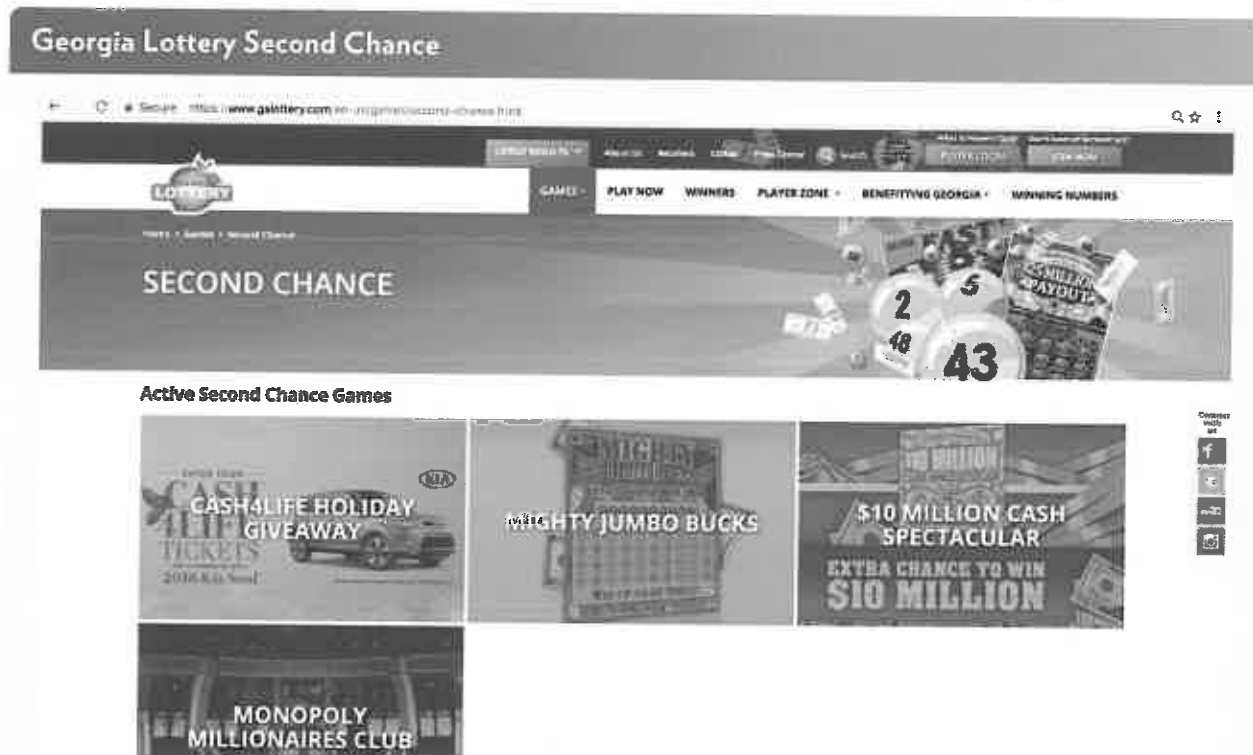
IGT's second chance program allows lotteries to include *any game in their portfolio* – not just instant ticket scratch-off games. In our experience, lotteries typically implement a second chance program to fulfill one or more of the following goals:

- Maximize player engagement and revenue growth.
- Expand the player base, including the hard-to-reach 18-to-34-year-old demographic.
- Retain and strengthen the relationship with existing players.
- Gather information about players and their motivations for playing.
- Maintain awareness of the lottery's brand and the good causes supported.
- Build upon a Player Rewards program by awarding points for entries.

With the Virtual Player Card, players can be auto-registered for second chance drawings – the Lottery need never be concerned that players are unaware of a second chance promotion.

IGT's solution will enable immediate and *automatic* second chance capability connected with player rewards via the Virtual Player Card. Players can be auto-entered into more winning opportunities via third-party, second chance microsites.

Figure 4.7 – 36:





IGT has experience providing all of the following features and/or services within our “tailored-to-the-customer” second chance programs:

- Custom micro-sites.
- Turnkey marketing programs.
- Exciting Play-for-Fun games.
- Experiential prizes and events.
- Social media components, such as Facebook Sweepstakes and Like Us promotions. We can also help the Lottery generate player engagement by leveraging Lottery-owned media, POS, email, and other media to develop an integrated program acquisition and drive consistent program awareness at every player’s touch point.
- Email marketing.

We can provide the following game-by-game options for a non-winning instant ticket:

- Single or multiple draws.
- An instant win.
- Physical and digital prizes.
- Barcoded coupons.
- Participation promotions (surveys).
- Game simulations.
- Design-a-game contests.
- A Birthday Club.
- Tell-a-Friend promotions.
- Geo-location validation.

We can provide a tracking mechanism whereby retailers know how many players have signed up for the second chance program at their location and are rewarded for their strong performance encouraging players to sign up. The retailer has a dashboard that is synchronized to the player portal. Other ways to inspire retailers to become part of the second chance program include:

- **Incentive Concept:** Initiate a quarterly contest whereby retailers receive incentives for reminding players that their non-winning tickets present an additional opportunity to win.
- **Tracking Performance and Providing Rewards:** A variety of mechanisms can be used to track individual retailer performance and provide rewards, including:
 - Retailers receive points for every customer who submits a non-winning lottery ticket code sold from their location. The player’s ticket code can be tracked back to specific retailer locations.
 - Retailers receive points for every customer who scans a unique QR code from the retailer’s POS. Unique QR codes can be printed on POS material with a unique tracking back to single retail locations.
 - A retailer-specific QR code and/or SMS submission code.
 - Promotional overlay game piece with unique code tracked back to the retailer locations.

We can provide any of these to the Lottery and will be happy to share our experience and know-how to help you make the best decision for your second chance program.

IMARCS: IGT's Partner in Second Chance Programs

As described earlier in this section, IGT's solution will enable immediate and automatic second-chance capability connected with player rewards via the Virtual Player Card. Players can be auto-entered into more winning opportunities via third-party, second chance microsites.

IGT's partner in its second chance programs is IMARCS, located in Tallahassee, Florida, a web solution provider that creates database-driven websites with integrated bi-directional communication features. The IMARCS client list includes universities, trade associations, insurance companies, and government lotteries. ImarcsGroup.com is an Internet-based software development company formed in 1999 by a former lottery marketing executive to assist lotteries in their move to use Internet technology as a cost-effective way to market their products.

IGT entered into a strategic relationship with IMARCS to partner and jointly market IMARCS' advanced Internet technology. Through the agreement, IGT customers will have access to IMARCS' industry-leading Internet marketing tools. The goal of the partnership is to offer lotteries innovative ways to reach out to new players and to reward current players for their loyalty by using leading-edge Internet technology, ultimately leading to increased lottery sales.



IGT's Second Chance Experience

We have collectively designed, managed, and analyzed hundreds of successful second chance promotions. We can work with you to ensure that rigorous quality processes and security measures are in place to enhance the success of your program. This is especially important as programs become larger aspects of your marketing plan to bridge toward further interactive strategies.

Figure 4.7 – 37:

Examples of IGT's Second Chance Experience	
California Lottery – Second Chance website: http://www.calottery.com/play/second-chance	
Oregon Lottery – Second Chance website: https://morewaystowin.oregonlottery.org/	
Texas Lottery – Second Chance Luck Zone: http://www.txlotteryluckzone.com	
Arizona Lottery – Second Chance	New Jersey Lottery – Second Chance
Lucky Life	3 Stooges
Black Tickets	Bejeweled 3 with Facebook Promotion
30 th Anniversary	Plants vs. Zombies
Bejeweled 3	Zuma
World Series of Poker	
Connecticut Lottery – Second Chance	Michigan Lottery – Second Chance
\$1,000,000 Silver & Gold	Bejeweled with Facebook Promotion
\$500,000 Cash Bonanza	Zuma
North Carolina Education Lottery – Second Chance	Rhode Island Lottery – Second Chance
World Series of Poker	World Series of Poker
Bejeweled 3 with Facebook Promotion	New England Patriots
	Aerosmith Dream On
Ohio Lottery – Second Chance	Florida Lottery – Play for Fun
Aerosmith – Dream On	Bejeweled 3
Texas Lottery – Second Chance	Tri-State Lotto – Second Chance
World Series of Poker	Caesars
Raceway Riches – (CoTA)	
New York Lottery – Second Chance	
Bejeweled	

California Program Has Players Dreamin' Big

The California Lottery's California Dreamin' Rewards second chance program – supporting entry of qualifying non-winning instant tickets – was successfully launched on October 14, 2013, with the enabling of the California Lottery "2nd Chance" public website and multiple back-office applications. Within 24 hours, the program had garnered 32,000 valid submissions.

Currently, the program boasts more than 5 million players and:

- Between 2 million and 2.5 million instant ticket entries per week.
- Between 450,000 and 500,000 draw-based game entries per week.

On average, 67% of second chance entries are via mobile devices and 33% via desktop. The program has had 177 draws, 73 hash files loaded, and 830 million records in the last 12 months.

Premium Licensed Products and Second Chance Programs with Custom Portals (Microsites)

IGT, including the IGT Printing division, worked with the Michigan, New Jersey, and Arizona lotteries to execute a Bejeweled-branded instant game. We combined the instant game with an interactive Play-for-Fun Bejeweled Tournament and, for Michigan and New Jersey, a Facebook sweepstakes promotion to drive sales and build each lottery's Facebook fan base. For the New Jersey Lottery, we also developed a Plants vs. Zombies program following the Bejeweled program, as well as a new Zuma program, which includes a custom-built, multi-level, second chance promotional website and Play-for-Fun tournament.

A Flexible Second Chance Solution: Three Options

IGT is an experienced provider of second chance programs. We offer substantial flexibility with respect to a second chance program in that we support three program options. All three can enable the Lottery to include some or all of its games, as depicted in the following figure. Please note that we will customize your program to include whichever games best meet your business needs, player strategies, and revenue goals.

Figure 4.7 – 38:



Option 1: Programs for Individual Instant Ticket Scratch-Off Games

This approach works best when a lottery chooses to feature a game with a highly recognized brand; these games are especially appealing to novice and frequent players. Featuring brand games as a part of a second chance program is a great way to establish a relationship with novice players in particular because the content is familiar and the play style is simple.

Option 2: Programs for All Non-Winning Instant Ticket Scratch-Off Games

It's customary for lotteries to have more than 50 instant ticket scratch-off games at retail. Because not all of these games will sell well, lotteries must be prepared with new games to replace the low sellers. Or so they've thought. We've found that when you give players a second chance to win in a game – and at half the cost – you change their perception of the game. They see the odds of winning as good and the game as worth playing. Option 2 is helping several lotteries reactivate player participation in all of their low-performing instant ticket scratch-off games, alleviating the need to spend time and money replacing them. In fact, the Lottery can revive its entire instants portfolio with our Option 2 second chance offering.

Option 3: Programs for Instant Ticket Scratch-Off Games and Draw-Based Games

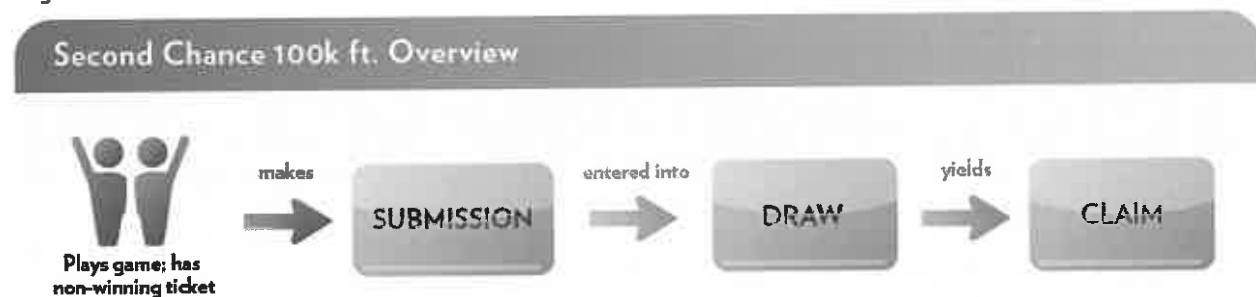
Opening your instant ticket scratch-off game second chance program to draw-based games is the culmination of the draw-based game portfolio. When introducing draw-based games to an established second chance program, lotteries tend to offer their lotto-type games first.

How It Works

Here is how a second chance program works:

- Players play their favorite games and determine if their ticket (or tickets) is a winner.
- If their ticket is a non-winner, players may log on to the Lottery website or a designated second chance portal to enter the designated second chance barcode number and/or entry code into the system.
- The second chance draw takes place.
- The system generates an email to the winning players.
- Players submit a claim form to receive their winnings.

Figure 4.7 – 39:




The following is an example using the California Lottery's program:

1. Players visit the California Lottery website.
2. Players log in.
3. For the Tripling Crossword game, players enter the numbers hidden under the latex strip on the ticket into the appropriate screen on the 2nd Chance website.

Figure 4.7 – 40:

2nd Chance Entry Code and Ticket ID



Ticket I.D. Entry Code

ENTER YOUR SCRATCHERS INTO REPLAY

Step 1: Uncover your entire Scratchers ticket

Step 2: Type the Ticket I.D. and Entry Code below

Step 3: Click "Submit" or hit the "enter" key one time

Step 4: Once the boxes clear, your ticket is entered

Ticket ID: (6 digits)

123456

Entry Code: (13 digits)

1234567890123

Submit

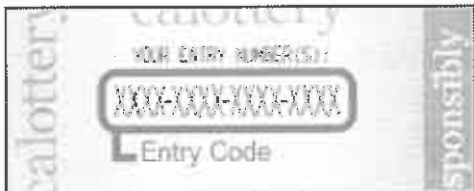
Cancel

Note: If you hit "enter" or click "submit" more than once, you will receive an error message saying the code has already been entered.

4. For a California Fantasy Five Bonus Bucks ticket, players enter the code that's found on the Fantasy 5 ticket into the appropriate screen on the website.

Figure 4.7 – 41:

2nd Chance Entry Code



ENTER YOUR FANTASY FIVE BONUS BUCKS TICKETS

Step 1: Type all 20 digits of your Entry Code below

Step 2: Click "Submit" or hit the "enter" key one time

Step 3: Once the boxes clear, your ticket is entered

Entry Code: (20 digits)

Note: If you hit "enter" or click "submit" more than once, you will receive an error message saying the code has already been entered.

5. The system confirms submissions as valid, based on secure instant ticket files from the ticket vendor or from the codes printed on the tickets that are decrypted by the system.
6. The draw takes place according to the California Lottery's specified parameters and business rules.
7. The system notifies winners and posts them to the Lottery's 2nd Chance website.
8. Players fill out a claim for their winnings.

IGT's system uses a third-party Random-Number Generator (RNG) to provide the automated draw. Our system sends a parameterized number of email reminders to players who have not yet submitted a claim form for their second chance winnings.

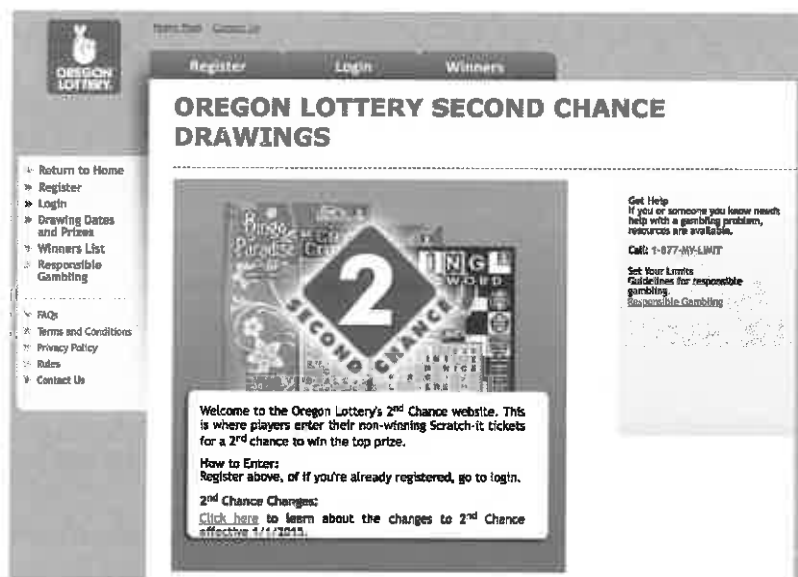
Marketing a Second Chance Program to Players

Numerous opportunities exist for the Lottery to market its second chance program to players.

More Ways to Win in Oregon

In Oregon, we offer a combination of Options 2 and 3, plus additional value that enables the Oregon Lottery full administration functionality. With this functionality, the Oregon Lottery has the opportunity to include all of its games or just a few, whether those games are draw-based or instant ticket scratch-off, and no matter whether they draw on a daily, weekly, or monthly basis.

Oregon Lottery Second Chance



Social Media

Beyond social media components, we can also help the Lottery generate player engagement by leveraging Lottery-owned media, POS, email, and other media to develop an integrated program acquisition and drive consistent program awareness at every player's touch point.

Retailers

We can provide a tracking mechanism whereby retailers know how many players have signed up for the second chance program at their location and are rewarded for their strong performance encouraging players to sign up. The retailer has a dashboard that is synchronized to the player portal. Other ways to inspire retailers to become part of the second chance program include:

- **Incentive Concept:** Initiate a quarterly contest whereby retailers receive incentives for reminding players that their non-winning tickets present an additional opportunity for winnings.
- **Tracking Performance and Providing Rewards:** A variety of mechanisms can be used to track individual retailer performance and provide rewards, including:
 - Retailers receive points for every customer who submits a non-winning lottery ticket code sold from their location. The player's ticket code can be tracked back to specific retailer locations.
 - Retailers receive points for every customer who scans a unique QR code from the retailer's points of sale. Unique QR codes can be printed on POS material with a unique tracking back to single retail locations.
 - A retailer-specific QR code and/or SMS submission code.
 - Promotional overlay game piece with unique code tracked back to the retailer locations.

POS Collateral

The in-store retailer environment provides a tremendous opportunity to market the second chance program. In-store POS collateral, in particular, can be leveraged in two ways:

- **To increase awareness:** A strong call-to-action to submit non-winning tickets could be prominently displayed via play center posters, ticket messages, self-service machine snipes, ePOS monitors, and in "take-one" brochures housed at play centers and on self-service machines.
- **To generate second-chance submission opportunities:** Players can submit their non-winning ticket's information in the store, using their mobile devices. They can receive a registration code on every ticket that, when scanned by their mobile device, takes them directly to a mobile-optimized Lottery website. They can also take their codes home and input them directly into their Lottery's second chance website from a PC. They can be allowed to scan a unique QR code with their mobile phone, from the POS material, to link them to a website explanation of the program and a chance to submit their entry at that moment or at a later time.

The following samples of POS collateral are from the California Dreamin' Rewards program, which includes a second chance component at retail.

Figure 4.7 – 42:

POS Collateral Examples



WIN UP TO \$500,000

2ND CHANCE SuperLotto PLUS

Play today at calottery.com/2ndChance

Play new SUPERLOTTO PLUS® 2ND CHANCE January 3 through March 17 for a chance to win \$500,000.



PLAY 2ND CHANCE

ANOTHER WAY TO WIN

Play today at calottery.com/2ndChance

With the new and improved 2ND CHANCE program it's easier than ever for you to get another way to win.

2ND CHANCE

Figure 4.7 – 43:

POS Collateral Examples



Digital Signage

Lotteries with a retail digital signage network have a very powerful asset, particularly if that network is powered by IGT's Enterprise Series MultiMedia (ESMM) or Aurora MultiMedia. IGT can help manage the creative execution and trafficking of the content included in the shows that are shown on the player-facing display screens.

The network can also display QR codes on individual slides. Players can scan the QR codes with their mobile devices to immediately access the second chance program's home page, right from within the retail environment.

As players begin winning second chance prizes, the network can provide winner-awareness messaging to shoppers in the retail environment.

Ticket Messages

Every ticket a terminal produces will have four lines of 26 characters that are defined by the Lottery and printed by the terminal application when the ticket is produced. We can use this valuable space to promote the second chance program and to provide a Uniform Resource Locator (URL) for players so they can access the second chance website.

Other Lottery Media Assets

When appropriate and visible, we recommend that the Lottery tag other traditional media assets (TV, radio, gas pumps, etc.) with a second chance program message.

System Requirements

IGT's second chance program is a component of our iLottery solution, our comprehensive interactive games and systems platform. The following components comprise a second chance program system:

- Second chance system.
- IGT Command PAM.
- Gateway to the Aurora Transaction Engine (the Aurora solution's central system).

IGT iLottery, with its built-in PAM, will integrate the core player and second chance databases with the Lottery's existing system infrastructure. Choosing IGT's Player Rewards program with the IGT iLottery solution provides meaningful benefits compared to integrating another vendor's program. Specifically:

- **Minimized Cost:** We will leverage the Lottery's existing player data. There is no need to use another vendor's data warehouse. To that end, there is no need to "teach" another vendor how to abandon its warehouse and integrate into IGT iLottery. This single solution eliminates the need for the Lottery to manage multiple vendors as well as a scalable strategy that will deliver cost savings as the Lottery adds games and functionality over time.
- **Ready-Built Infrastructure:** IGT iLottery servers reside in IGT's Data Center of the Americas (DCA), in Austin, Texas, the same highly secure data center that manages the primary and backup systems and draw-based games, instant ticket scratch-off games, and second chance platforms of more than 20 North American lotteries.
- **Enhanced Speed and Agility:** IGT iLottery's agility, through the use of APIs, provides a real-time solution that prevents the kinds of delays typically associated with integration of other vendors' new games, applications, components, and functionality.
- **Data in One Location:** All transactions, player data, entries, and validation files relating to the second chance program will be housed in one location, on one IGT iLottery system. Other vendors' solutions may result in a less efficient and more complex implementation that becomes time-consuming to manage.
- **Efficient Reporting:** One system housing all player registration information and transactions means the Lottery will receive one set of reports from one source.
- **Streamlined Vendor Communications:** By using IGT iLottery for your second chance program, the Lottery will have one point of contact.

- **Ultimate Accountability:** By using one vendor for your second chance program and gaming system, you will have one line of accountability for all related issues and responsibilities.
- **Simplified Coordination of Future Roadmap Plans:** IGT's second chance program can easily expand into a more robust retail transaction plan, and IGT iLottery can deliver that plan. IGT currently manages this technology infrastructure within the same infrastructure where your IGT second chance program will live.

Figure 4.7 – 44:

System Support of Second Chance Functionality



The system supports:

- 20-digit and 13 character codes.
- End-of-game pool, promotional drawings, and bonus draws.
- Hash code instant ticket scratch-off game validation.
- Algorithmic online ticket validation.
- Price tiers.
- Prize tiers.
- Bonus codes.
- Email winner notifications.

iLottery Wagering

For our iLottery Wagering customers, we've created a sales channel that enables them to offer existing games and new interactive games via their website and mobile app. Our solution has all the functionality needed for players to pay for interactive purchases and transfer funds in and out of their lottery accounts, and for the Lottery to pay player winnings. Our solution also integrates with leading third-party companies to provide reasonable geo-location measures to determine if a player is inside a state's boundaries when making a purchase.

IGT's Internet Wagering customers include the Illinois (the first U.S. lottery to launch mobile web-based sales), Georgia (the first to introduce a lottery-branded player card linked to players' eWallet accounts), and Kentucky lotteries.

IGT iLottery and our mobile app support the purchase of single draw-based game tickets and subscriptions. To make a purchase, the player needs to set up an account, pass 18+ age-verification, and be located within the boundaries of the jurisdiction. The Illinois Lottery's mobile app, for example, currently allows players to purchase single tickets and subscriptions.

The following list details the account functionality from the player's perspective:

- **Profile Management:** View and edit personal profile information as well as manage password security hint questions for the forgotten-password feature.
- **Communication Preferences:** Manages messaging preferences from the Lottery, including the volume of messages and the medium through which players prefer to receive them (i.e., SMS, through the Player Portal, push notifications, email, etc.).
- **Password Management:** Enables players to change passwords, once signed in, by providing the existing password and then changing the password to the new value. A confirmation message is then sent to the player's verified email address.
- **History:** Provides the ability to view a transaction history, account debits or credits, a history of successfully purchased online shopping carts, and claim summary information for prizes processed through the Lottery's claim center.
- **Favorite Wagers:** Associates favorite wagers with accounts and leverages favorite wagers at the retailer terminal (with additional integration with the Aurora Transaction Engine, as well as some terminal development).

- **Subscriptions:** Automates certain lottery purchases by setting Favorite Wagers or Easy Picks.
- **Responsible Wagering:**
 - **Self-Exclusion:** Sets time during which players exclude themselves from play by disabling portal login, or allowing logins with disabled wagering.
 - **Responsible Purchase Limits:** Sets spending limits for daily, weekly, or monthly values.
 - **Login Session Limits:** Sets individual daily, weekly, or monthly session limits.
- **Security:**
 - **Identity and Age Verification:** Employs a third-party KYC service called IDology that checks collected data provided by the player against multiple public databases to ensure user data is legitimate.
 - **Geo-location Software and Services:** Uses state-of-the-art techniques to recognize the physical location of a player accessing the system, from any channel mix, using the most stringent standards.

Group Play: Enhancing the Lottery Experience

IGT's patent-pending interactive Group Play allows players to increase their odds of winning a jackpot while still paying the same amount per ticket. It allows players to join their friends or co-workers and play their favorite draw-based games or sports games, so that everyone gets a chance to win.

IGT's Group Play provides an array of benefits for players and lotteries, on multiple devices. With the ability to render to mobile, players can participate in and build their group play teams conveniently and quickly. Group Play's major benefits are increased player retention, new player acquisition, and enhanced player experience, resulting in increased sales. Key features include:

- Configuration to allow for a desired number of participants (1-100).
- Game-specific wagers along with specified amounts.
- Consecutive draws and replay automation.

Player Retention & Acquisition

Group Play embodies an array of features that cater to all types of player demographics:

- Offered via your website, Group Play is an ideal product for frequent users of web products.
- Group Play can help you retain loyal players by providing a simplified online version of the way they are already playing manually, i.e., with a group of friends/family members.
- Group Play can also acquire new players because Group Play's engaging play style requires the participation of many players, who may go on to play other Lottery games.
- Its social components for inviting players and promoting groups are also an excellent acquisition tool for reaching a new audience across various Internet channels such as Facebook. These same components will also appeal to avid users of social media.
- For the more mobile-focused players, Group Play's responsive design and simplified user experience will help to gain and retain these players as well as acquire new ones – all within minutes through a smartphone.

Group Play possesses many more features that have been developed and modified based on player test populations, creating an optimal product that fully engages long-time players while creating opportunities for acquiring new ones.

Increased Sales

With features that allow users to auto-renew, invite others to play, and receive notifications, Group Play simplifies the Lottery ticket purchasing process, spreads awareness of interactive wagering, and keeps players engaged. Each of these features ultimately leads to an increase in spend-per-player and additional sales through an increased player base. More important, Group Play's product design takes CRM into consideration, ensuring every feature is optimized for player engagement, creating the opportunity for Internet promotions. The group creation and customization features allow for retention tactics such as the cross-promotion of new games, player-based promotions, and bonuses.

Figure 4.7 – 45:

Cross Promotional Opportunities with Group Play

CROSS PROMOTIONS



Group Order: One Receipt

Game Type	Scratcher	Prize	\$100,000
Game ID	Scratcher	Prize	\$100,000
Game ID	Scratcher	Prize	\$100,000

Current Jackpot Total: **\$62,000,000**

Countdown to next draw: **00:00:00**

Get players engaged in games both online and offline by promoting new releases or rebrands of existing games. The Lottery can leverage these game-specific group play rooms as opportunities for additional prizes or promotions and even merge interactions between players and retailers.

Example: Players with at least two winning numbers in the Mega Millions draw will receive Scratcher Throw Back tickets to be redeemed at the nearest retailer.

GOOD CAUSES



Group Order: One Receipt

Game Type	Scratcher	Prize	\$100,000
Game ID	Scratcher	Prize	\$100,000
Game ID	Scratcher	Prize	\$100,000

Current Jackpot Total: **\$62,000,000**

Countdown to next draw: **00:00:00**

Help promote Lottery foundations and causes both online and offline. Incentivize players to join the group by ensuring that a portion or all of the winnings within the group will go to the good cause of their choice.

SEASONAL BRANDING



Group Order: One Receipt

Game Type	Scratcher	Prize	\$100,000
Game ID	Scratcher	Prize	\$100,000
Game ID	Scratcher	Prize	\$100,000

Current Jackpot Total: **\$62,000,000**

Countdown to next draw: **00:00:00**

Get players in a seasonal spirit by keeping Lottery web pages fresh and new.

LICENSES



Group Order: One Receipt

Game Type	Scratcher	Prize	\$100,000
Game ID	Scratcher	Prize	\$100,000
Game ID	Scratcher	Prize	\$100,000

Current Jackpot Total: **\$62,000,000**

Countdown to next draw: **00:00:00**

The Lottery can leverage existing licenses to online players and help promote license-specific draw-based games or instant tickets.

Enhanced Player Experience

The creation of an interactive group play experience was initially driven by the demand from players for a more simplified, user-friendly solution vs. the current manual (offline) process. In the jurisdictions that offer offline group play, setting up a group is often an arduous process, typically requiring a significant effort from one player to collect money from all the other players to purchase tickets.

Figure 4.7 – 46:



This hassle is alleviated through our online, interactive Group Play product, which allows each player to sign up and purchase tickets directly on a lottery's website and then receive notifications about draw dates and winning numbers. Perhaps most important, our product can eliminate players' fears of not getting their share of the winnings. Group Play also acts as a support tool for players, making the experience of playing in a group enjoyable and hassle-free.



How Group Play Works/Tools to Manage Group Play

Many players enjoy playing “the lottery” in groups with friends and family, and the key to success is often the group leader. Our Group Play product automates and simplifies the process for the leader, and for participants, by adding social elements to the process.

Group Leader (“Captain”) Features

- Easily set up a group, and each player plays.
- Easily send out communication to players.
- Players purchase tickets upon joining the group so there is no confusion about who is in the group.
- Winnings are distributed to all group players.

Group Play Player Features

- Players need to register and pass the age verification process.
- Players click on Group Play Invite, log in (or register if new), select their numbers, and pay for their share. (Note: Players are geo-located to ensure they are within the state’s boundaries at time of purchase.)
- Any small group winnings are automatically distributed to group players; larger winnings are sent to Claims and Payment (CAP), and players are notified how to claim.

IGT iLottery will allow group play (two or more players) through its group-account capability. All members of a group must register to participate. Players can set up group accounts with family, friends, and coworkers who have user accounts to ensure that the wagers actually take place and funds automatically disburse to all group members.

Each team has a designated team leader (the captain) to set up the account and purchase the wager(s). The players then use their player portal log-in to view the group-play account detail and manage their own individual accounts for prize payment. Any winnings are automatically split evenly among all members of the team, as each team member has requested.

A registered player can be a group captain of multiple groups and participate in groups in which others are the captains.

Other Group Play components include:

- **Notifications Preferences:** Players can set up their preferences regarding the frequency and form of the email communications they receive from their captain.
- **Consecutive Draws:** Depending on the game and its draw schedule, players can select consecutive draws for a particular number of days on which they want to wager.
- **Private/Public:** Group captains can choose either exclusive (invitation-only) or inclusive (open invitation). Groups can also be set up as “private” for players who only want to wager with friends or select groups, such as office colleagues.

Results that Positively Impact the Bottom Line

IGT's Group Play is one example of how the Internet channel can provide an eCommerce solution that increases engagement and attracts new players. Players in New York have embraced it. There, group sales make up \$2.5M, or 19%, of total Mega Millions and Lotto subscription sales.

To date, only a handful of lotteries around the world have created variations of an interactive group play product, but none seem to have the same merit and strong position as the IGT Group Play product. IGT designed its Group Play to be versatile, with features and functionality that target a wide array of player demographics and adapt to the needs of many jurisdictions. Constant player testing and research drives development of the product, ensuring that future enhancements cater to what a lottery's player base wants and what will fully engage them.

Instant Win Games

IGT is firmly committed to developing products such as our dynamic Instant Win games for the interactive channel. To bring the best features of instant ticket scratch-off games to the interactive space and then make those games available across our customers' markets, IGT has a comprehensive Instant Win game catalog for the mobile and Internet channels.

The following figure highlights a number of our many Instant Win titles.

Figure 4.7 – 47:

Sample Instant Win Games



Comprehensive Catalog: These represent only a few of IGT's Instant Win games for the mobile and Internet channels.

Mix of Game Themes

Our Instant Win games make the most of many popular themes, ranging from basic click-and-win to extended play as follows:

- Arcade.
- Bingo.
- Board Game.
- Click and Win.
- Extended Play.
- Fast Play.
- Money.
- Seasonal.
- Sports.
- Tic Tac Toe.
- TV.
- Whimsical.
- Word/Puzzle.

Figure 4.7 – 48:









A Game for Every Interest: IGT offers games that use a wide range of themes that appeal to numerous player segments. The game titles pictured here use themes such as word/puzzle, arcade, click and win, fast play, extended play, and bingo in varied combinations.

In addition, IGT game mechanics include match 3, tic-tac-toe, key number match, treasure hunt, and more, so that when you add in our developers' creative reveals (a game's artwork, animations, and sounds), the potential for game innovation is nearly limitless. Moreover, our games work on desktops, tablets, and other mobile devices, further ensuring that players will be able to find and play Instant Win games anywhere within their state at any time.

Instant Win Game Overviews

Please note that we have the following games and many more in our Instant Win game catalog.

Figure 4.7 – 49:

Current Instant Win Games	
Instant Win Game	Description
 <p>Astro Cash</p>	<p>Players aim to thwart the alien invasion and save the universe when they play Astro Cash! Zapping the extraterrestrials in search of three identical out-of-this-world prize values could lead to bringing a cosmic prize back to the home planet!</p>
 <p>Captain Moneybeard</p>	<p>Making the most of the easily understood pick 8 with Instant Win game mechanic, Captain MoneyBeard is a rollicking game that's packed with eccentric merriment. Players traverse the treasure map in search of bonus rounds and instant loot. Rusty anchors, old boots, stinky fish, and inky octopi can sometimes get in the way, but it's all in good fun, which every player will love.</p>
 <p>Crossword</p>	<p>Players have 18 chances to match call letters to all letters in 8 to 15 words on the crossword grid in Crossword. The more words players complete, the bigger the prizes!</p>
 <p>Double Cash Doubler</p>	<p>Players double their fun playing Double Cash Doubler, a key number match game that's based on a popular instant ticket scratch-off game. This game is packed with great features, such as multi-win, instant-win, and instant doubler surprises!</p>
 <p>Fort Knox</p>	<p>Also based on a popular instant ticket scratch-off game, Fort Knox holds the gold! Players can lock down the loot – maybe more than once – if they match any Fort Knox Number to any Your Number or find the Instant Win or doubler symbols!</p>
 <p>Lightning Keno</p>	<p>Players aim to match their numbers (1-10 picks) to the 20 drawn keno numbers (spots) within a field of 1-80 numbers, in Lightning Keno, an Instant Win version of the familiar, popular social space interactive draw-based game.</p>

Instant Win Game	Description
 <p>Lil' Lady Bingo</p>	<p>With its established IGT brand, enchanting artwork, varied play options, and extended play time, our Lil' Lady Bingo game appeals to regular Instant Win players, yet it's familiar enough in terms of play style to bring in new players.</p>
 <p>Match 4</p>	<p>Elegant in its simplicity, Match 4 is a game that all players will instantly understand. It offers a new take on the universally recognized pick- and lotto-style lottery games, and players will appreciate the game's contemporary and vibrant graphics, animations, and sounds.</p>
 <p>Medieval Money</p>	<p>Medieval Money uses a well-known IGT brand and delivers a compelling play experience that gives players a sense of control and high entertainment value throughout the game. Using the game's implied skill elements, players can manually aim and fire boulders at the castle to reveal the treasures within. Medieval Money's catapulting play mechanism is similar to that of the wildly popular Angry Birds, and its match variable game mechanic includes up to two bonus rounds.</p>
 <p>Mega Cash Spectacular</p>	<p>Mega Cash Spectacular brings mega fun through its mega ways to win. As part of our Cash Spectacular game suite, Mega Cash Spectacular offers players the chance to win up to five prizes as well as Instant Win and prize doubling features. This game is a mega hit with players.</p>
 <p>Mega Crossword</p>	<p>An amped-up version of our Crossword game, MEGA Crossword steps up the fun! Using their 18 chances to win M-E-G-A money, players seek to match all of the letters in eight to fifteen words and claim the C-A-S-H! Odds are your players will really like this game!</p>
 <p>Mole Madness</p>	<p>Players grab a rolling pin (or a spatula, mallet, or fish) and aim for the big money prize when they play Mole Madness. The object is to wallop the pesky critters that bob up and down to release their prize values. If a player finds three like values, it's a win!</p>
 <p>Monkey Drop</p>	<p>A light-hearted game that features playful characters, Monkey Drop makes the most of gameplay physics related to its pachinko game play style. Through its enhanced animations, it brings players an added sense of control and thus an enhanced play experience.</p>

Instant Win Game	Description
 <p>Spiral Spin</p>	<p>Offering the familiarity and excitement of arcade games, Spiral Spin brings players a vibrant play experience. Players launch the balls – slow or fast – it's player's choice here – and hope they will land three in the same segment for a big prize! The game's colorful graphics and complementing sound effects round out the game and will have players dizzy for more!</p>
 <p>Spooky Loot</p>	<p>With a cute take on a shadowy theme, Spooky Loot brings players a fun game that involves a search of a mysterious graveyard for bonus rounds and instant cash. The game's quirky style, as well as its comedic animations and script, are attractive to players, especially when included as part of Halloween-themed campaigns.</p>
 <p>Super Cash Spectacular</p>	<p>Cash and gems – what's not to like? With its fantastic ways to win, Super Cash Spectacular is an extravaganza of a game that offers amazing chances to win up to five prizes as well as dazzling instant-win and prize doubling features!</p>
 <p>Tropical 8's</p>	<p>With its recognizable, easy-to-play tic-tac-toe game mechanic and its special multiplier feature, Tropical 8's is a basic but layered game in which players aim to match three 8s in any horizontal, vertical, or diagonal line.</p>
 <p>VIP Gold</p>	<p>Go big! Go VIP! Nab the gold card! With chances to win up to five prizes and prize multipliers, VIP Gold is packed with powerful and fun ways to win!</p>
 <p>VIP Platinum</p>	<p>Players go VIP playing VIP Platinum. With premium prizes, four ways to win, and chances to win up to five times, VIP Platinum is packed with powerful fun and delivers the ultimate VIP experience.</p>
 <p>Wheel of Fortune</p>	<p>Our Wheel of Fortune Instant Win represents an all new way to play the forever popular Wheel of Fortune game. Players aim to complete the Winning Words by revealing mystery letters, and players can multiply their winnings by spinning the bonus multiplier wheel for a chance at more good fortune.</p>

Licensed Content

With professional artwork and renowned characters, licensed content perfectly complements the vibrant graphics, animation, and sounds of IGT's Instant Win games. Our licensed content portfolio includes mega successful (across decades and demographics) mega brands, including Wheel of Fortune, Ghostbusters, and Harley Davidson. IGT licenses these popular brands because they are cultural icons with strong digital presence around the world.

Figure 4.7 – 50:

Sample Licensed Brands



Something for everyone: IGT's licensed property catalog will appeal to all segments of your market.

Interactive Game Studios – Ongoing Innovation

Our Instant Win games are the products of experts working in game studios we maintain around the world. Central to assisting lotteries with meeting their market demands is our ongoing game development program – our game library features content from five game studios, with developers producing new content every week. Each game studio stands as a creative and collaborative environment, where the expertise of our staff and the perspective of science and art combine to provide games that hold appeal across demographics and generations, as well as align with local cultures. The following figure shows the locations of our five game studios.

Figure 4.7 – 51:



Cross-Continent Collaboration for IGT Customers: IGT Game Studio personnel work together on game design, following production best practices to take Instant Win games to new, more complex levels such as that of the trending casual games.

The more than 120 professionals who comprise the game studios' creative workforce include software engineers, artists, game developers, technical writers, mathematicians, and software test technicians. These staff members work continually on new and enhanced games for customer markets, releasing an average of seven to eight games per quarter.

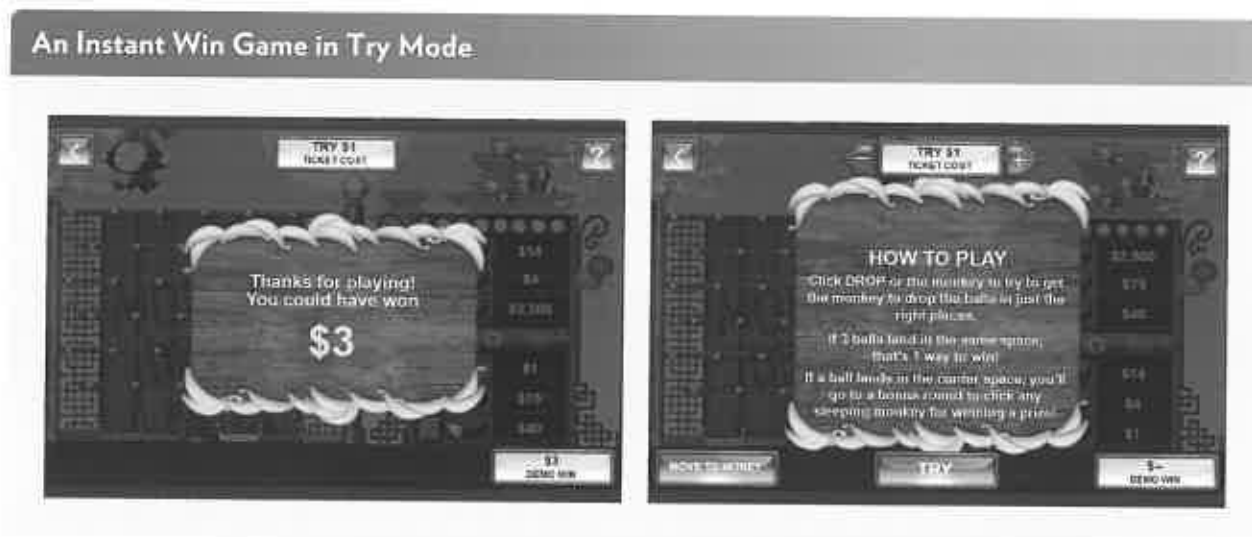
Play-For-Fun Games

IGT's Instant Win games include free-play functionality to let players sample games (in "TRY" mode) before purchase.

The play experience is the same as that of "BUY" mode (including in terms of odds, if required) *except* that in-game labels and messaging clearly indicate when a game is in free-play mode and that the player has not won any prize at game's end.

As in the following figure, the game displays the word TRY in the game's "TICKET COST" window and on the TRY button (which the player clicks/taps to begin the sample play). In addition, the word "DEMO" appears in the "Win" box; a "MOVE TO MONEY" button is available; and the game's closing message reads "You *could* have won \$3" as opposed to "You have won \$3."

Figure 4.7 – 52:



Currently, we offer these games in Georgia and Kentucky in the U.S., as well as in Belgium, Luxembourg, Italy, Norway, China, and Finland.

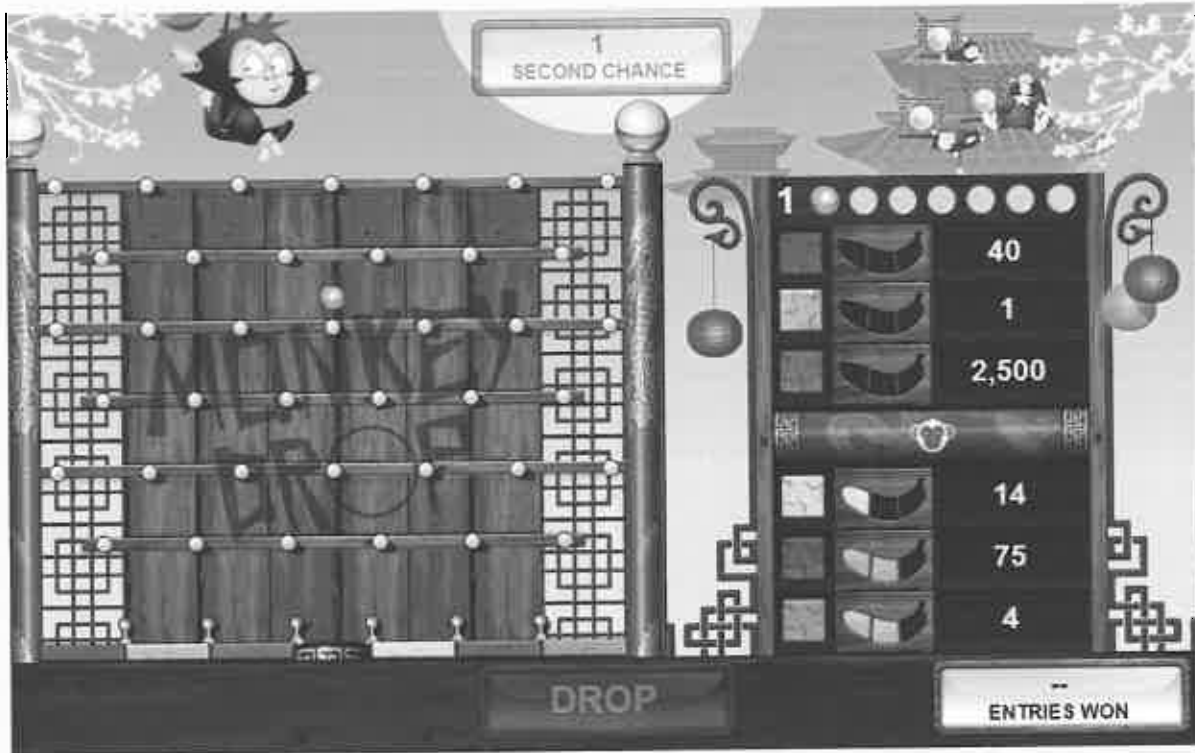
We welcome the opportunity to discuss our solutions with you (available from a content perspective all the way to a fully functioning solution) to determine their potential applicability in West Virginia.

Second Chance Games Programs

The majority of our Instant Win games are also available for second chance offerings.

Figure 4.7 – 53:

Screenshot of Game Play



As indicated in the following figure, players win second chance raffle entries instead of cash.

Figure 4.7 – 54:



4.7.8.2 Subscription Services

Upon the Lottery's request, the Vendor should provide or work with a third-party Vendor to provide player subscription sales and at minimum meet the following requirements:

IGT's Subscription Capabilities and Benefits for the West Virginia Lottery

With our proposed IGT iLottery solution, you will have built-in capabilities for subscription sales whenever you choose to implement them. By implementing an e-commerce subscriptions services program (mobile application and Internet), the Lottery will provide more opportunities for players to conveniently interact with your products through interactive media that are more and more a part of their everyday lives. To provide fully functional e-commerce capabilities to our subscription offering, our Aurora offering comes equipped with an integrated omnichannel solution. IGT's iLottery leverages best practices and experiences from running the world's best-performing Internet solutions (the U.K., Finland, Georgia, and Illinois).

The IGT iLottery subscription solution uses a number of features that will particularly benefit the Lottery, as shown in the following figure.

Figure 4.7 – 55:

IGT iLottery Subscription Module: Features and Benefits		
Functionality	Feature	Benefits to the West Virginia Lottery
Responsive Web and Mobile App-Based Subscription System	Our subscriptions system can be deployed as a responsive website and a mobile app so players can have an omnichannel experience	<ul style="list-style-type: none"> • Supports Draw, Numbers, iKeno, and Internet Scratch games • Players can complete purchases with one game order or multiple orders together (shopping cart checkout)
Age Verification	Player registration requires information that can be checked by a third-party verification company to ensure accurate player data. With accurate data (including date of birth), the system ensures the players are of legal age	<ul style="list-style-type: none"> • Ensures the player is of legal age to play the Lottery's games • Verification of demographic information in the player registration database provides the Lottery with useful data for its Customer Relationship Management (CRM) and marketing campaigns
Player Registration and Account Availability over the Internet and Mobile	Players can update their profiles and payment methods, renew subscriptions, and view all financial transactions, including subscription billing and winnings	<ul style="list-style-type: none"> • Our IGT Command PAM system can provide players a single registration and log-in for access to subscriptions, Player Rewards, second chance, and other interactive offerings • Players can create and manage subscriptions for all of the Lottery's games for which subscriptions are available via the Internet; this capability will help capture players from the tech-savvy and emerging market

Functionality	Feature	Benefits to the West Virginia Lottery
Automatic Renewal	During the subscription order, the player may request that the subscription be renewed automatically	<ul style="list-style-type: none"> The system automatically extends a subscription when it is selected to be auto-renewed without any manual intervention required by the Lottery or the player Players are sent notifications prior to the auto-renewal
Subscription Ending and Replay	Players whose subscriptions are ending and are not set to auto-renew are sent a notification prior to expiration	<ul style="list-style-type: none"> Players have the option to set their subscription to automatically auto-renew If a subscription has already ended, players can easily choose to replay that subscription
Player Notifications	Players are notified if they have won. Notifications can be via email and/or push notifications	<ul style="list-style-type: none"> Improves player satisfaction since players are notified of winnings
Easy Self-Maintenance	Players can check the status of their subscriptions via the website or mobile app. Players can log on and see how many plays are remaining and if they have an outstanding prize	<ul style="list-style-type: none"> Subscription users maintain their own accounts
Integration with the Lottery Gaming System	IGT iLottery subscriptions will be completely integrated with Lottery Gaming System applications	<ul style="list-style-type: none"> Allows the Lottery to leverage player data effectively and economically Leverages existing game rules, draw processing, and payment Data mining can be used in marketing campaigns to promote new games and other offerings to generate more revenue
Automatic Prize Payouts	Subscription wager winnings are automatically paid to the recipient's account up to and including \$600	<ul style="list-style-type: none"> Minimizes administrative work and the mailing of small checks, which could make operating a subscription service labor-intensive Additional revenues gained due to players using winnings for additional purchases

Efficient, Secure, and Expandable

Because our IGT iLottery subscription system integrates seamlessly with our Aurora Transaction Engine to process, record, and designate subscription wagers, the system will enable you to offer games as subscriptions in a secure manner, guaranteeing Lottery integrity. This contrasts with an offline system that is not connected to the central system, in which manual errors could occur and that cannot accommodate liability caps for daily number games. The system also has the ability to add games and can therefore adapt to your needs regarding the number of games for which it can facilitate subscription play.

Our subscription services solution will fully meet any of the gaming standards that are required for participation in current and future game offerings, including requirements for Multi-State Lottery Association (MUSL) participation.



System Capabilities

Our solution can provide the following capabilities:

- **Subscription Cancellations:** IGT provides this system-level capability through the customer service administration interface.
- **Determination of Winners and Amounts:** Our system can determine the winner and amount of win for each draw.
- **Player Restrictions:** The system can identify restricted players (i.e., self-excluded players) and prohibit them from play. We currently do this in Illinois and Georgia.
- **Ability to Add/Delete/Change Games:** IGT will work with the West Virginia Lottery to define how quickly games should be added, deleted, or changed.
- **Purchase of Existing and Future Games:** As previously described, the system allows players to purchase all existing and traditional Lottery games, along with their respective wagering options, as well as accommodate future games.
- **Electronic Wallet (eWallet):** The system will offer an eWallet tied to players' profiles.
- **Player Notifications:** Notifies players with key information about their subscriptions.
- **Comprehensive, Responsible Registration:** KYC and age verification as part of registration.
- **Geo-Location:** Determines that players are within state boundaries when purchasing.
- **Responsible Gaming:** Sets limits on the amount players can deposit to purchase subscriptions.
- **Payment of Earned Winnings:** The system has the ability to pay winnings awarded to a player if deemed necessary by the Lottery. After a drawing, all tickets included in the draw go through the winner selection process. Winning tickets are validated. Low-tier winnings are immediately paid to the player's wallet. For large winners, ticket and player information is sent to the CAP system where the winners are processed according to the Agency's business rules. Players also have the ability to withdraw money from their eWallets via EFT.
- **Internet Wagering:** If the Lottery should become ready to allow players to purchase single tickets via the Internet (web and mobile), our platform has this functionality built in and, therefore, a new platform will not be needed to add this capability.

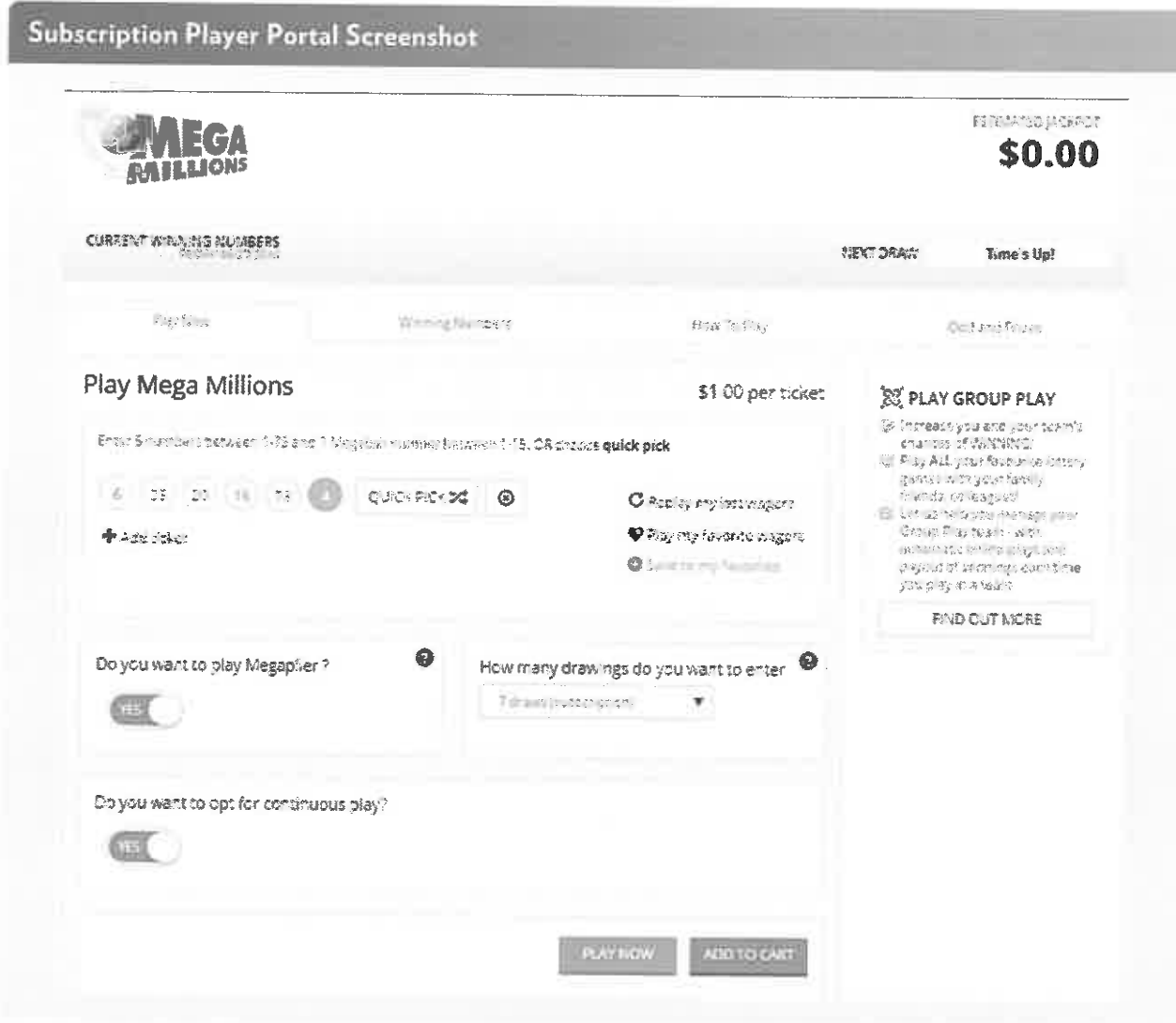
Authorized administrators will be able to manage player subscriptions.

Draw-Based Game Subscriptions

The system can set up multiple subscription options for players. The games available for subscriptions are presented with the ability to update details related to the subscription duration, discount, and unit (draws, days, weeks).

Players who have successfully registered, logged in, and comply with geo-location, age verification, and payment requirements will be able to create, view, and update a subscription from the website and mobile app. Players can also have their subscriptions auto-renewed via our continuous play feature, which will create new subscriptions when the current ones expire.

Figure 4.7 – 56:



The Same Look and Feel: With our subscriptions player portal, the Lottery can blend the look and feel it wants with the functionality that we have spent years working with many customers to develop and refine, with the goal of a simple and intuitive player experience to drive sales.

Centralizing Players' Information on a Highly Accessible Site

Subscription players will be assigned a player profile in the system (which can be linked with a rewards player database). All subscription purchases, favorite numbers, and winnings will be stored within that profile. This functionality will be tied to the player's eWallet.

All games available for subscriptions will be accessible through the responsive website from all popular computer and mobile OSs and web browsers, including Internet Explorer, Chrome, Safari, and Firefox as well as via a mobile app available for iOS and Android devices.

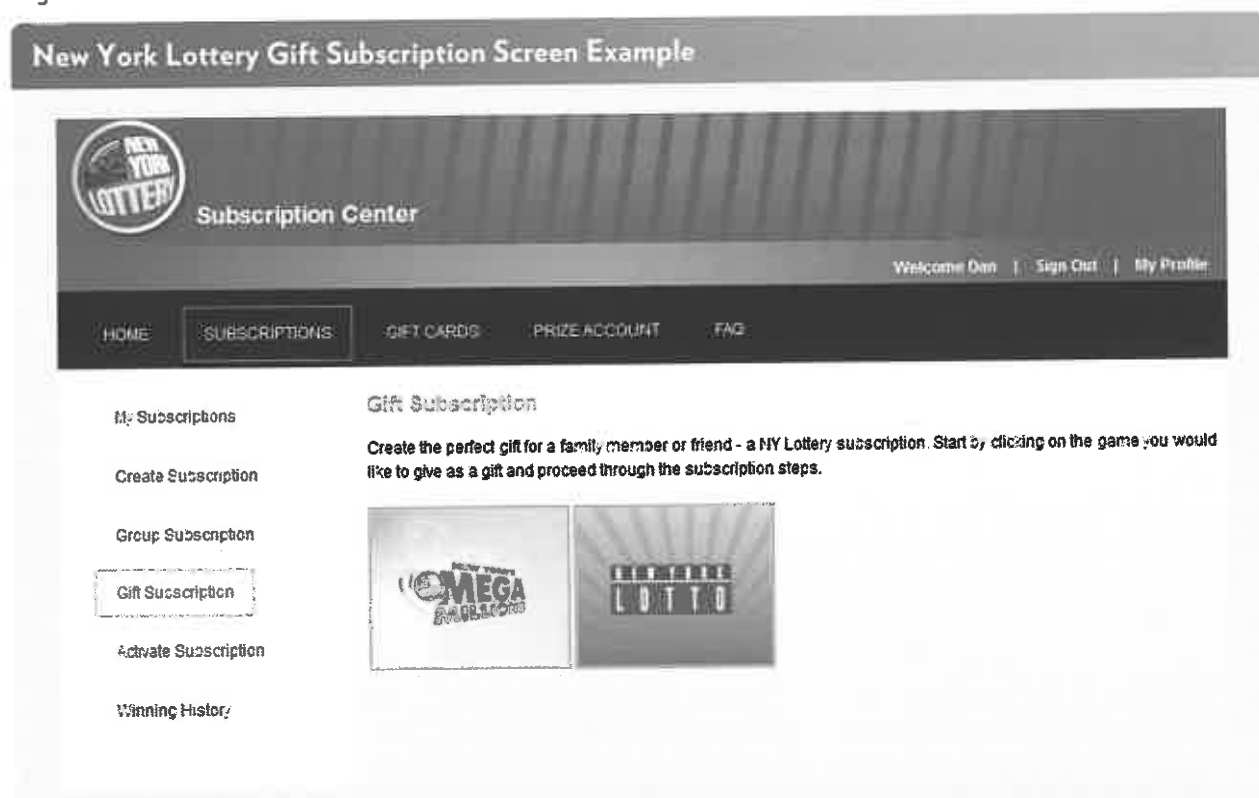
Subscription Purchase Criteria

It is critical to the success of the subscription program that players can purchase subscriptions for the next available draw, as well as for small lengths in a way that is not intimidating to them. Therefore, with our solution, players can set the duration parameters for their subscriptions, which can help to maximize sales in a responsible way. In Illinois, we significantly increased sales of Lucky Day Lotto subscriptions by offering subscription lengths starting at one week.

Gift Subscriptions

The system will allow valid players to purchase gift subscriptions (with proper age, location, and parameters exhibited) for another player. The donor player provides the recipient player's information, selects the subscription parameters, and then pays for the resulting subscription. The system creates a notification to the recipient player, who can activate and redeem the subscription by clicking on the link.

Figure 4.7 – 57:



Give a Gift: Our gift-subscription functionality is live and available to New York players.

IGT iLottery is the flexible, customizable system within which our subscriptions solution is based. Not only will it suit your evolving business needs and rules but will also support future gaming choices that may appear in the marketplace in the years ahead.

Age, Identity and Location Verification

- *Subscriber provides age, identity, and location and the System verifies this information for in-state residents;*
-

IGT iLottery will integrate with Verifi/IDology, a third-party ID and age verification KYC service that will run checks against external databases or national registries to stop banned individuals or underage players from registering. IGT's Fraud & Security team will ensure that due diligence is done on all accounts by applying automated ID and age verification via IDology.

IGT works with major providers of Geo-Location Services (GLS) and has developed a keen understanding of the technology and methodologies as they pertain to the gaming industry. Using our knowledge of the player experience in the various facets of the gaming industry, we are uniquely positioned to provide the Lottery with a geo-location solution that supports its IGT iLottery system and Internet wagering in line with regulatory design requirements.

Key aspects of IGT's geo-location strategy include:

- Using technologies that provide reasonable accuracy for location detection.
- Providing a layer of validation controls to improve the overall confidence level in ascertaining a player's actual device location.
- Implementing registration and session-level controls.
- Providing player opt-in and device registration for mobile device geo-locating.
- Combining location detection methods with other methods to discourage and prevent cross-border wagering.
- Detecting fraudulent access using risk-based analysis of user persona-device-location transactions and associations.
- Verifying identity and address – giving access to players who are age-eligible and have verifiable physical addresses within the State.
- Obtaining players' consent – requesting explicit user consent acknowledging their presence within state boundaries and alerting players that their positional information is being captured and stored for audit purposes.

To prevent out-of-state participation, IGT will provide software and services that use current techniques to recognize the physical location of a player accessing the system, from any channel mix, using stringent standards. (Please note that not all channel mixes are "created equal" with regard to location. For example, mobile is still the only method that is not susceptible to spoofing. We discuss the advantages and drawbacks of each method later in this section.)

This is done by creating a digital map of the state's boundaries and applying an inner buffer zone to that boundary. This creates three areas: outside the state boundary, within the inner buffer zone, and inside the state boundaries (but not within the inner buffer zone). Only players determined to be inside the state boundary area and not within the inner buffer zone are allowed to play. The size of the inner buffer zone is configurable and is typically set to 100 meters.



Geo-checks are performed when players load funds to their wallets and prior to subscription purchase. If beyond state boundaries, players are notified that they will not be able to make purchases from their current locations.

Following the U.S. Department of Justice statement that Internet-based wagering within the U.S. and/or any given state is legal as long as reasonable design measures are taken to ensure that players are abiding by the rules and are in fact within the necessary geophysical area, GLS has become a critical component of any Internet- or mobile-wagering solution.

IGT was the first company to work with carriers on getting approvals to accept lottery wagers over cellular networks.

LocationSmart

Our GLS will be provided by Location Smart, a third-party provider, and configured to create and adapt boundaries as directed during the term of the Contract. Periodic IP and mobile geo-location and geo-compliance reporting provides a performance dashboard with detailed breakdowns of geographic and network declines, as well as other information.

For the Lottery, we will contract our entire solution through LocationSmart as our aggregator, including carrier location for mobile requirements, IP location (sourced via Neustar), and the ThreatMetrix solution.

- **LocationSmart:** Is a location aggregator for IP and mobile geo-location and the world's largest location gateway for Enterprise Location Based Services (LBS). LocationSmart will perform mobile geo-location identification on behalf of IGT's support of the Lottery. LocationSmart is the gold standard for mobile geo-location, providing an aggregation platform that interfaces in real time to all of the tier-1 carriers (Sprint, AT&T, Verizon, and T-Mobile) as well as many tier-2 carriers to ascertain cellular location information.
- **IP Intelligence:** This solution, licensed through LocationSmart, reviews the IP address for the device making the purchase and identifies the geographic location of the device. The IP Intelligence solution analyzes regional network data and web traffic using a database that contains information from Internet Service Providers (ISPs) regarding IP assignments to detect the location of the user's access point. As part of the solution, PricewaterhouseCoopers (PWC) annually reviews its processes and procedures, ensuring that the IP geo-location data is of the highest quality for every update. PWC has confirmed that the IP Intelligence data is 99.9% accurate at the country level and 96% accurate at the state level (PWC audits are based on IP Intelligence's U.S. customer's IP traffic). Our IP Intelligence solution currently provides this service in connection with all of IGT's lottery subscription and Internet wagering systems in the U.S. with the exception of the Georgia Lottery.

- **ThreatMetrix:** Deployed by industry leaders across financial services, e-commerce, payments, social networks, government, and insurance, ThreatMetrix secures customers against cybercrime and fraudulent activity that target online and mobile devices by profiling the device and performing policy-based risk analysis. Underpinning the solution is the ThreatMetrix Digital Identity Network, which analyzes more than 20 billion annual transactions and protects more than 250 million active user accounts across 4,000 customers and 30,000 websites and mobile apps. IGT can profile desktop web devices and mobile devices (mobile web and mobile app) using LocationSmart's API suite, which is integrated with ThreatMetrix. IGT also provides enhanced helpdesk CSR tool transaction investigation capabilities for geo location, compliance, and threat protections, along with associated data reporting.

LocationSmart is used by IGT lottery customers in Illinois, Kentucky, New York, and Ontario (OLG), and is deployed in addition with ThreatMetrix in Kentucky and Illinois.

LocationSmart allows the operator's system to submit a query to its geo-location provider's database using an IP address for the device making the purchase. The database will then reply to the operator's system identifying the geographic location of that IP address.

The geo-location provider will use data-collection centers to continually research the Internet and determine geographic and network connection information with respect to all assigned and allocated IP addresses to more clearly define the location of a user's access point.

Because location identification so closely intertwines with and affects the player experience as well as illegal-wagering liability, IGT has partnered with leaders in the industry to provide a solution that is configurable, provides critical reporting for determining the efficacy of the solution and its impact on the player base, and can be tailored in an ongoing manner to strike the right balance for success.

Means of Geo-Location

Through our LocationSmart subcontractor, which also provides our Neustar services, we locate a player's physical location, as described in the preceding subsection.

GLS methods used include IP geo-location and Mobile geo-location.

Players will browse to the Lottery Player Portal that will be geo-filtered from their client device. The requests will go to the players' ISP and then be routed through the Internet to the portal ISP and into the hosted Lottery portal.

IP Geo-Location

IP geo-location is the science of determining the physical location and Internet connection characteristics of a web visitor. Every computer connected to the Internet has an IP address that uniquely identifies it from all other computers. Each IP address must be registered and have a known **network** location. To use the IP address to approximate the location of the user, two pieces of information are critical:

- The physical location of the computer where the IP address is assigned.
- How the computer is connecting to the Internet.

IP geo-location also includes Wi-Fi, where Wi-Fi is actually considered *tethered IP*, since it communicates locally (albeit wirelessly) with a wireless router or access point, and that access point is part of the tethered IP geo-location solution/service. Wi-Fi is generally a database-based solution that uses proprietary, third-party, or crowd-sourced information about Wi-Fi hotspot locations. This is different from mobile IP, which uses “over the air” cellular communications.

Mobile Geo-Location

Mobile geo-location is inclusive of both device-location methods and network location methods. There are two types of mobile geo-location:

- **Device-Based Location:** Device-Based Location uses best available methods such as a Global Positioning System (GPS) chip inside the mobile device, Wi-Fi, or GSM to determine its location returning latitude/longitude for the device. Device-Based Location solutions require GPS or Wi-Fi radios to be turned on and Wi-Fi further requires the device to be close to one or more Wi-Fi access points.
- **Network-Based Location Services:** Network-Based Location Services use carrier network cellular data. It is also what E911 uses. The cellular device is connected to a cell tower. The platform knows which tower and even which cell-site sector it is talking to, thus allowing it to return a latitude/longitude for the device, typically located in the center of the serving sector. Additional accuracy can be obtained by triangulation with other cell sites when desired, but this is at a cost to user experience in terms of time. This type of LBS cannot be spoofed since the information and overall platform resides behind the very secure carrier networks.

All communication between the device using wireless technology and the Internet is mediated through the provider’s back-end, thereby removing the ability to detect location. Unlike the IP address databases that exist for land-based connectivity, mobile connectivity is managed differently by each provider. This means that the location of the mobile device must be identified by the device itself or through a specialized solution that uses the information that providers maintain regarding cell tower access points the device is connected to.

An additional location reliability consideration is that network-based mobile geo-location techniques provide a more reliable location platform than device-based location determination methods. For example, network-based geo-location techniques such as Cell ID are not subject to threats such as GPS device spoofing. With Cell ID, a mobile device can have its position fixed (geo-located) by identifying nearby cell tower base stations and triangulating the device location.

Geo-Location Scenario Handling

There are five player scenarios that need to be accounted for in geo-location determination:

- **Scenario 1:** Web-based access via a hardwired IP-based network.
- **Scenario 2:** Web-based access via a Wi-Fi network.
- **Scenario 3:** Mobile app access via a Wi-Fi network.
- **Scenario 4:** Web-based access via a Cellular network.
- **Scenario 5:** Mobile app access via a cellular network.

The following table summarizes the use case for each scenario, the data available for geo-location determination, potential vulnerabilities, and how the solutions handle the scenarios.

Figure 4.7 – 58:

LocationSmart/ThreatMetrix Solution					
	Scenario 1: Web-based access via a hardwired IP based network	Scenario 2: Web-based access via a Wi-Fi network	Scenario 3: Mobile App access via a Wi-Fi network	Scenario 4: Web-based access via a cellular network	Scenario 5: Mobile App access via a cellular network
Device Location Methodologies	IP Geo-location using both LS and TM	IP Geo-location using both LS and TM	IP Geo-location using both LS and TM; Trusted GPS Optional: Device Geo-Locations (NBLS)	Device Geo- Location (NBLS); IP Geo-location using both LS and TM	Device Geo- Location (NBLS); IP Geo-location using both LS and TM; Trusted GPS
Update Location Cache (<i>Mobile in Motion</i>)				Yes	Yes
Threat Controls					
Remote Desktop Program/Virtual Private Network Check	Yes Browser client-less (Virtual Private Network, VNC, Remote Desktop Program) or browser plugin (enhanced Virtual Private Network, VNC, Remote Desktop Program) solution options	Yes Browser client-less (Virtual Private Network, VNC, Remote Desktop Program) or browser plugin (enhanced Virtual Private Network, VNC, Remote Desktop Program) solution options. Native SDK agent helper program	Yes Native SDK components for mobile app	Yes Native SDK agent helper program	Yes Native SDK components for mobile app
Mobile Tamper Check, Trusted GPS Location			Yes		Yes
Player Experience Changes					
Player Experience Changes	None	None	None	Opt-in for NBLS	Opt-in for NBLS

Geo-Compliance of U.S. State Boundaries

In the context of lottery wagering, IGT's geo-compliance solution enables the construction of virtual perimeters (geo-fences) around U.S. state boundaries (inclusion zones) and any designated non-play locales (exclusion zones) such as federally recognized Native American tribal lands located within the State.

Many U.S. and international lotteries are subject to regulatory compliance requirements whereby they must ensure that 1) players' wagers originate within established geographic boundaries (i.e., country or state borders) and 2) players residing outside of those geographic boundaries are prohibited from participating.

In the U.S., state lotteries must comply with the Unlawful Internet Gambling Enforcement Act (UIGEA) of 2006, which requires, among other things, that wagers be initiated and received, or otherwise made, exclusively within a single state.

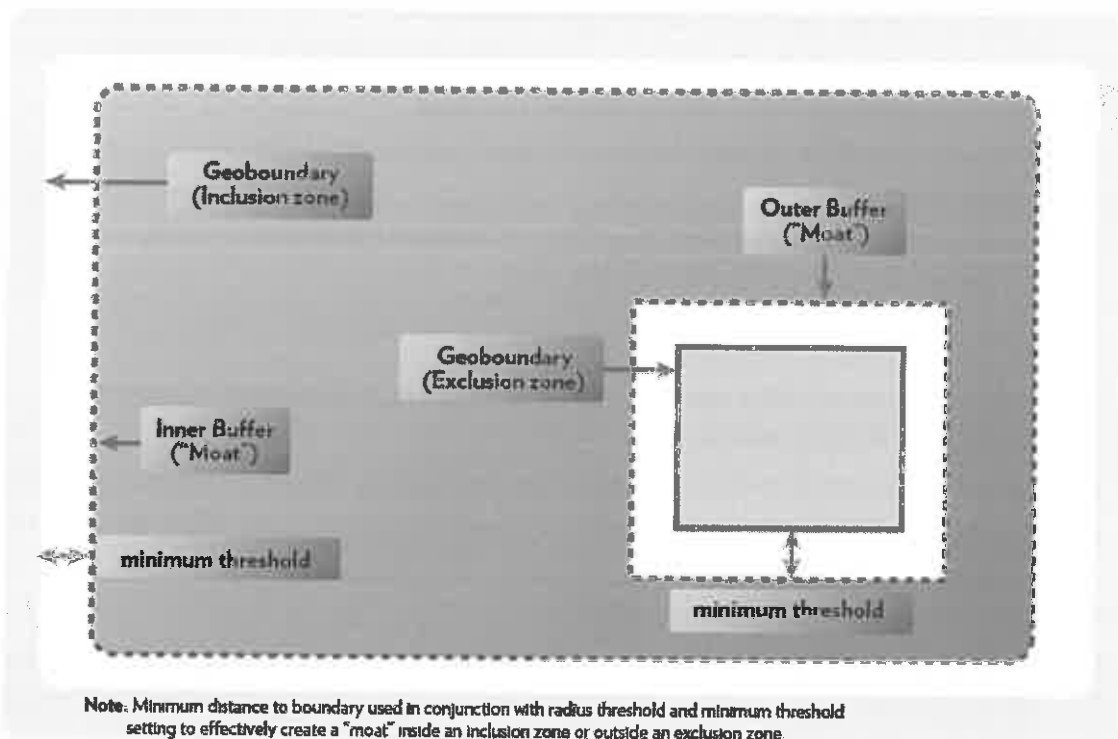
IGT's solution for Internet wagering services includes geo-location determination and restrictions for compliance with existing federal and state regulations.

A U.S. state geo-compliance zone is essentially an array of latitude/longitude points that form a virtual perimeter around a state. States with complex geographical attributes may require more vertices specified to provide the level of granularity desired.

Real-world usage data aids in adjusting and fine-tuning the virtual perimeter settings. In essence, a "moat" acting as a safety net can be formed along the state perimeter (inner buffer) or outside exclusion zones (outer buffer). For state boundaries, the area inside the inner buffer is considered the "safe zone wagering sandbox" where wagers may be accepted, as noted in the following figure. In the case of cellular network-based locations, we can also use the tower density to identify a reasonable radius around the players such that if the radius overlaps any portion of the state boundary or the boundary to any exclusion zone, they are not allowed to wager.

Figure 4.7 – 59:

Inner and Outer Buffer "Moat"



Wagering Sandbox: Mobile wagering is only allowed within the boundary limits, which are based on state borders and cell tower density.

Geo-compliance perimeter checks are performed for both IP and mobile geo-location wagering scenarios. For IP geo-location, key data fields analyzed include the state identifier and associated accuracy confidence levels.

For mobile geo-location, the player's device location plotted circle (based on returned latitude, longitude, and accuracy radius location data) must completely reside within the wagering sandbox for the wager to be accepted.

The accuracy radius returned in a Cell ID lookup also simplifies geo-compliance design, providing a valuable indicator of carrier cell tower concentration at that location. Also, a low radius value is usually indicative of high cell tower density and high population in the nearby area.

Official Map Data Sources

It is important that official map data sources (e.g., the U.S. Census Bureau map-shape files) be used for establishing state and federal tribe geo-fences because there are potential risks in using unofficial data sources. Using official map data sources has advantages. They:

- Provide a thoroughly vetted, official data source used and accepted in the GIS industry.
- Facilitate a consistent definition across users and industries.
- Provide a predefined shape file that can be easily converted to a KML file ensuring efficient and accurate data entry.
- Provide an easily justifiable explanation as to why boundaries were set in a specific way (i.e., “this is what the government says the boundary is”).

Potential risks in not using official data sources include the following:

- Modifying boundaries or using unofficial data sources can introduce errors to compliance zones resulting in faulty evaluation.
- Modifying data files can introduce human error and subjectivity into establishing boundaries.
- Justifying a particular boundary is difficult if it does not correspond to an official data source.

Managing Flaws, Fraud Attempts, and Exceptions

Cybercrime and fraudulent activity occurs globally and targets online and mobile devices. In addition, geo-location solution technologies are susceptible to possible location spoofing including use of remote access software (e.g., remote desktops) and virtual private networks.

IGT’s current geo-location and compliance solution provides a state-of-the-art comprehensive solution that factors-in reasonable design (for compliance with UIGEA), accuracy, time to locate, and security for providing both IP and mobile geo-location. In addition, IGT offers a threat control detection capability to combat players with technical acumen to attempt circumventing geo-location and compliance controls. IGT integrates with ThreatMetrix (licensed via LocationSmart), which secures customers against cybercrime and fraudulent activity that target online and mobile devices by profiling the device and performing policy-based analysis. The ThreatMetrix suite of threat controls are particularly effective at detecting:

- Access via Virtual Private Networks (VPNs) and remote desktops (RDPs and VNCs) where players may attempt to mask and spoof their actual location.
- Presence of malware and tampered device platforms (e.g., jail-broken iOS, rooted Android mobile and tablet devices) where players may attempt to mask and spoof their actual location.
- Persona and device fraud checks considering global reputation, persona-device association and velocity, and device anomalies and cookies.
- Presence of torrents such as the Onion router and Virtual Machines (VMs).

Attempts to spoof location include mobile “over the air” where players use multiple devices, one at time of registration and a different device at time of play. For example, a player may register an in-state telephone number (XXX-XXX-XXXX) but attempt to wager on a different device with an out-of-state telephone number (YYY-YYY-YYYY); this technique requires collusion of multiple parties. IGT provides multi-factor device authentication to mitigate this risk.

Subscription Term

- *Subscriptions should extend up to 18 months in the future:*

Subscription terms are configurable according to the Lottery’s business needs and can extend 18 months into the future.

We have configurable-driven system parameters which give the Lottery total market flexibility for subscription lengths. We provide subscription capability for the next available draw.

Figure 4.7 – 60:

Subscription Administration Setup Details Screenshot

Subscription Parameters

Show 10

Subscription Parameter Id
ALL OR NOTHING
Lotto
Mega Millions
Numbers
Powerball
Win 4

Showing 1 to 6 of 6 entries

Edit

Game Name:

Default Duration:

Durations:
Max allowed value : 104

Duration Units:

Max Advance Draws:
Max allowed value : 10

Auto-Renew Days Before End:

Extra Enabled: ☒ Yes ☐ No

actions

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

Previous Next



Subscriber Wagers Merged with Ordinary Game Pools

- *Subscriber wagers are merged with the ordinary game pools for determination of winners and payouts;*
-

Wagers placed via subscription will be merged with the ordinary game pools for determination of winner and payouts. For winner determination and payouts, there is no distinction between ordinary and subscription wagers.

Prize Payments

- *Winners are paid automatically through subscription management software that automatically generates an EFT, validation code, or check for payment. Prize winnings up to and including \$600 has to be able to be validated by retailers; and*
-

Winners will be automatically paid via IGT iLottery, which will automatically generate an EFT, validation code, or check for payment. Prize winnings up to and including \$600 will be able to be validated by retailers.

Automatic Renewal Notices

- *Automatic renewal notices are generated for subscriptions nearing the end date.*
-

IGT iLottery can automatically send players renewal notices when their subscriptions are nearing the end date. Players may also elect to have subscriptions automatically renewed without any manual intervention on the part of the Lottery or the player.

Prepaid gift cards shall be acceptable forms of payment on the System for purchases on the Terminals, and Terminal functionality shall be configured to scan, read, and apply external coupons.

With our solution, prepaid gift cards are acceptable forms of payment for purchases on the terminals. The Lottery can leverage its existing lottery retail network and POSs to enable lottery gift vouchers. We have supported this for the Michigan Lottery's interactive offering.

Michigan Lottery Online Game Card Example

Retailer and Player Services

External Coupons

IGT's system will support any external coupons the Lottery uses, including single-use coupons that are produced by third parties for specific sales promotions. Such promotions could include a coupon that permits a bearer to obtain a product from a retailer, with the coupon having the same barcode reading specifications as instant tickets.

Aurora Promotions permits the use of coupon promotions, including the capability to read coupons with unique, traceable, and accountable barcodes and/or serial numbers based on a validation file. When a coupon is redeemed, the system will mark the coupon as validated so that it cannot be used again.

The Texas Lottery frequently promotes its draw-based games with single-use coupons, encouraging purchase of \$5 draw-based games by rewarding the player with a free \$1 instant ticket scratch-off game per coupon.

Figure 4.7 – 62:

Single-Use Coupon Example



FREE

\$1 Scratch-Off Ticket with a \$5 Mega Millions® Purchase!



Take this coupon to any participating Texas Lottery® retailer.
**Make a Mega Millions purchase of \$5 or more and get a FREE \$1
 SCRATCH-OFF TICKET.** Mega Millions drawings are broadcast
 every Tuesday and Friday night at 10:12 p.m. Central time.
Jackpots start at \$12 Million!

Not redeemable at self-service terminals or Texas Lottery Claim Centers. Mega Millions jackpot odds are 1 in 175,711,536 overall odds are 1 in 40.
 Must be at least 18 years of age or older to purchase a Texas Lottery ticket. Only one (1) FREE scratch-off ticket per coupon.
 Notice: A scratch-off game may continue to be sold even when all top prizes have been claimed.
 For more information, call 1-800-377-IGT. Coupon expires thirty (30) days after receipt. PLAY RESPONSIBLY.

971-VOID001-001



VOID000000000000


The Texas Lottery has used these coupons to promote not only Mega Millions, but also Powerball and Lotto Texas. The format must be agreed upon and adhered to by all parties.

System-Generated Coupons

IGT's system can also support coupons generated by the terminal. These coupons can be used as part of a cross-promotion or other marketing purpose. It is common, for example, for a lottery to define a Buy X, Get Y promotion, wherein the prize is a terminal-printed coupon. This coupon can be serialized for tracking purposes.

Figure 4.7 – 63:

Sample Coupon Promotion



CELEBRATE TODAY!

June 1 - June 14

Buy \$4+ of **CASH4LIFE**,
get \$1 off coupon for
Powerball with Power Play
Quick Pick!

- The New Jersey Lottery is celebrating the first anniversary of the Cash4Life game this June! Players spending \$4 or more on a single Cash4Life ticket during the promo period will receive:
 - June 1-14: \$1 coupon for Powerball with Power Play
 - June 14-28: \$1 coupon for Mega Millions with Megaplier

Redeem Coupons via Barcode

Aurora and the terminal barcode reader have the capability to redeem coupons via barcode that will give retailers instant credit to their accounts without allowing the coupon to be redeemed again. An example is an instant ticket scratch-off-style coupon for draw-based games.

IGT's Aurora system can easily be programmed to provide coupons after "X" validations or every "\$X" of validations worth of instant ticket scratch-off tickets.

IGT creates system coupons with unique, traceable barcodes and serial numbers for sound data tracking and security. Through barcoded, serial-numbered coupon tracking, the Lottery will have one-time-use coupons that, once redeemed, are flagged within the system as validated. This mechanism prevents coupons from being used more than once.

The following example derives from the New Jersey Lottery.

Figure 4.7 – 64:



At the Lottery's discretion, some coupons may be used in conjunction with promotions enabled on the system. The system will also provide reports regarding the specific budget to which a specific coupon is related.

Automatic Credit for Coupon Redemption

Aurora will automatically credit retailer accounts upon coupon redemption. Should a promotion provide, for example, a coupon for a free \$2 ticket, the value of the ticket is credited back to the retailer. Unless specified by the promotion, the ticket could be for any \$2 game. For accounting purposes, retailers will receive instant credit for the \$2 price point they gave to the player.

4.8 Conversion and Implementation Specifications

Conversion and Implementation activities should focus on the delivery of a System that meets the needs of the Lottery as expressed in this RFP. Please describe your plans to achieve the goals related to CONVERSION AND IMPLEMENTATION. (Section 4.8)

Replacing your entire system and all of the components that operate the West Virginia Lottery arguably brings higher risk than a new startup, and we know that gives lotteries pause. The advantages of our proposed “Retailer Friendly” strategy touch all Lottery constituencies, particularly at the front lines, as new retailer equipment goes live on installation, months prior to Go Live, via a brief swap that minimizes disruption to your retailers. Other vendors will have to enable the system and all new components at once through what is known as a “Big Bang” method. By its very nature, this method increases risk to retailer satisfaction and, ultimately, to the Lottery’s sales and revenue.

We designed your Implementation Plan to minimize risk and provide the Lottery with peace of mind throughout the system conversion. We are responsible for a successful conversion and accountable for meeting your requirements, milestones, and deadlines. Our team, project management organization, and company are committed to achieving your strategic goals, supporting your business objectives, and upholding the integrity of your brand throughout the conversion. While the strategy described in Section 4.8.2, Conversion Plan, will drive the direction of the conversion, the Implementation Plan detailed in Section 4.8.1, Project Implementation, will compile, manage, and track each of the individual project tasks and respective time frames. It will provide a smooth transition to the new system and components without inconvenience to your retailers or disruption to their businesses or to Lottery sales.

The Implementation Plan we have designed is unique to the Lottery. In developing the Plan, we used everything we have learned in West Virginia over the past seven years and combined that knowledge with the processes of our mature Global Project Management Office (GPMO). Our deep familiarity with your existing lottery system, network, and terminals – as well as with your culture, business needs, and processes – has enabled us to engineer the right plan to successfully execute the conversion so you can proceed with your core mission of maximizing profits for the benefit of the programs you make possible. Finalization of the Implementation Plan will be a joint effort between the Lottery and IGT project personnel and one of the first tasks we will undertake following Contract signing. The Implementation Plan will serve as the main scheduling and tracking tool for the entire project. Following finalization of the Plan, a team of certified Business Analysts (BAs) will thoroughly analyze your requirements to make sure each one is properly captured, understood, and recorded as detailed in Section 4.8.3.1, Additional Specifications for Business Requirements Documents.



West Virginia Partnership

In 2009, due in large part to the collaborative efforts of the Lottery, we delivered a system conversion in West Virginia of which we can both be proud. Our conversion team worked diligently to make this process as seamless as possible for the Lottery and its retailers. Through one-on-one statewide training, conversion process efficiencies, and subject matter expertise, the Lottery experienced no major retailer issues on its Go Live date and, if selected as your successful vendor, the intimate knowledge we have of your existing workflow, retailers, and staff will enable us to deliver an even smoother conversion in 2018. The West Virginia Site Team enjoys a unique shared experience with the Lottery, as they have been working closely with Lottery staff and retailers for many years. This in-depth knowledge allows IGT an opportunity to provide a more customized approach to your business, solve potential issues faster, and ensure that your needs are met before, during, and following conversion.

A Solution Customized to Fit Your Unique Workflow

Our understanding of the Lottery's unique workflows provides us with a deep insight into how to provide a wholly customized conversion. Our understanding of these processes, across various departments, has enabled us to increase the efficiency of those respective workflows.

For instance, running the Transaction Report was a time-consuming process initially, sometimes taking up to five to eight minutes. Additionally, it would result in a bulky file that occasionally required input data from multiple reports to arrive at a single conclusion. With an understanding of the importance and objective of this particular file to the Lottery's Security department, IGT modified the programming language, which resulted in:

- A 90% shorter execution time.
- Less required input data.
- Additional specific output data, relevant to the Lottery, such as specific instant ticket scratch-off game information.

In short, our understanding of a specific Lottery Security workflow resulted in a more efficient process for both the Lottery and IGT. This was also the case for the Retailer License Renewal process, specific to the Lottery's Licensing department. A workflow that initially required multiple forms for the retailer to complete annually, including felony checks, Americans with Disabilities Act, etc., was reduced to a single form and an easy way for the Licensing department to print out all retailer renewal forms at once.

A lot can be learned from lists of hardware schematics and numerous lines of programming language, but understanding a workflow requires actual experience with that workflow. Our local staff's thorough knowledge of the Lottery's current workflow processes will provide an even smoother conversion.

4.8.1

Project Implementation

The Vendor's proposal should provide a detailed project implementation plan, conversion timeline, and implementation strategy for conversion and implementation of the System that includes a time chart (Gantt, PERT, or similar) that identifies major milestones to be accomplished for the construction, equipment delivery, software programming, and installation, testing, and training for the System. Vendor should describe any interim configurations, facilities, staffing, and/or business procedures that may be applicable to the overall solution it proposes and bear any costs associated with the same.

The Vendor should propose a project team structure and process that clearly identifies the responsibilities of both the Lottery and the Vendor for Lottery oversight of the System and communications network conversion and implementation.

Implementation Plan Development

The West Virginia Implementation Plan was developed by experienced and certified project management professionals and is based on invaluable lessons IGT has learned – both positive and negative – from hundreds of deliveries worldwide.

Plan development is one of the improvements we have made to our project management processes since our most recent conversion in West Virginia in 2009. One of the first steps we will take at project kickoff is to review the Implementation Plan with you. We know that many of the granular sub-tasks and related dates in the Plan require discussion with the West Virginia Lottery before final decisions and timeframes can be established. The Lottery's review and approval of every element is an essential part of the project management process.

To finalize the Plan, we foresee a series of meetings with you and your primary stakeholders to determine which tasks must be done and when. We will seek your input and ensure it is reflected in the Plan. IGT pledges to have the Lottery involved in every critical decision in the successful execution of the Plan.

We have provided the Lottery with our proposed, detailed **Implementation Plan and Time Chart** in the form of a Microsoft Project Gantt chart, located behind the Exhibits tab. It identifies the major milestones to be accomplished, including those specified in the RFP and clearly shows which items are on the critical path for timely implementation. The Plan identifies detailed tasks, activities, and project milestones for the following key delivery elements:

- Central systems hardware ordering, delivery, staging, installation, and testing.
- Business requirements definition, documentation, and sign-off.
- Terminal manufacturing, delivery, and installation of Point-of-Sale (POS) equipment and terminal network.
- Facilities renovations.
- Software configuration and programming through a series of Build-Test-Correct (BTC) cycles.
- Quality Assurance (QA) of system processing and the delivery of business requirements through formal system testing, Customer Acceptance Testing (CAT), and performance testing.

- QA of file conversion through parallel processing. The plan includes pre-award activities that IGT will focus on including:
 - Project resourcing.
 - Kick-off materials.
 - System diagram readiness.
 - Infrastructure and communications procurement readiness.
 - Requirements development schedule planning.
 - Terminal manufacturing Build of Materials (BOM) readiness.
 - Terminal emulation Software Requirements Specification (SRS).

The detailed Implementation Plan/project schedule includes easily identifiable project milestones (including those identified by the Lottery in the requirements). The critical path items (for timely implementation) are delineated by blue bars on the Gantt chart. The durations of the tasks are in business days and include an approximate two-month post-live support and transition period.

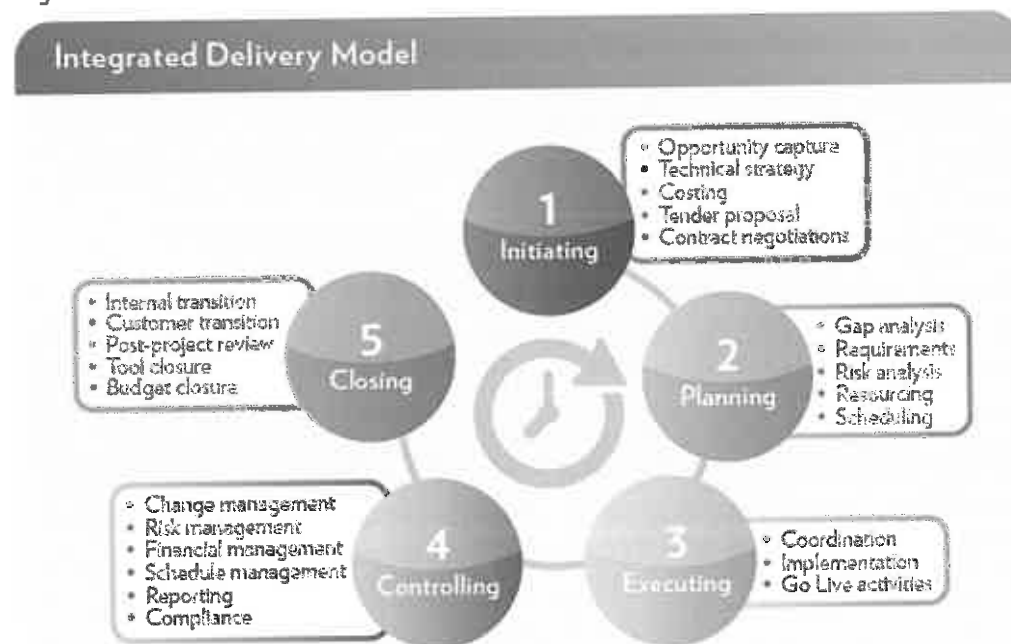
Should the Lottery select IGT, it can have the confidence of knowing that its vendor has successfully converted lotteries of comparable size, complexity, and sensitivity numerous times.

Please refer to the insert on the following page entitled **IGT Implementation Experience 2009 – 2017** for a list of our recent implementations.

Sound and Proven Processes: The Integrated Delivery Model (IDM)

We provide successful technology conversions through strict adherence to the IDM, which has five distinct phases, as depicted in the following figure:

Figure 4.8 – 1:



IGT's Implementation Experience

2009 -
2017

IGT's processes have been perfected over 20 years of global deliveries and as part of a continuous improvement program. With each conversion, our ability to provide the most risk-free and successful transition possible is strengthened by the opportunity to apply lessons learned and continually fine-tune our implementation approach and processes. Our years of experience will bring significant benefits when IGT conducts your system implementation.



2017

- FL Conversion*
- MO Gemini Touch*
- MO Mobile Convenience App*
- NY Contract Extension*
- NC Conversion*

- RI Conversion*
- VA Conversion*
- WI Conversion*
- Colombia Technology Upgrade Ph2*
- Czech Facilities Relocation*

- LPZ Central System Extension*
- Mexico Commercial Services
- Poland Internet*
- Poland Tablet Solution*
- NZ iLottery Solution*
- SWZ Third Party CS*

2013

- Colombia PDC Relocation
- FL GT1200
- IN Integrated Services
- Luxembourg Rebid Phase II
- MO Extension (subscriptions)
- OR 2nd Chance
- Poland ITVM
- Tally BDC Setup
- New Zealand ES Phase I (Lottery Insite)
- GA Extension (initial rollout)
- Costa Rica
- New Zealand Terminal Rollout
- IL Mobile Support
- New Zealand ES Phase II (Tech Upgrade)
- IN Player Card
- Argentina BDC Bold
- GA Extension (elstants)
- CA GMS & 2nd Chance
- KY Keno 2013
- MO Linq2 Integration
- TX Rebid Phase III (Final Insite)
- UK Project Jack (Motinista)
- Comm Network Removal
- Czech Lottery Insite
- Jamaica Terminal Expansion
- Singapore Conversion
- NJ Private Manager
- VA Extension
- Portugal Terminal & PS Rebid

2014

- CA Linq 3
- CO Conversion
- Czech Lottery Insite (Pilot)
- GA elstants
- NJ LSP
- Paraguay
- TX Phase 3 & 4
- VA Pick N Pack
- IL Mobile Support
- Shenzhen New Game & ESMM
- Belgium ITVM Pilot
- Dominican Republic CS
- Trinidad
- IN Bingo-To-Go Mobile
- Colombia Terminal Expansion
- VA Extension
- Hungary ITVM Pilot
- New Zealand PDC Relocation
- NJ Claims & Payment
- Belgium Emulation
- Singapore Phase 2
- Luxembourg Gemini Ultra
- IN Terminal
- NJ Keno

2015

- Czech Itanium Upgrade
- NJ Lottery Website
- Pan Malaysian Pools ESA
- TN Conversion
- West Lotto ES Evolution
- Thuringen AIX Upgrade
- Czech 500 Terminals*
- Mexico Conversion
- South Africa Central System & Terminals
- Thuringen Terminals
- Beijing Player Direct & Mobile
- Belgium Gemini Ultra (Pilot)
- Dominican Republic Central System
- GA Interactive Onsite
- IL Daily Games
- KY Internet (ESTE Upgrade)
- KY Internet (elstants)
- LAE (Spain) Printers
- NJ Private Manager
- RI Gemini Pilot

2016

- Belgium Conversion
- WA Conversion
- MO Conversion
- MN Conversion
- WCLC ITVM Pilot
- KY Internet Wagering
- Czech Interactive I & II*
- Colombia Technology Upgrade
- Jamaica Conversion
- TX Mobile Player Services
- IN Terminal Conversion
- KY Internet (Mobile)*
- Mauritius ES Anywhere*
- New Zealand iLottery*
- TN Gemini Touch
- Trinidad CS*
- UK Vending Pilot*
- UK ESTE AIX Upgrade
- WI Conversion*
- NC Conversion
- MN Conversion
- ALC Conversion
- Lottomatica Conversion/ Sports Betting
- France ES (Ph 1)
- Beijing Centralized IPS Validation*
- Colombia Change and Passive*
- France ES Upgrade (Ph 2)*
- MI Contract Extension 2*
- NC Emulation
- RI On-Premise*
- Portugal BDC Move*
- Spain ONCE New CAT Environment*
- WI Conversion (Emulation)*

2012

- Argentina - San Luis
- Hungary Budapest
- Beijing Tech Upgrade
- Bulgaria Interactive Phase
- Belgium 2nd CAT System
- CA Player Website
- CA ES Upgrade
- Colombia BDC
- Czech CVT Pilot
- FL LVM (Games)
- France ES
- GA Extension (central bundle)
- IL Phase II
- IL Pay & Play
- Luxembourg ES
- MO Extension (Games)
- NY ESMU
- PAIFAC HAV Relocation
- Poland Contractual Services
- Slovakia 2nd Chance Extension
- Singapore PDC Relocation
- Swiss Linq 2013
- TX Rebid Phase II
- Turkey Expansion
- UK See GPS I
- UK ESC Upgrade
- UK CVT Pilot
- UK Onboard Ticket

2011

- Mifal Hapayis
- KY
- Pan Malaysian Pools
- NE
- Poland
- IL
- Thuringen
- TX Rebid Phase I
- Shenzhen
- MA ESC
- Mexico Terminal Expansion
- Finland Inlane Integration
- Ireland ESI Website
- Madagascar National Lottery
- Denmark LI - Phase II
- Portugal Evolution
- Argentina Cordoba Imagine
- NY LVM
- Finland Web Kiosk
- Luxembourg Rebid - Phase II
- KY Dual Comm
- Swiss ITVM
- CA ES Upgrade

2010

- CA (extension)
- Czech Telecom Network
- NJ
- AZ IPS
- NY
- MN Gemini
- South Australia
- ALC Terminals
- Colombia CS-Phase II
- Finland Interactive Bingo
- UK Commercial Services
- Colombia Radio Frequency
- Argentina IPLC
- Swiss Loro Interactive
- NC (extension)
- ONCE FM Service
- IL (extension)
- WI (extension)
- WA LVM
- CT ITVM
- Nigeria-Phase II
- Finland Web 10
- RI Dual Comm

2009

- Sweden Video
- KS Video
- Chile Polla
- Nigeria
- MI
- Taiwan
- MD ITVM
- CA (extension)
- GA (extension)
- MN (extension)
- United Kingdom/-Camelot
- Jamaica Telebetting
- Czech ESC
- WV
- SD
- Belgium Interactive
- New South Wales ESC/B2B
- Colombia CS
- Denmark B2B
- Dominican Republic
- UK ES Direct
- Finland In-Lane
- Mauritius
- WI BDC

*Planned or in progress.

The IDM, which IGT adopted 12 years ago, is a standard system of procedures and a mature, reliable framework for repeatable success. It has evolved over time, along with the GPMO, to maintain alignment to the most current industry best practices and to incorporate IGT's experiences and lessons learned from the hundreds of projects it has delivered around the world.

The IDM is a hybrid delivery methodology that takes its best practices from the Project Management Institute's (PMI's) Project Management Body of Knowledge (PMBOK), Capability Maturity Model Integration (CMMI), Information Technology Infrastructure Library (ITIL), and more than 20 years of documented lessons learned from successfully delivering complex projects worldwide.

Project Managers (PMs) follow the five phases of the IDM (shown in the following figure) to ensure their projects adhere to our standards and industry best practices:

Figure 4.8 – 2:

Integrated Delivery Model – the Five Phases		
Initiating	<ul style="list-style-type: none"> • Opportunity capture • Technical strategy • Costing 	<ul style="list-style-type: none"> • Tender proposal • Contract negotiations
Planning	<ul style="list-style-type: none"> • Gap analysis • Requirements • Risk analysis 	<ul style="list-style-type: none"> • Resourcing • Scheduling
Executing	<ul style="list-style-type: none"> • Coordination • Implementation 	<ul style="list-style-type: none"> • Go Live activities
Controlling	<ul style="list-style-type: none"> • Change management • Risk management • Financial management 	<ul style="list-style-type: none"> • Schedule management • Reporting • Compliance
Closing	<ul style="list-style-type: none"> • Internal transition • Customer transition • Post-project review 	<ul style="list-style-type: none"> • Tool closure • Budget closure

Each PM is trained to follow the five phases of the IDM and manage team member deliverables according to the IDM workflow. Throughout a project, the GPMO conducts compliance reviews against the IDM to make sure the set of proven processes and procedures are being applied appropriately and assisting the team in managing and tracking project deliverables. This management oversight allows for proactive correction and/or adjustments to be implemented (in consideration of project circumstances) so that the team is poised for success.

The IDM is the framework through which all major disciplines manage their respective part of the project and the activities they will undertake.

Business Analysis Is Key to a Successful Conversion

In West Virginia, with input from the Lottery, IGT implemented an operational business process analysis that defined processes, reports, and files, and then mapped how they would all change with the new system. This assured the Lottery that we were in agreement on key processes from start to finish. Due to this analysis, major transitions, such as retailer life cycle, were made in a disciplined and expeditious manner.

Interim Considerations

IGT will not require the use of interim configurations or facilities but will require interim staff and business processes with respect to the gaming system during the conversion period. We understand and acknowledge that costs associated with interim facilities are strictly IGT's responsibility.

Our plan is to repurpose the existing data center facilities to accommodate our infrastructure needs as the conversion process unfolds. We have examined our needs and confirmed that repurposing our facilities – in Charleston, where our Primary Data Center (PDC) is located, and in Bridgeport, the site of the Lottery's new Backup Data Center (BDC) – will easily accommodate our operations during conversion and offers an efficient, time-saving solution.

In addition to providing ample space, the current facilities also offer the required electrical power to accommodate both our current and replacement systems. This configuration will meet the RFP's requirements for having:

- Two operating data centers on the network.
- The requisite redundancy in each data center.
- Secure operations.

Interim Staffing

IGT will have a project team of experienced, certified project-management and conversion experts working on site as responsibilities and requirements warrant. The staffing and business procedures involved with conversion will be in place for the entire conversion project phase. Further, the project staff will be available for approximately two months after the successful conversion to provide post Go-Live support.

The conversion project team will use office space in the IGT West Virginia office in Charleston, which is easily accessible to Lottery staff for all implementation meetings and work sessions. The War Room, where the planning and oversight of the terminal and communications conversions will take place, will be run out of IGT's Technology Center in West Greenwich, Rhode Island. Hotline operations will run out of the National Response Centers (NRCs) in Austin, Texas, and Providence, Rhode Island, and transfer to the in-state call center in advance of Go Live.

Upon contract award, IGT's Network Rollout Organization (NRO) will issue an RFP to our third-party installation vendors. The RFP will solicit services to install the communications and terminal equipment as well as supervise the temporary warehouse facility. The third-party installation vendor will be subject to all security background requirements as dictated by the State and the West Virginia Lottery. While the temporary warehouse day-to-day activity will be manned by third-party installation vendors, the NRO will have complete management oversight.

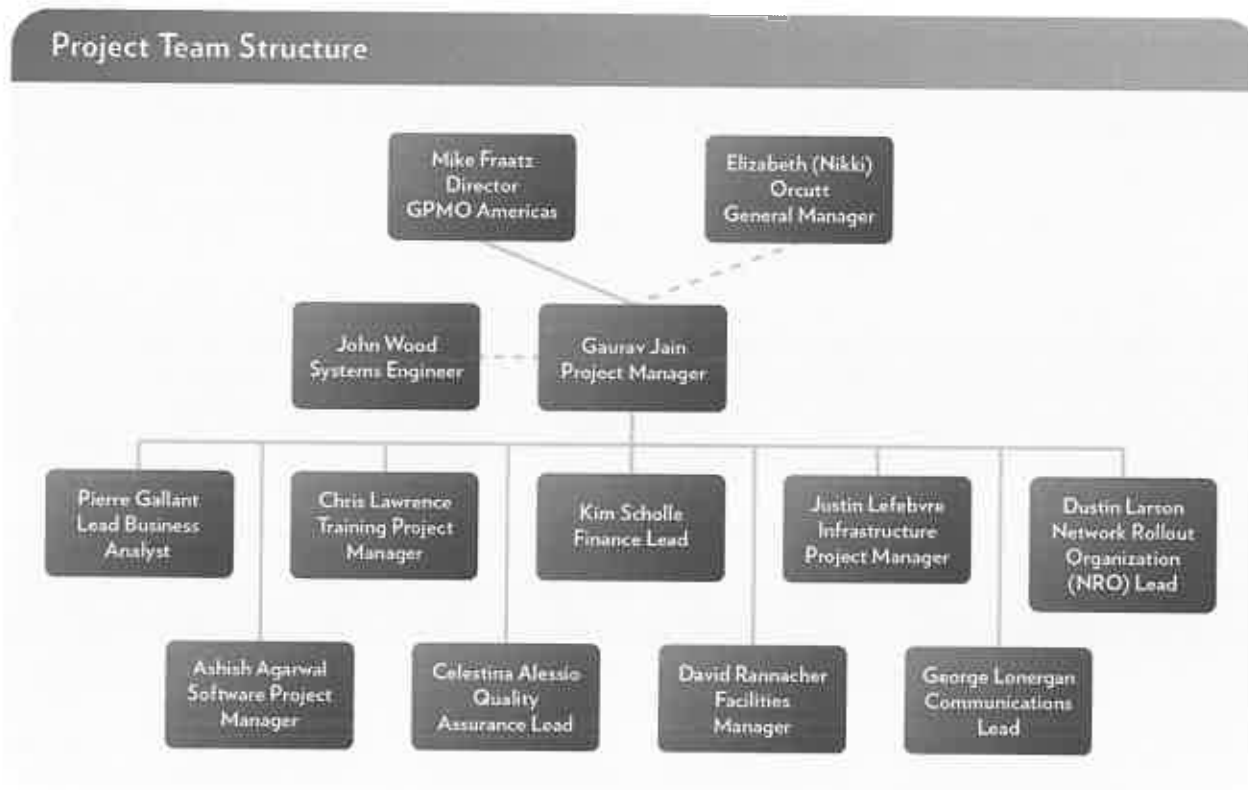
Interim Processes

Disaster recovery plans will be in effect for both the PDC and BDC, as designated in IGT's current Disaster Recovery Plan for the West Virginia Lottery. In the event of a disaster, either natural or man-made, this plan will ensure that events will not impact our ability to successfully launch the Lottery's new gaming systems on time. IGT will bear the costs associated with interim processes.

The development and scheduling of the temporary warehouse facility can be found in our **Implementation Plan and Time Chart**, located behind the Exhibits tab.

Project Team Structure

Figure 4.8 – 3:





Project Reporting and Monitoring

The maturity and expertise of our project management organization continue to evolve and improve for the benefit of customers facing the challenge of a system conversion. We are ready to meet the challenge of this conversion head-on, with certified professionals, proven processes, and monitoring and reporting procedures that keep you well informed – and involved in project oversight – at every step.

Dedicated Technical Project Manager

To provide expert planning and oversight of the Lottery's conversion, we will designate a dedicated Technical PM. We will also provide a team structure, process, and tools that facilitate the West Virginia Lottery oversight of the implementation.

The PM will spend considerable time collaborating with the Lottery onsite and oversee our software and infrastructure engineers as they work on the implementation.

Understanding the importance of transparency in the implementation process, as our experienced team proceeds with the project, IGT will provide access to project records to enable Lottery staff to monitor project management tasks, schedules, and issues. The Lottery will have access to the project records, beginning with conversion and continuing throughout the contract period.

Your PMP-certified PM, Gaurav Jain, will lead the assigned multi-disciplinary team, composed of experienced professionals representing gaming solutions, infrastructure, product development, and POS hardware. Many of them hold certifications that enhance their expertise and individual roles in your implementation project.

For example:

- Nearly all of our project management employees have some level of project management certification, holding a PMP or Certified Associate in Project Management (CAPM) certification, or both.
- Many project team members also hold professional and industry certifications, such as IT Project Management certification, ITIL Release and Control certification, Certified Information Systems Security Professional (CISSP) certification, and Cisco Certified Networking Associate (CCNA) certification.

These certified professionals will ensure that we apply project management best practices and standards to your project.

Corporate Program Management Oversight

Each of our implementation teams receives support from IGT Corporate resources and, in particular, our GPMO. For the Lottery, this means not only an additional layer of support but also a direct line to engaged senior leadership.

The GPMO's expertise to plan, manage, and execute your project derives from:

- Maturity of the organization.
- Overall and relevant experience.
- Sound and proven processes.
- Proven, quality tools.

Mature Organization

The GPMO includes product, project delivery, and service personnel allocated across 11 global regions. By regionalizing our structure, we offer our customers critical continuity of and access to specific regional resources, from the start of the project through the contract period.

Reporting to IGT's Global Technology Solutions organization, the GPMO standardizes project management practices, facilitates global project portfolio management, identifies and mitigates risk, and determines methodologies for repeatable processes.

Key Project Management Personnel

Our proposed team for the conversion of the Lottery's systems will be committed to the project for its duration and will collaborate with the Lottery with full transparency. It is composed of a group of dedicated team leads, many of whom are familiar with West Virginia and the surrounding region. Some key members of the team will also continue to support the Lottery after the conversion is completed. Throughout the project, our implementation team will collaborate with the team members in West Virginia. Project team personnel are subject to change pending availability at time of contract award.

The following tables list the conversion staff who will work on the project for the Lottery, along with their responsibilities. Responsibilities of the Lottery

There is so much more to a lottery's involvement during implementation than merely approving the software and systems through CAT before Go Live. We welcome the Lottery's involvement in as many activities as it desires. You will likely want to take an active role in monitoring the conversion project and designate personnel to participate in project meetings, provide input, and perform reviews of each major milestone and deliverable in the development process.

Figure 4.8 – 4:

Key Conversion Staff	
Role:	Project Manager
Staff Member:	Gaurav Jain
Responsibilities:	Gaurav will have overall responsibility for the West Virginia implementation, including acting as a primary IGT liaison with the West Virginia Lottery, and work closely with Nikki Orcutt, our West Virginia General Manager. He will be responsible for all planning, tracking and controlling throughout the execution of the project. He will define scope, activities, dependencies, and duration of tasks to complete the project on time and within budget. Gaurav will develop the risk management plan, manage the change control process, and serve as the primary interface between IGT and the project team
Certifications/ Degrees	<ul style="list-style-type: none"> • MBA from Bryant University in Smithfield, Rhode Island • Master of Science in information systems from Bryant University • Project Management Professional (PMP)-certified from the Project Management Institute • Certified Scrum Master, Microsoft Certified Technology Specialist (MCTS), and holds Information Technology Infrastructure Library (ITIL) Foundations certification
West Virginia Local Staff Partner	<ul style="list-style-type: none"> • Nikki Orcutt: General Manager

Role:	Systems Engineer
Staff Member:	John Wood
Responsibilities:	John is a returning member of our West Virginia Conversion Team, having been a part of your last online conversion in 2009. In his role as Senior Systems Engineer, he will support the Delivery Team with an understanding of the requirements of the defined solution. He will align and influence technical requirements and work closely with the team to deliver the proposed solution. John will also drive and participate in design and change reviews and system readiness evaluations
Certifications/ Degrees	<ul style="list-style-type: none"> • B.S. in physics from Leeds University in the United Kingdom • Post-graduate courses in software engineering • PMP-certified • Completed numerous corporate training courses in engineering and management
West Virginia Local Staff Partner	<ul style="list-style-type: none"> • Nikki Orcutt: General Manager • Tim Snyder: Operations Manager • Joe Payne: Field Marketing and Sales Manager • Marketing Content Manager: To be hired • Roger Ezzell: Field Service and Warehouse Manager • Jeramie Gibson: Business Analyst • Tim Powers: Systems Administrator

Role:	Lead Business Analyst
Staff Member:	Pierre Gallant
Responsibilities:	Pierre will provide guidance to the Business Analyst (BA) team throughout the project life cycle in the design, development, implementation, operation, and maintenance of software through requirements management. He will manage and control the project scope in collaboration with project managers and the technical lead
Certifications/ Degrees:	<ul style="list-style-type: none"> Bachelor's degree in applied computer sciences from the Université de Moncton in Moncton, New Brunswick, Canada Associate's certificate in business analysis from TwentyEight Strategy Execution, formerly ESI International
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Jeramie Gibson: Business Analyst

Role:	Software Project Manager
Staff Member:	Ashish Agarwal
Responsibilities:	Ashish will facilitate all software design and development, as well as software implementation and acceptance. He will ensure that software is delivered within specifications, on time, on budget, and to the Lottery's satisfaction
Certifications/ Degrees:	<ul style="list-style-type: none"> Bachelor of Technology degree in electrical engineering from the Institute of Engineering and Technology in Lucknow, India PMP-certified from the Project Management Institute
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Tim Snyder: Operations Manager Jeremy Vickers: Software Quality Assurance (SQA) Analyst

Role:	Quality Assurance Lead
Staff Member:	Celestina Alessio
Responsibilities:	Celestina will review the software requirements specifications, create the test plan, oversee the creation and review of test cases, manage the daily allocation of work among the QA team, provide progress reports, ensure that items are fully tested before release, and provide assistance to the Lottery during its own testing
Certifications/ Degrees:	<ul style="list-style-type: none"> A.S. Data Processing degree from Thames Valley State Technical College, now called Three Rivers Community College, in Norwich, Connecticut Holds certifications from HP Quality Center
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Jeremy Vickers: SQA Analyst

Role:	Finance Lead
Staff Member:	Kim Scholle
Responsibilities:	Kim will lead the monthly forecast reviews, assist the appropriate teams in managing project budgets, and compile detailed variance analyses. She will also participate in the costing process for new business opportunities, prepare benchmark analyses for cost reviews, and report the financial status at the executive level for projects in delivery
Certifications/ Degrees	<ul style="list-style-type: none"> B.S. in accounting from the University of Maryland
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Nikki Orcutt: General Manager

Role:	Infrastructure Project Manager
Staff Member:	Justin Lefebvre
Responsibilities:	Justin will implement data center servers as well as communications hardware and software, manage all Information Technology (IT) systems support and communications engineers, and serve as a member of the Core Project Team
Certifications/ Degrees	<ul style="list-style-type: none"> Associate of Arts degree in elementary education/special education from the Community College of Rhode Island Associate of Science degree in computer information systems from the New England Institute of Technology Instructor/facilitator-certified by Langevin Learning Services Holds two ITIL certifications in Foundations v3 and Service Capability: Operational Support and Analysis
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Tim Snyder: Operations Manager

Role:	Communications Lead
Staff Member:	George Lonergan
Responsibilities:	George will configure, install, and test the hardware and peripherals associated with the communications network. This responsibility expands to all facilities including the Primary Data Center, Backup Data Center, remote offices, Lottery connectivity, as well as the retailer network and backbone
Certifications/ Degrees	<ul style="list-style-type: none"> B.S. in aerospace engineering from Boston University
West Virginia Local Staff Partner	<ul style="list-style-type: none"> Tim Snyder: Operations Manager Tim Powers: Systems Administrator

Role:	Network Rollout Organization (NRO) Lead
Staff Member:	Dustin Larson
Responsibilities:	Dustin is a returning member of our West Virginia Conversion team, having been a part of your last online conversion in 2009. As a Senior Network Rollout Manager, he will manage the installation of your new ALTURA® Flex terminals, peripherals, and communications equipment. Dustin will be in charge of the daily management of the IGT third-party vendors hired to install communications network and point-of-sale equipment in all retail locations. He will also work with the local IGT field service staff in charge of conversion warehousing and logistic channels to ensure that all equipment is tracked and allocated properly to all retailers and contractors
Certifications/ Degrees	<ul style="list-style-type: none"> • Very Small Aperture Terminal (VSAT) certified: Hughes Network Services, Spacenet/Gilat, MDS Radio, and AOTMP Silver Telecommunications Certification • Working toward PMP certification
West Virginia Local Staff Partner	<ul style="list-style-type: none"> • Roger Ezzell: Field Service and Warehouse Manager

Role:	Training PM
Staff Member:	Christopher Lawrence
Responsibilities:	Christopher will manage all training-related initiatives for the full life cycle of the project. Specifically, he will be the central point of contact for all training deliverables and create and manage the timeline for training activities and documentation
Certifications/ Degrees	<ul style="list-style-type: none"> • BA in English from the University of Colorado • PMP-certified • Six Sigma Master Black Belt certified • ITIL Certification • Microsoft Certified Systems Engineer (MCSE)
West Virginia Local Staff Partner	<ul style="list-style-type: none"> • Nikki Orcutt: General Manager • Joe Payne: Field Marketing and Sales Manager • Marketing Content Manager: To be hired

Role:	Facilities Manager
Staff Member:	David Rannacher
Responsibilities:	David is a returning member of our West Virginia Conversion team, having been a part of your last online conversion in 2009. He will manage the selection, leasing, and tenant improvements at all facilities supporting the West Virginia Lottery. This process includes incorporating all of the needs of the account team, including offices, data centers, warehousing, and repair depots. David will execute this effort by teaming with landlords, engineers, and general contractors to deliver the facility requirements on time and within budget
Certifications/ Degrees	<ul style="list-style-type: none"> • Completed facility engineering management classes at Johnson & Wales University in Providence, Rhode Island
West Virginia Local Staff Partner	<ul style="list-style-type: none"> • Nikki Orcutt: General Manager • Roger Ezzell: Field Service and Warehouse Manager



Responsibilities of the Lottery

There is so much more to a Lottery's involvement during implementation than merely approving the software and systems through CAT before Go Live. We welcome the Lottery's involvement in as many activities as it desires. You will likely want to take an active role in monitoring the conversion project and designate personnel to participate in project meetings, provide input, and perform reviews of each major milestone and deliverable in the development process.

Once the development of the software requirements is well underway, IGT will need the Lottery to review the specifications, provide comment in writing and through working sessions, and issue final approval. Our proposed project plan allows for adequate time to review the documents, as we recognize that Lottery staff must continue to operate the Lottery while helping to mold a new platform to run its business for years to come. Lottery QA staff will be needed to perform acceptance tests in each of our proposed phases. Also, Lottery operations and network teams will need to work with IGT to conduct live network tests of the new terminal hardware as well as conduct anomaly testing within the data centers to ensure proper failover occurs in the event of a failure affecting any system component.

The Lottery will be involved with decision making in Change Control, Risk Management, progress reports, weekly status meetings, and being part of a "change control board" made up of IGT and Lottery project leadership to oversee and approve change requests throughout the project.

Major system conversions and implementations are challenging and place a lot of demands on the customer. Many critical dependencies will require input from the Lottery, but it will consistently have the support of IGT throughout the entire process.

Responsibilities of the Vendor

IGT's Project Team will partner with your management and project designees from the time the contract is awarded until your need for post-live support has been satisfied. From finalizing the Implementation Plan and arranging and attending progress meetings to overseeing any changes or adjustments to the schedule to Lottery and senior management reporting, we will work with you to implement the new system. Our Project Team will be supported by new IGT-West Virginia and Corporate staff, as necessary. We will support your CAT through the efforts of the project team, the IGT professional technical staff, and any necessary local resources. We will also convert your current games, and transaction and historical data, and then perform parallel processing to ensure the accuracy of converted data leading up to Go Live. Finally, our NRO will oversee the communications and terminal installations and track and report on their progress.

Every meeting, conversation, and decision will be meticulously documented to ensure that implementation activity is transparent and the Lottery is informed about progress.

4.8.2

Conversion Plan

Vendor's proposal should include its plan for a seamless transition from the current System to the new System for all Lottery games without delaying or interrupting any current and ongoing Lottery functions.

Vendor's response will serve as the basis for the committee to evaluate the Vendor's overall conversion and System implementation solution and should include sufficient detail to demonstrate the Vendor's ability to meet and plan for performance of all necessary terms and conditions related to the Conversion Plan and System implementation described in Lottery Terms and Conditions, Section 44.11.22.

Vendor's response should also include its plan to provide project reports, conduct project status meetings, and any walkthroughs that the Lottery requests and anticipated timeframes, if applicable, throughout the conversion.

IGT will deliver a seamless transition from the current system to the new system for all Lottery games without delaying or interrupting any current and ongoing lottery functions. Our conversion will meet all requirements described in Lottery Terms and Conditions, RFP Section 44.11.21, Conversion and Implementation.

Emulation: A Retailer Friendly Strategy

Our proposed "emulation" strategy for the retailer network conversion eliminates risk and disruption to Lottery retailers. With this strategy, retailers will not need to have two terminals on their valuable sales counters and two self-service units somewhere in their stores as they would during a "Big Bang" type of conversion, where all system and retailer equipment is cutover simultaneously at Go Live. While some retailers may have space under their counters to house a competitor's retailer terminal and replacement peripherals, it is unlikely that retailers who currently have a Self-Service Terminal (SST) will have room to store a second SST that stands six feet tall and weighs 800+ pounds. Simply stated, with the Big Bang strategy (which will have to be employed by other vendors), the 220 self-service units currently deployed in West Virginia may be sitting in stores – shut down and not selling – for an extended period of time after Go Live, severely impacting retailer sales and returns to education.

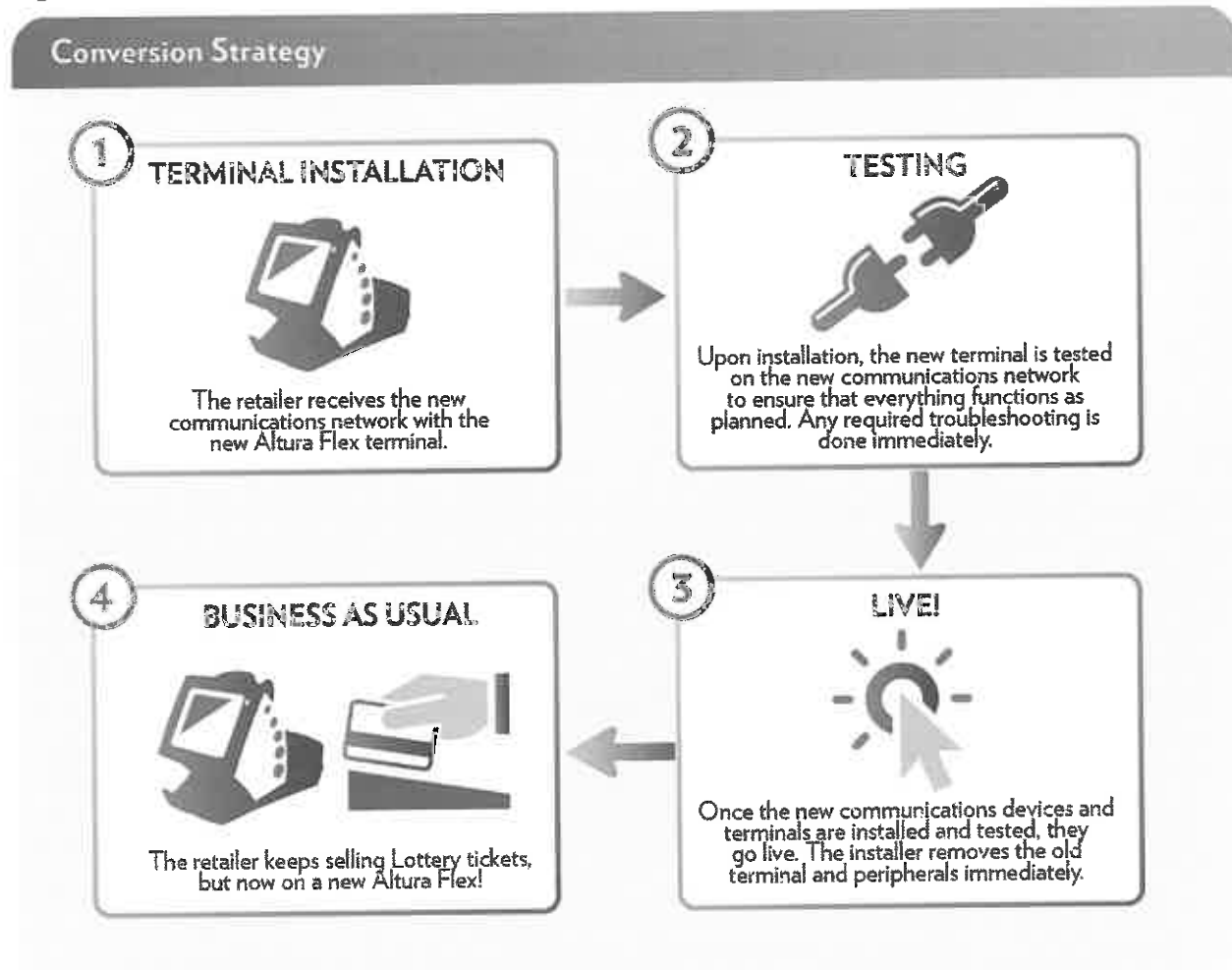
During IGT's proposed emulation part of the conversion, which occurs well in advance of the central system replacement, all legacy communications and terminal equipment will be replaced with new communications equipment, terminals, SSTs, and peripherals – except for any specific signage in locations that the Lottery may wish to retain. The new Flex terminals will be programmed with an exact emulation of the existing terminal software application, fully compatible with the existing central system. Prior to installation, the emulation software on the new terminals and SSTs will be carefully tested to ensure that it is consistent with the current terminal application. The Lottery will be asked to participate in an emulation CAT prior to rollout of the new retail equipment.

In short, as far as the retailer is concerned, the conversion will be over after the brief swap of the new terminal. No change to the production systems at the Lottery's PDC and BDC will be necessary during the emulation phase of the project, which will remain in operation until the cut-over to the new systems at Go Live.

By the time the new central system upgrade goes live, retailers will be acclimated to the new equipment and well-prepared for the central system to Go Live.

The following figure depicts how the deployment will be conducted:

Figure 4.8 – 5:



Live vs. Off-Line: The new IGT retailer sales terminals – the Altura[®] Flex – will Go Live immediately upon installation. With other vendors, the new terminals will sit idle next to the live terminal (taking up counter space or storage space) and not generate profits until the entire system goes live months later.

The Benefits of Emulation

Our emulation strategy carries enormous benefits for retailers and the West Virginia Lottery:

- IGT's automated terminal configuration system provides two major benefits to retailers during terminal installation. It greatly reduces the chance of human error and terminal install time.
- Through the course of the communications and terminal rollout, the entire retailer network will be tested exhaustively while operating against a known central system. Any problems encountered will be identified and addressed incrementally as individual retail locations are converted, affecting very small numbers of retailers as the rollout progresses.
- Retailer training schedules will be coordinated with terminal installation schedules to ensure that retailers and clerks are trained in advance of their terminal installation.
- New retailers can be added, and change of ownership can be handled without delay and without any blackout dates.
- Retailers will be relieved of the need to store new equipment for long periods prior to start-up of the new system, preserving precious space needed for their core business of selling to customers.
- A majority of retailers will experience, at the earliest possible time, the benefits of IGT's new, patented Dual Comm Inside (DCI) communications technology, as the fixed wireless cellular backup to Very Small Aperture Terminal (VSAT) communications eliminates terminal communications problems during periods of heavy rain.
- The Lottery will benefit from the increased revenue generated by the SSTs well before the anticipated Go Live.
- Finally, conversion risk is lessened as only the central system will need to be converted on the day of Go Live.

Overall, we have not encountered any disadvantages to using this emulation strategy. As designed, and by its very nature, it mitigates the risk of converting all of the major components at the same time. The fact that retailer terminal conversion is gradual – resulting in some retailers using their existing terminals as others use their newly installed terminals – will not confuse the retailers or the players who wish to validate their winning tickets at any Lottery retailer.

West Virginia's National Radio Quiet Zone

IGT understands that many retailers throughout West Virginia fall within the National Radio Quiet Zone (NRQZ), a protected zone in which radio transmissions are strictly restricted by law to facilitate scientific research and military intelligence. During our last conversion project for the Lottery in 2009, we researched retailer locations based on latitude and longitude to ensure adherence to the permit process required by the National Radio Astronomy Observatory in Green Bank, West Virginia. As a result, these particular retailers experienced no issues with transitional activity during conversion nor delay in uptime at Go Live.

We are now, of course, familiar with all of the Lottery's retailers and are knowledgeable about which ones fall into the NRQZ. IGT will ensure that these retailers comply with government regulations during the upcoming conversion and will manage their conversions accordingly.



In the following subsections, IGT will describe how it will satisfy the specifications described in this section including any visuals, such as the Implementation Plan and Time Chart exhibit, which demonstrate our solution for evaluation by the committee.

Central System Conversion

IGT will convert the legacy central system – the ESTE – to the new Aurora Transaction Engine guided by detailed software specifications defined and agreed upon with the West Virginia Lottery during the requirements-analysis-and-definition step of the project. The system we are referencing includes all central system hardware and all software from games functionality to operations and reporting. The new system will undergo comprehensive testing throughout the executing and controlling phases of the project prior to being made available to the Lottery for final CAT.

Aurora will occupy less space yet offer a very significant increase in processing power, rates of data access, and storage capacity. The system servers and communications equipment will be co-located with existing equipment in the Primary and Backup Data Centers ready to be connected to remote locations, West Virginia Lottery offices, and the terminal network at Go Live. In addition to testing the functional requirements, the system hardware and communications will undergo extensive anomaly testing to verify server configuration and failover operation both within and between the PDC and BDC. We will also verify and test, in partnership with the West Virginia Lottery, external interfaces, including limited connectivity testing to the retailer network and remote locations during maintenance windows.

Advantages of Our Parallel Processing

Following successful acceptance testing of the system by the Lottery, parallel processing will commence using IGT proprietary applications for instant ticket scratch-off ticket transactions and terminal game transactions. Aurora will run, essentially, in parallel with the existing production system, to ensure that all instant ticket scratch-off and terminal game transactions are correctly processed and that all financial transactions correctly balance on the new system. Parallel processing builds tremendous confidence in the expectation of a successful, trouble-free start up previous to Go Live. Additional benefits include:

- The new Aurora Transaction Engines are loaded with production historical data.
- The new Aurora Transaction Engines will have successfully processed tens of thousands of daily transactions, a verification of the new system that cannot be accomplished in a test environment.

The handling of the production data throughout parallel processing proves the operational readiness of the system and the financial integrity of the processed data in the weeks prior to the Go Live date.

Following the completion of CAT and prior to Go Live, the new terminal application will be downloaded and stored off-line in each terminal. This activity will in no way impact normal retailer activities prior to Go Live. The new application will remain in the background ready to take over on the morning of the start-up of the new system. This approach reduces the time it will take to complete the system conversion on the night of Go Live. The current transaction engines will continue to operate and function until the night of Go Live, when it will be disabled and the new system is turned on.

Parallel Processing

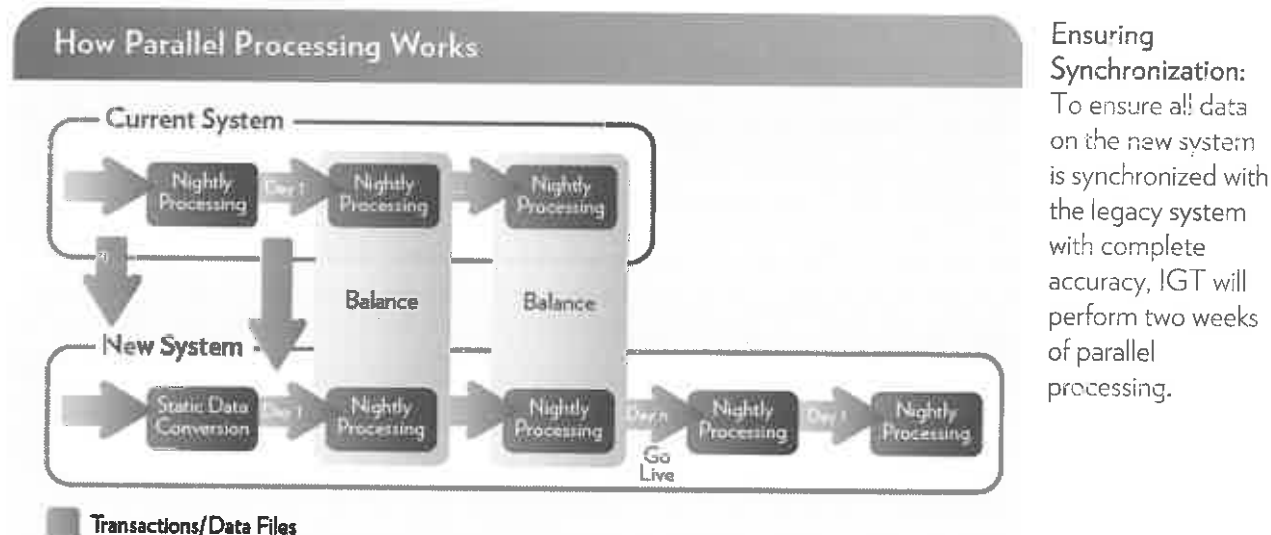
It is critical that the new system starts up with completely accurate data. IGT ensures this through parallel processing, the act of synchronizing both historical data and current end-of-day transaction data from the current gaming system with the new gaming system.

Ticket validations, retailer accounting, and other processes depend on accurate data to prevent disruption to retailers and players during conversion. To start the parallel process, the large volumes of historical data that exist on the current system must be converted. Our experience has shown that this initial static data conversion step can take many hours to accurately process and balance. It is not a procedure you would want to have fail on cutover night. Our parallel process allows this time-consuming conversion component to be vetted many weeks before the start of the new system.

After final conversion of transaction and historical data to the new Aurora-compatible format, IGT will perform at least two weeks (two invoice periods) of parallel processing to ensure that all data on the new system is synchronized with the legacy system with complete accuracy to fully preserve and protect the integrity of the Lottery.

The following figure shows how parallel processing works:

Figure 4.8 – 6:



Handling the Unexpected During Parallel Processing

Developing and managing a project of this size and scope brings with it the understanding that some things cannot be controlled. For example, during the parallel processing phase of our conversion in New York, the New York Lottery experienced its highest jackpot to date. In the course of synchronizing data between the existing and new systems at end of day for a two-week period, IGT's new system processed 36 million additional transactions without a problem.

This synchronization, along with all parallel processing that will be performed during conversion, is vital to maintaining consistency for the Lottery's retailers and staff with respect to data. With accurate data, we preserve and protect key financial functions, the Lottery's revenue stream, and its integrity in the public eye.

Delivery and Installation of Equipment

IGT's best practices provide a team and a set of processes that will track your equipment and implementation and make it easy for you to track progress as well. The NRO oversees the rollout. Retailers will be trained on the new terminals by the installation technician and will use them to process Lottery sales as they are accustomed to today; using our emulation process means that the existing system and interface runs on the new terminals until the Go Live date of the new system. The whole process for your retailers will be simple and straightforward.

IGT will use a professional, licensed, bonded, and experienced third-party vendor to conduct the Lottery's retailer terminal and communications equipment installations. All installations will be completed under the close management of IGT's NRO and the local Client Services Management Team.

The NRO will schedule all installations with the retailers to make the process as seamless as possible. The intent will be to complete all required IGT tasks in a single visit to the retailer location to minimize retailer disruption. In the case of retailers with SSTs, best practices suggest that installing the new Gemini™ Touch during a second single visit will be less disruptive and more effective. IGT will ensure that the overall geographic deployment strategy meets all internal and external stakeholders' requirements.

IGT's National Rollout Organization

In 2004, IGT established the NRO to manage and deploy all IGT retailer communications and POS networks. The organization is staffed with four full-time IGT PMs, who have successfully overseen the deployment of roughly 200,000 retailer communications and POS network installations. The NRO uses proven standards and guidelines to ensure that all retailer installations are completed in the soundest manner. The NRO's deployment processes and procedures are all based on lessons learned and past experiences.

As a customer-facing team representing IGT to both players and retailers, the engineers who execute this work are qualified and experienced. In addition, the NRO processes they will use have been refined over the years through many successful conversion projects.

The NRO is responsible for all phases of the Lottery's retailer network and terminal delivery. Working closely with our technology organization, the NRO provides:

- Project planning.
- Logistics planning.
- Contractor qualification.
- Contractor management.
- An Operations Center (OPCEN).
- Daily reporting.
- Warehouse management.
- Network mapping.
- Quality Assurance (QA).
- Problem resolution.
- West Virginia-specific retailer information packets.

IGT will manage your project using standard NRO processes, procedures, and tools to maintain uniformity.

Operations Center (OPCEN)

As part of the NRO process, it will use IGT's Rhode Island-based Operations Center (OPCEN) for all technical problem resolution that might occur during retailer installations. The OPCEN is used for all mass communications and terminal deployments. It will have pre-approved access to all communications and terminal Graphical User Interfaces (GUIs) to ensure that IGT can validate and track the integrity of the installation of the communications and terminal equipment. This visibility will also ensure that the OPCEN can properly and adequately provide technical problem resolution for this equipment. The OPCEN will work closely with the IGT West Virginia team when needed and/or required.

The OPCEN provides contractors, core teams, and customers with one central office for escalation and problem resolution. It is accessible through dedicated 800-number lines and staffed during hours specific to that jurisdiction.

NRO operators are experienced at handling the duties of the OPCEN. They track contractors, installations, and the serial numbers of installed equipment, and support contractors in the field. Verification by an OPCEN operator is important because the contractor is not allowed to leave the retail location until the OPCEN gives the okay.

When temporary staff is needed to supplement the NRO operations staff, we make every effort to recruit people who have IGT NRO experience. They have the product and process knowledge and established relationships with contractors necessary to ensure success. In all cases, IGT will use professional, licensed, bonded, and experienced third-party vendors for the deployment of the retailer communications and POS network installations. These third-party vendors will be managed directly by the NRO PMs. The technicians will be subject to any and all state-required background checks prior to the start of the deployment. IGT may also use existing in-state Field Service Technicians (FSTs) as needed for efforts surrounding the overall installation.

Website Tool

The NRO maintains a website tool that enables complete oversight and management of the rollout. The database (DB) administrator can link the NRO DB to this website and use the NRO DB for real time verification of current installation metrics. Our NRO PMs, lottery customers, and any authorized contractors who participate in the installations can access this website from a PC or mobile device, such as a cell phone. This real-time visibility into the DB lessens the number of requests from contractors and PMs for daily updates and installation reconciliation.

The NRO will provide all internal and external project stake holders with real-time deployment status visibility via its website. The website is an output of the NRO DB, which is updated in real-time by the OPCEN. The NRO website will be used to track all deployment productivity, as well as identify which retailers have been converted during any given period of time. The website also has a number of deployment reports available, which can be downloaded locally to provide stakeholders with the visibility they need to monitor the status of the overall deployment.

Quality Management Process and Approach

The PMBOK model for quality management can provide the Lottery with insight into how IGT prepares and executes its project quality management activities. The PMBOK comprises three main process areas:

- **Quality Planning:** Identifies which quality standards are relevant to the project and determines how to satisfy them.
- **Quality Assurance (QA):** Evaluates overall project performance on a regular basis to provide confidence that the project will satisfy relevant quality standards.
- **Quality Control (QC):** Monitors specific project results to determine if they comply with relevant quality standards and identifies ways to eliminate causes of unsatisfactory performance.

The following is a list of quality checkpoints and reviews IGT uses to maintain control over a project and enable governance, transparency, and oversight:

- Portfolio Reports to GPMO and Sr. Management.
- Executive Reviews.
- Process Compliance Reviews.
- Risk Reviews.
- Quality Management Metrics and Bug-tracking Reviews.
- Change Management Reviews.
- Site Readiness Reviews and ProCon.

Portfolio Reports to GPMO and Senior Management

Our PMs ensure that project deliverables are controlled properly and report their status through weekly Status Reports and monthly Project Summary Reports. Status reporting is handled through the Clarity tool and populated by a combination of existing data and some manual entry on the Status Report file itself.

The Project Status Report is divided into 11 sections:

1. Status Report Details.
2. Project Information.
3. Project Status (Last Week vs. Current Week).
4. Quality Information.
5. Help Required.
6. Risk Information.
7. Issue Information.
8. Financial Information.
9. Change Management Summary.
10. Outstanding Resource Needs.
11. Project Deliverable Areas.

The Project Summary Report is created monthly as a supplement to the Executive Review meeting, which is one of the main tools used not only to inform internal stakeholders of the current status of all system-delivery projects, but also to provide a forum for project teams to discuss risks and issues and receive real-time feedback and actions from key technology leaders. The report contains a graphical view of the project milestones and their associated risk levels, as well as status comments and other general project information. The Project Summary Report provides a high-level overview of the project status. While used to facilitate discussion in Executive Review meetings, the report provides enough detail to be read on its own without the need for additional context.

Executive Reviews

In addition to internal monitoring mechanisms, we conduct monthly in-house program reviews to ensure that each project is on track. These meetings highlight the project's status and progress and provide an opportunity for the project team to request guidance or additional expertise from business unit leaders and executives representing all deliverable groups (Project Management, Software, QA, Systems Engineering, etc.). As a result, problem resolution and/or escalation can occur on the spot if required to keep the project on track. We apply the lessons learned from these reviews to the next implementations as applicable.

Process Compliance Reviews

Our team reviews all processes and procedures relating to the IDM phases to verify that they are being properly used. Monthly reviews occur with an associated Compliance Results Report, which enables proactive correction to align the team with expectations and provide them with the necessary tools to effectively manage project deliverables. Compliance trends across the portfolio are regularly measured and monitored to identify commonalities that may lead to provision of additional personnel training or re-evaluation of a process and its use in the field.

Risk Management Reviews

With our plan for the Lottery, we expect a seamless transition with no risk of revenue loss. But we want to share our practice of risk management reviews, which exemplifies our commitment to address any potential issues *before* they become a problem. Risk management is an ongoing process designed to regularly identify any new risks, review existing risks, update their statuses, add/delete/modify prior risks, and close out risks that are no longer valid. During regular risk reviews, it may be determined that the risk is realized, which could require executing the risk mitigation strategy and/or executing a change request.

All project risks are reviewed, at minimum, on a weekly basis to keep the scope, timeline, and budget on track. The PM typically leads the risk review discussion with the core team during the weekly project status meeting.

Management-level risk reviews are organized by the GPMO for selected projects, depending on the project complexity and overall status of key risks. This level of risk review may be incorporated within monthly executive reviews, or separate sessions may be scheduled to review the risks and their mitigation plans in detail. Key technology leaders are engaged in management-level risk reviews to ensure the risk management strategies designed by the teams are feasible and that all options have been considered.

Quality Management Metrics and Defect Reviews (KPI Report)

The PM, working with the assigned business analysts, software engineers, and QA leads, generate a quality metrics report, commonly referred to as a Key Performance Indicator (KPI) report. The information contained within the KPI report derives from the requirements, quality, and defect tracking tools. It provides a view of requirements status by tracking the percentage of requirements that have been developed, tested, and passed throughout the testing life cycle. Additionally, the report depicts the overall number of identified defects, or Trouble Incident Reports (TIRs), categorized by current status (OPEN, IN TEST, FIXED, and CLOSED).

Based upon the number of open TIRs and the rate of closure, the report projects the number of days required to resolve all defects. This projection allows for critical, proactive decision-making regarding project-staffing levels and skill requirements needed to meet the established deadlines. The project team uses KPI reports for day-to-day management throughout the testing period; the management team reviews them during Executive Reviews.

While the quick and easy technology transformation we envision for the Lottery will not result in a need for a complicated defect review and resolution process, we nonetheless want to highlight the availability of the many procedures we have in place.

Change-Control Process

IGT employs a structured change-control process to ensure that all proposed project changes are reviewed in regular Project Team Change Control Board meetings and escalated to the GPMO for senior management input as warranted. In this way, we can assure the Lottery that any change to the project scope, schedule, or budget will be communicated and agreed upon before proceeding.

At IGT, change control is a formal process that is followed when the previously agreed-upon scope, artifacts, schedules, budgets, or any information that is being relied upon by others needs to change. Change control identifies the roles, tasks, and flow of communication that need to be established within a given project team for effective change management to take place, including the practices for requesting, approving, implementing, and communicating a change.

Any project can have certain elements that need to be changed once planning and implementation are underway. For example, as the project specifications are documented and agreed to, a change may be needed if initial assumptions do not meet expectations. Such change is a natural part of the process. We will document and track all changes to ensure that the overall delivery is in line with the Lottery's most current expectations and that any budgetary impacts are detailed and classified in accordance with the agreements reached between all parties.

Our change control process is supplemented by the Clarity Change Tracking Module. All requests for change are documented in Clarity and submitted for approval per predefined escalation criteria. Decisions of the team's Change Control Board (CCB) and/or the GPMO Executive Change Advisory Board (CAB) are documented within the Change Request (CR) and routed back to the team via Clarity. All approved changes will be tracked through each identified affected area until implementation of the change is complete.

Project Reports, Meetings, and Walkthroughs

Throughout the implementation, the Lottery will receive regular reports, including progress reports based on regularly scheduled and ad hoc project meetings, and as indicated in the Quality Management discussion in this section. We will make the Lottery a part of regular project status meetings and walkthroughs. Such reports and activities lend transparency to the implementation process and will enable your team to monitor all project management tasks, schedules, activities, and issues.

Site Readiness Reviews and Project Condition Reporting (ProCon)

Site readiness is a key mandatory process and a critical metric by which the project team gauges the preparedness and viability of Go Live.

The site readiness review takes place during the last three weeks before Go Live. The template used to conduct the review is a workbook that is customized for each project in accordance with the scope of deliverables and the Go Live plan. It also enables a project team to insert activities that may be specific and unique to the project so that nothing is overlooked. The template is divided into disciplines and highlights a series of checks that need to be performed to validate and prepare for the new West Virginia system being live.

At least one week prior to Go Live, an executive readiness review takes place. All data contained within the site readiness review workbook is summarized in a presentation to senior management. Any outstanding items must have an associated action plan for closure; follow-up with the senior management team is required for all actions coming out of this review. This final assessment provides additional assurance that the team is prepared to proceed with Go Live.

For the successful functioning of all systems and software at the time of Go Live, we employ an oversight-and-escalation procedure: Project Condition reporting (ProCon). ProCon ensures the availability and attention of all key resources and senior management during your project's Go Live period. Using this process, we allow for an immediate response to any issue surrounding the implementation of the new system. IGT developed ProCon as a mechanism to facilitate resource availability, formalize escalation procedures, and provide accurate project status reporting during a project's most critical phases.

Should an issue arise, the PM contacts IGT's 24-hour help desk to begin contacting resources via the planned escalation list and have them dial into a pre-set conference call number to discuss the issues and brainstorm the resolution. By having all key technical resources on the line, the resolution period is reduced, impacts to other areas are known and managed, and the implemented resolution can be verified in real time.

The ProCon phase is set into action one week prior to Go Live; it concludes approximately two weeks after the technology project has been successfully launched. This time line allows for the system to generate significant transactions and ensures balancing through an invoice period before we begin transition to the services deployment. Our experience shows that most issues that have arisen during implementation have been minor and are usually solved within hours or, at most, a couple of days.

Tools

To successfully meet all milestones and ensure an on-time Go Live, IGT's project team uses many tools to plan, schedule, and manage project activities. With these tools, as well as the KPIs derived from them, our project team will quickly evaluate the quality of our deliverables and use that information to make adjustments to improve quality outputs where required.

Among the tools our project team uses are:

- **MS Project:** Project resource planning and tracking, change, risk, issue and action item management, status reporting, and document repository and version control.
- **Clarity:** IGT's primary software development life cycle management tool. All product deliveries and services projects are managed within this tool, conforming to CMMI best practices. Clarity is used to manage the project portfolio and project resources, allowing for better communication and productivity.
- **System Analysis and Programming (SAP):** Financial planning, tracking, and reporting. SAP can be used to forecast estimated and actual man-hours for a project. We also use Clarity in forecasting efforts.
- **MS Outlook:** PMs spend up to 90% of their time communicating – with the Lottery, the project team, and regional and corporate resources; therefore, email, meetings, and calendars are vital to the success of a project. Our PMs use Outlook to coordinate group efforts in meetings, track tasks, and keep stakeholders up to date on milestones. PMs can use Outlook in conjunction with IGT Exchange servers to coordinate appointments with a team calendar and email invitations and can use multiple contact folders to set up groups of project teams. Also, IGT's Outlook functionality has desktop-sharing capabilities and an embedded NetMeeting application that enables remote attendees to dial in.

- **GPMO Website and Mailbox:** Part of IGT's Intranet, the GPMO website offers information on Clarity and Affinity and is a source for processes, templates, forms, guidelines, best practices, and other policies. The website gives users an overall and thorough introduction to and explanation of IGT's project-management philosophy.
- **IDM Website:** Website that features the project life-cycle framework and is a source for project processes, templates, forms, and policies.
- **Dynamic Object Oriented Requirements System (DOORS):** A tool designed specifically for managing requirements (e.g., noting attributes and maintaining change history), DOORS is preferred over standard office tools such as MS Word or Excel. Therefore, we use IBM's DOORS to assist in capturing, structuring, analyzing, and managing system and/or software requirements throughout the system's development life cycle. DOORS is based on industry-proven best practices and more than 15 years of experience in the requirements management field.
- **NetMeeting and Video Conferencing:** Collaboration tools that will be available so that teams separated by distance will be able to share desktops, easily call into a meeting, and speak face-to-face, facilitating effective communication in less time.
- **Quality Center:** Web-based application tool for managing test assets in TestDirector and interfacing with other Hewlett Packard tools and applications. The tool is based on a relational database model and provides functionality for capturing test requirements, designing tests that map to requirements (manual and automated), constructing test sets that can be executed within the tool, tracking defects against the tests and test sets, and generating reports on the test effort.
- **Apache Subversion (SVN):** Software versioning and revision control system distributed under an open-source license. Developers use SVN to maintain current and historical versions of files such as source code, web pages, and documentation.
- **JIRA:** A highly configurable project-tracking tool that uses custom workflows to track bugs, tasks, and entire software development projects and software issues.

As noted in the tools list, Clarity is the central tool for all project management-based functions within IGT. This tool is vital as a one-stop application in which PMs work on a daily basis to plan and track deliverables. Clarity integrates with Microsoft Project and SAP, tying tasks and resource assignments to the established Work Breakdown Structure (WBS) to drive forecasting. Project team members plan, track, and maintain all project risks, issues, and action items in the tool to allow real-time reporting of project status.

PMs create status reports in Clarity, which automatically pulls data from all tracking modules and the project schedule to minimize reporting time and increase accuracy. Clarity offers dashboard reporting to the executive level, providing a quick high-level view across projects and enabling the management team to drill down for additional information and determine where further actions may be warranted.

Go Live Preparations

IGT conducts a series of readiness activities in the remaining months and weeks prior to the system start-up. The following processes are used and refined with every project and will be paramount to Go Live preparations for the Lottery.

The Go Live Checklist

During the months immediately preceding Go Live, IGT engineers will create a detailed, system-wide checklist detailing the configuration of all systems, components, and products, designed specifically for the Lottery installation. The checklists will consist of a series of system checks and procedures, along with an approximate schedule for their execution during the Go Live window. In the final weeks, days, and hours approaching start-up, IGT's application specialists and network professionals will prepare the new systems to take over operations.

Project Condition

For a period of approximately one week prior to Go Live and two weeks post-live, the IGT project team will enter ProCon, a period of heightened awareness, as final preparations to the system are made. The ProCon process employs an increased communications and escalation plan to be used during this period. A bridge line is established in advance, and an invitation is sent to all corporate technology leadership and project leads required to participate in ProCon. Through a formal Incident Management Process, an alert may be sent after which all participants will be asked to join the bridge, review the alert parameters, identify the relevant parties, and resolve any production issues. Here, again, is IGT's commitment – at all levels of the organization – to a seamless conversion.

Site Readiness Review

In the one-to-two months prior to Go Live, the Technical PMs, system engineers, and project leads will conduct an audit of the readiness across the project disciplines including facilities, requirements, software quality, terminal and network deployment, infrastructure, Local Area Network (LAN) communications, Hotline, training, and operations. Each area will be evaluated and scrutinized to ensure it is operations ready and meets the committed deliverables. The Go Live checklist will also be reviewed to document and schedule all activities in the precise order in which they must take place.

Executive Readiness Review

The Lottery and the IGT PM, technology lead, and project discipline leads will facilitate a readiness presentation to the Lottery and IGT senior management on the health of each functional area of the project. They will examine KPIs and evaluate risk. Ultimately, approval to proceed will be granted or actions will be documented and a follow-up review required.

Activity on the Eve of Go Live

On the night before IGT's scheduled central system Go Live, many final tasks must be accounted for and carried out sequentially.

The following process ensures that every task has been satisfactorily completed:

- The Gantt chart, organizing the execution of all pending tasks, is maintained in the project operations center.
- A phone conference is opened, with mandatory attendance from all on-site and remote resources from the Lottery, IGT, and third parties.
- The tasks are identified, and the person responsible reports both the initiation and completion of the task.
- All activities are recorded on the printed Gantt chart to provide visual confirmation that tasks are being completed.
- The ProCon Manager is in attendance. This person will see the tasks being reported and, should any issues occur, engage additional resources immediately.

When all tasks have been reported as completed, the Lottery's new system will be ready for Go Live.

Go Live Night: Maintenance Window

During the final hours of the maintenance window on Go Live night, IGT's standard procedures and careful preparation will render almost anticlimactic the extraordinarily complex task of converting an aging and highly modified system to operations on a new, carefully prepared platform. The final steps to start-up will involve the disconnection of the legacy systems from the retail, Lottery, and third-party network interfaces and connection of the transaction engine communications equipment to those same networks. A very small download will be transmitted to the terminals, tasking them to exchange the emulation software for the new and previously background-downloaded production software, which is already configured for connection to the Aurora Transaction Engines. Any terminals that do not receive the download prior to sign-on – most likely, because they were powered down at night – will experience a brief download and reboot before signing on to the new system when powered on.

Prior to executing the Go Live checklist activities, normal day-end processing and reporting will be conducted for the final time on the current system. Once this is complete, there is additional work involved in transitioning to the new system, such as the final day of parallel processing to reprocess the previous day's transactions.

“Business as Usual” for Retailers

When the Go Live date arrives, it will be business as usual for Lottery retailers. They will keep selling as the new system start-up takes place in a way that is completely transparent to retailers and players, on the terminals that have already been in the field for many weeks.

To achieve the smoothest possible Go Live, IGT will ask that retailers leave their terminals switched on overnight during the start-up. This will enable IGT to obtain real-time confirmation of total terminals that are switched to the new application and communicating with the new system. Apart from this, there will be no start-up tasks for the retailers to perform.

Planning and preparation will ensure success. One of the ways to ensure a successful completion is rehearsal. IGT will rehearse the start-up multiple times to determine any pitfalls to avoid and/or shortcuts that can stretch the time allotted for tasks. By the time the new system goes live, the start-up procedures will have been tested multiple times.

4.8.3

Other Tasks [Conversion and Implementation]

Other considerations relating directly or indirectly to necessary tasks and other duties that will be performed by the Vendor during conversion and implementation of the new System should be included in the Vendor's response so that the Vendor's overall strategy and proposed solution can be fully evaluated by the committee. Specifically, Vendor's response should describe how it plans to meet the terms and conditions defined by the Lottery in this RFP and include proposed solutions that are envisioned for the development of Business Requirement and SRS Documents, Acceptance Testing, and Problem Escalation Procedures.

Other considerations relating to necessary tasks and other duties that will be performed by IGT during conversion and implementation of the new Aurora system, such as our proposed solutions for the development of Business Requirement and SRS Documents as well as Acceptance Testing and Problem Escalation Procedures, are discussed in the section following 4.8.3.1 of our proposal.

4.8.3.1

Additional Specifications for Business Requirements Documents

As previously stated and more thoroughly defined in the terms and conditions of this RFP, the purpose of the Business Requirements Documents is for the Vendor to demonstrate its understanding of the Lottery's business requirements. These documents will be reviewed and, if acceptable, approved by the Lottery within the applicable timeframes after Contract Award.

Vendor should describe its plan to study and compile Business Requirements Documents that address each business process currently performed by the Lottery and the retailers' business processes related to the sale of Lottery products. Vendor should also identify any modifications that are suggested or deemed advantageous from preliminary review of the current operating environment and describe the proposed alternative for evaluation in its response. Further information related to staffing and any other information relevant to the Vendor's plans to complete tasks related to Business Requirements Documents should also be included in the Vendor's response.

Business Requirements Management

Our approach and methodology for identifying and satisfactorily reproducing all capabilities required by the West Virginia Lottery will commence upon contract execution. We understand the complexity of your business and how important it is to have a solid Requirements Management plan in place to reproduce all capabilities the Lottery needs and mitigate risks associated with conversion. It is essential that your business requirements are well understood and agreed-to early in the project to ensure the timely and accurate delivery of software components.

Our Lead BA will work with the Lottery to execute the requirements definition phase of the project. This phase of conversion includes the planning and documentation of Software Requirements Specifications for all software disciplines required for the new system.

To mitigate risks and ensure an efficient process, IGT will leverage the thousands of man-hours we have invested in the Lottery to develop your current functionality to immediately develop baseline SRS documents that represent current functionality and incorporate current West Virginia business rules and processes and retailer business processes. We will then facilitate a series of reviews and walkthroughs with Lottery stakeholders on the requirements documents, culminating with approval and sign-off. Along the way, we will work with you to ensure you understand the difference between changes that can be handled through system configuration versus changes requiring customized software development. This will help us make the right decisions regarding functionality. Once the requirements are agreed to and signed, we will enter the requirements change control phase, which will continue through completion of the project.

In some cases, such as game requirements, it is acceptable to jump right to the SRS. In other cases, such as new product development, it is more effective to begin with a lottery's business requirements and then deconstruct those into increasing levels of detail. This keeps us building on solid foundations. Often, use cases are documented for new product development as a clear way to capture initial requirements prior to building software solutions.

For highly customizable, process-based applications, our recommended approach, at the discretion of the Lottery, is to begin with job-shadowing to best capture the Lottery end user's needs and the "devil is in the details" system requirements that can be forgotten when sitting around a conference table. Very often in even the most interactive workshop session, end users can forget about a tiny step that they take in their day-to-day work, and that omission can lead to lost efficiencies.

The most important benefit of job-shadowing for these highly customized process-driven areas is that it helps educate the BA on the individual needs of a particular lottery customer and its particular set of end users. The goal is for the BA to speak for the end users during development, as well as answer software engineer and quality engineer questions regarding how to meet customer requirements.

For player-facing applications over the Internet or mobile channels – where individual site requirements are highly customized and where site visitors can be driven away (maybe permanently) by an ineffective User Interface (UI) – a different approach is needed, one more similar to that taken for new product development. IGT BAs discover and document these requirements through a combination of software requirements, use case modeling, wireframes or mockups, and site maps.

Lead Business Analyst Responsibilities

To the extent possible, the Lead BA will be in *every* Lottery requirements discussion to note and communicate impacts immediately. The Lead BA will also manage the BA team through regularly scheduled status meetings where progress is discussed as are the impacts of a new requirement in one area on another area. The Business Intelligence BA will also attend these status and knowledge-sharing meetings. For instance, if a new piece of data is requested on a report, the Business Intelligence BA will communicate that to the BA team to ensure that the data exists in the system and, if not, that an entry point is created. The Lead BA will ensure that the Lottery thoroughly understands what deliverables are in scope for the project and what approach will be taken for each one, as communicated in the BA Kickoff Presentation. The Lead BA will maintain the requirements schedule for workshops, demos, requirements deliveries, Lottery reviews, and signoff. This individual will communicate the schedule and any revisions to the Lottery and the internal project team.

Once requirements are approved and enter the development stage, the Lead BA will communicate and present a requirements change control process to the Lottery and manage the requirements through that process to ensure that all changes are carefully logged, assessed, tracked, and implemented.

The Lead BA responsibilities include:

- Managing the BA team assigned to the Lottery project.
- Managing the requirements schedule.
- Creating and managing a requirements traceability matrix.
- Tracking and reporting progress to the PM.
- Maintaining requirements change control process.
- Working collaboratively with the Software PM and QA Lead on all interrelated activities.

The Lead BA and BA team will find local experience and assistance in the onsite BA, Jeramie Gibson. Jeramie's knowledge will provide valuable insight during the conversion project. Consequently, the close collaboration between the Lead BA and Jeramie during the project will ensure the absolute transfer of knowledge of new system functionality once we settle into sustaining operations.

Accounting Resource Access

As required in the RFP, during the course of the conversion project, IGT will make available an accounting resource to accurately assess all financial matters related to the conversion.

BI Process Improvements

An advantageous modification from preliminary review of the current operating environment is our Business Intelligence (BI) process improvement described below.

Our new Aurora BI system will result in increased transparency between IGT and the Lottery during the conversion process as well as more streamlined, customer-specific reporting for the Lottery. In the past the general process entailed the Lottery providing ALL legacy reports to the vendor's Business Analysts. These reports inherently become business requirements – which often number into the hundreds. This process ignores the totality of your business needs and does not fully use IGT's improved Aurora BI system, described further in Section 4.3, Reports and Interfaces. In order for the Lottery to fully comprehend and enjoy the benefits of our Aurora BI system, we propose a new approach to the BI process.

Shortly after the customer kick-off, IGT will provide BI end-user training from which the Lottery will learn the capabilities and toolsets to fully leverage the solution moving forward. During conversion, IGT will drive the reports process to ensure the following steps are taken:

- Engagement of key stakeholders.
- Assessment of critical business needs (reports).
- Empowerment of stakeholders to evolve their own solutions.
- Supplement of core reports with IGT best practice and industry-standard reports/metrics where applicable.

The goal of this strategy is to provide the Lottery with a better assessment of current and future reporting and advanced analytic needs.

Acceptance Testing

IGT acknowledges that the Lottery will conduct CAT to verify that all requirements and provisions in this RFP, the resulting contract, and Lottery specifications pertaining to the start-up of systems operation and future projects are met. IGT also acknowledges that the Lottery will take a comprehensive approach to CAT, including performing any acceptance test it deems necessary, to determine whether the Lottery accepts the system and any future development projects. Lastly, IGT acknowledges that pass or fail determination of CAT will be the Lottery's responsibility.

A positive and successful CAT experience will ensure a smooth transition for your players, retailers, and business users, and will meet your objective to be operational according to the agreed-upon start-up schedule.

IGT's Approach to Acceptance Testing: Adherence to Standards and Best Practices

Representing more than 30 years of experience and lessons learned as a technology provider, our approach to acceptance testing follows established guidelines that provide our delivery teams with directional and operational guidance. It makes efficient and effective use of validation and verification techniques widely accepted within the technology industry:

- The CMMI for life cycle software services. IGT is certified to CMMI Level 3.
- The PMBOK for Project Quality Management.
- ISO 9001 and 9126 fundamentals for Quality Planning, Assurance, and Control processes and procedures.
- North American Association of State and Provincial Lotteries (NASPL) Standards Initiative (NSI) Best Practice for Quality Assurance of Product Development.

NASPL Certification

The NSI is a collaborative effort with participation from lotteries, retailers, and lottery suppliers. These three stakeholders work together to develop standards, best practices, and certification programs that benefit the lottery industry.

IGT has achieved certification in the two areas of QA best practices applicable to vendors – Requirements Definition and Development Process – from the NSI Certification Program operated by the Open Group. These certifications confirm that we meet NASPL's documented conformance requirements for those best practices or technical standards.

IGT is an active member and leader within NASPL's standards initiative and will continue to enthusiastically support the program. Our participation in and commitment to projects involving NASPL retailers and the Standards Group of the Petroleum Convenience Alliance for Technical Standards (PCATS) will support the Lottery's own efforts in this area.

With regard to Lottery Acceptance Testing, we adhere to the lottery industry's best practices as described in the NSI Best Practice for Quality Assurance of Product Development in the lottery industry – specifically, the NSI Acceptance Testing Best Practice. This best practice provides a set of processes and procedures that addresses the QA requirements throughout the hardware and software production cycle, from requirements specifications through design, implementation, and testing to acceptance and deployment.

NSI has defined the scope of this best practice generally enough for many software and hardware production environments while addressing several QA aspects that are specific to the lottery industry. It consists of:

- **Requirements Definition:** The requirements for the system or system components must be defined, documented, agreed upon, and approved by both the service providers and the customer. IGT will work with the Lottery to follow this process in order to specify the correct information and reach all necessary agreements.
- **Development Process:** IGT uses a development process that covers design, implementation, testing, problem tracking and resolution, change control management, and release and installation. The process incorporates documentation and approval phases.
- **Acceptance Testing:** IGT follows a defined acceptance testing process and plan that is typically agreed upon during requirements definition and carried out in a controlled environment during CAT.

NSI's suggested method for creating an Acceptance Test Plan includes:

- Analyzing the product to be tested (in this case the system conversion), including performing a risk analysis.
- Determining a testing strategy.
- Identifying entry, suspension, resumption, and acceptance criteria.

Recently, IGT successfully re-certified under the NSI Quality Assurance Best Practices for Requirements Definition and Development Process.

Secured Access

To ensure the security of the testing environment, IGT's acceptance testing process requires that all support personnel with access to the production and CAT systems be controlled via secured access with rigorous authorization controls, in accordance with ISO:27001 policies and procedures and with the NSI Acceptance Testing Best Practice.

Business Users Learn During, Not After Testing

We cannot emphasize enough the need to engage your business users during acceptance testing, to exercise and use the software as they would during business as usual. This goes beyond even hands-on training. In our conversions in Texas and California, we found that having the business users involved during CAT improved understanding of system functionality and reduced the angst of becoming proficient on a new system.

IGT personnel will be prepared to help the Lottery efficiently and effectively conduct CAT to ensure the system we deliver meets the needs of its players, retailers, and business users.

Innovations for Faster Acceptance Testing

IGT has built a set of industry-recommended test automation tools that will streamline the acceptance testing process.

Test Automation

Test automation is the use of software to control the execution of tests, the comparison of actual outcomes to predicted outcomes, the setup of test preconditions, and other test control and reporting functions. Commonly, test automation involves automating a manual, formalized testing process already in place.

Test automation is often used in regression tests to ensure that basic functionalities remain stable. It brings multiple advantages to the testing system, including:

- Reduction of execution time.
- Improved test coverage.
- Reliable, repeatable, and consistent test results.
- Better use of system resources (off-hour/unattended testing).
- Greater confidence in products (from more frequent and thorough testing).
- The incorporation of industry best practices.

IGT's investment in test automation has resulted in delivering game changes faster and at a higher quality. Our automated process has decreased manual test-case execution time from weeks to hours. With the implementation of QA and engineering best practices for our automated testing of software products, we are able to deliver lottery solutions of exceptional quality within minimal timelines.

Our QA test engineers currently use test automation tools to:

- Exercise terminal UI for end-to-end regression.
- Automate gaming functions.
- Initialize core Aurora Transaction Engine (central system) functions through remote procedure calls.
- Export selected reports to a user's PC for balancing configurable financial data across a report set.

Game Matrix and ASIM

We will make our automation tool portfolio available to you for testing the terminal and on-line system during Lottery software QA testing. IGT's industry-recommended test automation tools facilitate the delivery of quality solutions and services. Our automated Game Matrix (GM) tool provides the ability to automatically create game transactions based on your game portfolio. GM complements our offered transaction simulator, called Automated Simulator (ASIM), which has a real-time connection with the Aurora Transaction Engine. ASIM is a transaction simulator application that generates all types of transactions (terminal, system, on-line, and scratch) and can provide transactional volume options (percentages) for use in testing software quality, performance, and system fault tolerance. ASIM will also accommodate simulated scratch and terminal ticket validations against a validation file as part of the transaction mix.

Our GM and ASIM tools can run 30 continuous day counts with two invoice periods in approximately 12 hours – a vast improvement over manual testing.

Figure 4.8 – 7:

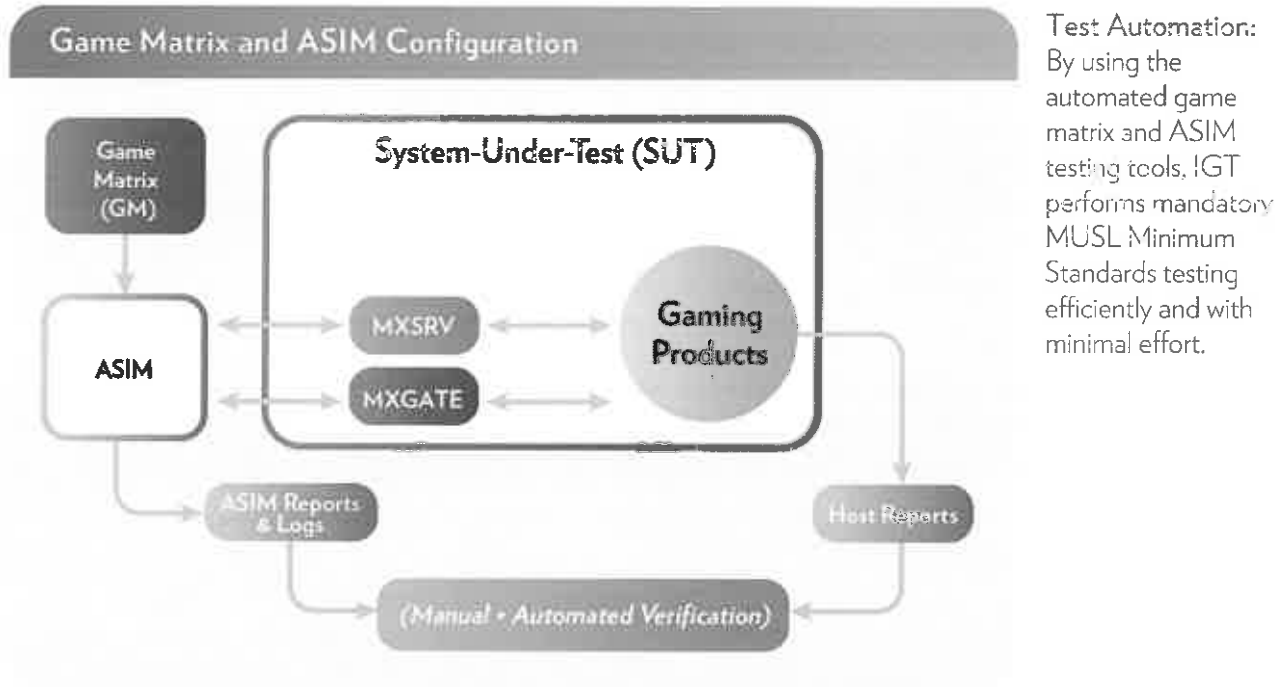


Figure 4.8 – 8:

Highlights of GM and ASIM	
GM Highlights	ASIM Highlights
Transaction details, by game, by test day	Executes and sends transactions to the Aurora Transaction Engine and processes responses
Indirect testing of terminal gaming transactions	Monitors real-time execution results
Calculation of winning numbers and exercising of business rules	Generates execution log files
Links to full transaction details	Allows multiple transactions to be processed
Provision of sales report	Allows multiple instances of files to be processed

IGT will make this automation available to the Lottery to support acceptance testing.

Continuous Integration (CI) and Behavior Driven Development (BDD)

For every software release to meet stringent quality compliance, the following needs to happen. First, the changes made to the code in the various areas need to be tested individually (via Unit testing), and later after a build is created and deployed, the integrated code needs to be tested (via Functional and Integration testing) to ensure no defects have been introduced. The sooner code changes can be merged back in and tested, the sooner potential issues can be found and fixed. Checking code frequently, creating deployable software, and retesting the software frequently can be effort, time, and money intensive. To ensure timely delivery of quality software with each release, IGT has embraced and adopted automation not only in the various stages of the Software Development Life Cycle (SDLC), but also in running and monitoring daily Lottery operations.

Continuous Integration (CI)

With CI, as developers check changes to the source code, these are automatically verified and integrated with the code base. Also, Builds can be automatically deployed to the target environment followed by triggering of any automated Test execution. By doing this, not only can any potential integration issues be detected immediately and fixed, but a deploy-ready Build can be delivered at short notice.

Behavior Driven Development (BDD)

Most end-user actions can be simulated using BDD whether it is via a browser, mobile device, or terminals. Tests can be automated using BDD to test end-to-end scenarios, which test how the various components work together to deliver functionality. These automated tests can be triggered automatically via the CI process and immediately after a software build is deployed to a development or test environment. One reason to pick BDD over other available commercial solutions is its ease of use for BAs and testers who are not coders. The in-house developed BDD GUI enables easy drag-and-drop features to put together test scenarios and User Stories.

Automating a critical portion of testing increases effectiveness and improves efficiency of the overall testing process. Some of the main advantages of incorporating automated testing are:

- **Save Time and Money.**
- **Early Defect Identification:** Early and repeated application testing results in quick turn-around in identifying potential issues earlier in the project phase.
- **Eliminate Human Errors:** Automated tests perform the same steps every time, thus improving accuracy.
- **Improved Test Coverage:** With automated tests covering most of the repeatable tests, manual testers have more time to create new automated software tests and deal with complex features.
- **Adaptability to Agile Development:** Test automation when integrated with CI makes it possible to develop working software incrementally with minimum issues.

Test Scripts

IGT will provide test scripts and dedicated onsite assistance from experienced software and quality engineers to perform and support acceptance testing. We will cooperate with the Lottery as it tests new programs and any changes to existing programs to ensure that all programs are performing accurately and reliably prior to installation. Each new instant ticket scratch-off game will be subject to validations acceptance testing prior to introducing the game for sale, and all software installations, including web components, terminal applications, and central site applications, must be approved in writing by the Lottery Director or designee(s) prior to installation.

IGT uses HP Quality Center™ as the primary tool for test case construction and execution. HP documentation for using Quality Center provides the overall end user with instruction for tool features. HP maintains an extensive on-line documentation library comprising application user guides, tutorials, articles, user discussion forums, alerts, news archives, and educational services. IGT uses a majority of these standard practices out-of-the-box, with very limited customization for workflow, fields, and lists. IGT will furnish its test scripts in electronic and hardcopy format prior to our regression and QA testing.

Test System and Staff Availability

The acceptance testing process will be a cooperative effort between IGT and the Lottery. IGT will make a system available for troubleshooting and acceptance testing, which will run independently of the production and development systems. We understand that the Lottery will assume overall responsibility for the development and execution of acceptance test scripts. IGT will dedicate staff with knowledge of the software being tested to assist the Lottery in identifying effective testing strategies. IGT will ensure that the test system is available and configured to meet the Lottery's test plan and that operational resources are available to conduct and evaluate the acceptance test. We will make a BA available to respond to questions and help troubleshoot problems during any acceptance test.

Testing Criteria

IGT understands that the West Virginia Lottery will judge whether our product is acceptable, according to previously agreed-upon criteria. We will work with the Lottery to predetermine a method for handling any problems that arise, and, before we carry out acceptance testing, we will work with you to identify time schedules, procedures for evaluation, software and hardware environments and resources required, and acceptance criteria.

IGT recommends the use of Partner-JIRA to manage and track any problems identified during acceptance testing. Partner-JIRA is a web-based tool used for entering test incidents and problems as well as enhancements. The Partner-JIRA tool allows us to capture vital information directly from Lottery personnel and collaborate with you to prioritize the pipeline for delivering resolutions to test incidents, problems, and enhancements.

Regression Testing

IGT will perform extensive self-testing, de-bugging, regression testing, and QA on all software before the Lottery receives it for acceptance testing, ensuring that it is fully operational and principally ready for production use.

We take very seriously our commitment to provide our customers with high-quality software and system delivery processes. To achieve this goal, IGT adheres to certain recognized quality practice standards. From these standards, we have developed our quality processes, procedures, and practices. Our engineers employ a variety of industry-leading quality methodologies and tools at several stages of the software development cycle. All test scripts, data, and results will be maintained and available for regression testing as needed. The amount of regression testing conducted is based on impact and risk analysis. All builds will be analyzed for their impact to previously tested software. Depending on the scope of the project and/or production release, regression testing may include running simulators and reprocessing production days and test days. The duration and extent of the regression tests are determined by the contents and impact of the new requirements or defect fixes being delivered.

Test and Development Staffing

During acceptance testing, IGT will dedicate personnel capable of modifying the central test gaming system and all support systems if the Lottery requests it. These personnel will be assigned to the Lottery full-time and experienced with the specific hardware and software that is being tested.

Acceptance Testing Requirements

IGT will meet all of the Lottery's acceptance test requirements to which we will mutually agree for each scheduled installation of any new software, system enhancement, or conversion. We are well aware of the importance, for security reasons, of differentiating between test tickets/reports and those generated in production. We will comply fully with MUSL rules pertaining to the differentiation between test and production tickets.

Test Equipment Requirements

IGT will provide a test environment that will be available for testing purposes at all times during the duration of the contract. Test terminals will print using a font and ticket stock different from production retailer terminals, in compliance with MUSL rules; the font will not be modifiable by any West Virginia-based contractor employee. IGT will also provide all related hardware, software, and peripherals. The test environment will be physically and logically segregated from the central gaming system.

Problem Escalation Procedures

IGT will provide and maintain a Problem Escalation Procedure (PEP) for routine and emergency situations and deliver this compilation to the Lottery no later than 60 days after contract award. The PEP will detail how problems will be escalated through the eventual issue resolution and will be reviewed and updated annually at a minimum throughout the term of the contract. It will meet all requirements as detailed in the Lottery Terms and Conditions, Section 44.11.22.

IGT's Incident Management process manages the life cycle of all disruption of services or "incidents" and makes sure that normal service operation is restored as quickly as possible. It reduces the impact to business by decreasing the time to detect incidents, reduces the notification and response time for key personnel, and decreases the time required for business to return to normal conditions. The process is responsible for detecting, recording, and communicating during an incident and distributing incident details via reports to management and customers. This process is illustrated in the following figure.

Figure 4.8 – 9:



Incident Management: IGT's process includes preparing, responding, and then analyzing the incident after the fact to prevent future problems.

IGT's Incident Management process ensures that key operational services receive the attention and resources needed to resolve incidents as quickly as possible. We designed our process to make sure critical actions are taken at the appropriate times. This is accurately managed through an interactive tool that engages and notifies the appropriate resources.

We have dedicated Incident Management resources at the Data Center of the Americas (DCA) in Austin, Texas, for high-severity incidents that occur in the U.S. Our Incident Management team is comprised of highly experienced individuals who understand the business needs of our customers. Experience and technical expertise guarantees that key issues are addressed.

Resolving System Incidents

Incident Manager

Every incident requires an Incident Manager. The Incident Manager is accountable and owns the incident until closure. This person directs the technical troubleshooting of Severity 1, 2, and 3 Incidents and must approve any remedial activities before the remediation is implemented.

The Incident Manager escalates and requests additional support as needed to confirm the incident is closed in a timely fashion. The Incident Manager role may be filled by the Operations Manager/Lead at the DCA, Operations Manager on site, PM, or Regional Lead, depending upon the severity level and duration of the incident. These responsibilities may transfer among the organizational positions identified above; however, at all times the responsibilities reside with a single individual.




Incident Management Online Database

The Incident Management Online (IMO) database is used by Incident Managers, the National Response Center (NRC, or call center) Service Desk, and Operations to log, track, monitor, and report all Severity 1 through 5 severity calls via Incident Tickets. This is also the mechanism used to store all technical resources' contact information and to track all levels of escalation and notification.

Severity Incident Levels and their Classifications

The following figure provides a description and criteria samples of the severity levels assigned to incidents:








Figure 4.8 – 10:

Managing Incidents According to Severity					
	Severity 1 Incident Report Required	Severity 2 Incident Report Required	Severity 3 Incident Report Required	Severity 4 Request Service	Severity 5
Customer Impact	Critical	Urgent	Important	Non-Critical/ Service Request	Informational
Definition	System, network, or facility down	System, network, or facility performance degraded	Important functions or products not operating properly	Customer sends request to operations	Tracking ticket
CATEGORY:					
System 	Criteria Example: Online product down during large jackpot Instant product down	Criteria Example: Production system down OR in simplex mode at PDC Online or instant product down Loss of administrative functions and/or ICS system does not balance	Criteria Example: Retailer reporting functions not available or incorrect Late report or file distribution System in duplex or tertiary down	Criteria Example: Report request	Criteria Example: Work done on CAT system
Network 	Criteria Example: Entire network down Greater than 25% of terminals down	Criteria Example: Significant network congestion Greater than 15% or less than 25% of terminals down Loss of connectivity to Lottery HQ	Criteria Example: Switch over to backup Earth station facility Less than 15% or greater than 2% of terminals down Redundant/spare equipment down	Criteria Example: Add a new printer	Criteria Example: Standard roll in Maintenance Window
Security/ Facility 	Criteria Example: No power Facility on backup power Fire/flood	Criteria Example: No backup facility Security system down Network or personnel security breach	Criteria Example: Non-critical environmental alarms/phone outage Loss of building monitoring system	Criteria Example: Password change	Criteria Example: Proactive work done on phones; battery cache replacement

Determining Impact of Incidents: Each severity level is defined by customer impact to determine the best course of action to resolve issues.

The following figure provides response timelines for our resources by severity levels:

Figure 4.8 – 11:

IGT Software Hotline Technical and Hierarchical Escalation Process Flow					
		Severity 1 Incident Report Required	Severity 2 Incident Report Required	Severity 3 Incident Report Required	Severity 4
	IGT Software Hotline	Immediate	Immediate	Immediate	Immediate
	SSM/ Incident Manager	Immediate upon ticket creation	Immediate upon ticket creation	Within 30 minutes	Within 60 minutes
	On-Call Technical Support	Immediate upon ticket creation; if no response from primary page, page secondary, then tertiary in 5 minute increments	Immediate upon ticket creation; if no response from primary page, page secondary, then tertiary in 5 minute increments	Within 30 minutes	Within 60 minutes
	Subject Matter Expert (SME)	Immediate upon ticket creation	Immediate upon ticket creation	Not contacted	Not contacted
	Program Manager	Immediate upon ticket creation	Immediate upon ticket creation	If no response from On-Call Technical Support	Not contacted
	Software Senior Director	Immediate upon ticket creation	Immediate upon ticket creation	Notified via email; contacted if no response from technical resources	Not contacted
	ADM/ General Manager	Immediate upon ticket creation, updated every 30 minutes	Immediate upon ticket creation, updated every 60 minutes	Not Contacted	Not contacted

Response Timelines: The severity of an incident dictates the resources contacted and timelines for response.

IGT maintains a five-step process for the detection, recording, support, investigation, and resolution of incidents with which the Lottery has experience and involvement through our current contract. If selected as the successful vendor, we look forward to sharing this detailed process with the Lottery to ensure that it continues to meet your standards for incident management.

Communication of Incidents to the West Virginia Lottery

IGT will communicate incidents to the Lottery in whichever way it prefers (email, phone, etc.). IGT will keep the Lottery apprised of root calls, incident analysis, and remediates, and will provide an incident report to the Lottery at an agreed-upon timeframe after the incident has been resolved and the Incident Ticket has been closed.

5.1 Corporate Capabilities

Vendor must have experience operating a comparable Lottery System for at least one year for one or more North American states or provincial lotteries (NASPL™). (Section 5.1)

IGT meets the requirement of operating a comparable Lottery System for at least one year for one or more North American states or provincial lotteries.

In fact, as the global leader in gaming and your lottery partner since 2009, IGT *far exceeds* the West Virginia Lottery's minimum requirements concerning lottery system operations. We have contracts to provide lottery systems in 25 North American states, including West Virginia, and our systems process nearly 80% of all U.S. lottery transactions daily.

Please refer to our **North American Customer Summary List** as evidence of our ability to meet the mandatory specification in Section 4, Subsection 5.1. The Customer Summary List can be found behind the Exhibits tab.

5.2 PDC and BDC Requirements

The Vendor must acquire, install, maintain, test, and operate System equipment and communications at the PDC. The Vendor must confirm that the PDC will be located within the city limits of Charleston, WV. The Vendor shall be responsible for the facility it selects and occupies. The System at the PDC must be supported by UPS and appropriately sized generator. The Vendor must confirm that the System and Vendor test lab must reside at the PDC.

The Vendor must acquire, install, test, and operate all Of the remote backup system equipment and communications at the BOC. The remote backup system environment must mirror and be configured to run parallel with the System at the PDC. The remote backup system facility is currently supported by UPS and an appropriately sized generator. The Vendor shall be responsible for additional UPS and generator, should the Vendor require additional capacity for their environment, specifications will be provided concerning the existing environment.

The Vendor must provide and operate a Field Repair Center for maintenance and repairing the Vendor's equipment. The Vendor's response must describe how they will perform maintenance and repair. Vendor must store and maintain an adequate number of spare terminals and peripherals at all times.

The Vendor must confirm that they will provide and operate a primary warehouse within 25 miles from Charleston, WV. The warehouse must be able to receive, warehouse, process orders, track, package, and ship-transfer Lottery products and field items.

IGT is currently compliant with the above requirements and, if chosen as the Successful Vendor, will remain so throughout the Contract period. We plan on continuing to use our existing PDC and BDC, in Charleston and Bridgeport, respectively. Detailed information about our PDC and BDC as well as other facilities related to West Virginia Lottery services can be found in Section 4.1, Facilities.

5.3 Testing

The Vendor's response must document their proposed hardware and software environments for the Vendor and Lottery test labs.

Please refer to our response to Section 4.2.5, Testing Configuration, for a complete description of the proposed hardware and software environments for the Vendor and Lottery test labs. A separate central system will be provided for each of the Lottery and Vendor test labs. Each test lab central system will operate independently, and be entirely separate, logically and physically, from all production environments and networks.

Vendor must provide and configure hardware and software requirements for the Vendor and Lottery test labs.

IGT will provide documentation and requirements for all equipment and software in the Vendor and Lottery test labs and configure hardware and software according to requirements.

All network and System components in the test labs must be identical to the production System.

All network and system components in the Lottery test lab and IGT Vendor Test Lab will be identical to those in the production system and sized to accommodate production-sized data sets.

Reports and tickets that are produced in the test labs must be clearly marked (i.e. Not Each for sale. VOID. TEST, etc.). (Section 5.3)

All reports and tickets produced in the test labs will be clearly marked to differentiate them from production equivalents (e.g., tickets will be marked "Not for Sale," reports marked as "Test," checks marked as "Void," etc.).

Additional testing system details can be found in Section 4.2.22.3, Test Systems.

5.4 System Hardware and Software

The system must support the Lottery's retailer network without any upgrades to the System bandwidth. The system MUST have the capacity to maintain historical game information based on the specific requirements for each game type that will be developed and approved by the Lottery upon Contract award.

The system MUST maintain speed and functionality during periods of high volume sales.

Hardware and Software product changes require approval of the Lottery prior to implementation. The Vendor MUST provide the Lottery with monthly reports detailing upcoming and completed modifications to hardware and/or software.

The Vendor MUST work jointly with the Lottery to finalize a maintenance plan and schedule it as it relates to all System hardware and software after Contract Award.

Vendor shall provide a procedure for changes to documentation, job tasks, specifications, and program source and object code that is followed and updated with any hardware or software modification as needed. The Vendor shall provide technical specifications for each project requested by the Lottery and its development staff reviewed the project, determined solutions, estimated programming time, and provided a mechanism for both Vendor and Lottery to track the status of each project.

IGT has read, understands, and will comply with this requirement. Our system will support the Lottery's retailer network without any upgrades to the System bandwidth and have the capacity to maintain historical game information based on specific requirements for each game type that will be developed and approved by the Lottery upon Contract award.

The system will maintain speed and high functionality during periods of high-volume sales.

We acknowledge that hardware and software product changes require approval of the Lottery prior to implementation and that we must provide the Lottery with monthly reports detailing upcoming and completed modifications to the hardware and/or software.

IGT will work jointly with the Lottery to finalize a maintenance plan and schedule it as it relates to all System hardware and software after Contract Award.

IGT will provide a procedure for changes to documentation, job tasks, specifications, and program source and object code that is followed and updated with any hardware or software modification as needed. In addition, IGT will provide technical specifications for each project requested by the Lottery and its development staff to review the project, determined solutions, and estimated programming time. IGT will provide a mechanism for both IGT and Lottery to track the status of each project.

Further details can be found in Attachment A, Section 4.2.24, System Hardware and Software.

5.5 Manuals and Training Materials

Training materials must be provided by the Vendor in digital and hardcopy as requested and approved by the Lottery. The Vendor's response must provide samples of training materials. Retailer training material changes and updates must be distributed to all retailers prior to the scheduled changes and updates of the System.

IGT will provide training materials in digital and hardcopy formats as requested and approved by the West Virginia Lottery. Retailer training material changes and updates will be distributed to all Lottery retailers prior to the scheduled changes and updates of the System.

As described in Attachment A, Section 4.6.1, System Training, and Section 4.6.2, Lottery and Retailer Training, Quick Reference Cards (QRCs) describing the most frequently asked questions and solutions are distributed to retailers during their assigned training sessions. Retailer Reference Guides (RRGs) will also be provided.

Figure 5.5 – 1:

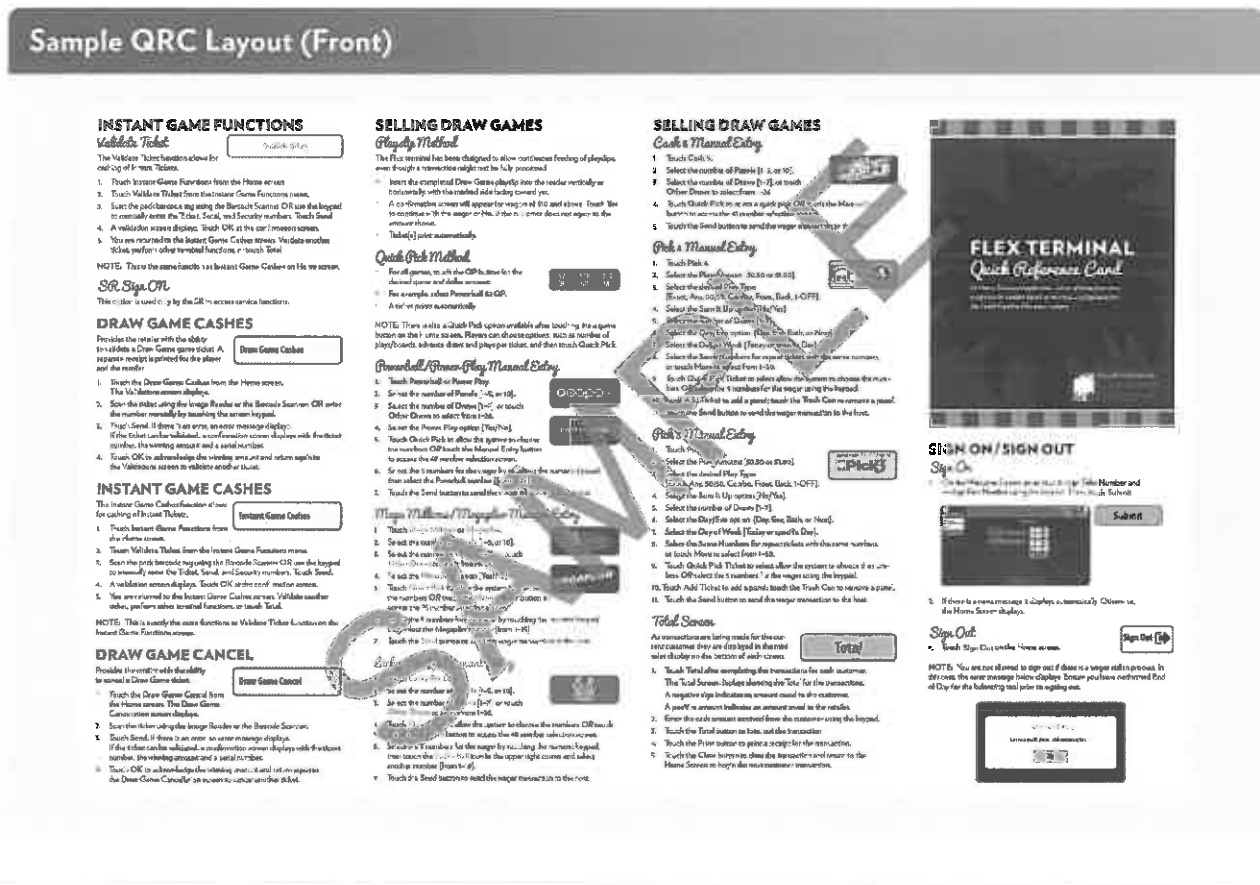
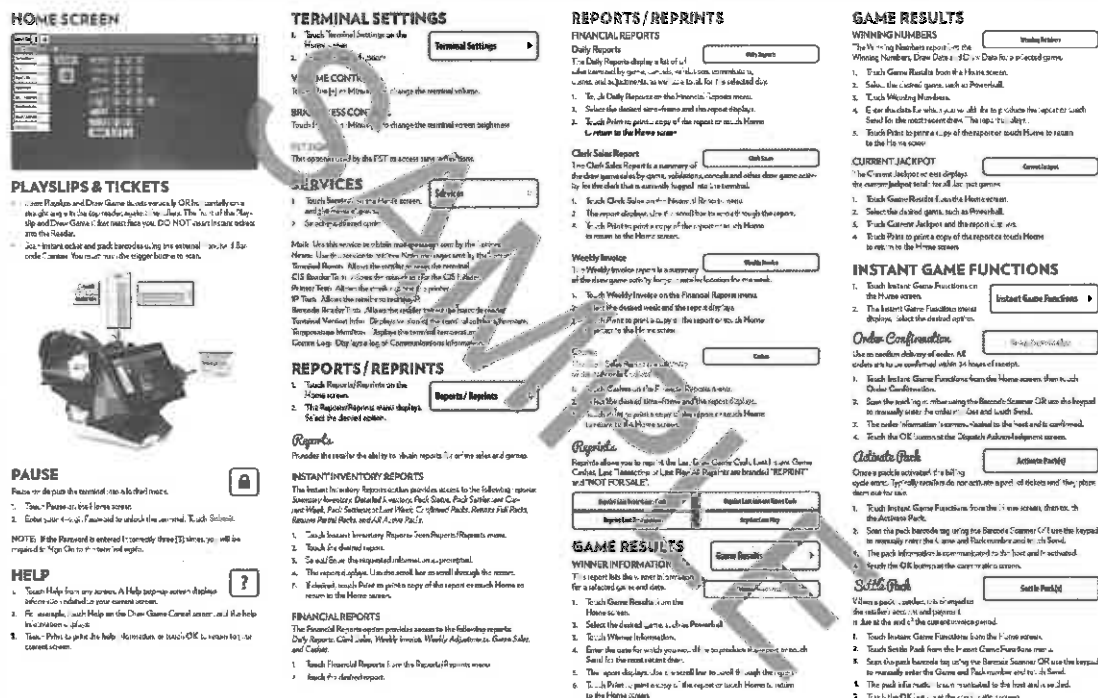


Figure 5.5 – 2:

Sample QRC Layout (Back)



Quick reference information in digital form includes web-based training videos as part of our enhanced training offering through Lottery Learning Link (LLL). Since LLL is web-based and fully interactive, training can be started, paused, and completed anywhere, on any browser, on any device – computer, tablet, or mobile phone – at any time. This tool presents a concerted, thoughtful effort to exceed the Lottery's training expectations by not only keeping with traditional training methods (classroom learning) but also offering an alternative that will allow them to take the training on their own time so they can stay in their stores during normal operating hours and keep making sales.

For the Lottery's operations personnel and business staff, we will provide task-based Aurora user guides, including all back-office functions, in soft copy Portable Document File (PDF) form, should the Lottery desire. These will be updated with each software change with approval by the Lottery. To assist all users and trainees in performing their daily tasks, we will also package the same content in the form of web-based operations manuals available via the Help feature on Aurora Navigator, which is fully indexed and easily searchable.

We have included samples of our training materials as an exhibit titled **Sample West Virginia Lottery Training Materials**, which is located behind the Exhibits tab.

REQUEST FOR PROPOSAL

(WV Lottery Gaming System)

By signing below, I certify that I have reviewed this Request for Proposal in its entirety, understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a Contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

IGT Global Solutions Corporation

(Company)


Joseph S. Gendron, Senior Vice President, WLA North America

(Representative Name, Title)

401-392-7631/401-392-4810

(Contact Phone/Fax Number)

1/31/17
(Date)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: IGT Global Solutions Corporation

Authorized Signature: Joseph S. Gendron Date: 1/31/17
Joseph S. Gendron, Senior Vice President, WLA North America

State of Rhode Island

County of Providence, to-wit:

Taken, subscribed, and sworn to before me this 31 day of January, 2017

My Commission expires 5/18/19, 20

IX SEAL HERE

NOTARY PUBLIC

Kristin Di Traglia

Notary Public

State of Rhode Island

Commission Number: 757908

My Commission Expires: 5/18/19

Purchasing Affidavit (Revised 08/01/2015)

ESX Server								
Lenovo System x3650 M5 (2) Xeon 12C E5-2650 V4 24 PCPUs, 48 LCPUs 2.2GHz CPU 256GB Memory (12)-Ethernet	Aurora Transaction Eng M2 Virtual Environment 2 Virtual CPUs 8GB Memory Pool 4 Virtual Ethernet 1,282GB Disk Pool * See Note WVSARM2-01	Aurora Connect Virtual Environment 1 Virtual CPU 4GB Memory Pool 3 Virtual Ethernet 135GB Disk Pool * See Note WVSARC01	Aurora Navigator Static Proxy Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 90GB Disk Pool * See Note WVSARNSCP01	Aurora Navigator Static Content Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 90GB Disk Pool * See Note WVSARNSC01	Aurora Navigator Proxy Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 90GB Disk Pool * See Note WVSARNP01	Aurora Navigator App Virtual Environment 2 Virtual CPUs 8GB Memory Pool 2 Virtual Ethernet 90GB Disk Pool * See Note WVSARNAPP01	Aurora Solr Virtual Environment 2 Virtual CPUs 8GB Memory Pool 2 Virtual Ethernet 90GB Disk Pool * See Note WVSARFTS01	Aurora Zookeeper Virtual Environment 2 Virtual CPUs 2GB Memory Pool 2 Virtual Ethernet 90GB Disk Pool * See Note WVSARCD01
	Performance Intel App Virtual Environment 4 Virtual CPUs 32GB Memory Pool 1 Virtual Ethernet 535GB Disk Pool * See Note WVSARPIAPP01	SFTP Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 164GB Disk Pool * See Note WVSSTFP01	LDAP Virtual Environment 1 Virtual CPU 2GB Memory Pool 2 Virtual Ethernet 175GB Disk Pool * See Note WVSLDAP01	SYSLOG Virtual Environment 1 Virtual CPU 2GB Memory Pool 2 Virtual Ethernet 244GB Disk Pool * See Note WVSSYSLOG01	HPOV Operations Perf Agent Virtual Environment 1 Virtual CPU 1GB Memory Pool 2 Virtual Ethernet 75GB Disk Pool * See Note WVSHPOVOPA01	NFS Virtual Environment 1 Virtual CPU 4GB Memory Pool 2 Virtual Ethernet 135GB OS Pool * See Note WVSNFS01	Database Model-1 Virtual Environment 2 Virtual CPUs 8GB Memory Pool 3 Virtual Ethernet 135GB OS Pool * See Note WVSDBM1-01	FM Sophos Message Relay Virtual Environment 1 Virtual CPU 4GB Memory Pool 2 Virtual Ethernet 73GB Disk Pool * See Note WVSSMR01
	IGT Global Catalog Virtual Environment 1 Virtual CPU Min 4GB Memory Pool 2 Virtual Ethernet 100GB Disk Pool * See Note USWVGC01	IGT Admin Virtual Environment 1 Virtual CPU Min 4GB Memory Pool 2 Virtual Ethernet 100GB OS Disk Pool * See Note USWVADMIN01	VirtualCenter Appliance Virtual Environment 2 Virtual CPUs 8GB Memory Pool 2 Virtual Ethernet 125GB Disk Pool * See Note WVSVIRCNT01	Tableau Model-1 Virtual Environment 6 Virtual CPUs 48GB Memory 1 Virtual Ethernet 150GB Disk Pool * See Note WVSTABM1-01				

* **NOTE:** Additional System architecture information is trade secret and/or highly sensitive security information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize the security and integrity of the System, and public disclosure of this information is not in the best interest of the Lottery or the State of West Virginia.

ESX Server								
Lenovo System x3650 M5 (2) Xeon 12C E5-2650 V4 24 PCPUs, 48 LCPUs 2.2GHz CPU 256GB Memory (12)-Ethernet	Aurora Transaction Eng M2 Virtual Environment 2 Virtual CPUs 8GB Memory Pool 4 Virtual Ethernet 1,282GB Disk Pool * See Note	Aurora Connect Virtual Environment 1 Virtual CPU 4GB Memory Pool 3 Virtual Ethernet 135GB Disk Pool * See Note	Aurora Navigator Static Proxy Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 90GB Disk Pool * See Note	Aurora Navigator Static Content Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 90GB Disk Pool * See Note	Aurora Navigator Proxy Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 90GB Disk Pool * See Note	Aurora Navigator App Virtual Environment 2 Virtual CPUs 8GB Memory Pool 2 Virtual Ethernet 90GB Disk Pool * See Note	Aurora Solr Virtual Environment 2 Virtual CPUs 8GB Memory Pool 2 Virtual Ethernet 90GB Disk Pool * See Note	Aurora Zookeeper Virtual Environment 2 Virtual CPUs 2GB Memory Pool 2 Virtual Ethernet 90GB Disk Pool * See Note
WVSVSM1E-002	WVSARTEM2-02	WVSARC02	WVSARNSCP02	WVSARNSC02	WVSARNP02	WVSARNAPP02	WVSARFTS02	WVSARCD02
	Performance Intel App Virtual Environment 4 Virtual CPUs 32GB Memory Pool 1 Virtual Ethernet 535GB Disk Pool * See Note	SFTPD Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 155GB Disk Pool * See Note	Database Model-1 Virtual Environment 2 Virtual CPUs 8GB Memory Pool 3 Virtual Ethernet 135GB OS Pool * See Note	Report Data Store Combined Virtual Environment 8 Virtual CPUs 64GB Memory Pool 2 Virtual Ethernet 9.4TB Disk Pool * See Note	ETL Client Virtual Environment 1 Virtual CPU 4GB Memory 1 Virtual Ethernet 72GB Disk Pool * See Note	Tivoli Systems Monitoring Virtual Environment 2 Virtual CPUs 8GB Memory Pool 2 Virtual Ethernet 135GB OS Pool * See Note	Aurora Automation Virtual Environment 2 Virtual CPUs 6GB Memory Pool 1 Virtual Ethernet 72GB Disk Pool * See Note	DHCP Virtual Environment 1 Virtual CPU 1GB Memory Pool 2 Virtual Ethernet 10GB Disk Pool * See Note
	WVSARPIAPP02	WVSSFTPD01	WVSDBM1-02	WVSRDSCM3-01	WVSETL01	WVSTIVOLI01	WVSARAUT01	WVSDHCP01
	RH Satellite Mng Proxy Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 200GB Total Disk Pool * See Note	Puppet Virtual Environment 1 Virtual CPU 2GB Memory Pool 1 Virtual Ethernet 50GB Disk Pool * See Note						
	WVSRHNP01	WVSCFGMGT01						

NOTE: Additional System architecture information is trade secret and/or highly sensitive security information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize the security and integrity of the System, and public disclosure of this information is not in the best interest of the Lottery or the State of West Virginia.

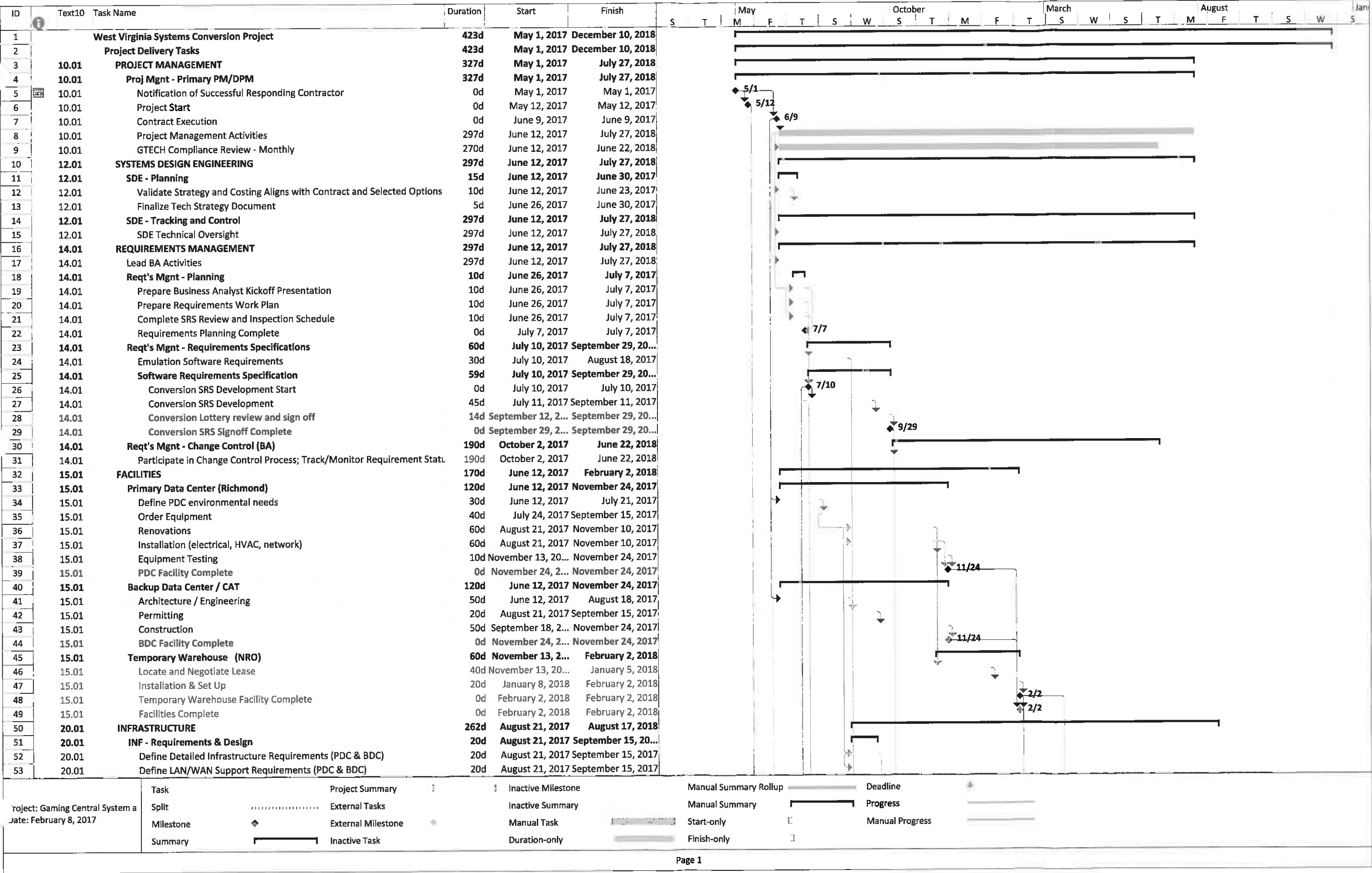
<div>Operations PC</div> <div>DELL OptiPlex 7040 SFF BTX (DELLOPS) Core i5-6500, Q/C, 3.2GHz 8GB,Non-ECC,2133MHz DDR4 500GB Serial ATA 8X DVD+/-RW 1-Ethernet Dell P2213 23" Monitor Dell USB KB</div> <div>* See Note</div> <div>WVSOPS (4)</div>	<div>Aurora GUARD (Lottery)</div> <div>DELL OptiPlex 7040 SFF BTX (DELLGGUARD) Core i5-6500, Q/C, 3.2GHz 8GB,Non-ECC,2133MHz DDR4 500GB Serial ATA 8X DVD+/-RW 1-Ethernet Dell P2213 23" Monitor Dell USB KB</div> <div>Windows® 10 Professional Sophos Endpoint Latest Ver</div> <div>WVSARGUARD01</div>	<div>KVM</div> <div>All servers are connected to the IBM Enhanced Media Console - KVM console With DVD-Writer</div> <div>All Cabinets are Lenovo NetBAY42 Enterprise Cab</div> <div>WVSKVM01</div>	<div>IGT Gateway</div> <div>Lenovo System x 3550 M5 (1) Xeon 8/C E5-2609 V4 1.7GHz CPU 64GB Memory 8-Ethernets (2) 500GB NL-SAS Disks</div> <div>* See Note</div> <div>WVSIGTGW01</div>	<div>Utility Server</div> <div>Lenovo System x 3550 M5 (1) Xeon 8/C E5-2609 V4 1.7GHz CPU 64GB Memory 8-Ethernets (2) 500GB NL-SAS Disks</div> <div>* See Note</div> <div>WVSUTL01</div>	<div>Site NetBackup 1TB</div> <div>Lenovo System x 3650 M5 (1) Xeon 10/C E5-2640 V4 2.4GHz CPU 64GB Memory 4-Ethernets (9) 1,000GB NL SAS Disks</div> <div>* See Note</div> <div>WVSNETBCKM1-01</div>	<div>Tape Library Model-1</div> <div>IBM TS3100 Tape Library 2-LTO5 SAS Tape Drives 24 Data Cartridges 1 I/O Slot</div> <div>LTO5 SAS Drive</div> <div>LTO5 SAS Drive</div> <div>WVSTAPEM1-01</div>	<div>GPS Time Server</div> <div>Masterclock GMR1000 GMR-GPS-Stnd GMR-HSO1</div> <div>WVSNTSM1-01</div>
<div>ICS ELSYM</div> <div>IBM System x 3550 M5 (1) Xeon 10/C E5-2640 V4 2.4GHz CPU 64GB Memory 4-Ethernets (5) 2TB NL-SAS Disks</div> <div>W2K12 R2 Std (64-Bit) MSM Storage Man</div> <div>WVSICSE01</div>	<div>ICS ELSYM</div> <div>IBM System x 3550 M5 (1) Xeon 10/C E5-2640 V4 2.4GHz CPU 64GB Memory 4-Ethernets (5) 2TB NL-SAS Disks</div> <div>W2K12 R2 Std (64-Bit) MSM Storage Man</div> <div>WVSICSE02</div>	<div>ICS ELSYM</div> <div>IBM System x 3550 M5 (1) Xeon 10/C E5-2640 V4 2.4GHz CPU 64GB Memory 4-Ethernets (5) 2TB NL-SAS Disks</div> <div>W2K12 R2 Std (64-Bit) MSM Storage Man</div> <div>WVSICSE03</div>	<div>Pick & Pack (Warehouse)</div> <div>DELL OptiPlex 7040 SFF BTX (DELLPNP) Core i5-6500, Q/C, 3.2GHz 8GB,Non-ECC,2133MHz DDR4 500GB Serial ATA 8X DVD+/-RW 1-Ethernet Dell P2213 23" Monitor Dell USB KB Windows® 10 Professional Sophos Endpoint Latest Ver IE</div> <div>Manifest Printer EPL Zebra ZM400 w Cutter</div> <div>Label Printer EPL Zebra ZM400 no Cutter</div> <div>WVSPNP (3)</div>	<div>Check Writer (Claim Center)</div> <div>DELL OptiPlex 7040 SFF BTX (DELLCHECK) Core i5-6500, Q/C, 3.2GHz 8GB,Non-ECC,2133MHz DDR4 500GB Serial ATA 8X DVD+/-RW 1-Ethernet Dell P2213 23" Monitor Dell USB KB</div> <div>* See Note</div> <div>WVSCHECK (3)</div>	<div>Aurora Zookeeper</div> <div>IBM System x3250 M6 (1) Xeon Q/C E3-1240 v5 3.5GHz CPU 16GB Memory 4-Ethernets (2 Integrated + PCI) (2) 600GB SAS Disks Multi-Burner</div> <div>* See Note</div> <div>WVSARCD53</div>	<div>Aurora Flexdraw</div> <div>IBM System x3250 M6 (1) Xeon Q/C E3-1240 v5 3.5GHz CPU 16GB Memory 2-Ethernets (Integrated) (2) 600GB SAS Disks</div> <div>* See Note</div> <div>WVSARFD1</div>	<div>Aurora Flexdraw</div> <div>IBM System x3250 M6 (1) Xeon Q/C E3-1240 v5 3.5GHz CPU 16GB Memory 2-Ethernets (Integrated) (2) 600GB SAS Disks</div> <div>* See Note</div> <div>WVSARFD2</div>

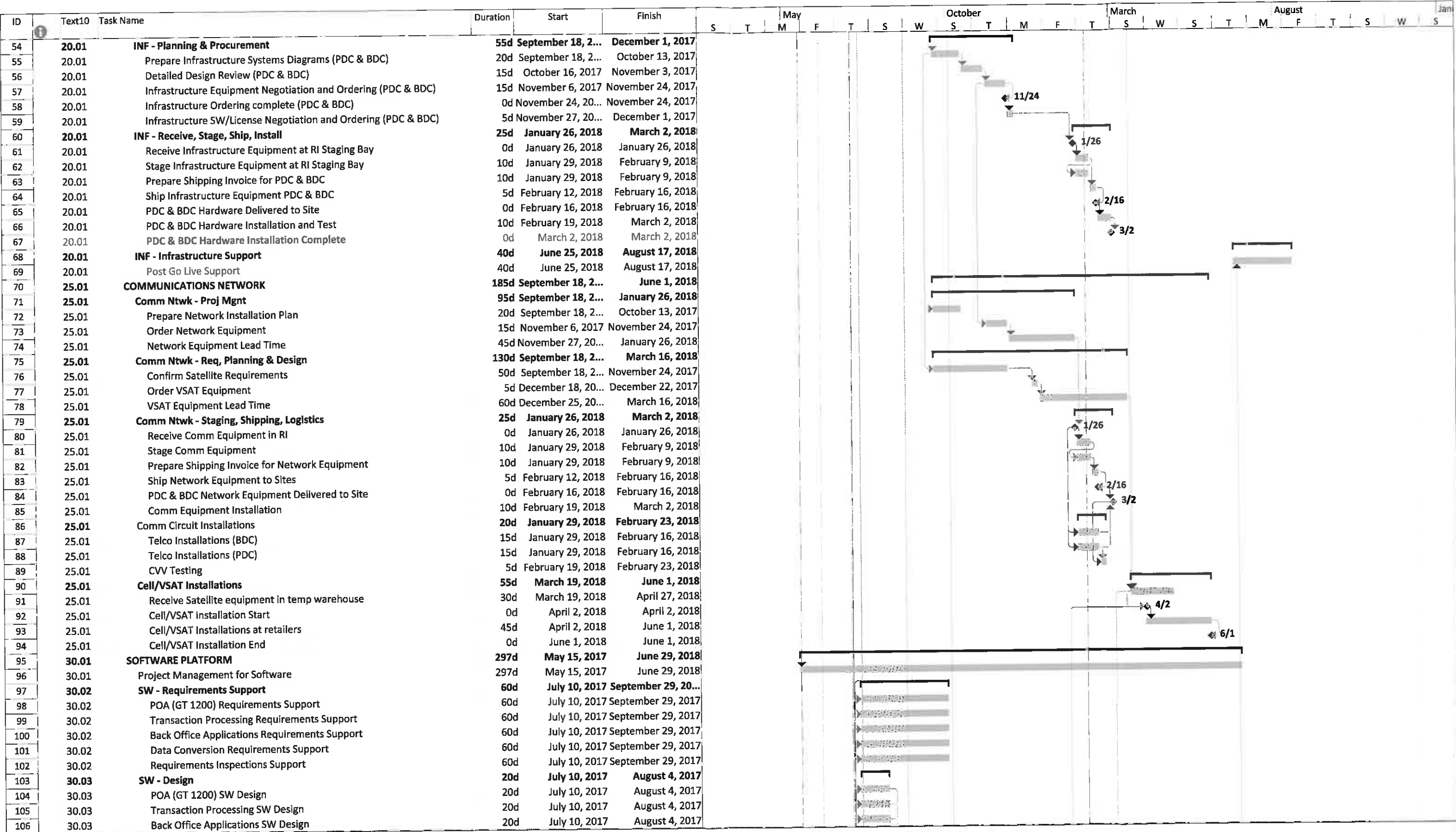
~ **NOTE:** Additional System architecture information is trade secret and/or highly sensitive security information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize the security and integrity of the System, and public disclosure of this information is not in the best interest of the Lottery or the State of West Virginia.

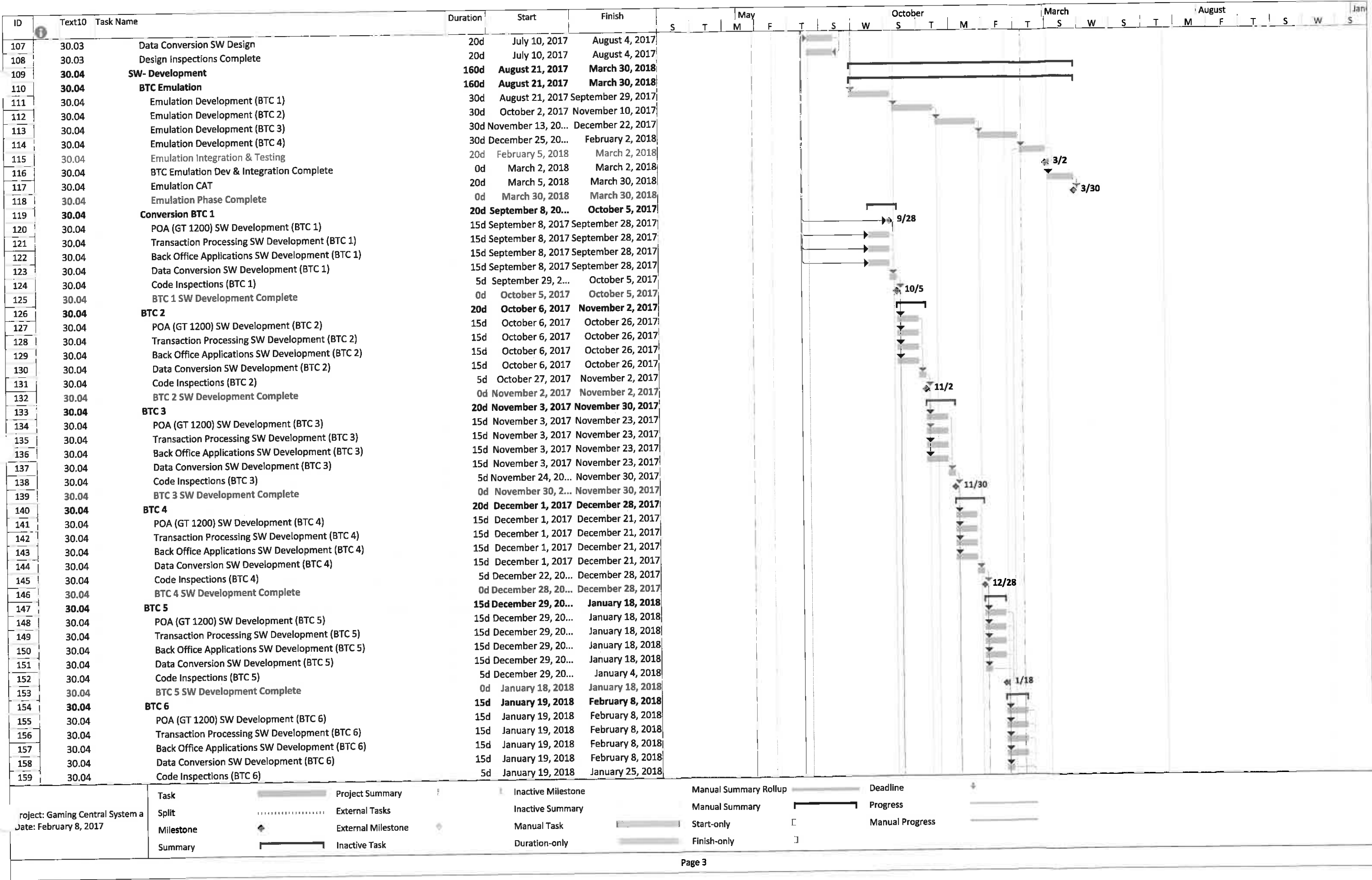
The following is a list of third party software employed in the Aurora system. IGT may deploy more recent versions at the time of implementation, if available.*

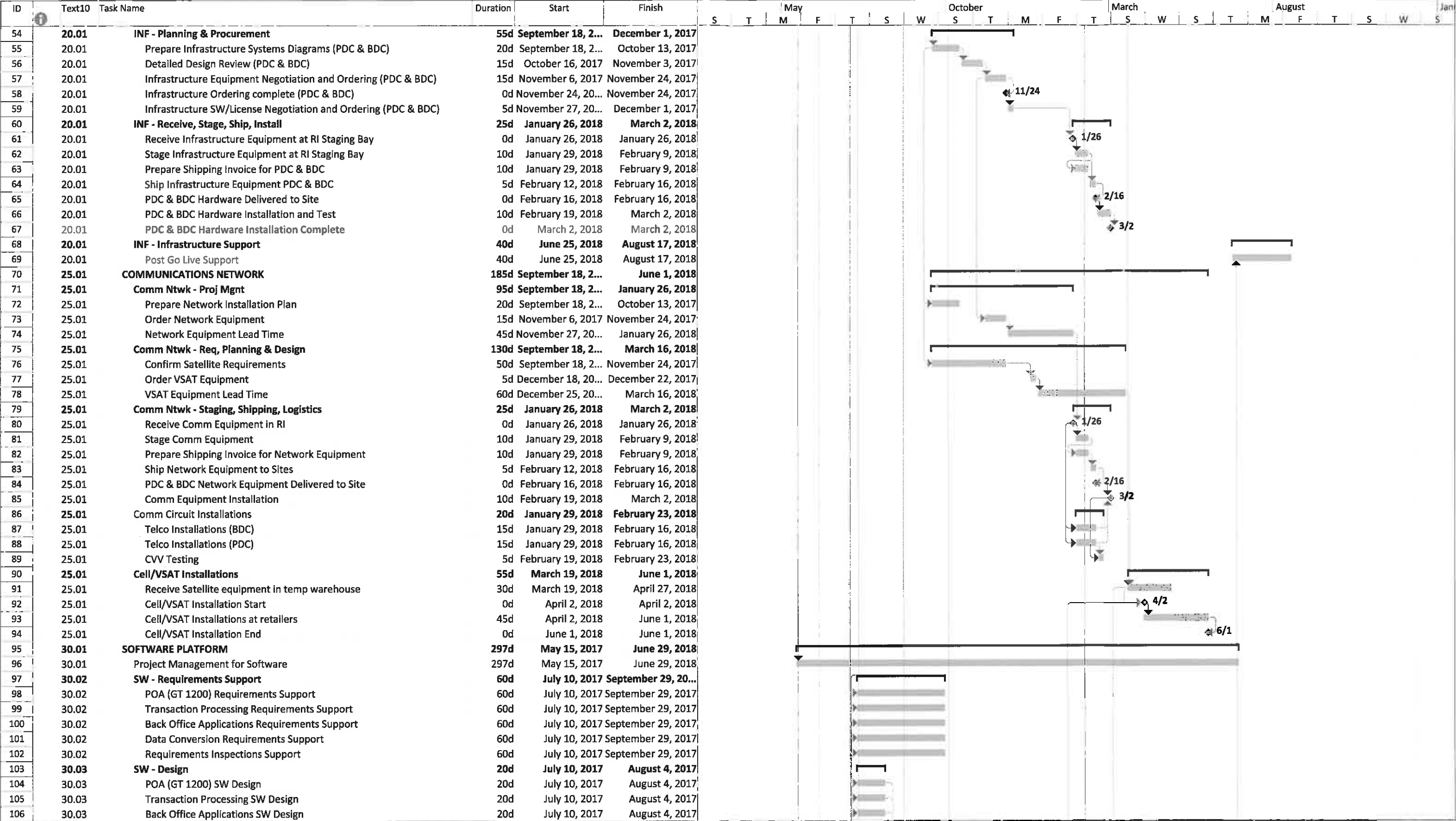
VMWare VCenter Appliance	6.0.3
IBM Redhat Enterprise Linux (64-Bit)	7.2
Windows Server 2K12 R2 Standard (64-Bit)	
IBM DB2 WSUE	10.5 FP7
IBM DB2 Client	10.5
IBM Java EE	7
Sophos Endpoint	Latest Ver
Redhat JBoss EAP	6.4
Apache HTTP OEM	2.2.26-38+
Zookeeper	3.4.9.
SAP Business Objects	XI R4.1
Tableau Server	10.x

*Note: Additional information regarding this Section is trade secret and/or highly sensitive security information that IGT can make available for review by the Lottery during the Oral Presentation and/or under a Non-Disclose Agreement (or similar), as disclosure of this information in the Proposal (and public disclosure of the same as noted in Sections 21 and 31 of the RFP) could severely jeopardize the security and integrity of the System, and public disclosure of this information is not in the best interest of the Lottery or the State of West Virginia.









Project: Gaming Central System a
Date: February 8, 2017

Task

Split

Milestone

Summary

Project Summary

External Tasks

External Milestone

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

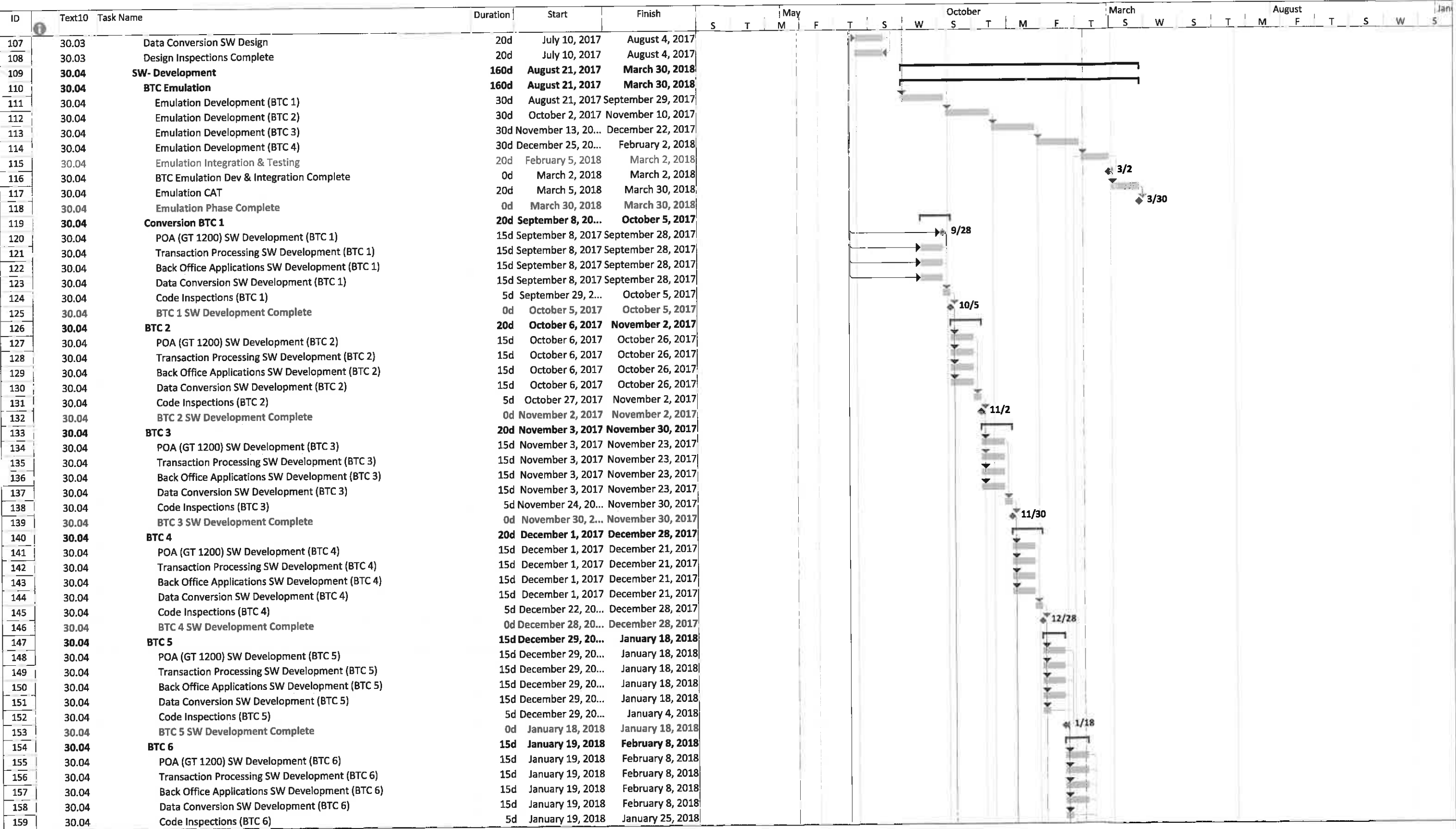
Start-only

Finish-only

Deadline

Progress

Manual Progress



Project: Gaming Central System a
Date: February 8, 2017

Task

Split

Milestone

Summary

Project Summary

External Tasks

External Milestone

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

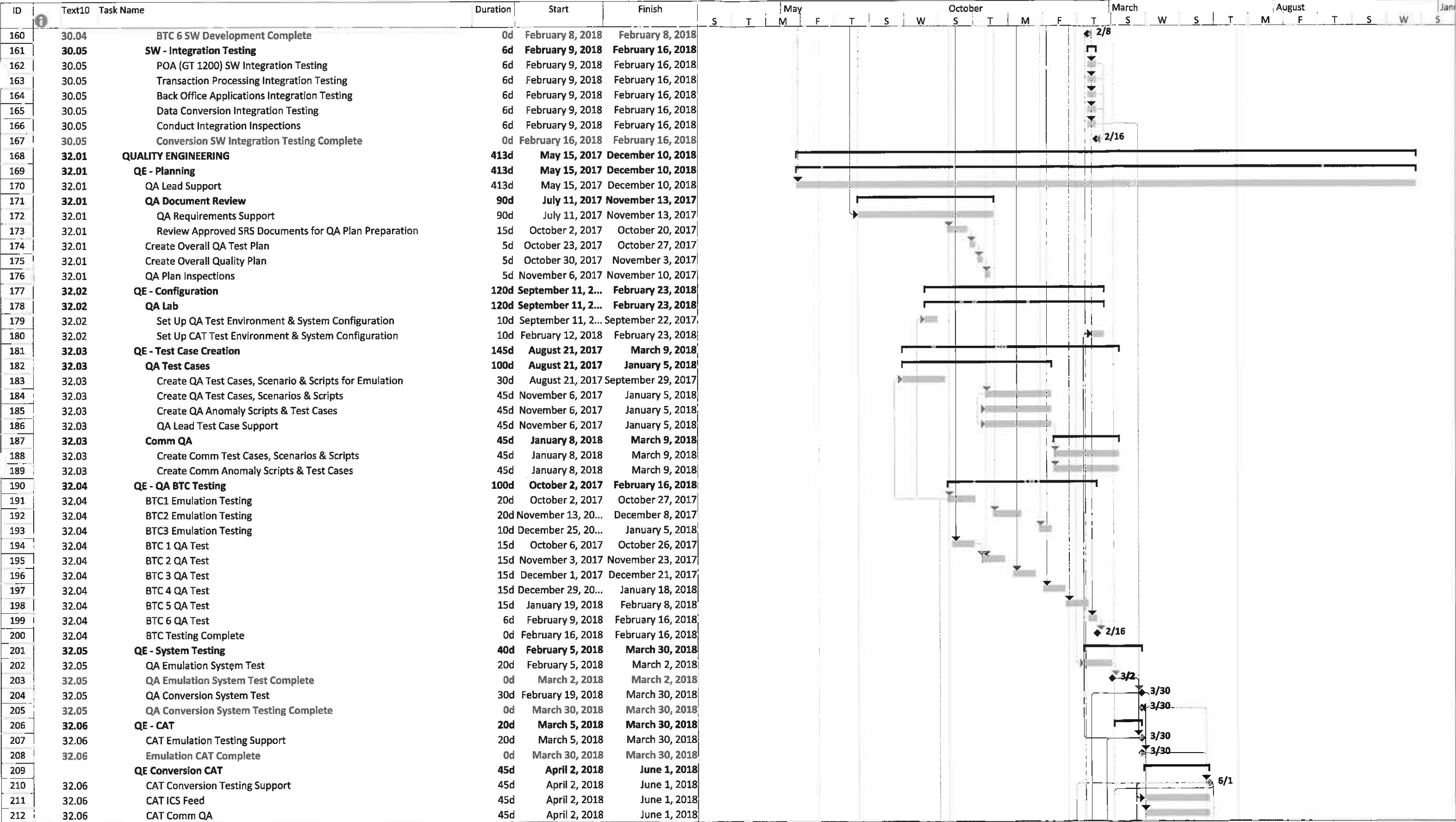
Start-only

Finish-only

Deadline

Progress

Manual Progress



Project: Gaming Central System a
Date: February 8, 2017

Task

Split

Milestone

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Project Summary

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Manual Summary

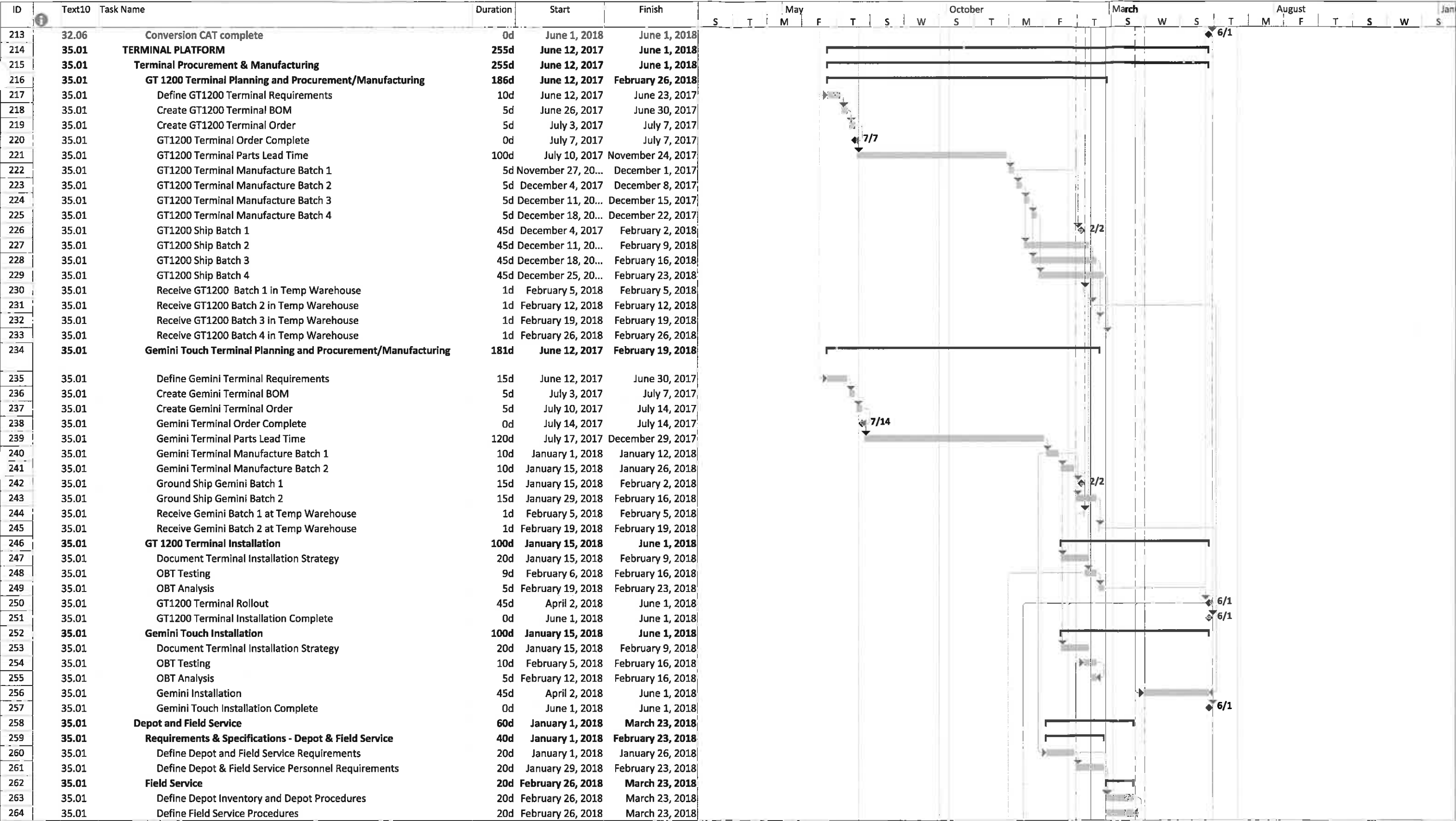
Start-only

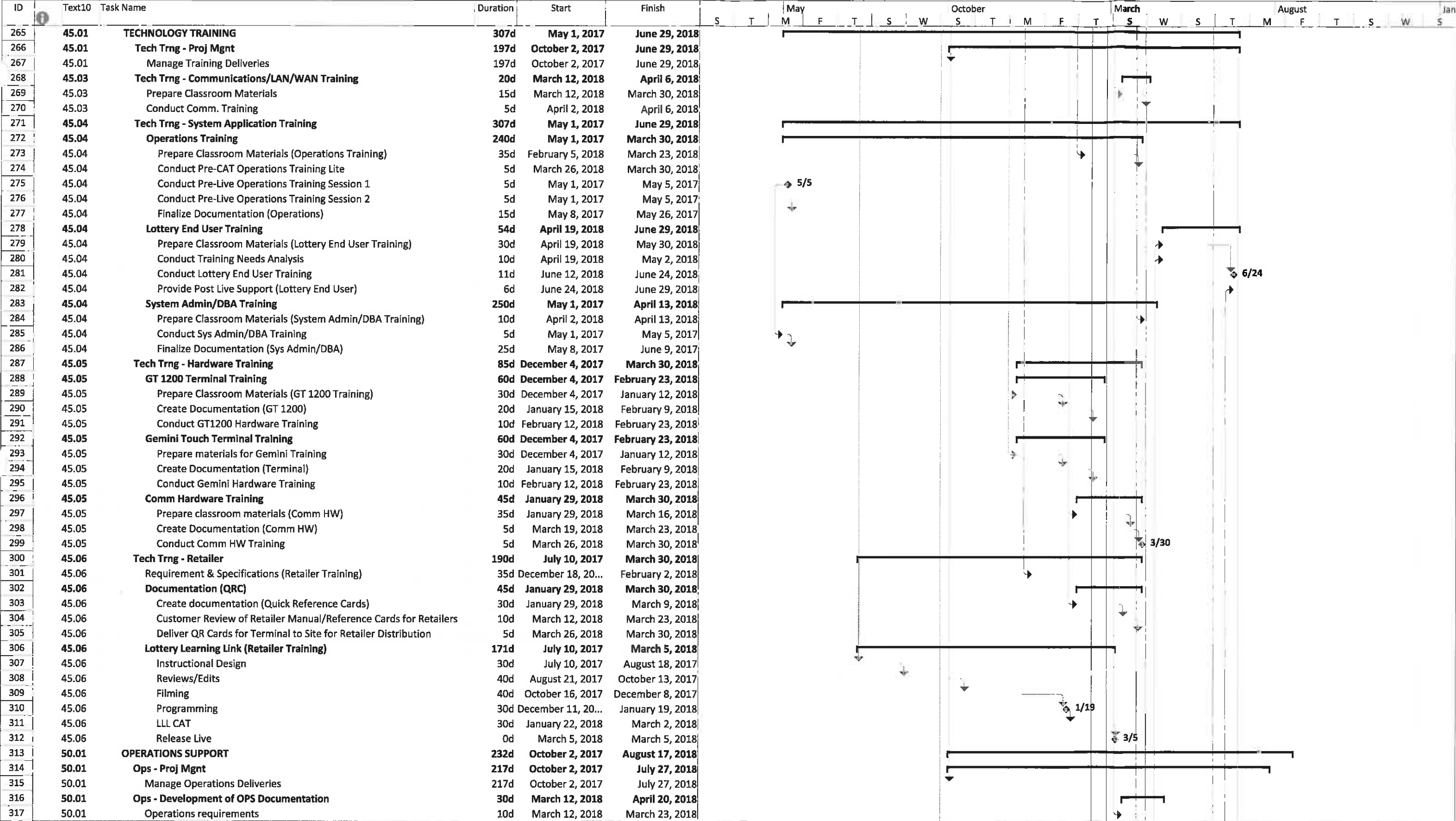
Finish-only

Deadline

Progress

Manual Progress





Project: Gaming Central System a
Date: February 8, 2017

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Manual Summary Rollup

Manual Summary

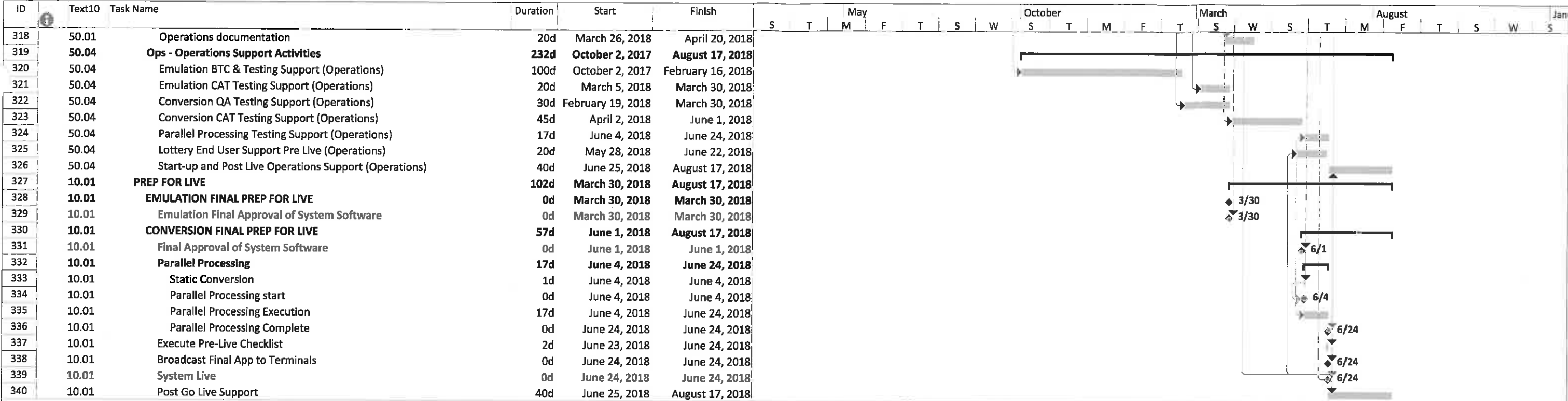
Start-only

Finish-only

Deadline

Progress

Manual Progress



Project: Gaming Central System a Date: February 8, 2017	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
	Split		External Tasks		Inactive Summary		Manual Summary		Progress	
	Milestone		External Milestone		Manual Task		Start-only		Manual Progress	
	Summary		Inactive Task		Duration-only		Finish-only			

North American Customer Summary List

Jurisdiction	Name of Lottery	Address, Telephone, and Contact Person	Customer Since	Type of Contract	Scope of Work Performed	Term of the Contract Including Effective Dates		
						Contract Start Date	Current Expiration	Contract Term
California	California State Lottery	Hugo López Lottery Director hlopez@calottery.com (916) 822-8108 http://www.calottery.com 700 North 10th Street Sacramento, California 95811	1985	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	10/14/2003	10/13/2019	16.0 years
Colorado	Colorado Lottery	Laura Solano Director laura.solano@state.co.us (719) 546-5327 http://www.coloradolottery.com 225 N Main Street Pueblo, CO 81003	2013	Online Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	1/17/2014	7/10/2021	7.5 years
Florida	Florida Lottery	Tom Delacenserie Secretary delacenserie@flalottery.com (850) 487-7728 http://www.flalottery.com 250 Marriott Drive Tallahassee, Florida 32399	2003	Online Lottery - FM (Current)	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	1/31/2005	3/28/2017	12.2 years
				Online Lottery - FM (New)	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	10/30/2017	4/6/2031	13.4 years
Georgia	Georgia Lottery Corporation	Debbie D. Alford President & CEO dalford@galottery.org (404) 215-5020 www.galottery.com 250 Williams Street, Suite 3000 Atlanta, Georgia 30303	1993	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center, Interactive	9/4/2003	9/11/2025	22.0 years
Illinois	Illinois Lottery	Gregory Smith Acting Lottery Director gregory.smith@illinois.gov (312) 793-3030 http://www.illinoislottery.com 122 South Michigan Avenue, 19th Floor Chicago, Illinois 60603	1989	Online Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	6/30/2011	6/30/2021	10.0 years
Indiana	Hoosier Lottery	Sarah Taylor Executive Director staylor@hoosierlottery.in.gov (317) 264-4800 http://www.hoosierlottery.com Buick bld, 1302 North Meridian Street Indianapolis, Indiana 46202	1989	Privatization	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	3/31/2014	6/30/2028	14.3 years

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Jurisdiction	Name of Lottery	Address, Telephone, and Contact Person	Customer Since	Type of Contract	Scope of Work Performed	Term of the Contract Including Effective Dates		
						Contract Start Date	Current Expiration	Contract Term
Kansas	Kansas Lottery	Terry Presta Executive Director terry.presta@kslottery.net (785) 249-5729 http://www.kslottery.net 108 N. Kansas Avenue Topeka, Kansas 66603	1988	Online Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	7/1/2008	6/30/2018	10.0 years
Kentucky	Kentucky Lottery Corporation	Margaret Gibbs Acting President & CEO margaret.gibbs@kylottery.com (502) 560-1552 http://kylottery.com 1011 West Main Street Louisville, Kentucky 40202	1989	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	7/10/2011	7/9/2021	10.0 years
Massachusetts	Massachusetts State Lottery Commission	Michael Sweeney Interim Executive Director msweeney@masslottery.com (781) 849-5600 http://masslottery.com 60 Columbian Street Braintree, Massachusetts 02184	1996	Online Lottery PS	Software Maintenance, Spare Parts, and Repair Services	6/30/2009	10/31/2017	8.3 years
Michigan	Michigan Lottery	M. Scott Bowen Commissioner (outgoing) bowens1@michigan.gov (517) 335-5608 http://www.michigan.gov/lottery 101 E. Hillsdale Lansing, Michigan 48909	1988	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	1/20/2009	1/19/2021	12.0 years
Minnesota	Minnesota State Lottery	Michael Vekich Interim Executive Director Mike_V@mnlottery.com (651) 635-8210 http://www.mnlottery.com 2645 Long Lake Road Roseville, Minnesota 55113	2003	Online Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	5/15/2016	11/12/2023	7.5 years
Missouri	Missouri Lottery	May Scheve Reardon Executive Director may.scheve@molottery.com (573) 751-7551 http://www.molottery.com 1823 Southridge Dr., Jefferson City, Missouri 65109	1992	Online Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	7/1/2015	6/30/2022	7.0 years

North American Customer Summary List

Jurisdiction	Name of Lottery	Address, Telephone, and Contact Person	Customer Since	Type of Contract	Scope of Work Performed	Term of the Contract Including Effective Dates		
						Contract Start Date	Current Expiration	Contract Term
Nebraska	Nebraska Lottery	Brian Rockey Acting Director brian.rockey@nebraska.gov (402) 471-6122 http://www.nelottery.com 1800 O Street, Suite. 101 Lincoln, Nebraska 68508-8901	1994	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	6/26/2011	6/30/2021	10.0 years
New Jersey	New Jersey Lottery	Carole Hedinger Executive Director carole.hedinger@lottery.state.nj.us (609) 599-5900 http://www.njlottery.com One Lawrence Park Complex, Brunswick Avenue Circle, Lawrenceville, New Jersey 08648	1984	Privatization	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	10/1/2013	6/29/2029	15.8 years
New York	New York Lottery	Robert Williams Executive Director, Gaming robert.williams@gaming.ny.gov (518) 388-3352 http://www.nylottery.org One Broadway Center, P.O. Box 7500, Schenectady, New York 12301	1986	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	8/1/2010	8/5/2017	7.0 years
North Carolina	North Carolina Education Lottery	Alice Garland Executive Director alice.garland@lotterync.net (919) 301-3600 www.nc-educationlottery.org 2100 Yonkers Road, Raleigh, North Carolina 27604	2006	Online/Instant Lottery - FM (Current)	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	3/30/2006	3/30/2017	11.0 years
				Online Lottery - FM (New)	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	4/1/2017	6/30/2027	10.3 years
Oregon	Oregon Lottery	Barry Pack Interim Director Barry.g.Pack@state.or.us (503) 540-1017 http://www.oregonlottery.org 500 Airport Rd. SE, Salem, Oregon 97301	1985	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	11/23/2008	11/30/2020	12.0 years
Rhode Island	Rhode Island Lottery	Gerald Aubin Director gaubin@rilot.ri.gov (401) 463-6500 http://www.rilot.com 1425 Pontiac Avenue, Cranston, Rhode Island 02920	1978	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	7/1/2003	6/30/2023	20.0 years

North American Customer Summary List

Jurisdiction	Name of Lottery	Address, Telephone, and Contact Person	Customer Since	Type of Contract	Scope of Work Performed	Term of the Contract Including Effective Dates		
						Contract Start Date	Current Expiration	Contract Term
South Dakota	South Dakota Lottery	Norman Lingle Lottery Director norman.lingle@state.sd.us (605) 773-5785 http://www.sdlottery.org 711 East Wells Avenue, Pierre, South Dakota 57501	2009	Online Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	8/3/2009	8/1/2019	10.0 years
Tennessee	Tennessee Education Lottery Corporation	Rebecca Paul Hargrove President and CEO rebecca.p.hargrove@tnlottery.com (615) 324-6501 http://www.tnlottery.com/ One Century Place, 26 Century Blvd., Nashville, Tennessee 37214	2004	Online Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	7/18/2014	6/30/2022	8.0 years
Texas	Texas Lottery Commission	Gary Grief Executive Director gary.grief@lottery.state.tx.us (512) 344-5160 http://www.txlottery.org 611 East Sixth Street, Austin, Texas 78701	1992	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	9/1/2011	8/31/2026	15.0 years
Virginia	Virginia Lottery	Paula Otto Executive Lottery Director potto@valottery.com (804) 692-7100 http://www.valottery.com 900 East Main Street, Richmond, Virginia 23219	2000	Online/Instant Lottery - FM (Current)	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	10/27/2007	10/27/2017	10.0 years
				Online/Instant Lottery - FM (New)	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	10/27/2017	10/27/2024	7.0 years
Washington	Washington's Lottery	Bill Hanson Director bhanson@walottery.com (360) 664-4800 http://www.walottery.com 814 Fourth Avenue East, Olympia, Washington 98506	1995	Online/Instant Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	7/1/2016	6/30/2026	10.0 years

North American Customer Summary List

Jurisdiction	Name of Lottery	Address, Telephone, and Contact Person	Customer Since	Type of Contract	Scope of Work Performed	Term of the Contract Including Effective Dates		
						Contract Start Date	Current Expiration	Contract Term
West Virginia	West Virginia Lottery	Alan Larrick Director alarrick@wvlottery.com (304) 558-0500 http://www.wvlottery.com/ 900 Pennsylvania Ave, Charleston, West Virginia 25302	2009	Online/Instants Lottery - FM	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	6/28/2009	6/27/2018	9.0 years
Wisconsin	Wisconsin Lottery	Patricia Lashore Director patricia.lashore@revenue.wi.gov (608) 261-5247 http://www.wilottery.org P.O. Box 8941 or 2135 Rimrock Road, Madison, Wisconsin 53708	1988	Online Lottery - FM (Current)	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	6/27/2004	5/13/2017	12.9 years
				Online Lottery - FM (New)	Central System, Terminals, Online Services, Field Service, Call Center, Data Center	5/14/2017	5/14/2024	7.0 years
Canada	Loto-Quebec	Robert Ayotte President, Lottery Operations robert.ayotte@loto-quebec.com (514) 282-8000 https://loteries.lotoquebec.com 500 Sherbrooke St. W - 22nd Floor Montreal, Quebec H3A 3G6 Canada	1978	Product Sale	Terminals	8/13/2010	8/12/2016	6.0 years
Canada	Manitoba Lotteries Corporation	Winston Hodgins President hodginw@mlc.mb.ca (204) 987-2501 http://www.mbl.ca/ 830 Empress Street Winnipeg, Manitoba R3G 3H3 Canada	2007	Product Sale	Central System and Ongoing Services	7/23/2012	2/17/2018	5.6 years
Canada	Atlantic Lottery Corporation	Brent Scrimshaw President & CEO brent.scrimshaw@alc.ca +1 (506) 867-5800 https://www.alc.ca/ 922 Main Street Moncton, New Brunswick, E1C 8W6 Canada	1982	Product Sale	Terminals with Ongoing Services	11/9/2009	11/8/2018	9.0 years

North American Customer Summary List

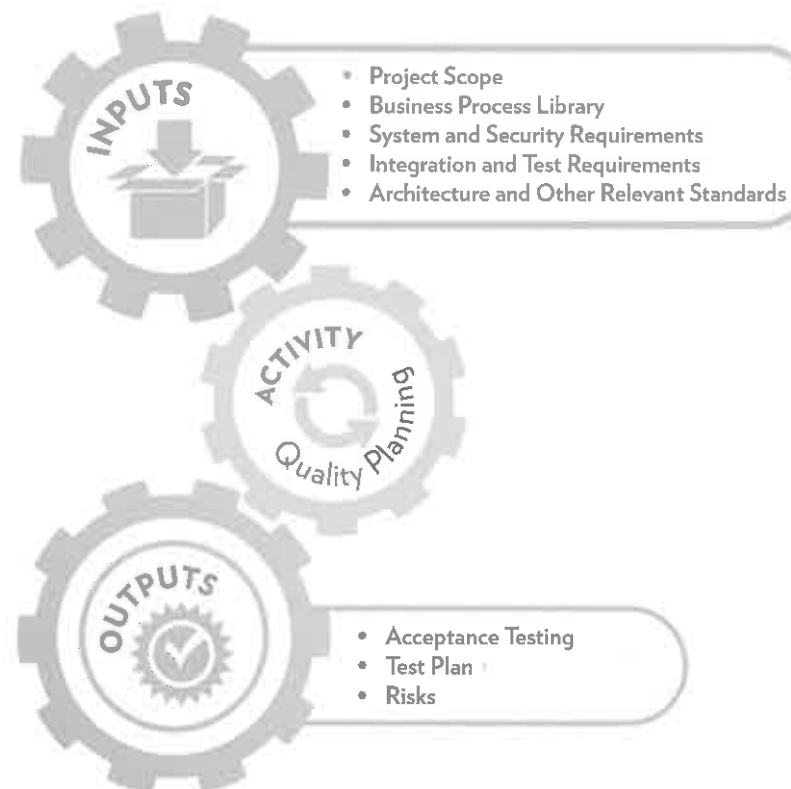
Jurisdiction	Name of Lottery	Address, Telephone, and Contact Person	Customer Since	Type of Contract	Scope of Work Performed	Term of the Contract Including Effective Dates		
						Contract Start Date	Current Expiration	Contract Term
Canada	British Columbia Lottery Corporation	Jim Lightbody President & CEO jlightbody@bclc.com (604) 228-3077 http://www.bclc.com/ 2940 Virtual Way Vancouver, BC V5M 0A6 Canada	1985	Product Sale	Central System and Ongoing Services	1/1/2012	1/1/2014	2.0 years
Canada	Western Canada Lottery Corporation	Dave Loeb President & CEO loebd@wclc.com (204) 942-8217 https://www.wclc.com/home.htm 125 Garry St, Winnipeg, MB R3C 4J1, Canada	1982	Product Sale	Central System and Ongoing Services	8/8/2012	12/2/2020	8.3 years
				Product Sale	Terminals with Ongoing Services	10/20/2015	12/31/2016	1.2 years

The PMBOK Model for Quality Management

IGT embraces the Project Management Institute's Project Management Body of Knowledge (PMBOK) model for quality management – a series of three repeatable processes that enable us to execute project quality-management activities in support of successful releases into production.

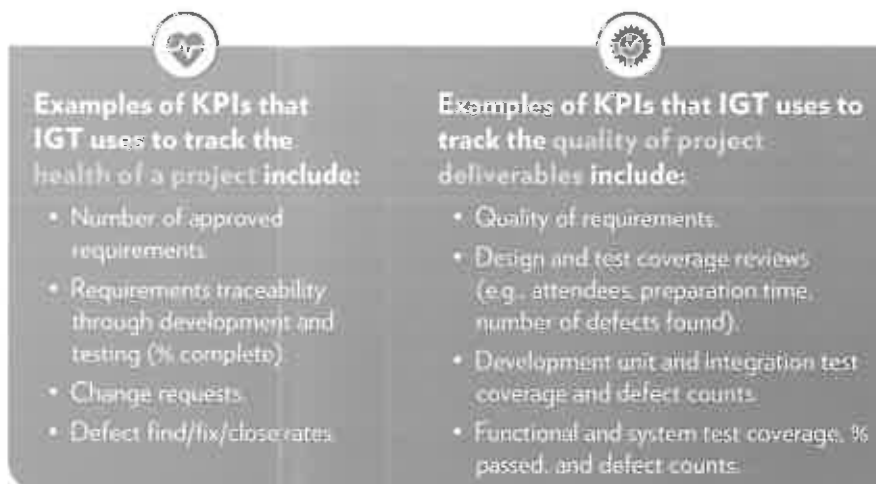
PROCESS 1: QUALITY PLANNING

Quality planning starts at the inception of the project. IGT subject matter experts assess the scope of the project and the quality standards required to meet your requirements and translate them into a plan of activities, tasks, resources, and control measures to ensure the proper conduct, oversight, and reporting of QA and QC activities.



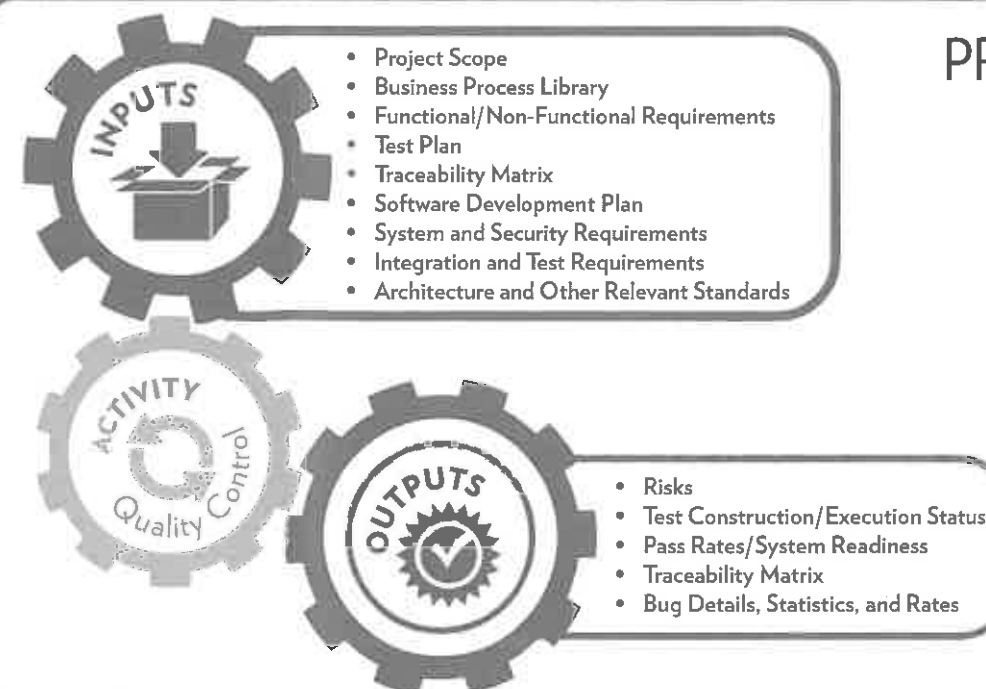
PROCESS 2: QUALITY ASSURANCE

We apply a structured approach to management information and status reporting to ensure QA transparency is provided to internal IGT management and Lottery personnel. This approach allows us collectively to continuously monitor the health and progress of the project and the quality of the deliverable as it progresses through requirements specification definition, design, development, and testing. QA activities occur throughout the project, allowing us to constantly monitor the current status of the project through Key Performance Indicators (KPIs) and metrics, re-assess risks, and make adjustments to the plan accordingly to ensure success.



PROCESS 3: QUALITY CONTROL

IGT's approach to QC and testing is designed from acceptance and drives backward through the different phases of the project. The reason for this approach is to stay focused on assessing the quality and status of our software deliveries from the end business user's perspective while maintaining the security, data integrity, and other essential system standards you've set forth. As the most experienced technology provider in the industry, we understand that one of our primary objectives is to provide technology that drives your business in the most efficient and effective manner possible. Establishing acceptance criteria and acceptance tests upfront allows us to collaborate with our customers to establish the proper expectations for acceptance, leaving no doubt that, once successfully achieved, all risks have been addressed before going live with the software.



Ashish Agarwal, PMP

Contract Title:

Software Project Manager

Contract Role:

Ashish will be responsible for planning, coordinating and leading the software development/implementation of the West Virginia Lottery's online and instant ticket gaming system. He will define the scope of time and effort to meet objectives, activities, and dependencies required for the software development and implementation while monitoring the overall progress and ensuring the software is delivered within specifications and on time, on budget, and to the Lottery's satisfaction.

Current IGT Title

Software Development Engineer

Professional Experience

Ashish has over 15 years of experience as a Software Project Manager for numerous technological system implementations. Most recently, Ashish was the Software Project Manager (SPM) for the Colombia Gaming System Upgrade and Terminal replacement, which is a multi-phase conversion project. This experience saw him coordinating with a multi-lingual, multi-geographical team to complete requirements in a timely fashion. He also managed software releases and coordinating deliverables across all departments and disciplines.

Before working with IGT, Ashish was Project Manager of a team at Meritor for the implementation of complete Application, Support & Maintenance (ASM) in managed service mode. While working with NBCUniversal, he again took on the role of Project Manager in the development and implementation of a strategic program to move from the current Support Central platform to a new user-friendly collaborative platform using multiple best of breed products such as SharePoint, Java, J2EE, Dropbox, Survey Monkey, Jive, Asana and Apian among others.

Education and Training

Ashish received a Bachelor of Technology degree in Electrical Engineering from the Institute of Engineering and Technology in Lucknow, India. He is also PMP-certified.

Employment History

IGT: Software Development Engineer	2014 – Present
Meritor: Project Manager	2014 – 2014
NBCUniversal: Project Manager	2013 – 2014
TBC Corp: Project Manager	2012 – 2013
Shopko: Project Manager	2009 - 2012
Housefull International Ltd.: Project Manager	2007 – 2009
Heritage Foods Ltd.: Onsite Coordinator	2005 – 2007

Celestina Alessio

Contract Title:

Quality Assurance (QA) Lead

Contract Role:

Celestina will be responsible for managing the day-to-day operations of the test engineering team and its interactions with the project team and vendors to ensure the project deliverables are complete, of the highest quality, compliant with internal standards, and consistent with the West Virginia Lottery's expectations. She will be responsible for analyzing business requirements, estimating work activities, managing the tools and test systems, developing the test plan and test approach, managing test design and execution, tracking defects, and reporting test progress.

Current IGT Title

SQA Engineer Senior

Professional Experience

Celestina served as the QA Lead on the FDJ (France), Player Direct Product 4.2, and Indiana projects at IGT. As the QA Lead, she coordinated daily activities and provided leadership to the disbursed QA team, and coordinated the test planning, test case creation and execution for each testing phase and milestone on the projects. She also participated in the system and technical design walkthroughs, reviewed and discussed requirement specifications, usability documents, and analysis and design documents. She worked closely with the Business Analyst (BA) and developer leads to determine and manage the test data needed for each test scenario, and with the Software Project Manager and Program Manager to plan and schedule each major, minor, emergency and in between releases. Celestina also plans and assists Customer Acceptance Test (CAT), manages the defect management for all release, and interacts with all levels of the project lifecycle team.

Celestina has been a QA Team Lead/QA Project Manager leading multiple projects at many different companies prior to joining IGT. She was also a Senior Programmer Analyst for 13 years out of her nearly 30 year IT career.

Education and Training

Celestina received an A.S. Data Processing degree from Thames Valley State Technical College, now called Three Rivers Community College, in Norwich, Connecticut. She is a member of the Lambda Beta Chapter of Tau Alpha Pi, National Honor Society. She also holds certifications from HP Quality Center.

Employment History

IGT	2011 – Present
SQA Engineer Senior	
Ford Motor Company (MGL) Dearborn MI	2004 - 2011
QA Team Lead/QC Project Manager	

Shane Durham

Contract Title:

Database Administrator

Contract Role:

Shane's primary goal is to ensure that the Data Warehouse contains the proper level of data granularity in a user friendly way, provide high-level support and assistance to the reporting solution, and make sure all reports meet the needs of the West Virginia Lottery.

Current IGT Title

Database Administrator

Professional Experience

Shane has been with IGT for over five years and currently provides support to the Lottery relating to the Business Objects Reporting Solution. This includes creating and editing reports, troubleshooting and resolving issues with database universes, tables and data. Shane also provides support in Extraction, Transformation and Load (ETL) processing, ensuring that the ETL loads run on schedule and correctly Continuous Day Count (CDC) after Continuous Day Count (CDC). He works each year directly with the West Virginia Lottery Licensing Department to ensure a smooth licensing period for both the West Virginia Lottery and the retailer base of West Virginia. This includes, creating or editing renewal forms in Business Objects for the customer to be able to run one report for all retailer licenses. He also has created reports to help licensing from start to finish of the licensing period. He has also assisted in the development of Marketing Interface Files for the marketing team at the West Virginia Lottery.

Education and Training

Shane has a Bachelor of Science degree in Computer Engineering from West Virginia University Institute of Technology. He also has undergone Business Object and SQL training from IGT's Business Objects team in Lansing, Michigan.

Employment History

IGT:

Database Administrator

2010 – Present

Roger Ezzell

Contract Title:

Field Service and Warehouse Manager

Contract Role:

Roger is responsible for overseeing all lottery and gaming operations in the West Virginia market. This includes installation and maintenance of all hardware and ensuring all activities are performed in a professional, safe, and expeditious manner. He will follow implementation timelines and provide updates to the Lottery to make sure all Field Service activities exceed expectations and that concerns are addressed before issues arise.

Current IGT Title

Field Service and Warehouse Manager

Professional Experience

Roger has been a Field Service Manager with IGT for 12 years in multiple locations. He has led successful teams in New Mexico and Arizona before coming to West Virginia. Most recently, he led the conversion effort in Tennessee and participated in the system conversion projects in Michigan. Roger was an integral member of a Global Safety initiative reaching across the span of the U.S. for which he received the highly coveted Presidential Award,

In his current role, Roger leads 10 Field Service Technicians, three Gaming Service Technicians, and our warehouse staff. Along with this, he manages the West Virginia service fleet of 37 vehicles. He has fiscal accountability for all service activities within the state and he plays a key role in the planning, implementation, and execution of equipment and firmware upgrades in the field. He maintains a close relationship with the Lottery, responding immediately to all requests for information or concerns.

Roger had a very successful 22-year career in the United States Air Force as a Missile Systems Analyst prior to joining IGT.

Education and Training

Roger attended the Community College of the Air Force where he studied Electronic Engineering Technology. He also attended Minot State University in Minot, North Dakota, where he majored in psychology.

Minot State University, Minot ND, Psychology Major

Employment History

IGT:	2004 – Present
Field Service and Warehouse Manager	
Field Service Manager	
SPC Global Technologies:	1994 – 2001
Field Service Manager	
U.S. Service Manager	
Site Coordinator	
United States Air Force:	1973 – 1994

Pierre Gallant

Contract Title:

Lead Business Analyst (BA)

Contract Role:

Pierre will be responsible for overseeing the requirements elicitation and change control process from the West Virginia Lottery's project kickoff through system implementation and conversion. As the Lead Business Analyst (BA), he will supervise a team of BAs and act as the primary point of contact for issues regarding system requirements.

Current IGT Title

Senior Business Analyst

Professional Experience

Pierre has been a business analyst with IGT since 2008. He has lead BA teams on software delivery projects with the Minnesota Lottery and the Michigan Lottery and played a role in other project deliveries for the New York Lottery, Texas Lottery, *Française des Jeux* (France National Lottery), and *Mifal Hapayis* (Israel National Lottery). He has also worked on Player Direct (Subscription/Internet Wagering, Player Web Portal) deliveries for the New Jersey Lottery, Missouri Lottery, and the Georgia Lottery.

Before joining IGT, Pierre worked as a consultant with Axe-Ti Inc. His projects included working on the maintenance and improvement of a system used to manage health insurance beneficiaries, designing programs used to compile patient records coming from health care providers throughout the province of Quebec, and designing web applications used by government agents to assist health professionals. On these projects, Pierre gained valuable experience designing information system business solutions, communicating with clients to identify requirements, documenting system specifications, preparing and executing software tests, and assisting developers with conception and deployment of business applications.

Education and Training

Pierre obtained a Bachelor's in Applied Computer Sciences from the Université de Moncton in Moncton, New Brunswick, Canada. He also earned an Associate's certificate in Business Analysis from TwentyEight Strategy Execution, formerly ESI International, in 2010.

Employment History

IGT:	2008 – Present
Senior Business Analyst	
Business Analyst	
Axe-TI Inc.:	2006 – 2008
Systems Analyst	

Jeramie Gibson

Contract Title:

Business Analyst

Contract Role:

Jeramie's primary responsibilities will consist of creating and editing requirements documents during the course of a software batch, operating as the site liaison between the West Virginia Lottery and the local IGT team for software needs (Requests for Change), as well as maintenance of the JIRA database which documents requests for software and software changes from the Lottery related to host and hardware.

Current IGT Title

Business Analyst

Professional Experience

Jeramie currently serves as the on-site Business Analyst for the West Virginia Lottery project with specific emphasis on software requirements documentation and development, batch planning, Customer Acceptance Testing (CAT) and scheduling, and multimedia development and implementation. He is also responsible for the annual SOC1 audit. Over the course of his tenure, he has developed requirements for and helped to implement the following successful software changes/upgrades for the Lottery: SmartCount, Mega Millions, Marketing Interface Files, Powerball matrix change, Power Play and IPS Settlement, among others.

Prior to joining our West Virginia team, Jeramie was employed as a Computer Operator under a previous contract.

Training

Jeramie is a U.S. Army veteran of Operation Desert Storm. He has had extensive training in Process Modeling Management, Technology Solutions, IBM DOORS, Requirements Documentation and Process, Information Security, and Data Privacy.

Employment History

IGT:	2009 – Present
Business Analyst	
Scientific Games:	2006 – 2009
Computer Operator	

Gaurav Jain, PMP

Contract Title:

Project Manager

Contract Role:

Gaurav will have overall responsibility for the West Virginia Lottery's implementation, including acting as a primary IGT liaison with the Lottery. He will oversee planning and tracking throughout the execution of the project. He will define scope, activities, dependencies, and durations of tasks; develop the risk management plan; and manage the change control process to ensure that the project is completed on time, within budget, and to the Lottery's satisfaction.

Current IGT Title

Principal Project Manager

Professional Experience

A seasoned and certified Project Manager in IGT's Global Technology Solutions organization, Gaurav recently served as Project Manager for the implementation of the Minnesota Lottery's online lottery system, the Virginia Lottery's draw game lottery system, and the California Lottery's second-chance draw system, an entirely new product for that lottery's Internet and play-at-the-pump (Business-to-Business/B2B) channels. The project included extensive coordination with the company Linq3.

Prior to the California project, Gaurav managed implementation projects in Arizona, Florida, Missouri, Nebraska, Oregon, and Atlantic Canada where existing lottery systems, Point of Sale (POS) devices, and leased-line networks were converted to IGT's newest lottery platform, Altura® terminal model, and Very Small Aperture Technology (VSAT) satellite communications network. These implementations included not only the deployment of the VSAT network and POS devices but also data center build-outs at two locations and game and software development for both central systems and POS devices.

Gaurav has more than 20 years of experience in project/program management, sales and business development, applications development using complete Synchronous Data Link Control (SDLC) methodologies, customer relationship management, network and systems administration, as well as project management and Information Technology (IT) consulting. Gaurav leverages his considerable technical knowledge and project management skills to ensure quality deliveries.

Education and Training

Gaurav has an MBA and a Master of Science in Information Systems from Bryant University in Smithfield, Rhode Island. He received Project Management Professional (PMP) certification from the Project Management Institute. He is a certified Scrum Master, Microsoft Certified Technology Specialist (MCTS), and holds Information Technology Infrastructure Library (ITIL) Foundations certification.

Employment History

IGT:

Principal Project Manager

Senior Project Manager

2004 – Present

Dustin Larson

Contract Title:

Network Rollout Organization (NRO) Lead

Contract Role:

As the NRO Lead for the West Virginia conversion team, Dustin will manage the installations of the new Lottery Terminals, Peripherals, and Communications Equipment. He will be in charge of the daily management of the third-party vendors hired by IGT to install the communications network and Point of Sale (POS) equipment in all retail locations.

Current IGT Title

Technology Manager II

Professional Experience

Dustin has worked with the IGT Network Rollout Office (NRO) since 2003 in roles of increased responsibility. His jurisdictional conversion deployment experience includes the installations of more than 150,000 new lottery terminals and communications equipment to our customers in California, Minnesota, Wisconsin, Florida, Kansas, Missouri, North Carolina, Washington State, Kentucky, Ohio, Virginia, West Virginia, Michigan, New York, Texas, South Dakota, Colorado, Indiana as well as St. Croix, St. Thomas, and St. Johns. Dustin has also worked on international conversion projects for Mexico, Germany, Belgium, Antigua, Anguilla, St. Kitts, St. Martin, Nevis, Barbados, Guatemala, Trinidad and Tobago, Columbia and the Dominican Republic.

Education and Training

Dustin has the following VSAT (satellite)/radio certifications: Hughes Network Services, Spacenet/Gilat, MDS Radio, and AOTMP Silver Telecommunications Certification. He is working toward his Project Manager Professional (PMP) certification.

Employment History

IGT:	2003 – Present
Technology Manager II	
Senior Network Rollout Manager	
Field Service Supervisor	
North Central Satellite:	1997 – 2003
Telecommunications Project Manager	

Christopher D. Lawrence, PMP

Contract Title:

Training Project Manager (PM)

Contract Role:

Chris will be responsible for the planning and execution of the West Virginia Lottery's retailer and lottery staff training and all associated deliverables, including all training processes, personnel, documentation, issues, and risk management. He will manage all aspects of training for the duration of the project, act as a point of contact for the Lottery, and remain on the project for 45 days after conversion to provide trouble-shooting and training through conversion and the first monthly accounting cycle.

Current IGT Title

Training Project Manager (PM)

Professional Experience

Chris joined IGT in 2010 and has acted as a Training PM for the duration of his tenure. He has managed training for multiple projects during that period; most recently, he has acted as Training PM for the West Lotto, South Africa, and Colorado lottery implementation (conversion) projects. He has managed training for both online and draw game implementation projects and is familiar with all central system software, as well as all terminal and peripheral hardware, currently offered by IGT. As a Training PM, he manages all other training resources who develop, teach, or otherwise support the training delivered. Chris is also responsible for the management of all logistics regarding equipment and materials related to training deliveries. He will act as the point of contact for all training concerns, both within IGT and between IGT and the Lottery.

Prior to joining IGT, Christopher spent nine years as a senior training manager at EMC Corporation. He also has extensive experience as a systems architect and integration specialist.

Education and Training

Christopher has a BA in English from the University of Colorado. He also holds a Project Management Professional (PMP) Certification, a Six Sigma Master Black Belt Certification, ITIL Certification, and is a Microsoft Certified Systems Engineer (MCSE).

Employment History

IGT:	2010 – Present
Training Project Manager	
EMC Corporation:	2000 – 2009
Senior Training Manager	

Justin Lefebvre

Contract Title:

Infrastructure Project Manager (PM)

Contract Role:

As Infrastructure PM, Justin will manage the Infrastructure Team from contract award through the final and successful delivery of the Lottery's Aurora system. He will lead a team of Information Technology (IT), central system, and network professionals toward a seamless delivery of all network and infrastructure hardware and central system software, in accordance with planned delivery and installation schedules.

Current IGT Title

Infrastructure Project Manager (PM)

Professional Experience

Justin has been with IGT since 2002 in roles of increasing responsibility. Currently he serves as an Infrastructure PM, where he provides direction and management of technological aspects for our projects including: resource allocation, progress tracking, monitoring change control process, documentation, and on-time delivery within budget constraints for delivering a complex Information Technology (IT) and Network solution. He also helps with the procurement of proper IT and Networking hardware, and third party software and maintenance contracts to support system specific solutions for our customers.

In his prior role as a Tier 2 Operation Support Manager, Justin assisted operations management in the definition and analysis of assignments, change management, and project implementation. Justin also managed the Client Services Production Operations Support team for our United States customers, the Client Services Automation Team for our United States and International customers, change management for all primary data centers (PDCs) running out of the Data Center of the Americas (DCA), and served as the point of contact for project implementation into the DCA. As a Regional Operations Lead, he performed advanced-level troubleshooting of host systems, middleware servers, network devices, and server connectivity. He also analyzed and evaluated operational performance and processes pertaining to best practices in system/server performance, capacity, and processing, and the maintenance and monitoring of production environments.

Education and Training

Justin holds an Associate of Arts degree in Elementary Education/Special Education from the Community College of Rhode Island and an Associate of Science degree in Computer Information Systems from the New England Institute of Technology. He is also Instructor/Facilitator-certified by Langevin Learning Services and holds two Information Technology Infrastructure Library (ITIL) certifications in Foundations v3 and Service Capability: Operational Support and Analysis.

Employment History

IGT:

2002 – Present

Infrastructure Project Manager
Manager, Tier 2 Operations Support
Regional Operations Lead
Senior Operations Analyst
Technology Section Supervisor
Computer Operator

George Lonergan

Contract Title:

Communications Lead

Contract Role:

George will serve as the Account Team resource responsible for communications support. This role includes communications hardware staging and configuration, as well as termination of production Wide Area Network (WAN) circuits.

Current IGT Title

Principal Network Engineer

Professional Experience

George is currently a Principal Network Engineer at IGT. He joined the Company in 2003 as a Network Engineer and has been promoted to increasingly responsible positions. He brings more than 16 years of experience in the telecommunications field to this opportunity.

Following his work in wireless and wireline consulting, he has spent the last 13 years deploying lottery solutions for IGT, including for the Lottery during your last conversion in 2009. He has worked on various Internet Protocol (IP) lottery and video gaming deliveries, private-manager projects such as Illinois and Indiana, as well as other recent deployments in Colorado, Nebraska, and Michigan. While serving as the lead network engineer on various projects, George has supervised the telecommunications solution from conception through completion. WAN technologies that George has implemented in lottery networks include satellite, CDMA, GPRS/EDGE, spread-spectrum radio, narrowband radio, MPLS, frame relay, leased line, ATM, and dial.

Education and Training

George holds a B.S. in Aerospace Engineering from Boston University.

Employment History

IGT:	2003 – Present
Principal Network Engineer	
Senior Network Engineer	
Network Engineer	
Atlantic Western Consulting:	2001 – 2003
RF Design Engineer	
DMC Stratex Networks:	2000 – 2001
Senior Design Engineer	
Complus Consulting:	1998 – 2000
Special Projects Manager	
CAD Services Manager	
CAD Team Lead	
CAD Drafter	

Nikki Orcutt

Contract Title:

General Manager

Contract Role:

Nikki will be responsible for the overall management and direction of IGT's operations in West Virginia. With more than seven years of West Virginia Lottery experience, she and her staff will support the continued integrity of the Lottery and its successes. Nikki will manage the transition from conversion to ongoing operations by working closely with the Lottery, and with our Corporate IGT teams to ensure a seamless, risk-free conversion. She will also be responsible for the ongoing development of our current staff and the continued enhancement and revision of work processes and procedures to ensure open and timely execution and customer satisfaction.

Current IGT Title

Account Development Manager – West Virginia

Professional Experience

Since joining IGT in November 2015 as our Marketing Director of Game Development, Nikki has been responsible for the organization and implementation of IGT's FutureGame, with primary responsibility for the strategic alignment of innovative products across the Marketing and Portfolio Management teams. She has collaborated with other corporate lottery marketing functions to identify and support execution of same-store sales projects and initiatives across the U.S. In addition, she was responsible for the customization of IGT's "go-to-client" approach, as well as the extension of FutureGame integration with other product areas, including IGT Printing, non-U.S. jurisdictions, and third parties.

Prior to IGT, she worked for the West Virginia Lottery as Deputy Director of Marketing, where she managed the development, coordination, implementation, and sales of traditional instant ticket scratch-off and draw-based games. She wrote and created all executive-level and Lottery-wide communications, including speeches for the Lottery's Executive Staff, Lottery-related content management, and marketing and sales plans. Nikki also had primary oversight for all external relations activities, including Lottery industry committees and events, and management responsibility for approximately \$200 million of traditional Lottery revenue and an approximately \$5 million marketing budget.

Education and Training

Nikki holds a Bachelor's in Journalism and Public Relations and a minor in Sociology from The Ohio State University.

Employment History

IGT:	2015 – Present
Account Development Manager – West Virginia	
Marketing Director: Game Development	
West Virginia Lottery:	2008 – 2015
Deputy Director: Marketing	
Eli Lilly and Company:	2007 – 2008
Specialty Pharmaceutical Representative	
The Dow Chemical Company:	2001 – 2007
Public Affairs Leader: West Virginia Operations	
Corporate Communications Specialist	

Arthur (Art) Osborne

Contract Title:

West Virginia Hotline Supervisor

Contract Role:

Art is responsible for overseeing the daily operation of the Hotline call center in Charleston, West Virginia. He ensures that required service levels are exceeded and that customer service standards are met for each retailer call. He also ensures that Field Service Technicians (FSTs) are notified of equipment issues in a timely manner and that data and reports are available to identify any trends which may arise in the maintenance calls.

Current IGT Title

Call Center Supervisor

Professional Experience

Art has been with IGT in his current role for the last six years. Upon his arrival, he realized the potential for the West Virginia call center to become something more than a center that only services West Virginia's retailers. He lobbied IGT's National Response Center (NRC) to have equipment and seats installed to expand the Charleston location to take calls from all over the country. The center grew from a three-associate West Virginia-only call center to a 10 associate nationwide center, creating seven additional jobs in the State, while maintaining the West Virginia Lottery's requirement for their calls to be handled within the state. West Virginia retailers are given call priority within our Charleston location, which we will continue under the Lottery's new Contract.

The West Virginia Hotline has exceeded its Service Level goals for every month of the span of the contract. Art has ensured that there has been adequate phone coverage and associate training to make it through several system upgrades, Powerball and MegaMillions matrix changes, and a record Powerball jackpot in January 2016. His dedication ensured that West Virginia retailers received the help they required while providing excellent customer service in a timely matter. He also designed and implemented the NRC's Quality Assurance (QA) program, which trains all NRC associates to provide excellent customer service. A sample of each Hotline associate's calls are monitored and scored on a monthly basis. The associates are then coached and provided with additional training as needed.

Education and Training

Art's education includes: a bachelor's in Business Administration from Ohio Valley University, an associate's in Technology from Pierce College, a diploma from NIT in Network Administration, and a diploma from BB&T Banking School at Wake Forrest University. He also holds the CompTia A+ and Network + computer certifications.

Employment History

IGT: Call Center Supervisor	2010 – Present
BB&T Bank: Repossession Supervisor Collections Supervisor	2001 – 2010

Joseph (Joe) Payne

Contract Title:

Field Marketing and Sales Manager

Contract Role:

Joe will be responsible for managing the day-to-day operations for the Field Marketing and Sales staff. He will serve as a liaison to the West Virginia Lottery Deputy Director of Marketing, maintain service levels, provide retailer and chain account services, and bring best practices from other jurisdictions to the West Virginia Lottery. He will work with IGT's Retail Sales and Marketing Execution team to develop marketing and sales initiatives which will include game planning, game enhancements, promotions development, and analysis.

Current IGT Title

Field Marketing and Sales Manager

Professional Experience

Since December 2011, Joe has been IGT's Marketing Manager for the West Virginia Lottery, where he was responsible for managing a sales force of 16 Field Marketing Sales Reps (FMSRs) and a Sales Supervisor. He was recently promoted to Field Marketing and Sales Manager. He monitors and maintains service levels while incorporating best practice solutions for our FMSRs to utilize in the retailer sales environment. He serves as a liaison to the West Virginia Lottery Deputy Director of Marketing and other West Virginia Lottery Marketing staff members in order to provide support with retailer management, training, promotions and sales initiatives and strategies.

Previously, Joe was in multiple roles with WV Power Baseball, LLC, a minor league baseball organization, multi-million dollar baseball stadium, and community event centerpiece. In his time there, he worked in roles of increased responsibility as the Director of Operations, Director of Concessions, Assistant General Manager, General Manager and Vice President of Sales. His responsibilities in these roles included facility management, employee management, and sales and marketing.

Education and Training

Joe holds a BA in criminal justice from West Virginia State University. In addition, he earned an MS in health and physical education with an emphasis in sport management and marketing from Marshall University.

Employment History

IGT:	2011 – Present
Field Marketing and Sales Manager	
Marketing Manager	
WV Power Baseball, LLC:	2005 – 2011
Vice President of Sales	
General Manager	
Assistant General Manager	
Director of Concessions	
Director of Operations	

Tim Powers

Contract Title:

System Administrator

Contract Role:

Tim will be responsible for assisting in designing, planning, and implementing modifications to the network, system, and servers including security, access, and documentation. He will also provide technical assistance in identifying, evaluating, and developing systems and procedures as they relate to the network, servers, systems, and applications that are delivered.

Current IGT Title

System Administrator I

Professional Experience

Tim has 13 years of lottery industry experience with multiple vendors. He has been with our West Virginia team since 2009 in roles of increased responsibility. In his current role as a System Administrator, Tim is responsible for 24/7 proactive administration and operational support of the network, servers, and applications in the production and testing environments. He develops and maintains scripts for systems automation and maintenance tasks, provides server hardware and software support including installation, configuration and deployment, and provides PC hardware and software support for multiple users including installation, configuration, repair and deployment of desktop and laptop computers and peripherals.

Tim was the Site Project Lead for the West Virginia Lottery Headquarters Relocation in 2011 and the Backup Data Center (BDC) Relocation Project in 2015/2016.

Education and Training

Tim has a Diploma for Network Administration from the National Institute of Technology. He has additional training in Cisco ICND, Cisco PIX Firewalls, and Juniper networking as well as training for Shell Programming from Learning Tree International.

Employment History

IGT:	2009 – Present
System Administrator I	
LAN/WAN Administrator II	
LAN/WAN Administrator I	
Suddenlink Communications:	2008 – 2009
Network Engineer	
Scientific Games:	2002 – 2008
Network Administrator	

David Rannacher

Contract Title:

Facilities Manager

Contract Role:

David will manage the selection, leasing, and tenant improvements at all facilities for the West Virginia Lottery project including offices, warehousing, and lock-up facilities, as required by the account team and the Lottery.

David will execute this effort by teaming with landlords and contractors to deliver facility requirements on time and within budget.

Current IGT Title

Real Estate Manager

Professional Experience

David has more than 30 years of real estate, facilities management, and construction experience. His recent IGT projects include: managing the development of a 125,000 square-foot office and manufacturing facility in Amsterdam, Netherlands; managing the development of a 28,800 square-foot multi-use facility in Wisconsin that provides a consolidated solution for office, Tel/sell, repair depot, as well as instant scratch-off ticket and consumables distribution; and a 40,000 square-foot renovation project at one of IGT's Rhode Island facilities.

He has served in capacities of increasing responsibility at IGT, including Construction Project Coordinator and Facilities Manager, with responsibility for over 400,000 square feet of office, manufacturing and data center space. His hands-on approach drives the coordination efforts of internal and third-party teams from concept through completion. Prior to joining IGT, David worked as a self-employed contractor in the commercial construction industry, where he worked on commercial and residential construction projects.

Education and Training

David completed Facility Engineering Management classes at Johnson & Wales University.

Employment History

IGT:

Real Estate Manager

Facilities Manager

Construction Project Coordinator

1986 – Present

Kim Scholle

Contract Title:

Finance Lead

Contract Role:

Kim will lead the monthly forecast reviews, assist the appropriate teams in managing project budgets, and compile detailed variance analyses. She will also participate in the costing process for new business opportunities, prepare comparative analyses for cost reviews, and report the financial status on an executive level for projects in delivery.

Current IGT Title

Financial Analyst Specialist

Professional Experience

Kim has been with IGT since 2004 as a Financial Analyst Specialist within IGT's (formerly GTECH's) Global Technology Solutions Group. She is currently assigned to the Americas region and is the Finance Lead on the Colombia, Florida, Georgia, Missouri, North Carolina, Western Canada, and Wisconsin projects. She has been the Finance Lead for complex deliveries on projects such as private manager projects, United Kingdom conversion, Texas conversion, and Finland interactive and terminal conversion.

Kim has extensive experience as a Financial Analyst in Fortune 500 insurance industry, as well as the technology, manufacturing, construction, and service industries. Her positions prior to IGT honed her accounting skills and ability to compile and analyze financial data.

Education and Training

Kim has a B.S. in Accounting from the University of Maryland.

Employment History

IGT: Financial Analyst Specialist	2004 – Present
Chubb Specialty Insurance: Senior Financial Analyst – Team Lead	1999 – 2003
Konover Construction Corporation: Cost Accountant	1997 – 1998

Tim Snyder

Contract Title:

Operations Manager

Contract Role:

Tim will oversee all aspects of operational services for the Lottery's new Contract inclusive of Data Center operations, both Primary Data Center (PDC) and Backup Data Center (BDC), Systems Team operations, audits, and supporting project deliveries to meet the requirements of the Contract. He will serve as the point of contact for the Lottery, will work closely with the Lottery and the IGT project team during the conversion, and will continue as the liaison between the Lottery and the software delivery teams to insure a seamless flow of information during the life of the Contract. He will also act as liaison between the Lottery, Elsym, and all other third-party contractors.

Current IGT Title

Operations Manager

Professional Experience

Tim has worked closely with the West Virginia Lottery management and staff for nearly 17 years under multiple vendors and in different capacities. He understands the challenges the Lottery faces on a daily basis and works tirelessly to deliver results.

As our current Operations Manager, Tim has overseen the development, integration, and implementation of new software, the addition of new games, and the addition of new equipment from concept through testing and installation. He has regular meetings with Lottery management to scope changes and create timelines for equipment and software changes. During conversion, Tim will oversee the development of software on the new system, including the testing of all components as well as troubleshooting of any issues that may arise. He will also be managing facility operations including security (both physical and logical) and all environmental operations.

Tim managed the project that introduced the Mega Millions online game to West Virginia in 2010 and delivered multiple MUSL matrix changes to both Powerball and Mega Millions in subsequent years. Tim also managed and coordinated the project that successfully relocated the West Virginia Backup Data Center from Whitehall, WV to Bridgeport, WV in early 2016. This project was completed ahead of schedule and all backup systems were back online with 72 hours.

Education and Training

Tim studied Business Management at both Marshall University and West Virginia State University. Tim was selected and successfully completed the year-long IGT (then GTECH) *Global Leadership Development Program* in 2012. Tim also successfully completed the *Dale Carnegie "Skills for Success"* school in 2011 and received an Outstanding Performance Award. He has completed industry training in ITIL, ITSM and CMMI.

Employment History

IGT: Operations Manager	2009 – Present
Scientific Games: West Virginia Systems Administrator	2000 - 2009

Clarissa Gail Stroup

Contract Title:

Tel-Sell Supervisor

Contract Role:

Gail will supervise all aspects of the telemarketing department. She will view and analyze the actions of the telemarketing staff to ensure daily progress and performance goals are attained.

Current IGT Title

Tel-Sell Supervisor

Professional Experience

Gail has 25 years of experience in the lottery industry, all of which have been providing support to the West Virginia Lottery in different roles. She was an integral part of the last conversion in West Virginia in 2009 and will bring her knowledge and experience to the Lottery's new contract.

In her role as a Tel-Sell Supervisor, Gail is responsible for the direct supervision and training of the telemarketing staff. She views the performance of each individual team member and the team as a whole to ensure goals are accomplished. She coordinates the division of territories to make certain retailers are contacted on a weekly basis. Using the various reports and information available, Gail provides the telemarketing staff with the necessary tools to deliver the highest quality customer service to the West Virginia Lottery and their retailers.

For the Lottery's new contract, Gail will continue providing supervision for the telemarketing department. She will observe and evaluate the actions of the telemarketing staff pertaining to orders placed, deferred calls, fluctuation in order levels, call-in orders and daily progress. Gail will also continue to establish weekly selling criteria for the telemarketing staff to ensure the required games are being upsold during the daily retailer calls.

Education and Training

Gail has a high school diploma and has completed various continuing education classes relating to her position.

Employment History

IGT:

Tel-Sell Supervisor

2009 – Present

Scientific Games:

Hotline Supervisor

2000 – 2009

Jeremy Vickers

Contract Title:

Software Quality Assurance (SQA) Analyst

Contract Role:

Jeremy will create plans, procedures, and test all software prior to their implementation into the production environment. He will assist the Lottery with their acceptance testing, report any issues found, and ensure they are resolved to the Lottery's satisfaction. Jeremy will also assist with troubleshooting and problem resolution when issues or anomalies occur in the production environment, and will test and ensure compatibility between all new hardware and software. He is also a point of contact to answer questions and provide support for the Lottery's daily needs.

Current IGT Title

SQA Analyst

Professional Experience

Jeremy has worked for IGT since 2009 in roles of increased responsibility. In his current role of SQA Analyst, he completes test plans and cases for all software changes. Since transitioning to the SQA job role, his major accomplishments have included MUSL updates to Powerball, updates to Business Intelligence (BI), implementation of batches and Emergency Batch Fixes (EBFs), and the relocation of the Backup Data Center (BDC) in 2015/2016.

As a Computer Operator, Jeremy worked both the day and night shifts and made certain that daily procedures and operations were followed. He was also on hand to assist with any production software installs in this role.

Education and Training

Jeremy attended the West Virginia Junior College for computer science courses. He has also performed company training for his current and previous position.

Employment History

IGT:

SQA Analyst

Computer Operator II

Computer Operator I

2009 – Present

Scientific Games

Computer Operator

2002 – 2009

John Wood, PMP

Contract Title:

Systems Engineer (SE)

Contract Role:

John will oversee all technical aspects of the project delivery including software, hardware, infrastructure, communications network, back-office systems, quality assurance (QA), and customer acceptance testing (CAT). He will coordinate dependencies between technical deliverables, the development of the Technical Project Plan, the correct use of prescribed delivery processes, and management of the change processes used by the team.

Current IGT Title

Systems Engineer Consultant

Professional Experience

Since joining IGT in 2003, John has used his broad expertise and experience in hardware design, software development, and communications to provide several major Enterprise Series (ES) deliveries. As the Systems Engineer (SE) for successful conversion and player services projects in New York, Michigan, Missouri, and in recent work on the Virginia Lottery conversion project in 2016, he has been a leader in the development of IGT's ES, Aurora, and Player Services solutions for the retail and Internet channels.

Over the years, John has worked closely with architecture and product development teams in specifying high-level architectures for IGT's online, instant scratch-off, and iLottery products. He has participated in, and reviewed, the design of numerous, detailed features and functions within the company's products. From 2007 through 2011, John was the Systems Design Engineer assigned to the New York project for a sequence of deliveries including the now current ES online and instant scratch-off lottery system and, subsequently, an ES Player Direct system for Internet wagering.

In mid-2013, John focused his expertise on the Florida Lottery, authoring strategies for technology enhancements, and working on the response to that State's online and instant scratch-off lottery RFP, before moving on to system deliveries in Missouri and Virginia.

Education and Training

John received a B.S. in Physics from Leeds University in the United Kingdom and has taken post-graduate courses in software engineering. He has also earned a Project Management Professional (PMP) certification and attended numerous corporate training courses in engineering and management.

Employment History

IGT:	2003 – Present
Systems Engineer Consultant	
Principal Systems Engineer	
DBA Woodfall Engineering:	
Consulting Network Engineer	2002 – 2003
Motorola Corporation:	
Software Department Manager	1996 – 2002
Raytheon Corporation:	
Principal Systems Engineer	1985 – 1996

SELLING DRAW GAMES

Cash 5 Manual Entry

1. Touch Cash 5.
2. Select the number of Panels [1-5, or 10].
3. Select the number of Draws [1-7], or touch Other Draws to select from 1-26.
4. Touch Quick Pick to select a quick pick **OR** touch the Manual Entry button to access the 41 number selection screen.
5. Touch the Send button to send the wager transaction to the host.



Pick 4 Manual Entry

1. Touch Pick 4.
2. Select the Play Amount [\$0.50 or \$1.00].
3. Select the desired Play Type [Exact, Any, 50/50, Combo, Front, Back, 1-OFF].
4. Select the Sum It Up option [No/Yes].
5. Select the number of Draws [1-7].
6. Select the Day/Eve option [Day, Eve, Both, or Next].
7. Select the Day of Week [Today or specific Day].
8. Select the Same Numbers for repeat tickets with the same numbers, or touch More to select from 1-50.
9. Touch Quick Pick Ticket to select allow the system to choose the numbers **OR** select the 4 numbers for the wager using the keypad.
10. Touch Add Ticket to add a panel; touch the Trash Can to remove a panel.
11. Touch the Send button to send the wager transaction to the host.



Pick 3 Manual Entry

1. Touch Pick 3.
2. Select the Play Amount [\$0.50 or \$1.00].
3. Select the desired Play Type [Exact, Any, 50/50, Combo, Front, Back, 1-OFF].
4. Select the Sum It Up option [No/Yes].
5. Select the number of Draws [1-7].
6. Select the Day/Eve option [Day, Eve, Both, or Next].
7. Select the Day of Week [Today or specific Day].
8. Select the Same Numbers for repeat tickets with the same numbers, or touch More to select from 1-50.
9. Touch Quick Pick Ticket to select allow the system to choose the numbers **OR** select the 3 numbers for the wager using the keypad.
10. Touch Add Ticket to add a panel; touch the Trash Can to remove a panel.
11. Touch the Send button to send the wager transaction to the host.



Total Screen

As transactions are being made for the current customer they are displayed in the mini sales display on the bottom of each screen.



1. Touch Total after completing the transactions for each customer.
The Total Screen displays showing the Total for the transactions.
A negative sign indicates an amount owed to the customer.
A positive amount indicates an amount owed to the retailer.
2. Enter the cash amount received from the customer using the keypad.
3. Touch the Total button to total out the transaction.
4. Touch the Print button to print a receipt for the transaction.
5. Touch the Clear button to clear the transaction and return to the Home Screen to begin the next customer transaction.



SAMPLE

SIGN ON/SIGN OUT

Sign On

1. On the Welcome Screen, enter your 8-digit Teller Number and 4-digit Pass Number using the keypad. Then, touch Submit.



2. If there is a news message it displays automatically. Otherwise, the Home Screen displays.

Sign Out

- Touch Sign Out on the Home screen.



NOTE: You are not allowed to sign out if there is a wager still in process. In this case, the error message below displays. Ensure you have performed End of Day for the balancing tool prior to signing out.



HOME SCREEN



PLAYSLIPS & TICKETS

- Insert Playslips and Draw Game tickets vertically OR horizontally on a straight angle in the top reader, against the rollers. The front of the Play-slip and Draw Game ticket must face you. DO NOT insert Instant tickets into the Reader.
- Scan Instant ticket and pack barcodes using the external Handheld Bar-code Scanner. You must push the trigger button to scan.



PAUSE

Pause mode puts the terminal into a locked mode.

1. Touch **Pause** on the Home screen.
2. Enter your 4-digit Password to unlock the terminal. Touch **Submit**.

NOTE: If the Password is entered incorrectly three [3] times, you will be required to Sign On to the terminal again.

HELP

1. Touch **Help** from any screen. A Help pop-up screen displays information related to your current screen.
2. For example, touch **Help** on the Draw Game Cancel screen, and the help information displays.
3. Touch **Print** to print the help information, or touch **OK** to return to your current screen.

TERMINAL SETTINGS

1. Touch **Terminal Settings** on the Home screen.
2. Select the desired option:

Terminal Settings

VOLUME CONTROL

Touch **Plus** [+] or **Minus** [-] to change the terminal volume.

BRIGHTNESS CONTROL

Touch **Plus** [+] or **Minus** [-] to change the terminal screen brightness.

FST SIGN ON

This option is used by the FST to access service functions.

SERVICES

1. Touch **Services** on the Home screen, and the menu displays.
2. Select the desired option.

Services

Mail: Use this service to obtain mail messages sent by the Lottery.
News: Use this service to retrieve News messages sent by the Lottery.
Terminal Reset: Allows the retailer to reset the terminal.
CIS Reader Test: Allows the retailer to test the CIS Reader.
Printer Test: Allows the retailer to test the printer.
IP Test: Allows the retailer to test the IP.
Barcode Reader Test: Allows the retailer to test the barcode reader.
Terminal Version Info: Displays version of the terminal software/firmware.
Temperature Monitor: Displays the terminal temperature.
Comm Log: Displays a log of Communications information.

REPORTS/REPRINTS

1. Touch **Reports/Reprints** on the Home screen.
2. The Reports/Reprints menu displays. Select the desired option.

Reports / Reprints

Reports

Provides the retailer the ability to obtain reports for online sales and games.

INSTANT INVENTORY REPORTS

The Instant Inventory Reports option provides access to the following reports: *Summary Inventory, Detailed Inventory, Pack Status, Pack Settlement Current Week, Pack Settlement Last Week, Confirmed Packs, Returns Full Packs, Returns Partial Packs, and All Active Packs.*

1. Touch **Instant Inventory Reports** from Reports/Reprints menu.
2. Touch the desired report.
3. Select/Enter the requested information as prompted.
4. The report displays. Use the scroll bar to scroll through the report.
5. If desired, touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

FINANCIAL REPORTS

The Financial Reports option provides access to the following reports: *Daily Reports, Clerk Sales, Weekly Invoice, Weekly Adjustments, Game Sales, and Cashes.*

1. Touch **Financial Reports** from the Reports/Reprints menu.
2. Touch the desired report.

REPORTS/REPRINTS

FINANCIAL REPORTS

Daily Reports

The Daily Reports display a list of all sales itemized by game, cancels, validations, commissions, claims, and adjustments, as well as a total, for the selected day.

1. Touch **Daily Reports** on the Financial Reports menu.
2. Select the desired time-frame and the report displays.
3. Touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

Clerk Sales Report

The Clerk Sales Report is a summary of the draw game sales by game, validations, cancels and other draw game activity for the clerk that is currently logged into the terminal.

1. Touch **Clerk Sales** on the Financial Reports menu.
2. The report displays. Use the scroll bar to scroll through the report.
3. Touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

Weekly Invoice

The Weekly Invoice report is a summary of the draw game activity for your retailer location for the week.

1. Touch **Weekly Invoice** on the Financial Reports menu.
2. Select the desired week and the report displays.
3. Touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

Cashes

The Clerk Sales Report is a summary of the daily online validations.

1. Touch **Cashes** on the Financial Reports menu.
2. Select the desired time-frame and the report displays.
3. Touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

Reprints

Reprints allows you to reprint the Last Draw Game Cash, Last Instant Game Cashes, Last Transaction or Last Play. All Reprints are branded "REPRINT" and "NOT FOR SALE".

Reprint Last Draw Game Cash	Reprint Last Instant Game Cash
Reprint Last Transaction	Reprint Last Play

GAME RESULTS

WINNER INFORMATION

This report lists the winner information for a selected game and date.

1. Touch **Game Results** from the Home screen.
2. Select the desired game, such as Powerball.
3. Touch **Winner Information**.
4. Enter the date for which you would like to produce the report or touch **Send** for the most recent draw.
5. The report displays. Use the scroll bar to scroll through the report.
6. Touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

GAME RESULTS

WINNING NUMBERS

The Winning Numbers report lists the Winning Numbers, Draw Date and Draw Data for a selected game.

1. Touch **Game Results** from the Home screen.
2. Select the desired game, such as Powerball.
3. Touch **Winning Numbers**.
4. Enter the date for which you would like to produce the report or touch **Send** for the most recent draw. The report displays..
5. Touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

CURRENT JACKPOT

The Current Jackpot screen displays the current jackpot totals for all Jackpot games.

1. Touch **Game Results** from the Home screen.
2. Select the desired game, such as Powerball.
3. Touch **Current Jackpot** and the report displays.
4. Touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

INSTANT GAME FUNCTIONS

1. Touch **Instant Game Functions** on the Home screen.
2. The Instant Game Functions menu displays. Select the desired option.

Order Confirmation

Use to confirm delivery of order. All orders are to be confirmed within 24 hours of receipt.

1. Touch **Instant Game Functions** from the Home screen, then touch **Order Confirmation**.
2. Scan the tracking number using the Barcode Scanner OR use the keypad to manually enter the order number and touch **Send**.
3. The order information is communicated to the host and is confirmed.
4. Touch the **OK** button at the Dispatch Acknowledgment screen.

Activate Pack

Once a pack is activated, the billing cycle starts. Typically retailers do not activate a pack of tickets until they place them out for sale.

1. Touch **Instant Game Functions** from the Home screen, then touch the **Activate Pack**.
2. Scan the pack barcode tag using the Barcode Scanner OR use the keypad to manually enter the Game and Pack number and touch **Send**.
3. The pack information is communicated to the host and is activated.
4. Touch the **OK** button at the confirmation screen.

Settle Pack

When a pack is settled, it is charged to the retailer's account and payment is due at the end of the current invoice period.

1. Touch **Instant Game Functions** from the Home screen.
2. Touch **Settle Pack** from the Instant Game Functions menu.
3. Scan the pack barcode tag using the Barcode Scanner OR use the keypad to manually enter the Game and Pack number and touch **Send**.
4. The pack information is communicated to the host and is settled.
5. Touch the **OK** button at the confirmation screen.

INSTANT GAME FUNCTIONS

Validate Ticket

The Validate Ticket function allows for cashing of Instant Tickets.

Validate Ticket

1. Touch Instant Game Functions from the Home screen.
2. Touch Validate Ticket from the Instant Game Functions menu.
3. Scan the pack barcode tag using the Barcode Scanner OR use the keypad to manually enter the Ticket, Serial, and Security numbers. Touch Send.
4. A validation screen displays. Touch OK at the confirmation screen.
5. You are returned to the Instant Game Cashes screen. Validate another ticket, perform other terminal functions, or touch Total.

NOTE: This is the same function as Instant Game Cashes on Home screen.

SR Sign On

This option is used only by the SR to access service functions.

DRAW GAME CASHES

Provides the retailer with the ability to validate a Draw Game game ticket. A separate receipt is printed for the player and the retailer.

Draw Game Cashes

1. Touch the Draw Game Cashes from the Home screen. The Validations screen displays.
2. Scan the ticket using the Image Reader or the Barcode Scanner; OR enter the number manually by touching the screen keypad.
3. Touch Send. If there is an error, an error message displays. If the ticket can be validated, a confirmation screen displays with the ticket number, the winning amount and a serial number.
4. Touch OK to acknowledge the winning amount and return again to the Validations screen to validate another ticket.

INSTANT GAME CASHES

The Instant Game Cashes function allows for cashing of Instant Tickets.

Instant Game Cashes

1. Touch Instant Game Functions from the Home screen.
2. Touch Validate Ticket from the Instant Game Functions menu.
3. Scan the pack barcode tag using the Barcode Scanner OR use the keypad to manually enter the Ticket, Serial, and Security numbers. Touch Send.
4. A validation screen displays. Touch OK at the confirmation screen.
5. You are returned to the Instant Game Cashes screen. Validate another ticket, perform other terminal functions, or touch Total.

NOTE: This is exactly the same functions as Validate Ticket function on the Instant Game Functions screen.

DRAW GAME CANCEL

Provides the retailer with the ability to cancel a Draw Game ticket.

Draw Game Cancel

1. Touch the Draw Game Cancel from the Home screen. The Draw Game Cancellation screen displays.
2. Scan the ticket using the Image Reader or the Barcode Scanner.
3. Touch Send. If there is an error, an error message displays. If the ticket can be validated, a confirmation screen displays with the ticket number, the winning amount and a serial number.
4. Touch OK to acknowledge the winning amount and return again to the Draw Game Cancellation screen to cancel another ticket.

SELLING DRAW GAMES

Playslip Method

The Flex terminal has been designed to allow continuous feeding of playslips, even though a transaction might not be fully processed.

- Insert the completed Draw Game playslip into the reader vertically or horizontally, with the marked side facing toward you.
- A confirmation screen will appear for wagers of \$10 and above. Touch Yes to continue with the wager or No, if the customer does not agree to the amount shown.
- Ticket[s] print automatically.

Quick Pick Method

- For all games, touch the QP button for the desired game and dollar amount.
- For example, select Powerball \$2 QP.
- A ticket prints automatically.

\$2 QP \$10 QP \$20 QP

NOTE: There is also a Quick Pick option available after touching the a game button on the Home screen. Players can choose options, such as number of plays/boards, advance draws and plays per ticket, and then touch Quick Pick.

Powerball/Power Play Manual Entry

1. Touch Powerball or Power Play.
2. Select the number of Panels [1-5, or 10].
3. Select the number of Draws [1-7], or touch Other Draws to select from 1-26.
4. Select the Power Play option [Yes/No].
5. Touch Quick Pick to allow the system to choose the numbers OR touch the Manual Entry button to access the 69 number selection screen.
6. Select the 5 numbers for the wager by touching the numeric keypad, then select the Powerball number [from 1-26].
7. Touch the Send button to send the wager transaction to the host.

POWER

POWERPLAY

Mega Millions/Megaplier Manual Entry

1. Touch Mega Millions or Megaplier.
2. Select the number of Panels [1-5, or 10].
3. Select the number of Draws [1-7], or touch Other Draws to select from 1-26.
4. Select the Megaplier option [Yes/No].
5. Touch Quick Pick to allow the system to choose the numbers OR touch the Manual Entry button to access the 75 number selection screen.
6. Select the 5 numbers for the wager by touching the numeric keypad, then select the Megaplier number [from 1-15].
7. Touch the Send button to send the wager transaction to the host.

MEGA MILLIONS

MEGAPLIER

Lucky For Life Manual Entry

1. Touch Lucky For Life.
2. Select the number of Panels [1-5, or 10].
3. Select the number of Draws [1-7], or touch Other Draws to select from 1-26.
4. Touch Quick Pick to allow the system to choose the numbers OR touch the Manual Entry button to access the 48 number selection screen.
5. Select the 5 numbers for the wager by touching the numeric keypad, then touch the Lucky Ball icon in the upper right corner and select another number [from 1-18].
6. Touch the Send button to send the wager transaction to the host.

Lucky For Life



FLEX TERMINAL

Retailer Reference Guide



SAMPLE

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THE FLEX TERMINAL



Ticket Scan Plus [TSP]



Cleaning Instructions

To clean the Flex terminal and peripherals, spray non-ammonia window cleaner on a soft, dry, lint-free cloth and gently wipe the components clean.

NOTE: DO NOT spray the cleaner directly onto the touchscreen.

PLAYSLIPS & TICKETS

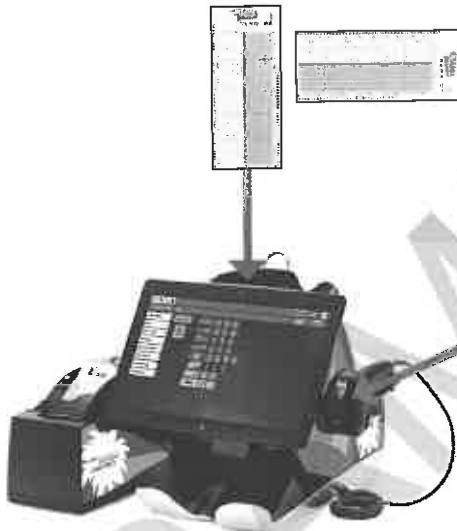
Inserting Playslips

Insert Playslips or Draw Game Tickets, one at a time, vertically or horizontally into the Image Reader with the marked side facing the front. **DO NOT** insert Instant tickets into the Image Reader.

For Instant Ticket cashing, scan barcodes using the Handheld Barcode Scanner.

Playslip Editing

If a playslip has been filled out incorrectly, or if an error message displays, you may correct the error on the screen or return the playslip to the player to be filled out correctly.



Scan Instant Tickets
here to Validate

TERMINAL SCREENS

Welcome Screen

The screenshot shows the 'Please Sign On' interface. On the left sidebar, there are links for 'Logout', 'Sign On', 'Terminal Settings', and 'Services'. Below these is a 'Remember Me (10)' toggle. The main content area has the title 'Please Sign On' and three input fields: 'Enter Token Number', 'Enter Pass Number', and 'Enter Pass Number'. To the right of these fields is a numeric keypad with buttons for digits 1-9, 0, and a 'CLEAR' button, followed by a 'Submit' button. The top right corner displays 'Course Information' with details about the course and a 'Logout' button.

Home Screen

[illegible]

TERMINAL NAVIGATION

Game Buttons



Function Buttons



Breadcrumbs

Use the "Breadcrumbs" located near the top, center of the screen to easily navigate between screens. Simply touch the Home icon or the screen name to return to a previous screen.

Example: In the example below, the breadcrumbs displayed are for the Mail screen. Touch **Services** to return to the Services menu, or touch **Home** to return to the Home screen.

Home > Services > Mail

Game Screen Tabs

Use the Game Tabs located at the top of each Game options screen to easily navigate between Draw Games.

Powerball

Mega Millions

Lucky For Life

Cash 5

Pick 4

Pick 3

TICKET STOCK REMINDERS

1. "First In – First Out": Use old boxes of ticket stock **FIRST**. The ticket stock is sturdy but over time can break down.
2. Ticket Stock boxes should be stored in a cool, dry place. To avoid damage, do not place them next to or on top of a heat source.
3. Keep Ticket Stock in the box that it was delivered in and keep the box sealed until you need to use it.
4. Be sure to keep rolls of ticket stock in their plastic bags until you are ready to load them into the terminal. They are light sensitive.
5. For security reasons, ticket stock **CANNOT** be transferred between retailers.



PAPER LOADING

Changing the Paper in the Printer

1. Press the silver release button and open the paper cover on the printer.
2. Remove the used paper roll from the printer.
3. Remove the tape from the new roll of paper and place the roll in the printer with the paper unwinding from the bottom.
4. Make sure approximately 12–18 inches of excess paper is hanging out of the front of the printer [if loading a previously loaded roll, 2–4 inches should hang out of the front].
5. Close the paper cover firmly over the excess paper so that it latches securely.
6. The paper feeds automatically to align itself.
7. The printer automatically cuts the excess paper.
8. After changing the paper, run a Printer Test to ensure the paper was loaded properly. Touch Special Functions from the Home screen, select Diagnostics, then touch Printer Test. A test ticket will print if the printer is loaded properly.



CLEARING JAMS

Clearing Paper Jams

1. To clear a paper jam, press in the silver button and pull up on the sides of the paper cover to open.
2. Pull out the paper past the jam.
3. Close the cover, and the paper re-loads.



Clearing Reader Jams

1. To open the Reader door, press the silver release button on top of the touch screen and pull the touch screen forward. Then, press the green button that looks like an arrow and open the second door the same way.
2. Gently clear away any debris.
3. Close the reader door firmly.



NOTE: Instant tickets should never come into contact with this area of the terminal. Latex from the tickets will gum up on the reader and cause failure!

SIGN ON / SIGN OUT

Sign On

1. On the Welcome Screen, enter your 8-digit Teller Number and 4-digit Pass Number using the numeric keypad. Then, touch Submit.
2. If there is a news message it displays automatically. Otherwise, the Home Screen displays.



Submit



Sign Out

- Touch Sign Out on the Home screen.



NOTE: You are not allowed to sign out if there is a wager still in process. In this case, the error message below displays. Also, ensure you have performed End of Day for the balancing tool prior to signing out.



PAUSE

Pause

Pause mode puts the terminal into a Paused mode until you enter your password.

1. Touch **Pause** on the Home screen.
2. The screen displays:



3. Enter your 4-digit Password to unlock the terminal. Touch **Submit**.

Submit

NOTE: If the Password is entered incorrectly three [3] times, you will be required to Sign On to the terminal again.

HELP

1. Touch Help from any screen. A Help pop-up screen displays information related to your current screen.
2. For example, touch Help on the Draw Game Cancel screen. The following help information displays:



3. Touch **Print** to print the help information, or touch **OK** to return to your current screen.

TERMINAL SETTINGS

1. Touch **Terminal Settings** on the Home screen.

Terminal Settings ▶

2. The screen displays:



NOTE: Some of these functions might not be enabled based on terminal configuration for the South Carolina Education Lottery.

Volume Control

Touch Plus [+] or Minus [-] buttons to change the terminal volume.

Brightness Control

Touch Plus [+] or Minus [-] buttons to change the terminal screen brightness.

FST Sign On

This option is used by the FST to access service functions.

SERVICES

1. Touch **Services** on the Home screen.
2. The Services menu displays. Select the desired option.



Mail

Use this service to obtain mail messages sent by the Lottery to selected terminals. Messages can be prioritized as **Immediate** or **Normal**. Upon receipt of a special message, the status line will indicate there is a new message until the message is read.

IP Test

Allows the retailer to test the IP.

Barcode Reader Test

Allows the retailer to test the barcode reader.

News

Use this service to retrieve News messages sent by the Lottery. News messages can be printed by touching **Print**.

Terminal Version Info

Displays version of the software and firmware on the terminal.

Terminal Reset

Allows the retailer to reset the terminal.

Temperature Monitor

Displays temperature of the terminal.

CIS Reader Test

Allows the retailer to test the CIS Reader.

Comm Log

Displays the Communications log.

Printer Test

Allows the retailer to test the printer.

NOTE: Some of these functions might not be enabled based on terminal configuration for the South Carolina Education Lottery.

REPORTS/REPRINTS

1. Touch **Reports/Reprints** on the Home screen.
2. The Reports/Reprints menu displays. Select the desired option.



Reports

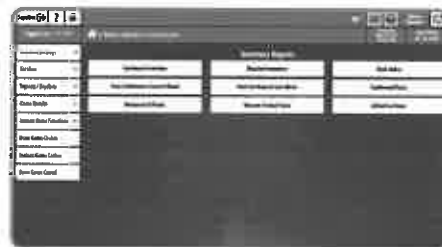
Provides the retailer with the ability to obtain reports for online sales and games.

NOTE: The following reports are samples only--not all reports are included. We will work with SC to customize the terminal reports for their specific needs."

INSTANT INVENTORY REPORTS

The Instant Inventory Reports option provides access to the following reports:
Summary Inventory, Detailed Inventory, Pack Status, Pack Settlement Current Week, Pack Settlement Last Week, Confirmed Packs, Returns Full Packs, Returns Partial Packs, and All Active Packs.

1. Touch **Instant Inventory Reports** from the Reports/Reprints menu.
2. Touch the desired report.
3. Select/Enter the requested information as prompted.
4. The report displays. Use the **scroll bar** to scroll through the report as needed.
5. If desired, touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.



Print

REPORTS / REPRINTS

Reports

FINANCIAL REPORTS

The Financial Reports option provides access to the following reports: *Daily Reports*, *Clerk Sales*, *Weekly Invoice*, *Weekly Adjustments*, *Game Sales*, and *Cashes*.

1. Touch **Financial Reports** from the Reports/Reprints menu.
2. Touch the desired report.



Daily Reports

The Daily Reports display a list of all sales itemized by game, cancels, validations, commissions, claims, and adjustments, as well as a total, for the selected day.

1. Touch **Daily Reports** on the Financial Reports menu.
2. Select the desired time-frame.
3. The report displays. Use the scroll bar to scroll through the report as needed.
4. If desired, touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

Daily Reports



REPORTS / REPRINTS

Reports

FINANCIAL REPORTS

Clerk Sales Report

The Clerk Sales Report is a summary of the draw game sales by game, validations, cancels and other draw game activity for the clerk that is currently logged into the terminal.

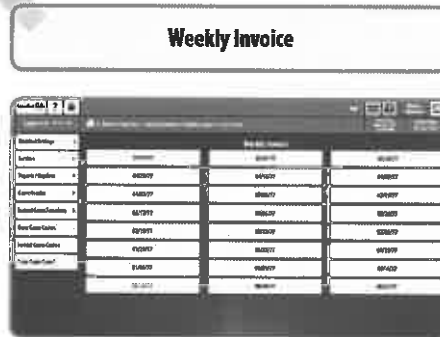
1. Touch **Clerk Sales** on the Financial Reports menu.
2. The report displays. Use the scroll bar to scroll through the report as needed.
3. If desired, touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.



Weekly Invoice

The Weekly Invoice report is a summary of the draw game activity for your retailer location for the week.

1. Touch **Weekly Invoice** on the Financial Reports menu.
2. Select the desired week for which you would like to produce the report.
3. The report displays. Use the scroll bar to scroll through the report as needed.
4. If desired, touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.



REPORTS / REPRINTS

Reports

FINANCIAL REPORTS

Cashes

The Clerk Sales Report is a summary of the daily online validations.

1. Touch **Cashes** on the Financial Reports menu.
2. Select the desired time-frame.
2. The report displays. Use the scroll bar to scroll through the report as needed.
3. If desired, touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

Cashes



REPORTS / REPRINTS

Reprints

Reprints allows you to reprint the Last Draw Game Cash, Last Instant Game Cashes, Last Transaction or Last Play. All Reprints are branded "REPRINT" and "NOT FOR SALE".

Touch the desired option, the reprint prints automatically.

Reprint Last Draw Game Cash	Reprint Last Instant Game Cash
Reprint Last Transaction	Reprint Last Play

GAME RESULTS

Winner Information

This report lists the winner information for a selected game and a selected date.

1. Touch **Game Results** from the Home screen.
2. Select the desired game, such as **Powerball**.
3. Touch **Winner Information**.
4. Enter the date for which you would like to produce the report or touch **Send** for the most recent draw.
5. The report displays. Use the scroll bar to scroll through the report as needed.
6. If desired, touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

Game Results



GAME RESULTS

Winning Numbers

The Winning Numbers report lists the Winning Numbers, Draw Date and Draw Data for a selected game.

1. Touch **Game Results** from the Home screen.
2. Select the desired game, such as **Powerball**.
3. Touch **Winning Numbers**.
4. Enter the date for which you would like to produce the report or touch **Send** for the most recent draw.
5. The report displays. Use the scroll bar to scroll through the report as needed.
6. If desired, touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

Game Results



Game Results - Powerball

Winner Information

Winning Numbers

Current Jackpot



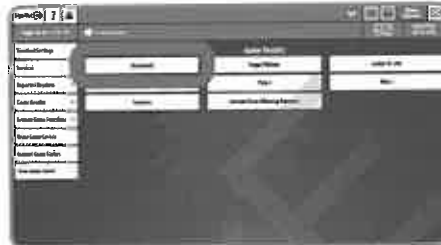
GAME RESULTS

Current Jackpot

The Current Jackpot screen displays the current jackpot totals for all Jackpot games.

1. Touch **Game Results** from the Home screen.
2. Select the desired game, such as **Powerball**.
3. Touch **Current Jackpot**.
4. The report displays. Use the scroll bar to scroll through the report as needed.
5. If desired, touch **Print** to print a copy of the report or touch **Home** to return to the Home screen.

Game Results ▶



INSTANT GAME FUNCTIONS

1. Touch **Instant Game Functions** on the Home screen.
2. The Instant Game Functions menu displays. Select the desired option.



NOTE: Some of these functions might not be enabled based on terminal configuration for the South Carolina Education Lottery.

INSTANT GAME FUNCTIONS

Order Confirmation

Use to confirm delivery of order. All orders are to be confirmed within 24 hours of receipt. What does it mean to CONFIRM an order of instant tickets? Confirm means you have received your order into inventory and it is not out for sale.

1. Touch **Instant Game Functions** from the Home screen.
2. Touch the **Order Confirmation** function from the Instant Game Functions menu.
3. Scan the tracking number using the Handheld Barcode Scanner OR use the keypad to manually enter the order number and touch **Send**.
4. The order information is communicated to the host and is confirmed.
5. Touch the **OK** button at the Dispatch Acknowledgment screen.

Order Confirmation



INSTANT GAME FUNCTIONS

Activate Pack

What does it mean to **ACTIVATE** a pack of tickets? Once a pack is activated, the billing cycle starts. Typically retailers do not activate a pack of tickets until they place them out for sale. **ALL PACKS MUST BE ACTIVATED— PRIOR TO PUTTING THE PACK OUT FOR SALE.**

1. Touch **Instant Game Functions** from the Home screen.
2. Touch the **Activate Pack** function from the Instant Game Functions menu.
3. Scan the pack barcode tag using the Handheld Barcode Scanner OR use the keypad to manually enter the Game and Pack number and touch **Send**.
4. The pack information is communicated to the host and is activated.
5. Touch the **OK** button at the confirmation screen.

Activate Pack(s)



INSTANT GAME FUNCTIONS

Settle Pack

When a pack is settled, it is charged to the retailer's account and payment is due at the end of the current invoice period.

1. Touch **Instant Game Functions** from the Home screen.
2. Touch the **Settle Pack** function from the Instant Game Functions menu.
3. Scan the pack barcode tag using the Handheld Barcode Scanner OR use the keypad to manually enter the Game and Pack number and touch **Send**.
4. The pack information is communicated to the host and is settled.
5. Touch the **OK** button at the confirmation screen.

Settle Pack(s)



INSTANT GAME FUNCTIONS

Validate Ticket

The Validate Ticket function allows for cashing of Instant Tickets.

1. Touch **Instant Game Functions** from the Home screen.
2. Touch the **Validate Ticket** function from the Instant Game Functions menu.
3. Scan the pack barcode tag using the Handheld Barcode Scanner OR use the keypad to manually enter the Ticket, Serial, and Security numbers and touch **Send**.
4. A validation screen displays. Touch the **OK** button at the confirmation screen.
5. You are returned to the Instant Game Cashes screen. Validate another ticket, perform other terminal functions, or touch **Total** to total out your customer.

NOTE: This is exactly the same functions as **Instant Game Cashes** on the Home screen.

Validate Ticket



INSTANT GAME FUNCTIONS

SR Sign On

This option is used by the SR to access service functions. Once the SR is signed on, the Full Pack(s) Issue, Full Pack(s) Return, Partial Pack Return, CHOW Partial Pack, and Settle Partial Pack buttons become active.



DRAW GAME CASHES

Validate Draw Game Tickets

Provides the retailer with the ability to validate a Draw Game game ticket. A separate receipt is printed for the player and the retailer.

1. Touch the **Draw Game Cashes** from the Home screen. The Validations screen displays.
2. Scan the ticket using the Image Reader or the Handheld Barcode Scanner; OR enter the number manually by touching the screen keypad.
3. Touch **Send**.

If there is an error, an error message displays.

If the ticket can be validated, a confirmation screen displays with the ticket number, the winning amount and a serial number.

4. Touch the **OK** button to acknowledge the winning amount and return again to the Validations screen to validate another ticket.

Draw Game Cashes



INSTANT GAME CASHES

The Instant Game Cashes function allows for cashing of Instant Tickets.

1. Touch **Instant Game Functions** from the Home screen.
2. Touch the **Validate Ticket** function from the Instant Game Functions menu.
3. Scan the pack barcode tag using the Handheld Barcode Scanner OR use the keypad to manually enter the Ticket, Serial, and Security numbers and touch **Send**.
4. A validation screen displays. Touch the **OK** button at the confirmation screen.
5. You are returned to the Instant Game Cashes screen. Validate another ticket, perform other terminal functions, or touch **Total** to total out your customer.

NOTE: This is exactly the same functions as **Validate Ticket** function on the Instant Game Functions screen.

Instant Game Cashes



DRAW GAME CANCEL

Cancel Draw Game Tickets

Provides the retailer with the ability to cancel a Draw Game ticket.

1. Touch the **Draw Game Cancel** from the Home screen. The Draw Game Cancellation screen displays.
2. Scan the ticket using the Image Reader or the Handheld Barcode Scanner.
3. Touch **Send**.

If there is an error, an error message displays.

If the ticket can be validated, a confirmation screen displays with the ticket number, the winning amount and a serial number.

4. Touch the **OK** button to acknowledge the winning amount and return again to the Draw Game Cancellation screen to cancel another ticket.

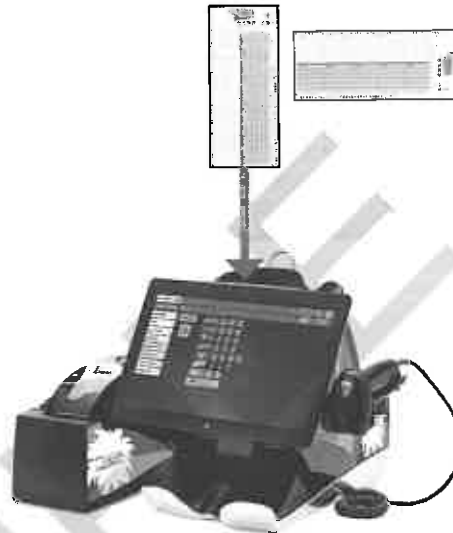


SELLING DRAW GAMES – PLAYSリップ

Playslip Method

The Flex terminal has been designed to allow continuous feeding of playslips, even though a transaction might not be fully processed.

- Insert the completed Draw Game playslip into the reader vertically or horizontally, with the marked side facing toward you.
- A confirmation screen will appear for wagers of \$10 and above. Touch Yes to continue with the wager or No, if the customer does not agree to the amount shown.
- Ticket[s] print automatically.



SELLING DRAW GAMES - TOTAL SCREEN

Total Screen

As transactions are being made for the current customer they are displayed in the mini sales display on the bottom-right of each screen.

1. Touch the **Total** button after completing the transactions for each customer.

The Total Screen displays showing the Total for the transactions.

A negative sign indicates an amount owed to the customer.

A positive amount indicates an amount owed to the retailer.

2. Enter the cash amount received from the customer using the numeric keypad.
3. Touch the **Total** button to total out the transaction.
4. Touch the **Print** button to print a receipt for the transaction.
5. Touch the **Clear** button to clear the transaction and return to the Home Screen to begin the next customer transaction.

Item	Serial Number	Cost
CSHS	138-005501847-10	\$1.00
MEGA	138-005501846-11	\$1.00
PBALL	138-005501845-12	\$2.00
Total		\$4.00

Total



SELLING DRAW GAMES – QUICK PICK

Quick Pick Method

Select the Quick Pick button on the Home screen for any of the games with the **QP** designation under the wager amount. The system randomly picks numbers according to the individual game rules for the amount selected by the customer.

1. From the Home Screen, touch one of the Quick Pick [QP] buttons for the jackpot games.

2. For example, select Powerball QP.
The screen will show the wager at the bottom of the screen.

3. Touch the Total button.

The Total Screen displays indicating the wager and Grand Total.

4. Enter the amount due from the customer using the numeric keypad and touch Total.

OR

Touch **Clear** to clear the wager if the customer wishes to change their wager.

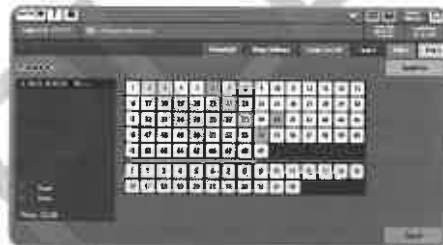
5. Touch **Print** to print the receipt to give to the customer.



SELLING DRAW GAMES - POWERBALL

Powerball Manual Entry

1. From the Home Screen, touch **Powerball** to display the options screen.
2. Select the number of **Panels** [1-5, or 10].
3. Select the number of **Draws** [1-7], or touch **Other Draws** to select from 1-26.
4. Select **Power Play** [Yes/No].
5. Touch **Quick Pick** to allow the system to choose the numbers **OR** touch the **Manual Entry** button to access the 69 number selection screen.
6. Select the 5 numbers for the wager by touching the numeric keypad, then select the Powerball number [from 1-26].
7. Touch the **Send** button to send the wager transaction to the host.



SELLING DRAW GAMES - POWER PLAY

Power Play Manual Entry

1. From the Home Screen, touch **Power Play** to display the options screen.
2. Select the number of **Panels** [1-5, or 10].
3. Select the number of **Draws** [1-7], or touch **Other Draws** to select from 1-26.
4. The **Power Play** option defaults to **Yes**.
5. Touch **Quick Pick** to allow the system to choose the numbers **OR** touch the **Manual Entry** button to access the 69 number selection screen.
6. Select the 5 numbers for the wager by touching the numeric keypad, then select the Powerball number [from 1-26].
7. Touch the **Send** button to send the wager transaction to the host.



SELLING DRAW GAMES – MEGA MILLIONS

Mega Millions Manual Entry

1. From the Home Screen, touch **Mega Millions** to display the options screen.
2. Select the number of **Panels** [1-5, or 10].
3. Select the number of **Draws** [1-7], or touch **Other Draws** to select from 1-26.
4. Select **Megaplier** [Yes/No].
5. Touch **Quick Pick** to allow the system to choose the numbers **OR** touch the **Manual Entry** button to access the 75 number selection screen.
6. Select the 5 numbers for the wager by touching the numeric keypad, then select the Megaplier number [from 1-15].
7. Touch the **Send** button to send the wager transaction to the host.



SELLING DRAW GAMES – MEGAPLIER

Megaplier Manual Entry

1. From the Home Screen, touch **Megaplier Millions** to display the options screen.
2. Select the number of **Panels** [1–5, or 10].
3. Select the number of **Draws** [1–7], or touch **Other Draws** to select from 1–26.
4. The **Megaplier** option defaults to **Yes**.
5. Touch **Quick Pick** to allow the system to choose the numbers **OR** touch the **Manual Entry** button to access the 75 number selection screen.
6. Select the 5 numbers for the wager by touching the numeric keypad, then select the **Megaplier** number [from 1–15].
7. Touch the **Send** button to send the wager transaction to the host.

MEGAPLIER



SELLING DRAW GAMES – LUCKY FOR LIFE

Lucky For life **Manual Entry**

1. From the Home Screen, touch **Lucky For Life** to display the options screen.
2. Select the number of **Panels** [1-5, or 10].
3. Select the number of **Draws** [1-7], or touch **Other Draws** to select from 1-26.
4. Touch **Quick Pick** to allow the system to choose the numbers **OR** touch the **Manual Entry** button to access the 48 number selection screen.
8. Select the 5 numbers for the wager by touching the numeric keypad, then touch the **Lucky Ball** icon in the upper right corner and select another number [from 1-18].
9. Touch the **Send** button to send the wager transaction to the host.



SELLING DRAW GAMES – CASH 5

Cash 5 Manual Entry

1. From the Home Screen, touch **Cash 5** to display the options screen.
2. Select the number of **Panels** [1–5, or 10].
3. Select the number of **Draws** [1–7], or touch **Other Draws** to select from 1–26.
4. Touch **Quick Pick** to select a quick pick **OR** touch the **Manual Entry** button to access the 41 number selection screen.
5. Touch the **Send** button to send the wager transaction to the host.



SELLING DRAW GAMES – PICK 4

Pick 4 Manual Entry

1. From the Home Screen, touch Pick 4 to display the options screen.
2. Select the Play Amount [\$0.50 or \$1.00].
3. Select the desired Play Type [Exact, Any, 50/50, Combo, Front, Back, 1-OFF].
4. Select the Sum It Up option [No/Yes].
5. Select the number of Draws [1-7].
6. Select the Day/Eve option [Day, Eve, Both, or Next].
7. Select the Day of Week [Today or specific Day].
8. Select the Same Numbers for repeat tickets with the same numbers, or touch **More** to select from 1-50.
9. Touch **Quick Pick Ticket** to select allow the system to choose the numbers **OR** select the 4 numbers for the wager using the keypad.
10. Touch **Add Ticket** to add another panel; touch the **Trash Can** to remove a panel.
11. Touch the **Send** button to send the wager transaction to the host.



SELLING DRAW GAMES – PICK 3

Pick 3 Manual Entry

1. From the Home Screen, touch **Pick 3** to display the options screen.
2. Select the **Play Amount** [\$0.50 or \$1.00].
3. Select the desired **Play Type** [Exact, Any, 50/50, Combo, Front, Back, 1-OFF].
4. Select the **Sum It Up** option [No/Yes].
5. Select the number of **Draws** [1-7].
6. Select the **Day/Eve** option [Day, Eve, Both, or Next].
7. Select the **Day of Week** [Today or specific Day].
8. Select the **Same Numbers** for repeat tickets with the same numbers, or touch **More** to select from 1-50.
9. Touch **Quick Pick Ticket** to select allow the system to choose the numbers **OR** select the 3 numbers for the wager using the keypad.
10. Touch **Add Ticket** to add another panel; touch the **Trash Can** to remove a panel.
11. Touch the **Send** button to send the wager transaction to the host.



GLOSSARY

2D Barcode Scanner

A POS device used to scan industry standard barcodes identification or validation purposes.

Activated Pack

The status of a pack of Instant Tickets, which indicates to the Lottery that tickets are being sold from that pack.

Flex Terminal

The terminal placed at the retailer's location to sell draw game tickets, validate winning tickets, and to provide the retailer with reports and other Lottery information. The terminal is linked to the Lottery's central computer.

Pack

A package of Instant Tickets each with a different ticket number. The number of tickets in a pack may range up to three hundred [300]. Each pack is valued at \$300. All Packs of Tickets of a specific game will have the same number of Tickets per Pack.

Pack Activation

Packs must be activated using the Flex terminal before they can be sold. It is necessary to activate packs to signal the central computer that tickets from this pack are eligible for validation.

Pack/Ticket Number

Unique numbers that are assigned to individual tickets and packs during the printing process.

Cancellation

A wager that the player wants to rescind and is canceled through the retailer terminal. The system marks a wager that has been canceled as VOID.

Powerball tickets cannot be cancelled.

CIS Image Reader

Reader in the terminal used for reading playslips.

Claim Period

The period of time in which holders of lottery tickets are entitled to claim prizes.

Draw

A function of a draw game lottery game. Common variations are twice daily, daily and weekly. [The purpose of a draw is to select at random one or more winners for a varying level of prize values.] Rules vary by game type and by game and government regulations.

GLOSSARY

Draw Break

The time period prior to the drawing when draw game tickets for a certain game can no longer be sold to a customer.

Exchange Ticket

The ticket that is printed when a ticket is a winner and is validated before its expiration. The substitute ticket is valid for the remainder of the interim draws or final draw.

Game Number

A unique number assigned to each game.

Instant Ticket

A lottery game in which the player buys a preprinted ticket with symbols hidden under the latex covering. The player removes [scratches] the latex and may determine "instantly" whether a prize has been won.

Quick Pick Wagering

The host or retailer terminal generates some or all of the numbers of the bet for the player.

Playslip

A paper selection method that allows a player to select their numbers prior to reaching the point of sale at a retailer location.

Prize

The amount of winnings as indicated on a winning ticket by individual Lottery business rules.

Prizes Cashed at Retailer

Prizes less than \$600 for tickets under 45 days old can be paid out at the retailer or by the Lottery offices. Prizes over \$600 must be cashed at a Lottery Claim Center.

Reprint

[a.k.a. Trace Ticket] A transaction originating at a retailer device for reconciliation purposes if the transaction is a wager. If the transaction is a receipt, a copy of the receipt would be produced. This transaction is usually performed if an original ticket does not contain data normally printed, due to a printing mechanism malfunction within the terminal. Reprints are restricted to the last transaction of the same type, for example, a reprint of a wager ticket is allowed only on the last wager initiated by that specific terminal.

GLOSSARY

Sales Representative [SR]

The representative who is responsible for visiting retailer outlets to assist with point-of-sale material placement, promotions, and ticket handling. Sales Representatives service assigned retailers in a specific geographic area.

Terminal

A user-operated device attached to a LAN or WAN communications network whose function is to interact with the central system. Two types of terminals are defined by IGT: a POA, or front-end terminal, and a management terminal. Each performs different functions.

Transaction

Any event stored in the system such as wagers, cancellations, validations, claims, refunds, special functions, and commands.

Validation Number

A unique number which appears on each ticket, which when entered into the Lottery's computer, identifies the ticket as a winner or non-winner. The validation number is also formatted as a barcode which permits the electronic reading of the validation number for faster processing.

Wager

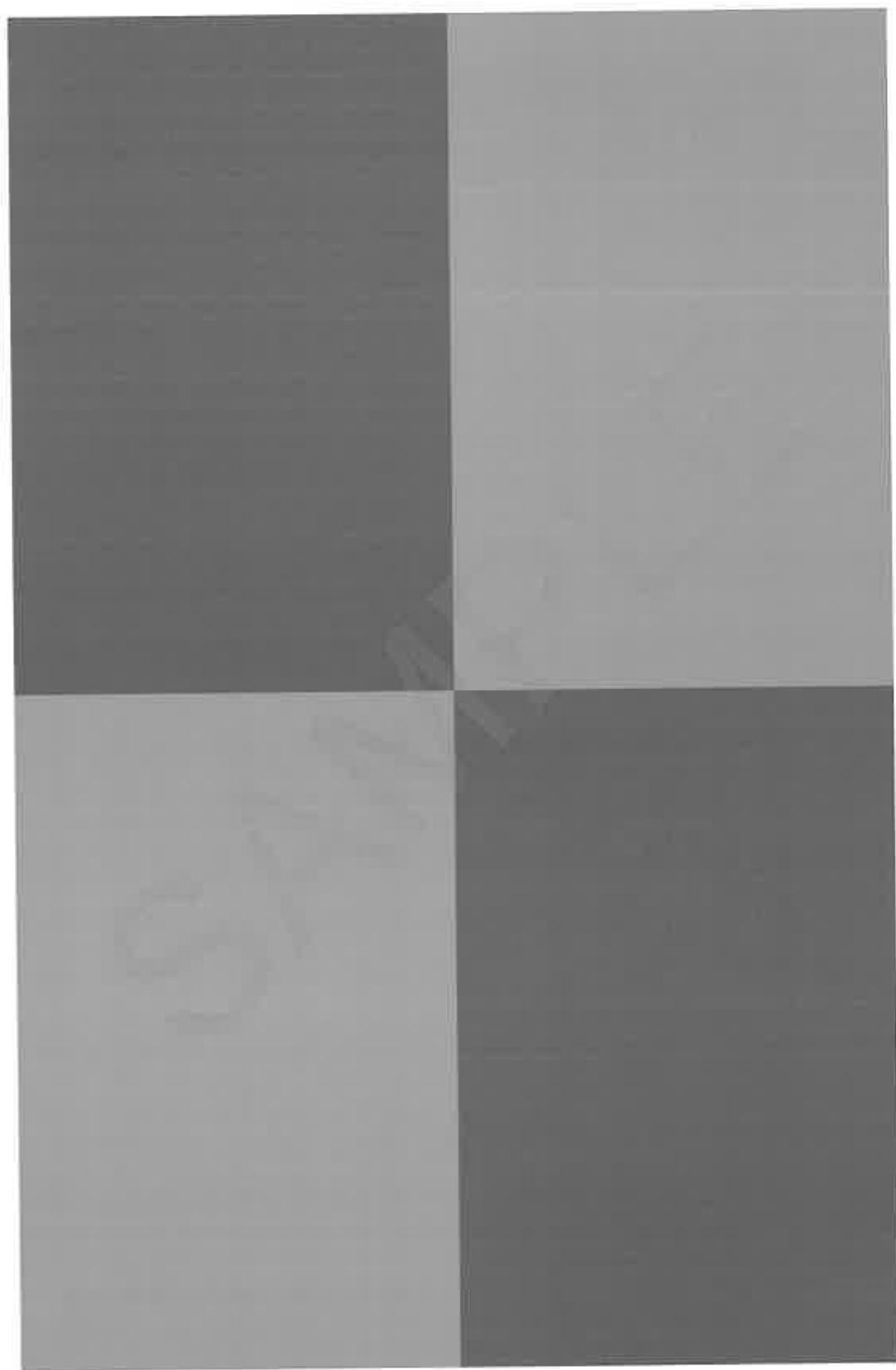
An online transaction made from a lottery terminal in which a ticket is printed at the terminal describing the details of the player's wager.

TERMINAL MESSAGES

MESSAGE	DESCRIPTION
Signed Off	Terminal is signed off.
Ready	Terminal is in signed on state, ready for transactions.
Loading	Loading parameters after sign on.
Wait	Terminal in busy state waiting for a response from the ESTE.
Training	Terminal in training mode.
Host Training	Terminal is in host training mode.
Transaction in progress ..please wait	Terminal State appears when a transaction is in progress [in communication].
Function suppressed	Functionality is not available.
Service Disabled	ESTE system is disabled.
Busy Please Try Again Later	Terminal is busy with other transactions.
Draw Break	Draw Closed unsolicited message is received from ESTE.
Draw Break Over	Draw Open unsolicited message is received from ESTE.
Sign off before switching to Live System	If the clerk selects the TRAINING ON/OFF button when the terminal is signed on to ESTE
Device Not Available	If the sign type selected is not attached to the terminal.

NOTES

SAMPLE



West Virginia Itemized Hardware

Group Name	Device Name	Description	Count
PDC	Load Balancer	A10 Networks Thunder 1030s	2
PDC	Firewall	Fortinet Fortigate 100D	2
PDC	Router	Cisco 2921	2
PDC	Switch	Juniper EX3300-48T	2
PDC	Firewall	Fortinet Fortigate 100D	2
PDC	Switch	Juniper EX3300-48T	2
PDC	Router	Cisco 2911	2
PDC	Router	Cisco 2951	2
PDC	Switch	Juniper EX3300-24T	2
BDC	Load Balancer	A10 Networks Thunder 1030s	2
BDC	Firewall	Fortinet Fortigate 100D	2
BDC	Router	Cisco 2921	2
BDC	Switch	Juniper EX3300-48T	2
BDC	Router	Cisco 2911	2
BDC	Router	Cisco 2951	2
BDC	Switch	Juniper EX3300-24T	2
Lottery Headquarters	Switch	Juniper EX3300-24T	2
Lottery Headquarters	Router	Cisco 2911	2
Warehouse	Router	Cisco 1941	2
Warehouse	Switch	Juniper EX3300-24T	2

Terminals
Served by
VSAT



Terminals
Served by
VSAT and
cellular
(Dual Comm
Inside)




**In-State
Aurora PDC**

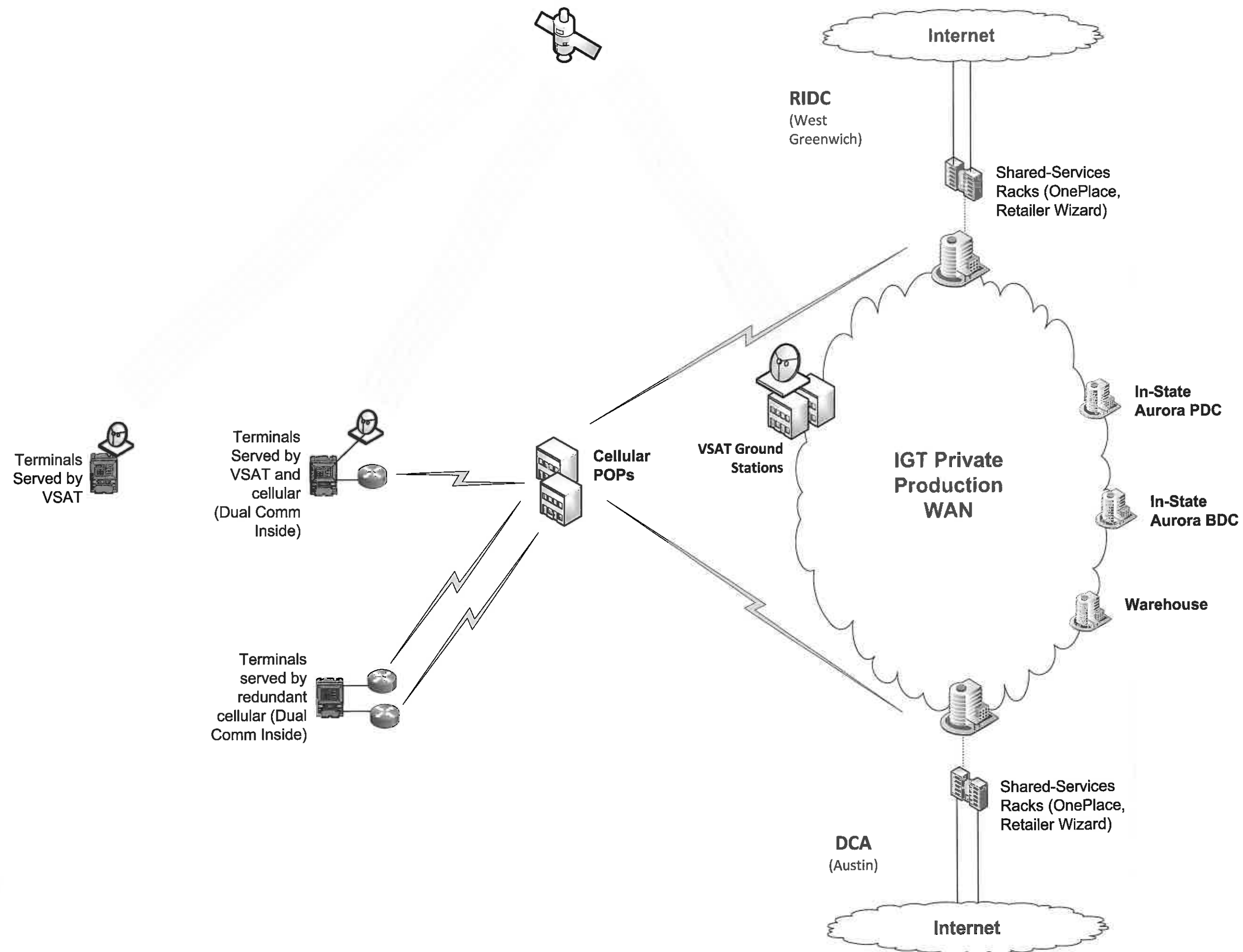
**In-State
Aurora BDC**


Varehouse

Terminals
served by
redundant
cellular (Dual
Comm Inside)



TITLE			
WEST VIRGINIA LOTTERY NETWORK ARCHITECTURE			
ES RELEASE	DRAWING	REVISED	DRAWN BY
Aurora 1.x	v1	2/1/2017	SCOTT HAGEDORN
PAGE		SHEET	
6 OF 11		WAN VIEW	
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