West Virginia Division of Natural Resources

Electronic Licensing and Game Checking System (ELS)

DNR212181

Appendix A: Specifications

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Background

Wildlife recreation in West Virginia dates back to the Colonial era. Today almost 602,000 people hunt, trap, and fish in West Virginia[1] and the revenue from their licenses helps the state apply stewardship to public lands and make them available for appropriate recreational activity. In 2010, 914,474 hunting, trapping, and fishing licenses were sold generating $15,833,142 in revenue. The GoWILD online license sales and the agent electronic POS license sales continue to grow in popularity and the two systems together accounted for more than 72 percent of license revenues for the 2010 license year[2].

Using a mix of paper-based, internet-based, and POS technology, the West Virginia Department of Commerce, Division of Natural Resources (DNR) currently maintains a group of non-integrated systems for selling hunting, trapping, and fishing licenses. Although not the subject of this RFP and not integrated with license sales, DNR law enforcement also maintains hunter safety certification and license revocation information.

The current trend in IT is to use a vendor solution for sportsperson licensing functions. In contracting for an Electronic Licensing and Game Checking System (ELS), DNR is authorizing the prime contractor (vendor) to perform these same functions via electronic devices.

Key Assumptions

The vendor will serve as a partner with the State of West Virginia; this section summarizes the major components of the contract.

- Hardware/Software

  The vendor will own all hardware and software associated with this service except in cases where a POS agent will opt to utilize their own PC, with appropriate vendor owned peripherals; DNR will require software to be held in escrow.

- Service

  The service includes the following major components: POS transaction service, internet sales, automated game checking (through Interactive Voice Response (IVR), internet, and POS), repair/replacement of malfunctioning vendor owned devices, telephone support, training, hosted environment, data extracts, and formatted reports.

- Service Level Agreement (SLA)

  The contract will include metrics for the vendor's SLA, addressing system reliability, disaster recovery, throughput, help support, and timely implementation.

- Data Extracts/Reports

  The ELS database will serve as the location-of-record for all items sold. The vendor will provide online access to the production data as well as providing a replicated database to DNR. DNR will use the replicated database for ad-hoc reporting.

- Agent Responsibility

  The ELS will systematically provide data needed to report agent activity, including EFT transactions to/from all parties. The agents will need to sign an agreement not to abuse

[1] US Fish & wildlife Service, *2006 National Survey of Fishing, Hunting, and Wildlife – Associated Recreation*
[2] West Virginia Division of Natural Resources Annual Report 2010 – 2011, December 2011

their POS device. They will also be required to provide telephone/internet connectivity for the device.

- Cash Flow

  The ELS vendor will create transactions that will allow the West Virginia Treasurer to execute EFT transactions, based on schedules determined by DNR. The vendor will also create related accounting entries for West Virginia's electronic accounting system.

Sales History

This section provides usage information to help evaluate sales volume.

VOLUME BY LICENSE TYPE AND YEAR

The following table shows sales volume for all licenses sold over a five-year period. Introduced about 25 years ago, lifetime license sales peaked in 2006 and have declined in the following years. In 2012, West Virginia introduced a resident senior lifetime license for all sportspersons who turn 65 on or after January 1, 2012.

5 Year License Sales Analysis						
	2006	**2007**	**2008**	**2009**	**2010**	**Change: 2006-2010**
Lifetime Licenses						
Adult	950	463	406	446	314	-66.95%
Infant	1,088	985	1,175	1,283	1,029	-5.42%
Total	2,038	1,448	1,581	1,729	1,343	-34.10%
Change		-28.95%	9.19%	9.36%	-22.33%	
Annual Licenses						
Resident	728,526	719,523	746,733	757,010	690,802	-5.18%
Non-Resident	240,428	236,214	236,811	248,943	223,672	-6.97%
Total	968,954	955,737	983,544	1,005,953	914,474	-5.62%
Change		-1.36%	2.91%	2.28%	-9.09%	

VOLUME BY MONTH

The following table show sales volume for license privileges sold for the calendar year 2010. License privilege sales spike for buck season in November, accounting for more than 20% of the annual license sales.

2010 License Privilege Sales			
Month	**Quantity**	**Percent**	**Sales Volume**
Jan	52,608	5.75	923,698
Feb	29,728	3.25	473,406
Mar	100,841	11.03	1,453,511
Apr	139,315	15.23	2,224,818

2010 License Privilege Sales			
Month	**Quantity**	**Percent**	**Sales Volume**
May	86,733	9.48	1,091,257
Jun	56,769	6.21	650,138
Jul	48,949	5.35	543,749
Aug	27,068	2.96	353,170
Sep	53,514	5.85	1,000,035
Oct	100,981	11.04	2,171,173
Nov	196,404	21.48	4,636,298
Dec	21,563	2.36	311,889
Total	914,474	100.00	15,833,142

For vendors, the 2010 sales table presents high volume months (November, April, and October). The importance of this is that the vendor will incur increased costs (computer costs, support costs, and supplies) and system demand during these time periods.

Offers should evaluate the five-year trend information. Sales volume will fluctuate from year to year.

The list below shows the current items related to the volumes shown in the prior tables; these are the license items that correspond to the 914,474 licenses and privileges sold in 2010. This is intended to depict the requirements for day one support; DNR will need the ability to add new license and privilege combinations in future years.

Adult Lifetime Licenses (WV Resident only)	
Class	**Description**
A-L	Hunting & Trapping (L)
AB-L	Hunting, Trapping, and Fishing (L)
A-1-L	Small Arms Hunting (P)
B-L	Fishing (L)
O-L	Trout (P)

Infant Lifetime Licenses (WV Resident only)	
Class	**Description**
A-L-I	Hunting & Trapping (L)
AB-L-I	Hunting, Trapping, and Fishing (L)
B-L-I	Fishing (L)
O-L-I	Trout (P)

Senior Lifetime Licenses (WV Resident only)[3]	
Class	**Description**
XS	Hunting, Trapping, and Fishing (L)

Current Resident & Non-Resident Licenses		
Resident	**Non-Resident**	**Description**
	I	National Forest Hunting/Trapping/Fishing (P)
A	E	Hunting/Trapping (L)
	EE	Non-Resident Bear (L)
B	F	Fishing (L)
	H	Non-Resident Small Game – 6 day (L)
	LL	Non-Resident Fishing – 1 day (L)
N	NN	Antlerless Deer (P)
RG	RRG	Additional Deer – Firearms (P)
RB	RRB	Additional Deer – Archery (P)
RM	RRM	Additional Deer – Muzzleloader (P)
	UU	Non-Resident Archery – Deer (P)
	VV	Non-Resident Muzzleloader – Deer (P)
	WW	Non-Resident Turkey (P)
X		Sportsman Hunting, Trapping, & Fishing (L)
XJ	XXJ	Junior Sportsman (L)
DS	DS	Bear Damage (P)
O	OO	Trout Fishing (P)
J	J	Small Game Shooting Preserve Hunting – 6 day (L)
CS	CS/LE	Conservation/Law Enforcement (P)
A1	A1	Pistol - Small Arms (P)
BG		Big Game (P)
DT	DT	Terminally Ill – issued only through DNR HQ
AH	AAH	Apprentice (L)
AHJ	AAHJ	Apprentice Junior (L)

[3] Senior Lifetime licenses were introduced in January 2012 and are required of West Virginia residents who turn 65 after January 1, 2012 to hunt, trap, and fish after that date. West Virginia residents who turned 65 prior to January 1, 2012 may purchase the license on a voluntary basis.

APPRENTICE LICENSES

Annual resident and non-resident apprentice hunting and trapping licenses may be issued beginning January 1, 2013. Apprentice licenses entitle the hunter or trapper eighteen years of age or older to defer the certified training required for an annual or lifetime license. An apprentice license holder must purchase the required permits and must be accompanied by a licensed adult. No hunter or trapper may purchase more than three apprentice licenses and the purchase must occur within a period of five consecutive years. A junior apprentice license is available for hunters and trappers at least fifteen years of age but less than eighteen years of age.

GAME CHECKING

Although a variety of species are required to be checked, by far the largest volume of game checking occurs during the first seven days following the opening of buck gun season. Buck gun season opens on the Monday before Thanksgiving.

This table provides historical game checking information to help evaluate seasonal volume. The table represents a six-year analysis of buck game check, detailing the first seven days of the season and the season total. Although the number of game checked dropped in 2010, 2011 showed an increase to more normal levels. The most game checked during buck gun season was in 2002 when 255,356 bucks were checked.

Game Check by Day for the First Week of Buck Gun Season								
	Mon	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**	**Sun**	**Season Total**
2006	28,589	18,321	11,610	6,565	7,660	5,619	394	137,621
2007	31,067	15,213	9,096	4,832	9,076	7,719	444	145,937
2008	24,853	17,960	14,842	9,057	10,203	8,350	379	163,603
2009	26,762	16,932	10,821	6,610	7,304	8,655	560	155,214
2010	18,150	9,590	9,497	3,939	5,339	5,209	385	106,499
2011	22,735	10,573	10,624	7,962	9,256	6,808	356	135,696

Special Programs

BLACK BEAR DRAWINGS

Hunting for Black Bear with dogs in the Nathaniel Mountain Wildlife Management Area (WMA) and the Short Mountain WMA, both in Hampshire County, requires applicants to complete an application and mail it to the West Virginia DNR in Elkins. Hunting parties are limited to the four individuals listed on the application. Hunting parties are limited to eight dogs owned by at least one of the applicants; applicants must include verifiable county dog tax license numbers for at least four of the dogs. A certain number of weekly hunts in each WMA are available during the four-week bear season. When completing the application, the applicant must indicate for which WMA they are applying. Parties are drawn randomly by computer until all hunts are filled. Successful applicants are notified by mail.

ANTLERLESS DEER DRAWINGS

Hunting for Antlerless Deer in selected WMAs and counties require applicants to complete and mail an application to the West Virginia DNR in Elkins. A specific number of licenses will be allocated to each WMA or county. Applications will be included in a random drawing by computer. Successful applicants will be sent an "Eligibility Card" indicating the WMA or county in which the applicant may hunt. The successful applicant is also required to purchase a Class N stamp.

Electronic Licensing System (ELS) Specifications

This Appendix contains functional and non-functional specifications for the Electronic Licensing and Game Checking System DNR wishes to implement, organized into four sections: Functional Specifications, Service Level Agreement, Technical Specifications, and Roll out and Post-Implementation Specifications. Each section contains specific specifications in matrix form. Some sections include substantial explanatory information as well. The specifications are intended to provide prospective bidders with specific information on the functionality, technical environment, and service level required in the new system. These specifications will subsequently become the basis for the ELS system design and architecture. It is anticipated that additional specifications will be identified during the system design phase and the chosen bidder (vendor) should be prepared to incorporate those additional specifications as necessary.

Functional Specifications

1. General Business Management

This section describes overarching specifications for the ELS such as requiring a database connection to issue licenses.

1.01 Vendor Relationship

The vendor should own all hardware and software associated with the contract except in cases where a POS agent will opt to utilize their own PC. The system should operate as an e-business, with real-time connectivity between the vendor site and all participating agents. The technical environment – both structural and procedural – should deploy strategies appropriate for a West Virginia business partner.

1.02 Search Criteria

It is anticipated that the ELS should allow DNR to search the database for agents, customers, license components, and issued licenses, to name just a few examples. Where appropriate, agents may be able to search the ELS database.

1.03 Letter and Form Generation

Individual mailings to an agent or licensee or mass mailings to agents or licensees may be required from time to time. An authorized DNR user should be able to generate letters or forms for all or a subset of agents and licensees. Letters, mailing labels, envelope printing, and electronic files may be required depending on the situation. Electronic files should be formatted for import into Excel or Word.

Agent relationship management information should be processed through the ELS and correspondence may be generated. Changes in agent status or financial issues should trigger this reporting. Administration of agent securities should result in correspondence to companies to resolve issues.

Customer relationship management correspondence should be processed for specialized licensing reminders, revocations, marketing, to name a few.

For agents and customers, the preferred method of communications should be email. If an email address is not provided, the communications method should be U.S. mail.

Employer Identification Number (EIN) or Social Security Number (SSN) information should never be included in a letter, label, envelope, or electronic file. If required, only the last four digits of the EIN or SSN should be included.

1.04 Agent Applications

This component provides the ability for authorized DNR staff to add agents to the ELS. The agents apply to DNR and are investigated and approved by DNR law enforcement and treasury before being accepted as an agent. Only then does DNR add the agent to the ELS.

1.05 PRE-AUTHORIZE CREDIT CARD

For internet sales, the ELS should validate or pre-authorize credit cards as part of the sales process. The ELS will utilize the West Virginia Treasurer's payment gateway for credit card transaction processing.

1.06 ALERTS

The ELS should support functionality to send alerts or messages to agents or internet customers that pop-up when they log into the system or open a record. Some alerts to agents should be issued instantly. The alerts can be focused to certain agents or customers (such as by agent type or county) or general to all agents or customers.

1.07 RETENTION OF INCOMPLETE TRANSACTION DATA

There may be times when a new internet customer begins but does not complete the application process (cancels the sale for any reason). The ELS should not retain and should discard all customer and transaction information in the database if the sale is not completed. A report at DNR HQ should identify all incomplete transactions.

1.08 TRAINING MODE

The ELS should offer a training mode for all agents. The training mode operates offline and allows simulation of the production mode, recording transactions, printing licenses, and generating agent reports. Licenses and agent reports printed in training mode should be clearly marked as void and not valid for use. The POS device should very clearly indicate it is in training mode.

1.09 SPECIAL LICENSES AND PERMITS

The ELS should allow DNR to issue free licenses and/or permits to certain individuals who meet strict eligibility requirements. Individuals may be eligible for one or more licenses or permits if they are physically or developmentally disabled, terminally ill, or are a disabled veteran or former POW. These special licenses and permits are issued at DNR Headquarters only.

Developmentally disabled residents of West Virginia are entitled to receive a free lifetime fishing card. The card is issued only at DNR Headquarters in South Charleston.

Terminally ill residents and non-residents are entitled to apply for a DT license. The applicant must be under the age of 21 and have a terminal condition or illness that has a high probability of death within two years. Application is made to DNR Headquarters. The DT license is issued in the form of a letter from the Director. Class DT license holders must be accompanied by a parent, guardian, or other competent licensed adult 21 years or older.

Class Q (resident) and QQ (non-resident) permits allow physically challenged hunters access to gated points on public land or on private land as well as fishing in public lakes that are stocked at various times for Class Q and QQ holders and children. Persons who are paralyzed or are missing legs may hunt from a stationary vehicle. Application for a class Q or QQ permit is made to DNR Headquarters. This is a lifetime permit. Class Q and QQ hunters must also possess the appropriate annual licenses and privileges.

Class Y (resident) and YY (non-resident) permits allow physically challenged hunters to use a crossbow. Application for a class Y or YY permit is made to DNR Headquarters. This is a lifetime permit. Class Y and YY hunters must also poses the appropriate annual licenses and privileges, and be accompanied by a licensed hunter.

Disabled veterans and former POWs may receive a free lifetime hunting and fishing privilege. Application is made to DNR Headquarters.

Physically impaired hunters may apply for a Modified Bow Permit, requesting permission for the applicant to use a long bow, recurved bow, or compound bow that has been modified or manufactured to hold the bow at full draw. Application includes a physician's certification and is submitted to DNR Headquarters. DNR evaluates the application and issues or denies the permit. If approved, DNR stamps the application as approved and returns it to the applicant who must carry the approved application with them when they hunt. If the impairment is temporary, DNR issues a six-month permit; if the impairment is permanent, DNR issues a permanent permit. The ELS records issuance of the permit. If a temporary permit is issued, the ELS records the effective dates (from – to) of the permit.

At the discretion of the Director, a few licenses per year may be distributed at no cost (complimentary).

1.10 ADMINISTRATIVE

There are certain procedures that are unique to DNR. The ELS recognizes a DNR user and, based on roles, allows them special administrative functionality such as issuance of lifetime and special licenses from Headquarters in South Charleston or from the Elkins Operations Center. As a customer service, DNR Headquarters issues licenses to "walk-in" customers and accepts alternate methods of payments such as checks or money orders. DNR also needs functionality to search for newly issued licenses.

1.11 USER ROLES

The DNR administrator has the ability to maintain access roles (rights) for each ELS user. The roles differ between users: POS administrators, POS users, internet customers, help desk, and DNR staff. Typical roles could be view only, change, add, or some combination. Only those features of the ELS that a user's access rights allow him/her to perform are displayed to that particular user. For example, a POS administrator may have rights to add new POS users, but not the rights to change the cost of a license item.

1.12 DROP DOWNS

The values in "drop downs" may be vendor specific, such as states or user actions, or customer specific, such as county or WMA. Drop downs that are customer specific should be populated in such a way that DNR is able to maintain the drop down values without assistance from the ELS vendor.

1.13 INVENTORY AND SUPPLIES

The ELS vendor provides inventory management and delivery for materials required by the agents to sell and print licenses. The ELS should allow agents to order supplies such

as license paper and printer ink. The ELS should provide order confirmation and track the status of the order.

1.14 REVOCATIONS

DNR law enforcement can revoke a license for multiple reasons. The system should record the reason for the revocation and the start/end dates (in some cases the end date will be indefinite). DNR law enforcement manually enters and/or removes revocations in the ELS. While DNR and help desk can view revocation status, only DNR law enforcement can view detail revocation data.

A revoked annual license cannot be reinstated, even after the offending restriction has been removed. However, removing the revocation from a lifetime license "reinstates" the lifetime license and privileges.

DNR law enforcement can revoke a person's hunting and fishing privileges.

Revocations occur outside the ELS, and any correspondence or communication with the affected licensee also occurs outside the ELS.

1.15 AUDIT TRAIL

The ELS should maintain an audit trail of all additions, deletions, and changes made to any record in the system. Any transaction created while in training mode should be clearly marked.

Functional Specifications: General Business Management	
SPEC #	**Specification Description**
1.01	**Vendor Relationship**
F 1.	The ELS shall operate in a vendor hosted environment
F 2.	All hardware associated with operation of the ELS should be owned by the vendor except in cases where a POS agent will opt to utilize their own PC
F 3.	All software associated with operation of the ELS should be owned by the vendor except in cases where a POS agent will opt to utilize their own PC in which case the PC software (e.g. OS and browser) should be provided by the agent
F 4.	The ELS should require a connection between the vendor and the agent when executing any transaction
F 5.	The ELS technical environment should meet all structural standards defined for a West Virginia business partner
F 6.	The ELS technical environment should meet all procedural standards defined for a West Virginia business partner
1.02	**Search Criteria**
F 7.	The ELS should allow DNR to search the replicated database
F 8.	The ELS should, when appropriate, allow DNR to search the ELS production database
F 9.	The ELS should support wildcard searches by DNR
F 10.	The ELS should not require searches to be case sensitive
F 11.	The ELS should ignore non-alpha numeric characters when searching
F 12.	The ELS should display leading zeros when displaying identifiers such as Social Security Number or driver license numbers
1.03	**Letter and Form Generation**
F 13.	The ELS should support communication to customers
F 14.	The ELS should support the generation of email as a method of communication
F 15.	The ELS should support the generation of letters as a method of communication
F 16.	The ELS should support the generation of mailing labels as a method of communication
F 17.	The ELS should support the generation of electronic files as a method of communication
F 18.	The ELS should support an option to format electronic files for Excel
F 19.	The ELS should support an option to format electronic files for Word
F 20.	The ELS should support communication to all agents
F 21.	The ELS should support communications to agents within one or more counties or geographical areas (such as a district)
F 22.	The ELS should support communications to agents belonging to a larger business organization
F 23.	The ELS should support communications to agents authorized to sell certain licenses
F 24.	The ELS should support communications to agents in a certain status
F 25.	The ELS should support communications to agents of a certain type
F 26.	The ELS should support communications to all customers
F 27.	The ELS should support communications to customers issued a certain type of active license or privilege for a specific license year
F 28.	The ELS should support communications to customers with a certain personal attribute
F 29.	The ELS should support communications to customers residing in a certain county
F 30.	The ELS should support communications to customers with an in-state address
F 31.	The ELS should support communications to customers with an out-of-state address
F 32.	The ELS should support communications to customers with a certain status
F 33.	The ELS should support communications to customers who are currently revoked

Functional Specifications: General Business Management	
SPEC #	**Specification Description**
F 34.	The ELS should support communications to customers issued a certain type of active license or privilege for a specific license year purchased from a certain agent
F 35.	The ELS should support communications to customers who have a license or privilege voided during a specified time period
F 36.	The ELS should support communications to customers who have obtained a reprint of their license during a specified time period
F 37.	The ELS should default the method of communications to email if an email address is provided
F 38.	The ELS should default the method of communications to U.S. mail if an email address is not provided
F 39.	The ELS should not include SSN in any communication
F 40.	The ELS should not include EIN in any communication
F 41.	The ELS should, when required, print only the last four digits of SSN and print asterisks (*) for the first five digits of SSN
F 42.	The ELS should, when required, print only the last four digits of EIN and print asterisks (*) for the first five digits of EIN
1.04	**Agent Applications**
F 43.	The ELS should allow authorized DNR staff to add a new agent
1.05	**Pre-authorize Credit Card**
F 44.	The ELS should pre-authorize credit cards on all internet sales
F 45.	The ELS shall use the West Virginia Treasurer's payment gateway for all credit card transactions
1.06	**Alerts**
F 46.	The ELS should support functionality to send instant alert messages to agents
F 47.	The ELS should support functionality to send alert messages to customers
F 48.	The ELS should support functionality to target specific agents or customers to receive the alert message
1.07	**Retention of Incomplete Transaction Data**
F 49.	The ELS should not retain in the database customer information if the sale is not completed
F 50.	The ELS should not retain in the database transaction information if the sale is not completed
F 51.	The ELS should identify all incomplete sales to DNR
1.08	**Training Mode**
F 52.	The ELS should support an agent POS "training" mode
F 53.	The ELS should operate the POS offline in training mode, simulating production mode
F 54.	The ELS should clearly identify to the agent that the POS is in training mode
F 55.	The ELS should record all transactions in training mode
F 56.	The ELS should indicate the transaction was created in training mode
F 57.	The ELS should consider all transactions created in training mode as not valid
F 58.	The ELS should clearly identify all printed licenses and privileges generated while in training mode as void and not valid for use
F 59.	The ELS should clearly identify all agent reports generated while in training mode as void and not valid for use
1.09	**Special Licenses and Permits**
F 60.	The ELS should allow DNR to issue free licenses and permits to individuals who meet strict eligibility requirements
F 61.	The ELS should allow these licenses and permits to be issued only by authorized staff at DNR Headquarters

Functional Specifications: General Business Management	
SPEC #	**Specification Description**
1.10	**Administrative**
F 62.	The ELS should recognize a DNR user
F 63.	The ELS should allow DNR certain unique functionality
F 64.	The ELS should allow authorized DNR staff to issue all licenses and permits
F 65.	The ELS should allow authorized DNR staff to issue lifetime and certain special licenses and permits
F 66.	The ELS should allow authorized DNR staff to print certain licenses and permits and to generate reprints of licenses as needed
F 67.	The ELS should allow DNR to print lifetime and certain specialized licenses on a “credit card” type printer (Fargo HDP-5000 printer or equivalent, capable of printing more than 6,000 cards/year)
F 68.	The ELS should support adding graphics to licenses printed on the credit card printer
F 69.	The ELS should provide a method to allow DNR to accept alternate types of payment such as cash or checks
F 70.	The ELS should provide functionality to search, in real time mode, the ELS database for licenses sold by a specific agent
1.11	**User Roles**
F 71.	The ELS should allow the DNR administrator to maintain roles for each ELS user
F 72.	The ELS should allow a user access only to functions he/she has the right to perform
1.12	**Drop Downs**
F 73.	The ELS should allow DNR to maintain customer specific values in drop down tables
1.13	**Inventory and Supplies**
F 74.	The ELS should allow agents to order supplies
F 75.	The ELS should track and manage an agent’s supply orders
F 76.	The ELS should confirm an order to the agent
1.14	**Revocations**
F 77.	The ELS should allow only DNR law enforcement to revoke a customer’s hunting, trapping, and fishing privileges
F 78.	The ELS should allow only DNR law enforcement to enter the revocation beginning and revocation ending dates
F 79.	The ELS should allow only DNR law enforcement to enter a reason for the revocation
F 80.	The ELS should allow only DNR law enforcement to view revocation details
F 81.	The ELS should allow DNR and help desk to view revocation status
F 82.	The ELS should not reinstate an annual license when the revocation is removed
F 83.	The ELS should reinstate a lifetime license when the revocation is removed
F 84.	The ELS should not sell a customer a license if the customer’s privileges have been revoked
1.15	**Audit Trail**
F 85.	The ELS should maintain uninterrupted sequential numbering of all transactions in the audit trail
F 86.	The ELS should include date of the action in the audit trail
F 87.	The ELS should include user ID in the audit trail
F 88.	The ELS should produce an audit report showing gaps in the transaction sequential numbering
F 89.	The ELS should clearly identify transactions created in training mode

2. Agent Management

Licenses and related privileges are sold at more than 280 locations across the state. These include DNR headquarters, county clerk's offices, and more than 200 retail sites. Some agents are restricted as to which items they can sell. In general, commercial agents, county clerks, magistrates, state parks, and district offices sell the same common inventory of "standard" annual license components. DNR Headquarters sells annual, special, and adult and infant lifetime licenses. The internet is considered a "virtual" agent.

The ELS should maintain one and only one record for each agent. From a functional perspective, an "agent" is a firm or office located at a physical address. In addition, many agents are part of a larger business organization, such as multiple Wal-Mart or Kmart stores.

This section pertains to data and processing specifications for the Agent.

2.01 General Agent Data

West Virginia DNR is responsible for providing data for the initial load of agents. The conversion team will work with the vendor according to vendor specifications.

The ELS should allow DNR to search for agents on agent ID, business name, city, and/or county.

When the search yields several matches, the matching agents should be displayed and DNR can select the appropriate agent. The matches should be displayed in ascending sequence based on the search criteria.

The following represents the minimum amount of information required by the ELS for each agent.

2.02 Identifier (ID)

Each agent currently has a unique agent ID, and the ELS should maintain this information for cross-reference purposes. The vendor can determine how to identify each agent record internally, as long as the respective existing agent IDs are available to ELS end-users. DNR should assign the agent ID when a new agent is established in the ELS.

The ELS should also include the Social Security Number or Federal Employer Identification Number associated with the agent.

2.03 Authorized Users

Typically, an agent has several employees who use the POS device. Each agent has an authorized POS administrator who establishes the role of each user. DNR has the ability to authorize the number of POS users at an agent site. POS user access and functionality should be governed by the role assigned by the POS administrator. The POS administrator defines the user ID; the user ID should be unique within the ELS, and the ELS should require the use of strong passwords. The ELS should record the POS user on each transaction.

The DNR should have access to this information and can suspend (and reinstate) an individual POS user's ability to access and use the system.

The POS device should timeout during periods of inactivity, requiring the POS user to login to the POS. DNR determines the timeout inactivity period. A POS user should be locked out after three failed attempts to login; the POS administrator resets the POS user password to allow the POS user access. Help desk and authorized DNR staff can reset the POS administrator's password.

2.04 NAME

Business name.

2.05 ADDRESSES

Agent addresses should have the capability for domestic and international addresses. In addition, each West Virginia address relates to one and only one West Virginia county.

2.06 RISK THRESHOLD

The sales an agent makes between the most recent sale and the last successful EFT sweep represents a financial risk to DNR. DNR needs a method to manage this risk. Therefore, the ELS should contain a risk threshold value for each agent which represents the amount of risk or exposure DNR is willing to take with the agent. The ELS should not prevent agent sales when the risk threshold has been exceeded. Rather, DNR manages risk by comparing outstanding sales revenue to the risk threshold via an on-demand report.

2.07 BANKING INFORMATION

The West Virginia Treasurer maintains bank account information for each issuing agent. The ELS needs to include information to facilitate electronic funds transfer (EFT).

2.08 AGENT CONTACT INFORMATION

The ELS should include the functionality to record one or more contacts for each agent. For example, the contact information could be different for the business and the POS administrator at the business.

2.09 GENERAL BUSINESS INFORMATION

The ELS system should maintain information on the business' availability to customers and hours of operation. In addition, it should record business type, e.g., partnership, limited partnership, corporation, sole/individual proprietorship, Limited Liability Company, government, other. The ELS should also include the agent enrollment date and the agent separation date.

2.10 AGENT TYPE

Preliminary review of agent data yields "types" of agents. Examples of the agent type could be internet, DNR Headquarters, county clerk, POS retail/commercial, or state parks.

Combinations of "agent type" and the agent authorization data below are prime determinants for the business rules associated with the license components and pricing.

2.11 AGENT AUTHORIZATION

The system should enable DNR to authorize/de-authorize some activities, such as suspensions, based on the type of agent.

The ELS system needs to maintain information related to the items that the individual agent is authorized to sell. An individual-level restriction for selling overrides a higher-level authorization. For each license component, the DNR allows/disallows the respective agent from selling that component. This also includes the capability of assigning limited quotas, such as the maximum number of antlerless deer tags sold by a specific agent.

Agents are not authorized to sell adult and infant lifetime licenses, although they may print lifetime license applications.

The system should include status information on the agent (e.g., active, on-hold, suspended, closed), along with the status date and the reason for the hold or classification of the issue. Agents that have the status of "on-hold" are prevented from issuing license components and then take any remedies as needed until they qualify for the "active" status. These agents might be subject to a late fee assessed on their account at the discretion of the DNR.

2.12 STATUS HISTORY

For each agent, the system should enable DNR to maintain status history. This should be a simple means of tracking, including free-format narrative fields. This could include keeping a separate history for all status changes, unless already available via audit tracking.

2.13 ISSUE TRACKING

DNR needs to track agent and DNR issues through the system. Once entered in the ELS, issues cannot be changed or deleted.

2.14 FINANCIAL SECURITY DATA

The system should maintain information on the bonding or other security status of agents. DNR does not need a history of security status changes.

2.15 UNIQUE IDENTIFICATION

The ELS system should allow for one or more uniquely identified POS devices at each agent location. The system tracks each license component issued from each device and correctly correlates the license and device both to the agent and POS user processing the transaction and the person for/by whom the license is purchased. Each transaction should be assigned a unique transaction ID.

Functional Specifications: Agent Management	
SPEC #	**Specification Description**
2.01	**General Agent Data**
F 90.	West Virginia DNR should provide the data for the initial load of agents
F 91.	West Virginia DNR should provide the data in a format specified by the vendor and agreed to by DNR
F 92.	The ELS vendor should convert and load existing agent data into the ELS system
F 93.	The ELS should allow DNR to add an agent record
F 94.	The ELS should allow DNR to change an agent record
F 95.	The ELS should allow the POS administrator to change certain attributes of their agent record
F 96.	The ELS should notify DNR when the POS administrator changes their agent record
F 97.	The ELS should prevent an agent record from being deleted
F 98.	The ELS should not allow an agent access to another agent's record
F 99.	The ELS should allow DNR to search for an agent by agent ID
F 100.	The ELS should allow DNR to search for an agent by business name
F 101.	The ELS should allow DNR to search for an agent by business city
F 102.	The ELS should allow DNR to search for an agent by business county
F 103.	The ELS should not require the search to be case sensitive
F 104.	The ELS should display to DNR the requested agent if the search does not yield multiple matches
F 105.	The ELS should display to DNR the matching agents when the search yields multiple matches
F 106.	The ELS should display to DNR the matching agents in ascending sequence based on the search criteria when the search yields multiple matches
F 107.	The ELS should allow DNR to select the agent to display from list when the search yields multiple matches
F 108.	The ELS should display an "agent not found" message if the requested agent is not found by the search
2.02	**Identifier**
F 109.	The ELS should assign an internal number to each agent
F 110.	The ELS should include the agent ID currently assigned to agents that exist at the time of conversion
F 111.	The ELS should allow DNR to assign an agent ID when establishing a new agent
F 112.	The ELS should prevent DNR from assigning an agent ID to more than one agent (the agent ID must be unique)
F 113.	The ELS should allow DNR to view the agent ID
F 114.	The ELS should allow DNR to query an agent on the agent ID
F 115.	The ELS should include the Social Security Number (SSN) associated with the agent (in the case of sole proprietorship)
F 116.	The ELS should include the Federal Employer Identification Number (FEIN) associated with the agent
2.03	**Authorized Users**
F 117.	The ELS should require a unique user ID for each POS user including the POS administrator at each agent site
F 118.	The ELS should allow the DNR administrator to authorize the number of POS devices at an agent site
F 119.	The ELS should require a unique Password for each POS user including the POS administrator
F 120.	The ELS should allow the POS administrator to add a new POS user

Functional Specifications: Agent Management	
SPEC #	**Specification Description**
F 121.	The ELS should allow the POS administrator to define the role for each POS user
F 122.	The ELS should allow the POS administrator to enter the POS User ID in the system on initial POS user setup
F 123.	The ELS should require POS User IDs to be unique within the ELS
F 124.	The ELS should allow the POS user to enter their password in the system on initial POS user setup
F 125.	The ELS should require the use of strong POS User passwords
F 126.	The ELS should require the POS user to change their password on a predetermined frequency
F 127.	The ELS should allow the POS user to maintain their password in the system
F 128.	The ELS should prevent a POS user from being deleted from the system
F 129.	The ELS should associate a POS user with an agent
F 130.	The ELS should allow the POS administrator at the agent's location to seed a POS user's password
F 131.	The ELS should allow the help desk or DNR to seed a POS administrator's password or a POS user's password at an agent location
F 132.	The ELS should govern the access and functionality of the POS device based on the user role
F 133.	The ELS should allow the POS administrator to maintain the role(s) for each POS user
F 134.	The ELS should allow the POS administrator to "deactivate" a POS user
F 135.	The ELS should allow multiple POS users at an agent site
F 136.	The ELS should allow the DNR administrator to authorize the number of POS users at an agent site
F 137.	The ELS should timeout the POS user session after periods of inactivity
F 138.	The ELS should require the POS user to login after being timed out
F 139.	The ELS should allow DNR to set the inactive period
F 140.	The ELS should lockout a POS user after three failed login attempts
F 141.	The ELS should allow DNR access to each POS user in the system
F 142.	The ELS should allow DNR to suspend a POS user's access to the system
F 143.	The ELS should allow DNR to restore (reinstate) a POS user's access to the system
F 144.	The ELS should allow DNR to suspend an agent's access to the system
F 145.	The ELS should allow DNR to restore (reinstate) an agent's access to the system
2.04	**Name**
F 146.	The ELS should include the business name of each agent
F 147.	The ELS should include the legal business name of each agent
2.05	**Addresses**
F 148.	The ELS should include the agent's physical address
F 149.	The ELS should include the agent's shipping address
F 150.	The ELS should include the agent's mailing address
F 151.	The ELS should allow domestic address format
F 152.	The ELS should allow international address format
F 153.	The ELS should validate domestic addresses
F 154.	The ELS should, where possible, validate international addresses
F 155.	The ELS should include the GIS coordinates of the agent's physical address
F 156.	The ELS should include the business county code
F 157.	The ELS should include the DNR district the business is located in
2.06	**Risk Threshold**
F 158.	The ELS should include a risk threshold for each agent
2.07	**Banking Information**

Functional Specifications: Agent Management	
SPEC #	**Specification Description**
F 159.	The ELS should include a unique identifier for each agent to allow the West Virginia Treasurer to cross reference the issuing agent's bank account information
F 160.	The ELS should include a remittance (EFT transfer) schedule for each agent
F 161.	The ELS should include a vendor number assigned by Treasury
F 162.	The ELS should prevent an agent from viewing banking information
F 163.	The ELS should allow DNR to view banking information
F 164.	The ELS should allow DNR to change banking information
2.08	**Agent Contact Information**
F 165.	The ELS should allow multiple contact records for each agent
F 166.	The ELS should include a contact type indicator
F 167.	The ELS should include the contact name
F 168.	The ELS should include the contact email address
F 169.	The ELS should include the contact telephone number
F 170.	The ELS should include the contact alternate telephone number
F 171.	The ELS should include the contact fax number
F 172.	The ELS should include the contact cell phone number
2.09	**General Business Information**
F 173.	The ELS should include the business availability to customers and hours of operation
F 174.	The ELS should include the type of business (such as sole proprietorship or corporation)
F 175.	The ELS should include the agent enrollment date
F 176.	The ELS should include the agent separation date
2.10	**Agent Type**
F 177.	The ELS should include the agent type
2.11	**Agent Authorization**
F 178.	The ELS should include a list of licenses or privileges an agent may sell
F 179.	The ELS should include a quota for each license or privilege an agent may sell
F 180.	The ELS should include an agent status
F 181.	The ELS should include status date
F 182.	The ELS should include status reason
F 183.	The ELS should prevent the agent from access to the ELS based on certain status values
F 184.	The ELS should allow only DNR to change an agent status
2.12	**Status History**
F 185.	The ELS should include a history of all status changes
F 186.	The ELS should keep each status change unique
F 187.	The ELS should write a status change record to the status history each time the agent status is changed
F 188.	The ELS should include the DNR user who made the status change in the status history
F 189.	The ELS should include date of the status change in the status history
F 190.	The ELS should include time of the status change in the status history
F 191.	The ELS should include free-format narrative field in the status history
F 192.	The ELS should prevent the agent from viewing the agent status
F 193.	The ELS should prevent the agent from viewing the status history
2.13	**Issue Tracking**
F 194.	The ELS should include issue tracking history for each agent
F 195.	The ELS should add a tracking record to the issue history each time the issue is updated or a new issue is raised
F 196.	The ELS should prevent an existing issue to be changed
F 197.	The ELS should prevent an existing issue from being deleted

Functional Specifications: Agent Management	
SPEC #	**Specification Description**
F 198.	The ELS issue history should include the date the issue was reported
F 199.	The ELS issue history should include the agent hold or suspension date
F 200.	The ELS should allow DNR to assign a classification to each issue
F 201.	The ELS issue history should include the classification
F 202.	The ELS issue history should include a free form narrative
F 203.	The ELS issue history should include the DNR user ID
F 204.	The ELS issue history should include the contact handling the issue
F 205.	The ELS should allow DNR to assign a status to each issue
F 206.	The ELS issue history should include the issue status
F 207.	The ELS issue history should include the issue status date
F 208.	The ELS should prevent the agent from adding an issue to the issue history
F 209.	The ELS should prevent the agent from viewing the issue history
F 210.	The ELS should allow DNR to add an issue to the issue history
2.14	**Financial Security Data**
F 211.	The ELS should include the form of security
F 212.	The ELS should include the security amount
F 213.	The ELS should include the security number
F 214.	The ELS should include the security company name
F 215.	The ELS should include the security company address
F 216.	The ELS should include the security company telephone phone
F 217.	The ELS should include the security effective date
F 218.	The ELS should include the security expiration date
2.15	**Unique Identification**
F 219.	The ELS should assign a unique POS ID to each POS device
F 220.	The ELS should associate the POS ID with the agent using that POS device
F 221.	The ELS should allow for more than one uniquely identified POS device at an agent location
F 222.	The ELS should record the POS ID on each transaction
F 223.	The ELS should record the POS User ID on each transaction
F 224.	The ELS should record the Customer ID on each transaction
F 225.	The ELS should record the current date on each transaction
F 226.	The ELS should record the current time on each transaction
F 227.	The ELS should assign a sequential transaction ID, unique to the POS device, to each transaction
F 228.	The ELS should record the unique transaction ID on each transaction

3. Customer Management

Normally, the "customer" purchasing a license is indeed the bearer of the license (i.e., the licensee). As a result, this discussion uses the term "customer" to describe the person authorized to conduct the sports activity noted on the license; it is the responsibility of the buyer to provide required customer data to the agent at the point of sale.

At present, DNR has very little data on customers. The subset of available information focuses on lifetime sportspersons and those licenses sold through the GoWILD system (internet and POS). The DNR is responsible for providing the initial load of customer information, working collaboratively to specifications provided by the ELS vendor. DNR law enforcement manually enters license revocation information.

This section pertains to data and processing specifications for the license purchaser.

3.01 General Customer Information

These are characteristics or data elements that identify and describe a person authorized to hunt, trap, or fish in West Virginia. The customer information is normally obtained at the point of sale; after the first year, prior-year data is available to speed the issuance of licenses.

West Virginia DNR is responsible for providing data for the initial load of customers. Customer data comes from POS customers, internet customers, and lifetime license holders. No customer data exists for licenses sold through "paper" agents. Currently, DNR maintains separate databases for POS customers, internet customers, and lifetime license holders. Conversion data should include customer and license information.

DNR currently has 115 POS agents.

DNR and help desk should have the ability to look up a customer by name, customer ID, Social Security Number (SSN), driver license number (or state issued ID number), or license number. When the search yields several matches, the matching customers should be displayed and DNR or help desk can select the appropriate customer. The matches should be displayed in ascending sequence based on the search criteria.

No gift certificates are issued; in other words, with the exception of the infant lifetime license, the person who buys a license is the person to whom the license is issued.

The ELS can add new customers or make changes to existing customer's demographics through the POS or internet at time of license sale. The ELS should allow DNR to make changes at any time. However, previously issued current licenses (for example resident vs. non-resident) may make certain demographic changes impossible; appropriate relationship edits should exist in the ELS. A customer can never be deleted from the ELS.

Access to the ELS and additions or changes to the customer record are described in License Sales Management – Internet and License Sales Management – POS.

3.02 Identification

The ELS should maintain a unique ID for each customer, either system-generated or other; a discussion of removing/merging duplicate records appears later in this section. There is currently no unique customer ID assigned to a customer; the conversion process

should assign the unique customer ID. The ELS should assign customer IDs as customers are added to the ELS database through the sales process. Although landowners may not need a license, they are required to check game and the ELS should create a customer record and assign them a customer ID on their first game check.

The ELS also provides separate data elements for SSN, driver license number (including expiration date and state). A state-issue ID (including expiration date and state) should be used in the absence of a driver license. If the customer does not have an SSN, driver license, or state-issued ID, they can provide a passport or green card number to obtain a hunting, trapping, or fishing license.

The ELS should assign a code to identify the source of the customer record, such as from conversion, from an internet sale, and so forth.

3.03 NAME AND CONTACT INFORMATION

This is standard contact information such as name, email address, and telephone number. The privacy indicator identifies whether or not DNR can contact the customer for outside marketing or research purposes.

3.04 ADDRESS

Standard address information including residence and mailing addresses. Although most customers have domestic addresses, some customers have an international address.

3.05 PERSONAL ATTRIBUTES

This data describes the customer's physical and personal characteristics.

Age restrictions are based on the DOB at the time of license sale or at the beginning of the license term, depending on the license being purchased. The ELS should retain the DOB as a single field and calculate the customer's current age as part of determining eligibility.

3.06 PERSONAL STATUS

This data describes attributes of the individual that are directly related to the system's ability to issue a specific type of license. Some of this information is transient, such as a license revocation, while much of the data is permanent, such as having met basic hunter education requirements. In general, the "status" of the person plays a role in determining eligibility (and price) for various license components or specialized licenses.

In general, each status field has related data requirements.

DNR provides manual entry of individuals deemed ineligible (revoked) for license components. Only authorized DNR law enforcement personnel can enter, change, or view detail license revocation information. Authorized DNR staff and help desk can view revocation status

In addition, most customers have an ELS "status" relevant to their role in the business process, i.e., active or revoked.

3.07 DUPLICATE RECORDS

DNR acknowledges the difficulty in any licensing system to identify all customers first time, every time. This is especially true for youth licenses, non-drivers, and non-

residents; it also can occur with data entry for Internet license sales. The ELS should have a functionality enabling authorized DNR users to merge customer information from multiple records with minimal re-keying of data. Conceptually, the ELS can create a single merged record and delete/deactivate the prior ones or carry forward data from the newly inactivated record to the selected master record. A background process should identify potential duplicate data for resolution as part of daily or weekly workflow.

In addition, DNR workflow needs to address invalid business situations that may result from a merger. For example, the merge process may reveal an individual's purchase of items in excess of a per-person limit, thereby invalidating a previously issued license. Any correspondence or communication with the individual should occur outside the ELS, and the merger workflow may require the staff person to manually invalidate a license; the system itself should identify the issue.

General specifications for maintaining an audit trail appear in the General Business Specifications. The audit information, such as the source and date established, may be useful to the staff member performing the merge.

3.08 COMMENTS

For customer records, DNR should have a free-format text field to allow DNR staff to record narrative on the individual, including the user ID and date/time of the comment. Access to the text itself should be restricted, and comments should never be changed or deleted.

3.09 CUSTOMER LICENSE HISTORY

After implementation, the ELS should retain all information related to licenses issued to the individual, e.g., item number, type, or year. These in turn impact current processing, such as comparing prior sales to ensure a current item does not exceed the maximum allowed per person.

All history specifications refer to the license history of the individual, as opposed to the customer him- or herself. In other words, personal information related to the customer – name, address, status – is considered point in time. A history of name changes, prior addresses, and former status details should be maintained.

Changes in a customer's residency or status may impact all currently valid licenses.

The history tracking should assist DNR in identifying licenses that have been revoked, voided, reprinted, or have expired.

Functional Specifications: Customer Management	
SPEC #	**Specification Description**
3.01	**General Customer Information**
F 229.	West Virginia DNR should provide data for the initial load of POS customers
F 230.	West Virginia DNR should provide data for the initial load of internet customers
F 231.	West Virginia DNR should provide data for the initial load of lifetime customers
F 232.	West Virginia DNR should not require an initial load of paper license customers
F 233.	West Virginia DNR should provide the data in a format specified by the vendor and agreed to by DNR
F 234.	The ELS vendor should convert and load existing customer data into the ELS system
F 235.	The ELS should not allow a customer record to be deleted
F 236.	The ELS should allow DNR and help desk to search for a customer by customer ID
F 237.	The ELS conversion should include customer data
F 238.	The ELS conversion should include license data
F 239.	The ELS should allow DNR and help desk to search for a customer by driver license number
F 240.	The ELS should allow DNR and help desk to search for a customer by state issued ID number
F 241.	The ELS should allow DNR and help desk to search for a customer by customer name
F 242.	The ELS should allow DNR and help desk to search for a customer by customer SSN
F 243.	The ELS should allow DNR and help desk to search for a customer by license number
F 244.	The ELS should display to DNR and help desk the requested customer if the search does not yield multiple results
F 245.	The ELS should display to DNR and help desk the matching customers when the search yields multiple results
F 246.	The ELS should display to DNR and help desk the matching customers in ascending sequence based on the search criteria when the search yields multiple results
F 247.	The ELS should allow DNR and help desk to select the customer to display from the list when the search yields multiple results
F 248.	The ELS should display a “customer not found” message if the requested customer is not found by the search
F 249.	The ELS should allow DNR to add, change, or manage a customer record
3.02	**Identification**
F 250.	The ELS should assign an internal number to each customer
F 251.	The ELS should assign a unique customer ID to each customer during conversion
F 252.	The ELS should assign a unique customer ID to each customer when a new customer is added
F 253.	The ELS should not permit duplicate customer numbers
F 254.	The ELS should include the customer SSN, customer passport, or green card number
F 255.	The ELS should include the customer driver license number
F 256.	The ELS should include the customer driver license expiration date
F 257.	The ELS should include the customer driver license state code
F 258.	The ELS should include the state-issued ID number
F 259.	The ELS should include the state issued ID number expiration date
F 260.	The ELS should include the state-issued ID number state code
F 261.	The ELS should validate the SSN when the customer SSN is entered in the system
F 262.	The ELS should validate the SSN when the customer SSN is changed in the system
F 263.	The ELS should include a source code to indicate the source of the customer record
F 264.	The ELS should provide for other general customer identification information as mutually

Functional Specifications: Customer Management	
SPEC #	**Specification Description**
	agreed upon during system design/customization
3.03	**Name and Contact Information**
F 265.	The ELS should include the customer first name
F 266.	The ELS should include the customer middle initial
F 267.	The ELS should include the customer last name
F 268.	The ELS should include the customer name suffix
F 269.	The ELS should include the customer email address
F 270.	The ELS should include the customer daytime telephone number
F 271.	The ELS should include the customer evening telephone number
F 272.	The ELS should include the customer cell phone number
F 273.	The ELS should include a customer privacy indicator
F 274.	The ELS should provide for other general customer name and contact information as mutually agreed upon during system design/customization
3.04	**Address**
F 275.	The ELS should include the customer residence address
F 276.	The ELS should include the customer mailing address
F 277.	The ELS should allow domestic addresses
F 278.	The ELS should allow international addresses
F 279.	The ELS should validate domestic addresses
F 280.	The ELS should where possible validate international addresses
F 281.	The ELS should provide for other general customer address information as mutually agreed upon during system design/customization
3.05	**Personal Attributes**
F 282.	The ELS should include the customer date of birth (DOB)
F 283.	The ELS should support a four-digit DOB year
F 284.	The ELS should include the customer height
F 285.	The ELS should include the customer weight
F 286.	The ELS should include the customer hair color
F 287.	The ELS should include the customer eye color
F 288.	The ELS should include a customer “wear corrective lenses?” indicator
F 289.	The ELS should include the customer gender
F 290.	The ELS should include a “visually impaired?” indicator
F 291.	The ELS should include a customer emergency contact name
F 292.	The ELS should include a customer emergency contact phone number
F 293.	The ELS should use the customer DOB to calculate the current age of the customer
F 294.	The ELS should provide for other general customer personal attributes as mutually agreed upon during system design/customization
3.06	**Personal Status**
F 295.	The ELS should include a hunter certification Y/N indicator
F 296.	The ELS should include the hunter certification card number
F 297.	The ELS should include the hunter certification card state code or province
F 298.	The ELS should allow the hunter certification card number to be alphanumeric
F 299.	The ELS should include a revocation code
F 300.	The ELS should include a revocation effective date
F 301.	The ELS should include a revocation expiration date
F 302.	The ELS should allow only DNR law enforcement to change a revocation code
F 303.	The ELS should allow only DNR law enforcement to change a revocation effective date
F 304.	The ELS should allow only DNR law enforcement to change a revocation expiration date
F 305.	The ELS should allow only DNR law enforcement to view detail revocation information

Functional Specifications: Customer Management	
SPEC #	**Specification Description**
F 306.	The ELS should allow DNR HQ and help desk to view revocation status
F 307.	The ELS should provide for other general customer personal status information as mutually agreed upon during system design/customization
3.07	**Duplicate Records**
F 308.	The ELS should contain a mechanism to identify potential duplicate customer records
F 309.	The ELS should notify DNR when potential duplicate customer situations are identified
F 310.	The ELS should allow the mechanism to identify potential duplicate customers to be run on a scheduled basis
F 311.	The ELS should contain a mechanism to allow authorized DNR users to logically merge customer information from multiple customer records
F 312.	The ELS should create a single merged customer record from the merged customer records
F 313.	The ELS should maintain an audit trail of all merged customer records
F 314.	The ELS should contain a mechanism to identify potential invalid business situations resulting from the merge customer process
F 315.	The ELS should notify DNR when potential invalid business situations are identified
F 316.	The ELS should allow DNR to change merged customer information as necessary
F 317.	The ELS should allow DNR to change merged license records as necessary
3.08	**Comments**
F 318.	The ELS should include multiple comments for each customer
F 319.	The ELS should include a free-format field for each comment
F 320.	The ELS should include the user-ID who entered the comment
F 321.	The ELS should include the date the comment was entered
F 322.	The ELS should include the time the comment was entered
F 323.	The ELS should associate the comment to the customer
F 324.	The ELS should allow only DNR to enter the comments
F 325.	The ELS should allow only DNR to view the comments
F 326.	The ELS should not allow comments to be changed
F 327.	The ELS should not allow comments to be deleted
3.09	**Customer License History**
F 328.	The ELS should maintain a history of all licenses held by the customer
F 329.	The ELS should maintain a history of all license revocations
F 330.	The ELS should maintain a history of all customer name changes
F 331.	The ELS should maintain a history of all customer address changes
F 332.	The ELS should maintain a history of all customer status changes
F 333.	The ELS should include the date the item was added to the history
F 334.	The ELS should include the time the item was added to the history
F 335.	The ELS should include appropriate information to identify the person who made the change (POS agent, internet user, or DNR employee)
F 336.	The ELS should allow only DNR to view the history

4. License Item Management

These are specifications for the variety of licenses and business rules associated with them. License items and the general issuance of licenses are discussed.

4.01 LICENSE

A license represents a relationship between DNR, an individual wanting to hunt, trap, or fish in West Virginia, and a specific period of time. Conceptually, DNR enables the sale and distribution of a license and its components on an annual calendar year basis. The ELS is the system of record for licenses sold; it creates a physical license on a point-in-time basis. Normally the electronic and physical license are in sync, but there are times when DNR revokes or otherwise invalidates a previously created license without necessarily being able to destroy the physical license.

Licenses can be issued through POS at agent locations, at county clerks offices, at state parks, at DNR Headquarters, and through the internet.

In its broadest sense, the license and associated privileges entitle the individual to conduct sports activity based on parameters such as:

- Fish or Animal species and gender
- Weapon
- Effective Dates (“season”)
- Location
- Quota or threshold
- Age of individual

The primary factors affecting license prices are generally related to the customer and to other items purchased in tandem with the base license. Some customer characteristics that affect pricing include state of residence, date of birth (i.e., age for a license year or beginning of license term), and status (e.g. military, disabled veteran).

All license items and customer license sales history should be loaded in the ELS. West Virginia DNR is responsible for providing data for the initial load of these items. All data comes from the POS sales system, the internet sales system, and the lifetime license sales system. The conversion team should work with the vendor according to vendor specifications.

This section discusses “license” first in terms of annual DNR activity to create the license components for the new year and then in terms of activity to issue it to the buyer.

4.02 ANNUAL LICENSE CREATION

On an annual basis, DNR empowers agents to sell licenses for the upcoming season. Historically, this involved creating, inventorying, and distributing large quantities of paper licenses and stamps. For electronic licensing, the ELS carries forward prior-year parameters associated with each license type (pricing, availability, hunting season), and DNR staff modify information appropriate for the new license year. “Availability” can be both temporal and geographical: some licenses cannot be sold on certain dates; some licenses have quotas, including quotas per WMA or county. In addition, when creating a

specific license or privilege, DNR may establish any other parameters associated with its sale or distribution.

In general, licenses to be issued in the coming calendar year are valid either for the full calendar year or for a short period of time (e.g. one-day, six-day); lifetime licenses are valid until the death of the customer. Limited permit activities are normally valid for the period of the specific hunt.

License privileges fit into a tier structure. At the top of the tier is the valid year. Next is the class – an alphanumeric code to identify the license item, followed by code which is a number to identify the license item. Class and code are currently used by DNR to identify license items. Next is the type which identifies the license item as a license or privilege. Finally the category identifies the license item as resident or non-resident.

License privileges may have fixed and ad-hoc data elements. License year, season, and license class are examples of fixed data elements – every license item should contain this data. Quota and geographic area (county or WMA) are examples of ad-hoc data elements – data unique to certain license items.

The ELS should allow DNR to create new licenses or privileges with minimal assistance from the vendor's technical staff. Conceptually, the process involves cloning an existing license or privilege and modifying the clone as appropriate for the new year or season. For example, DNR could create a new elk permit by cloning an existing bear permit. It could also suspend hunting of a species during one year and resume it the next.

A permit may have limited availability. Within the quantity limits for these permits, distribution is generally determined by (1) first-come, first-served; (2) spot lottery; or (3) a randomized drawing. For example, DNR may establish a limited permit activity based on date, species/sex, and geographical location; each relevant combination of these elements can have a quota, such as X number of antlerless deer permits for a specific geographic area and season. For randomized drawings and spot lotteries, DNR may use their existing systems or the ELS. Most limited permit activities have an associated application process, and DNR establishes criteria for the application-award process when setting up the activity. The criteria do not normally change from year to year, but the system should allow flexibility in adding an extra season or other criteria to the activity.

Although creating (or suspending) new license types is an infrequent occurrence, the ELS should be flexible enough to accommodate future changes with minimal effort; this may require a combination of technical changes by the vendor and table updates by DNR. DNR should coordinate with the vendor well ahead of time when creating a new license. An existing license item cannot be deleted from the ELS.

When creating a new license or privilege or changing an existing license or privilege, the ELS should allow DNR to indicate whether a data element is required or not and what the acceptable data values are. Acceptable values are defined by DNR staff and not hard-coded in the system. The ELS should not allow duplicate license or privilege codes within the same or overlapping effective activity dates and effective sale dates.

For each license component, the ELS should allow DNR to establish a maximum quota the agent can sell, if applicable. An authorized DNR staff member may change the quota annually based on recommendations from the wildlife management staff.

In addition, a license or privilege may be associated with applications and drawings. Randomized drawings in turn may occur outside the ELS.

Licenses can be printed at DNR, at agent locations, or on 8 ½ X 11 paper on a computer printer at home.

The cost (price) of a license item should be posted to a revenue (income) account in the West Virginia accounting system. Alternately, revenue can be allocated by formula to multiple accounts. The ELS allows DNR to define the allocation formula when the revenue is posted to more than one account.

4.03 LICENSE ISSUANCE

Normally, the ELS generates licenses pertinent to one and only one license-year. However, in December of each year, future-year licenses become available for purchase prior to the start of the year. For example, a 2012 hunting license can be purchased on or after December 15, 2011. DNR establishes the availability of certain licenses for sale and sets valid season dates in the system for licenses and privileges. In most cases the season includes a valid time period. These dates should be printed on the license stock to aid law enforcement officials. "Availability" also includes allowing new-year license sales prior to the start of the season/year.

The ELS should have real-time connectivity between the vendor and the agent, DNR, and the internet user. For each license component issued, the system maintains all applicable data elements. As part of transition DNR should work with the vendor to determine data and text-requirements for the physically generated license.

Certain license privilege availability expires at a certain point in time during each license year and DNR should have the ability to set a date of availability for each license privilege in the ELS. For transient licenses, the agent enters the valid effective date (and time, if relevant), based on input from the buyer; the ELS calculates the ending date.

4.04 AUDIT DATA

For each license item, the ELS should record audit information sufficient to define how the license item was created, who created or changed the license item, and the date and time the license item was created or changed.

4.05 BUSINESS RULES

This section summarizes major business rules; it is representative and not comprehensive.

The ELS applies all business rules to match the customer's eligibility to bear the license with rules for purchase and/or use of it. Representative business rules include edits using data relevant to the customer and his/her status and history, e.g., prior educational classes, military status, or delinquency in child support payments. It can also include his/her license history, for example calculating prior privileges against a maximum allowed per person. Each base license and additional privilege have specific requirements using a combination of these criteria. The primary characteristics determining pricing and eligibility are current customer data, including residence, age, and status; applications (including prepayment) and results of drawings; and bundled components.

The ELS should allow DNR staff to make changes to business rules without assistance from the ELS vendor. The ELS should allow DNR staff to control which input fields or combination of input fields are mandatory for the license or privilege.

Frequently, multiple components are purchased simultaneously, e.g., a base fishing license and a "trout stamp." Customers (including those exempt from purchasing a license but still granted permission to hunt, fish, or trap) can also purchase privileges on a subsequent date (and from a different agent) as long as they have met all requirements for the license. From a buyer's standpoint, the ELS can sequentially issue hunting, trapping, and fishing licenses.

For holders of lifetime licenses, associated privileges are permanent, i.e., trout, small arms hunting privileges; the ELS system should prevent issuance of unneeded additional privileges.

The system should also verify the item sold is still within the agent's allotment; this could be a quota or a dollar value, e.g., under the agent's risk threshold amount. A similar quota can exist based on the customer, where the individual may be allowed only a fixed number of privileges. For example, when the purchaser redeems the eligibility card for antlerless deer in a specific WMA or county, the ELS updates the system to show the eligibility card has been redeemed and precludes future re-use.

In addition, some business rules are based on the date of purchase. For example, a license issued in late December should not contain privileges for specific activities already past.

4.06 LICENSE STATUS

In addition, each license or privilege has a status, i.e., valid or void. This is a point-in-time data element, i.e., an item can have one and only one status at any point.

The ELS should maintain an audit trail of status changes.

4.07 REPRINTS

A **reprinted** license is a second or later generation of a valid electronic license. Any valid electronic license may be reprinted. Reprints can have a set fee, and require proof that the original was sold and not revoked, refunded, or voided. Beyond a reprint fee, there should be no financial transactions generated in the ELS. There is a manual affidavit process that should be supported with prompts for reprint questions. The ELS system should edit to ensure all requirements for the original are met prior to issuing the reprint; this is especially true for residents who subsequently move out of state. DNR establishes the maximum number of times a specific license can be reprinted as a matter of policy. The physical output should clearly be marked as a reprint, and the electronic record should note the generation of the reprinted license.

The ELS should allow for controlling the function of reprinting by agent. DNR may also restrict the function so that certain licenses are never reprinted. Lifetime licenses cannot be reprinted by an agent or internet customer.

If the license has been revoked, voided, or refunded, it cannot be reprinted.

4.08 REINSTATEMENT

Generally, a revoked annual license cannot be reinstated, even after the offending restriction has been removed.

4.09 LICENSE NUMBER

Historically, each license component tracked as inventory has had a unique ID, i.e., the base license and associated privileges (stamps) have different numbers, and the "number" may in fact be alphanumeric. As a business specification, the ELS should maintain a unique association between the base license and all associated privileges; the physical copies held by the sportsperson should readily show that relationship.

Each license has a unique identifier within the ELS. The identifier can be any reasonable number of letters and digits.

Privileges are non-transferable and should be associated with the base license. The ELS can print them with the base license number plus prefix or suffix, if desired, or use some other means of ensuring uniqueness.

Functional Specifications: License Item Management	
SPEC #	**Specification Description**
4.01	**License**
F 337.	The ELS should be the system of record for all licenses sold
F 338.	The ELS should issue licenses at the agent POS site
F 339.	The ELS should issue licenses through the internet
F 340.	The ELS should issue licenses at DNR
F 341.	West Virginia DNR should provide data for the initial load of license items
F 342.	West Virginia DNR should provide data in a format specified by the vendor and agreed to by DNR
F 343.	The ELS vendor should convert and load existing license item data into the ELS system
F 344.	West Virginia DNR should review all converted license items and make any manual corrections necessary
4.02	**Annual License Creation**
F 345.	The ELS should allow DNR to create a new license item
F 346.	The ELS should allow DNR to change an existing license item
F 347.	The ELS should allow DNR to copy an existing license item to create a new license item
F 348.	The ELS should not allow a license item to be deleted
F 349.	The ELS should require that each license item is unique
F 350.	The ELS should allow a license item to have fixed data elements and may have ad-hoc data elements
F 351.	The ELS should allow the entry of data elements that describe the license item
F 352.	The ELS should allow the association of licenses and privileges
F 353.	The ELS should allow setting a price (revenue) for each license item
F 354.	The ELS should allow revenue to be directed to one or more general ledger account
F 355.	The ELS should allow defining a fulfillment method for each license item
F 356.	The ELS should allow ad-hoc data attributes to be defined by DNR for each license item
F 357.	The ELS should allow drop down boxes, radio buttons, check boxes, and text fields for the ad-hoc data attributes
F 358.	The ELS should not limit the number of ad-hoc data fields that can be added to a license item
F 359.	The ELS should allow DNR to indicate whether or not an ad-hoc data element is required
F 360.	The ELS should allow DNR to define allowable input values for each ad-hoc data element
F 361.	The ELS should support limited license – license items
4.03	**License Issuance**
F 362.	The ELS should issue only licenses and privileges pertinent to the current year
F 363.	The ELS should allow the issuance of certain future year licenses and privileges prior to the start of the next year
F 364.	The ELS should not issue certain licenses or privileges after such time when availability expires at a specific designated date
F 365.	The ELS should require effective dates for transient licenses
F 366.	The ELS should allow the POS agent to issue all licenses and privileges available to a POS agent
F 367.	The ELS should allow the internet user to obtain all licenses and privileges available to an internet user
F 368.	The ELS should allow DNR to issue all licenses and privileges
F 369.	The ELS should create a transaction for each license or privilege issued

Functional Specifications: License Item Management	
SPEC #	**Specification Description**
F 370.	The ELS should include audit information with each transaction to allow DNR to associate each transaction with the customer
F 371.	The ELS should include audit information with each transaction to allow DNR to associate each transaction with issuance mode (POS agent, internet, or DNR)
F 372.	The ELS should not issue a license or privilege for a limited license event if the quota has been exceeded
F 373.	The ELS should allow DNR to define how a license or privilege can be printed (paper or "credit card")
F 374.	The ELS should allow the issuing agent to request that a license be voided (and all associated privileges) within a specified time from the issuance
F 375.	The ELS should immediately mark the license and all associated privileges as void (inactive) at the point in time that a request is made by an agent for a license or privilege to be voided
F 376.	The ELS shall prevent a reprinted license from being voided
F 377.	The ELS shall deny a request for a license to be voided if the license has been reprinted
F 378.	The ELS shall prevent an internet user from voiding a license or privilege
F 379.	The ELS should allow DNR to void a license (and all associated privileges) with no time constraints
F 380.	The ELS should automatically populate fields with prior year information depending on DNR business rules and license or privilege type
F 381.	The ELS should provide the ability to survey customers at the time of sale
F 382.	The ELS must allow DNR to maintain the text of the survey
F 383.	The ELS should not issue a license if the customer is in revoked status
F 384.	The ELS should not identify to the customer or agent, the exact details if a license or privilege cannot be issued due to a revocation
F 385.	The ELS should identify to DNR law enforcement, customers who have attempted to purchase a license or privilege while revoked
4.04	**Audit Data**
F 386.	The ELS should include the license item creation method
F 387.	The ELS should include the user ID that created the license item
F 388.	The ELS should include the date the license item was created
F 389.	The ELS should include the time the license item was created
F 390.	The ELS should include the user ID that changed the license item
F 391.	The ELS should include the date the license item was changed
F 392.	The ELS should include the time the license item was changed
4.05	**Business Rules**
F 393.	The ELS should allow DNR to define business rules for the issuance of each license item
F 394.	The ELS should allow DNR to modify business rules for the issuance of each license item
F 395.	The ELS should allow DNR to define business rules without assistance from the ELS vendor
F 396.	The ELS should allow DNR to modify business rules without assistance from the ELS vendor
F 397.	The ELS should issue license items based on one or more DNR defined business rules
4.06	**License Status**
F 398.	The ELS should include the status of the customers license
F 399.	The ELS should maintain an audit trail of customer license status changes
F 400.	The ELS should not allow a customer's license to be deleted

Functional Specifications: License Item Management	
SPEC #	**Specification Description**
F 401.	The ELS should void the license and all dependencies when a license is voided
4.07	**Reprints**
F 402.	The ELS should have functionality to prevent certain agents from reprinting a license
F 403.	The ELS should allow a POS agent to reprint all active licenses and privileges a POS agent is allowed to reprint
F 404.	The ELS should allow an internet customer to reprint all active licenses and privileges an internet customer is allowed to reprint
F 405.	The ELS should allow DNR to reprint all active licenses and privileges
F 406.	The ELS should reprint the licenses and all dependencies
F 407.	The ELS should not reprint any expired licenses or privileges
F 408.	The ELS shall not allow voided licenses to be reprinted from any source, if a void request from an agent exists or a license has been voided by DNR
F 409.	The ELS should not allow a refunded license to be reprinted
F 410.	The ELS should not allow a license to be reprinted if the customer's privileges have been revoked
F 411.	The ELS should have the ability to charge the customer the reprint fee when a license is reprinted
F 412.	The ELS should prompt for affidavit to verify the reason for the reprint before reprinting the license
F 413.	The ELS should re-edit the customer and licenses to be sure all requirements (business rules) for the original sale are being met
F 414.	The ELS should not allow a license to be reprinted if the original requirements are not currently met
F 415.	The ELS should not allow a license to be reprinted if the maximum number of reprints has been exceeded
F 416.	The ELS should clearly mark on the reprinted license that it is a reprint
F 417.	The ELS should identify on the reprinted license, the generation of the reprinted license
F 418.	The ELS should display, on the customer record, that the customer's license is a reprint
F 419.	The ELS should display, on the customer record, the number of times the license has been reprinted
4.08	**Reinstatement**
F 420.	The ELS should prevent a revoked annual license from being reinstated even if the offending restriction has been removed
F 421.	The ELS should require the customer to purchase a new annual license if the original annual license was revoked
F 422.	The ELS should allow DNR to reinstate a revoked lifetime license when the offending restriction has been removed
4.09	**License Number**
F 423.	The ELS should assign a unique "license number" to each license sold
F 424.	The ELS should assign a unique number to each privilege sold
F 425.	The ELS should maintain the relationship between the customer and the license
F 426.	The ELS should maintain the relationship between the license and associated privileges
F 427.	The ELS should clearly show the relationship between the license and associated privileges on the printed license
F 428.	The ELS should allow the license number to be any logical combination of letters and digits

5. License Sales Management: POS

These are specifications related to selling the license(s) at the agent location.

5.01 POS SPECIFICATIONS

This section describes functional specifications for the POS interface, regardless of specific hardware/software media. The ELS should allow for one or more uniquely identified POS devices at each agent location. The ELS tracks each license component issued from each device and correctly correlates the license and device both to the agent processing the transaction and the person for/by whom the license is purchased.

The POS should have the capability to sell any license or privilege that DNR designates as a license or privilege that can be sold through a POS agent. The POS initiates, identifies, and tracks each transaction. The license and privileges trace back to the POS agent and user.

In addition to generating the physical license, the ELS should do a real-time update to the ELS database recording the transaction.

The POS device(s) should minimize counter footprint in both area and volume. It should contain an alphanumeric keyboard to enter customer and license data. The POS device should be durable enough to withstand inexperienced operators and general operating conditions in a public establishment. The POS device should contain a printer. The POS device should time out after a specified period of inactivity; the POS user then logs back onto the POS device.

Each agent should have at least one POS device at a location. Provisions should exist for the agent to acquire additional devices, either by lease or purchase. Some agents may add additional POS devices to augment seasonal sales capacity.

Since this requires a direct connection to the host computer, the POS device remains connected to the host computer during the course of the sale. Rules applying to revocations and hunter education apply to POS sales.

All DNR rules and regulations that prohibit the sale to a customer apply and all business rules for the sale of a license or privilege (or combination thereof) apply. The POS customer should be presented only with licenses or privileges he/she is eligible to purchase.

The ELS also allows for a “training” mode to allow agents to train staff without compromising production data. All licenses generated in training mode should be readily identifiable. Any transactions should be identified as training and do not impact sales or financial production reports.

5.02 LICENSE GENERATION

In terms of transaction volume, the primary purpose of the POS interface is to allow agents to collect and input data from the customer, allow the ELS to edit input and prompt the agent, and then generate the license(s) with all appropriate verbiage.

With the exception of the resident senior lifetime license, the POS device at an agent site should not issue lifetime licenses.

A customer attempting to purchase a resident senior lifetime license has to be 65 years of age or older at date of purchase and possess a current West Virginia driver license or state issued ID. A customer attempting to purchase an annual base license now purchases a resident senior lifetime license if they turned 65 years of age or older on or after January 1, 2012. The customer purchasing the resident senior lifetime license receives a "temporary" license by the agent; DNR Headquarters prints the permanent license and mails it to the customer.

No licenses are sold as gift items.

5.03 ACCESS

The device is assigned to an agent, which normally includes multiple support personnel. The POS accommodates separate user IDs and passwords for each employee at the agent site. The POS locks out a clerk's access after three failed login attempts; the POS administrator may unlock the lockout. The agent bears all legal responsibility for its employees and is responsible for ensuring secure entry access to the ELS system. The system should disallow access by any de-authorized agents and users.

From the POS access point, the agent should be able to query for existing customer information by scanning the customer's current driver license. If there is a discrepancy between the customer demographics in the ELS and the demographics obtained from the scanned driver license, the ELS should prompt the agent to verify the information. If the customer does not have a driver license (e.g., youth), the POS agent queries for existing customer information by matching an existing customer record on at least two customer search fields: customer ID, customer name, SSN, state issued ID, or DOB. The POS masks the values if the customer enters SSN. The search should not be case sensitive. The ELS should match perfectly on two search fields. If the ELS cannot match on at least two search fields, a "customer not on file" message should be displayed. The agent can try again. If the search yields multiple matches, the ELS should prompt the POS agent for additional information in an attempt to locate that customer in the system. The POS agent has the option of contacting help desk for assistance.

For the first-time customer, the agent should collect personal and demographic information. All first time customers enter their Social Security Number (SSN). To maintain confidentiality, the customer should have access to a key pad device to enter SSN (or other confidential information), and the POS should mask the values as the customer enters their SSN. The customer enters their SSN a second time and the ELS compares the two values; if they do not match, the customer repeats the double-entry process. The ELS should validate the SSN for reasonableness.

Returning customers that do not possess a driver license should be prompted to validate their demographic information and prompted to electronically sign an affidavit stating their demographic information is correct.

From the POS entry point, the agent should be able to input all information related to the buyer, licensee and requested license(s). Executing with direct connectivity to the host environment, the ELS should enforce business rules appropriate for the agent, the customer, and the license or privilege. This includes prompting the agent for additional information, correcting data, and verifying all rules for eligibility. Appropriate

relationship edits exist in the ELS. For example, changing from resident to non-resident may be impossible due to previously issued current licenses.

The prompts may require the agent to enforce DNR policy. The POS customer may be prompted to electronically sign one or more affidavits stating all information is true and correct. The prompts should be unambiguous and directly related to the business rule or policy.

If the agent is unable to sell the license due to DNR policy (such as a revocation), the customer should be provided with a phone number to contact DNR for an explanation. The ELS should record a reason code, such as would-be buyer's attempt to buy more privileges than his/her individual quota or an attempt to buy a license or privilege when in a revoked status. These records should become part of an audit trail. DNR may review these transactions to determine patterns of buyers' attempts to purchase license components.

Prior to completing the sale and printing the license, the agent and customer should be able to review all items purchased and the total cost of the items. At this point, the sale can be cancelled (the sale reversed) and no license printed. Otherwise, the ELS should issue electronic license components and records each transaction.

5.04 OUTPUT

The physical output should be a representation of information maintained in the ELS database; the license should represent the point-in-time relationship of the POS customer to DNR. Normally, the physical license and the electronic data should be in sync for the duration of the calendar year.

From the POS access point, the agent prints the physical license(s) and gives them to the buyer.

For a resident senior lifetime license, the ELS should print a temporary license; the permanent license should be printed at DNR Headquarters and sent to the customer.

The ELS should have the functionality to produce a reprint license that groups and prints all active current year licenses and privileges. The original date(s) of sale of the licenses and privileges as well as the valid dates (such as the valid date of a one day fishing license) should be printed on the reprint. No expired or previous year licenses or privileges should be reprinted. A reprinted license should be identical to the originally printed one, except for clear notation of the reprinting itself. This could be a "Reprinted" text or symbols printed on the output.

5.05 TRANSACTION PROCESS

The POS interface should correlate all licenses and privileges sold as a bundled unit but record the sale as individual transactions with appropriate information for an audit, if necessary. Each transaction should include a sequential serial number (unique to the agent and POS device), allowing DNR to identify conditions where transactions have been dropped. The transactions should be marked to identify them as POS transactions.

For each electronic transaction, the ELS should record audit information sufficient to define the transaction, such as date/time, agent, device, and fee. An electronic transaction should be valid only within a series of products authorized by DNR. In general, a transaction should pertain to a single customer and the various license components

desired. The ELS should support multiple combinations of license components for a single customer.

5.06 TRANSACTIONS THAT AFFECT STATUS

Each license or privilege should have a status, i.e., active or inactive. Void requests normally occur at the agent location; revocations are done solely by DNR. These transactions result in invalidating the electronic license. From a policy perspective, voiding a license implies it never existed, and the ELS should back out all related tallies and fees but maintain the transactional history of the void. A license should be voided within a specified time from sale of the license. Voiding a base license should effectively apply the same status to all associated privileges.

Revoking a license simply invalidates it without changing the history (purchase, usage) of the license.

5.07 VOIDS

Agents can request to void certain licenses within a finite time period of issuance (such as two minutes); the time limit can vary by agent. Agent void requests can be only for licenses they sold, and the agent should enter a reason for the void. Requesting a license to be voided should automatically inactivate all associated privileges. The ELS should mark the appropriate license as having a void request pending DNR approval. When setting up a new license year, DNR may determine that certain license components are not voidable at a POS agent site, such as the resident senior lifetime license.

Voiding a license implies that a monetary credit is due to the agent and applicable fees should also be voided. The agent should return the original print of the physically generated license to DNR within a set period of time in order to receive consideration of the void. The ELS license void process is complete when DNR receives the original license document, review of the document and justification of the void is conducted by authorized DNR staff, and a decision is recorded in the ELS as to whether the void request is to be approved or denied. The ELS should generate credit for agent void requests that have been approved by authorized DNR staff.

The ELS shall prevent the reprint of any licenses and associated privileges from the time that a void request has been recorded in the ELS and for all void requests approved by DNR. The ELS shall deny any agent requests to void a license and associated privileges if a reprint request has been made on the same license and associated privileges prior to the void request. The ELS should track the original transaction and ties it to void requests, reprint requests, and voided transactions.

5.08 HIP SURVEY

The ELS should enable electronic reporting of migratory game harvest and required reporting to the U.S. Fish and Wildlife Service (FWS), as required by the Harvest Information Program (HIP). The POS should prompt customers to record survey information prior to issuing a migratory bird license. Lifetime license holders should be able to complete a HIP survey only.

5.09 BROADCASTS

DNR wants the capability of interacting with the issuing agent under multiple scenarios. These could be broadcast messages to agents or groups of agents; presumably the ELS help desk can use the same interface to provide system-related information as needed. These are text messages, e.g., "New licenses available December 1." Agent should be able to print the broadcast messages.

DNR staff can initiate broadcasts based on the agent's location, status, type, and license type.

5.10 SURVEYS

Survey questions are normally related to the purchase; DNR anticipates no more than three questions per transaction. The ELS should allow multiple surveys to exist simultaneously, such as one question directed to anglers and a different one to hunters, or different questions based on the geography of the agent, the agent's volume of sales.

The ELS should record survey results; DNR is responsible for tabulating them.

5.11 DONATIONS

The ELS should allow customers purchasing hunting licenses to make a donation to charities such as Hunters Helping the Hungry or the Coyote Fund.

5.12 AGENT SUPPORT

Agents should also be able to print or otherwise access transaction data sufficient for them to balance their financial systems if necessary.

Functional Specifications: License Sales Management – POS	
SPEC #	**Specifications Description**
5.01	**POS specifications**
F 429.	The ELS should allow one or more POS devices at an agent location
F 430.	The ELS should allow each POS device to be uniquely identified
F 431.	The ELS should associate each POS device with an agent
F 432.	The ELS should track each license or privilege issued and correlate that sale to the agent
F 433.	The ELS should track each license or privilege issued and correlate that sale to the POS device
F 434.	The ELS should track each license or privilege issued and correlate that sale to the POS user
F 435.	The ELS should track each license or privilege issued and correlate that sale to the customer
F 436.	The ELS should have the capability to sell any license designated by DNR for sale by an agent
F 437.	The ELS should have the capability to sell any privilege designated by DNR for sale by an agent
F 438.	The ELS should perform real time updates to the ELS database
F 439.	The ELS should “time out” the POS device and the POS user after a specified period of inactivity
F 440.	The ELS should require a connection between the host and the POS device to sell, reprint, or request the void of a license or privileges
F 441.	The ELS should require the connection to remain throughout the sale process
F 442.	The ELS should apply all revocation rules to agent sales
F 443.	The ELS should apply all hunter education rules to agent sales
F 444.	The ELS should enforce all DNR regulations regulating the sale of licenses and privileges
F 445.	The ELS should enforce all DNR business rules regulating the sale of licenses and privileges
F 446.	The ELS should present the customer with only the licenses they are eligible to purchase
F 447.	The ELS should present the customer with only the privileges they are eligible to purchase
F 448.	The ELS should contain a “training mode” for the POS device
F 449.	The ELS should not update the ELS production database while in training mode
F 450.	The ELS should generate licenses while in training mode
F 451.	The ELS should clearly identify licenses generated while in training mode as void, not for use
F 452.	The ELS should not impact sales or financial reports while in training mode
5.02	**License Generation**
F 453.	The ELS should not issue adult and infant lifetime licenses at a POS agent site
F 454.	The ELS should not issue specialized licenses at a POS agent site
F 455.	The ELS should not issue an annual base license to a West Virginia resident who is 65 years of age or older at the time of the sale
F 456.	The ELS should require resident customers turning 65 years of age or older on or after January 1, 2012, and requesting a base license at the time of the sale, to purchase a resident senior lifetime license
F 457.	The ELS should not issue a senior lifetime license if the customer is not age 65 or older at the time of the sale

Functional Specifications: License Sales Management – POS	
SPEC #	**Specifications Description**
F 458.	The ELS should not issue a senior lifetime license if the customer is not a resident of West Virginia at the time of the sale
F 459.	The ELS should require customers purchasing a resident senior lifetime license to present a valid West Virginia driver license or state issued ID
5.03	**Access**
F 460.	The ELS should allow the agent to query for an existing customer by scanning the customer's current driver license
F 461.	The ELS should not automatically update the customer record with current driver license information
F 462.	The ELS should not populate data in the customer's record from an expired driver license
F 463.	The ELS should prompt for a valid driver license when an expired license has been scanned
F 464.	The ELS should prompt the agent to verify demographic information if there is a discrepancy between the demographics in the ELS and the demographic obtained from scanning the driver license
F 465.	The ELS should require the first time customer to enter personal data
F 466.	The ELS should require the first time customer to enter demographic data
F 467.	The ELS should require the first time customer to enter SSN
F 468.	The customer should have access to a key pad type device to enter SSN or other confidential information
F 469.	The ELS should always mask the display of SSN
F 470.	The ELS should require the SSN to be entered twice
F 471.	The ELS should compare the two SSN values
F 472.	The ELS should require the two SSN values to match before continuing
F 473.	The ELS should require the customer to re-enter the SSN if the two values do not match
F 474.	The ELS should validate the SSN
F 475.	The ELS should allow the first time customer to enter demographic information and exit without a sale
F 476.	The ELS should allow the agent to search for and retrieve customer information
F 477.	The ELS should require at least two search values to be entered
F 478.	The ELS should allow customer ID to be a search value
F 479.	The ELS should allow customer name to be a search value
F 480.	The ELS should allow SSN to be a search value
F 481.	The ELS should allow state issued ID number and state to be a search value
F 482.	The ELS should allow DOB to be a search value
F 483.	Using the search values, the ELS should search the ELS customer database in an attempt to locate the customer's data
F 484.	The ELS search should not be case sensitive
F 485.	The ELS should require an exact match between all search values and the ELS customer database
F 486.	The ELS should display customer information if there is an exact match between all search values and the ELS customer database
F 487.	The ELS should prompt the POS agent for additional information if the search yields multiple results
F 488.	The ELS should display a "customer not found" message if there is no match between search values and the ELS customer database
F 489.	The ELS should allow the agent to reenter search information if there is no match

Functional Specifications: License Sales Management – POS	
SPEC #	**Specifications Description**
	between search values and the ELS customer database
F 490.	The ELS should allow the agent to update customer demographic information and exit without a sale
F 491.	The ELS should allow the agent to enter all information necessary to the related purchase
F 492.	The ELS should prompt the agent for additional information when necessary
F 493.	The ELS should validate all customer information
F 494.	The ELS should require customers without a driver license to electronically sign an affidavit stating their demographic information is true and correct
F 495.	The ELS should enforce all DNR business rules appropriate to the customer
F 496.	The ELS should enforce all DNR business rules appropriate to the licenses purchased
F 497.	The ELS should enforce all relationship edits for the purchase of a license
F 498.	The ELS should prevent the agent from making certain customer demographic changes based on previously issued current active licenses and privileges
F 499.	The ELS should prompt the agent to re-enter invalid information
F 500.	The ELS should prompt the agent to have the customer electronically sign affidavits where appropriate
F 501.	The ELS should require all prompts to be unambiguous
F 502.	The ELS should require all prompts to relate to a DNR business rule or DNR policy
F 503.	The ELS should allow the customer to review their purchase before the sale is complete
F 504.	The ELS should display total cost of the purchase to the customer before the sale is complete
F 505.	The ELS should allow the sale to be cancelled prior to the printing of a license
F 506.	The ELS should not retain any customer or purchase information if the sale is cancelled
F 507.	The ELS should not disclose the reason if the agent is prevented from selling the license or privilege due to DNR business rules or DNR policy
F 508.	The ELS should provide the customer with a phone number if the agent is prevented from selling the license or privilege due to DNR business rules or DNR policy
F 509.	The ELS should create a audit record if a customer is not able to complete the purchase due to violation of DNR business rules or DNR policy
5.04	**Output**
F 510.	The ELS should allow the agent to print the license when the sale is complete
F 511.	The ELS should print a “temporary” license for a customer purchasing a senior lifetime license at the agent site
F 512.	The ELS should print all senior lifetime licenses on a “credit card” type printer at DNR Headquarters (Fargo HDP-5000 printer or equivalent, capable of printing more than 6,000 cards/year)
F 513.	The ELS should clearly indicate on the printed license that it was a POS sale
F 514.	The ELS should allow a license to be reprinted, no matter where the license was originally produced
F 515.	The ELS should group and print all current year active licenses and privileges on the reprint
F 516.	The ELS should not produce reprints of expired licenses or privileges on the reprint
F 517.	The ELS should print the original date of sale of the licenses or privileges on the reprint
F 518.	The ELS should clearly indicate on a reprinted license that it is a reprint regardless of from where the reprint is generated
5.05	**Transaction Process**

Functional Specifications: License Sales Management – POS	
SPEC #	**Specifications Description**
F 519.	The ELS should record each item sold as an individual transaction
F 520.	The ELS should associate all transactions of the sale
F 521.	The ELS should include a serial number, unique to each agent and POS device, on each transaction
F 522.	The ELS should indicate the transaction resulted from an agent sale
F 523.	The ELS should include audit trail information on each transaction sufficient to define the transaction such as date and time, the agent, the POS device, the POS operator, and the fee
5.06	**Transactions that Affect Status**
F 524.	The ELS should assign a status to a customer's license or privilege
F 525.	A license or privilege status should be "active" or "inactive"
F 526.	The ELS should maintain an audit trail of any changes to a customer's license or privilege status
F 527.	The ELS should consider a voided license or privilege to be inactive status
5.07	**Voids**
F 528.	The ELS should allow the agent to request the void of a license and associated privileges only when sold at their POS agent location
F 529.	The ELS should prevent an agent from requesting a void for a senior lifetime license
F 530.	The ELS should require the void request to occur within a specified time from the sale
F 531.	The ELS should allow DNR to specify the time value per agent
F 532.	The ELS should require the agent to enter a reason for the void request
F 533.	The ELS should change the status of the license and associated privileges to "inactive" at the time the void request is entered in the system
F 534.	The ELS shall prevent the reprint of any license and associated privileges from the time that a void request is recorded in the system
F 535.	The ELS shall prevent the reprint of any license and associated privileges for all license void requests approved by DNR
F 536.	The ELS shall deny all agent requests to void a license and associated privileges if a reprint request has been made on the same license and associated privileges prior to the void request
F 537.	The ELS should allow DNR to identify a license item as "un-voidable"
F 538.	The ELS should only generate a void credit when the void request has been approved by authorized DNR staff
F 539.	The ELS should allow DNR to establish the return deadline for original documents
F 540.	The ELS should track void requests where original licenses have not been returned to DNR
F 541.	The ELS should track the original transaction and tie it to void requests, reprint requests, and voided transactions
5.08	**HIP Survey**
F 542.	The ELS should enable the electronic reporting of migratory game harvest to U.S. Fish & Wildlife Services
F 543.	The ELS should prompt the customer to record HIP survey information before issuing a migratory bird license
F 544.	The ELS should indicate on a customer's license that the migratory bird HIP survey has been completed (for surveys completed after the purchase of a license, the ELS should allow for a separate printout that the survey has been completed)
F 545.	The ELS should accumulate the survey results in the ELS for electronic submission to U.S. Fish & Wildlife Services
F 546.	The ELS should allow lifetime license holders to complete a HIP survey without

Functional Specifications: License Sales Management – POS	
SPEC #	**Specifications Description**
	completing a purchase
5.09	**Broadcasts**
F 547.	The ELS should allow DNR to broadcast messages to a specific agent, a list of agents, or all agents
F 548.	The ELS should allow help desk to broadcast messages to a specific agent, list of agents, or all agents
F 549.	The ELS should allow the agent to print the broadcast message
F 550.	The ELS should allow DNR to broadcast messages based on agent location
F 551.	The ELS should allow DNR to broadcast messages based on agent status
F 552.	The ELS should allow DNR to broadcast messages based on agent type
F 553.	The ELS should allow DNR to broadcast messages based on agent license types available for sale
5.10	**Surveys**
F 554.	The ELS should allow DNR to include optional survey questions as part of the purchase
F 555.	The ELS should prompt the customer to complete the survey
F 556.	The ELS should allow DNR to develop the survey questions
F 557.	The ELS should allow up to three (3) questions in a survey
F 558.	The ELS should electronically record the results of the survey
F 559.	The ELS should allow multiple surveys to exist simultaneously
5.11	**Donations**
F 560.	The ELS should allow the customer to make a charitable donation as part of the purchase
F 561.	The ELS should allow the customer to choose from multiple charities
F 562.	The ELS should account for each charitable donation
5.12	**Agent Support**
F 563.	The ELS should allow the POS agent to print appropriate financial reports

6. License Sales Management: Internet

These are specifications related to selling licenses on the internet.

6.01 INTERNET SPECIFICATIONS

This section describes functional specifications for license and privilege sales via the internet using a browser-based application provided by the ELS vendor. The ELS internet application should act as a "pseudo agent". The ELS internet application has the capability to collect and update all information required to manage license and privilege sales. The ELS internet site should be fully integrated into and be consistent with the West Virginia DNR website. The ELS vendor should include a guide on using the site and provide a link to this guide on the ELS internet site landing page. From the customer point of view, the ELS internet session should timeout after a specified period of inactivity. The ELS internet application should contain a webmaster link to allow customers to email their questions.

The ELS internet application should have the capability to sell any license or privilege that DNR designates as a license or privilege that can be sold through the internet and should require entry of the same type of customer information as with a POS sale. The ELS internet application should initiate, identify, and track a transaction in the same manner as a POS transaction. The license and privileges should be traceable back to the customer and session.

All DNR rules and regulations that prohibit the sale to a customer at a POS site should apply to the ELS internet application. All business rules for the sale of a license or privilege (or combination thereof) in place at the POS should apply to internet sales. The internet customer should be presented only with licenses or privileges he/she is eligible to purchase.

Using the email address from the customer record, the ELS internet should generate a confirmation email to the customer at the completion of the sale. The customer can print the physical license on their printer using 8 ½ X 11 stock paper; a "print preview" option is available. The internet customer can reprint the license if necessary. The ELS internet application may impose a limit on the number of licenses a customer may reprint.

The POS sale rules applying to revocations and hunter education should apply equally to internet sales. Licenses cannot be voided through the ELS internet application.

Since this requires a direct connection to the internet, the customer's device should remain connected to the internet during the course of the sale.

6.02 LICENSE GENERATION

In terms of transaction processing, the primary purpose of the ELS internet application is to allow customers to input data, allow the ELS internet application to edit input and prompt the customer, and then generate the license(s) with all appropriate verbiage.

The ELS internet application should not issue any lifetime or specialized licenses. An application for lifetime license can be printed from the ELS internet site.

6.03 ACCESS

The first-time customer enters personal and demographic information. All first time customers should enter their Social Security Number (SSN). For security purposes, the ELS internet application should mask the values as the customer enters their SSN. The customer should enter their SSN a second time and the ELS internet application should compare the two values; if they do not match, the customer should repeat the double-entry process. The ELS internet application should validate the SSN for reasonableness.

In subsequent years, customer information can be retrieved by matching on at least two customer entered search fields: customer ID, name, SSN, driver license number (or state issued ID number), or DOB. The ELS internet application should mask the values if the customer enters SSN. The search should not be case sensitive. The ELS internet application should match perfectly on two of the search fields. If the ELS internet application cannot match on the two search fields, a "customer not on file" message should be displayed. The customer can try again. If the search yields multiple matches, the ELS internet application should prompt the customer for additional information. The ELS internet customer can contact DNR for help.

The ELS internet application should allow the customer to add (new customer) or update (returning customer) demographic information; the customer does not need to purchase a license or privilege. Edits in the ELS internet application should prevent entry of invalid data.

The internet customer should be able to enter all information related to the requested license(s) and privilege(s). Executing with direct connectivity to the host environment, the ELS internet application should enforce business rules appropriate for the customer and the license or privilege. This should include prompting the internet customer for additional information, correcting data, and verifying all rules for eligibility. Appropriate relationship edits should exist in the ELS internet application. For example, changing from resident to non-resident may be impossible due to previously issued current licenses.

To enforce DNR policy, the internet customer may be prompted to electronically sign one or more affidavits stating all information is true and correct. The prompts should be unambiguous and directly related to the business rule or policy.

Prior to completing the sale and printing the license, the internet customer should be able to review all items purchased and the total cost of those items. At this point, the sale can be cancelled (the sale is not recorded) and no license printed. Otherwise, the ELS internet application should process the credit card, issue electronic license components, and record all transactions. The ELS internet application shall utilize the West Virginia Treasurer's payment gateway for credit card transaction processing.

If the internet customer is unable to purchase the license due to DNR policy (such as a revocation), the internet customer should be provided with a phone number to contact DNR for an explanation. The ELS internet application should record a reason code, such as would-be buyer's attempt to buy more privileges than his/her individual quota or an attempt to buy a license or privilege when in a revoked status. These records should become part of an audit trail of internet activity. DNR may review these transactions to determine patterns of buyers' attempts to purchase license components.

The internet customer bears all legal responsibility for use of the ELS internet site. The ELS internet application should permit the DNR administrator or DNR law enforcement to de-authorize a customer and disallow access by any de-authorized customer.

6.04 OUTPUT

The physical output should be a representation of information maintained in the ELS database; the electronic license should represent the point-in-time relationship of the internet customer to DNR. Normally, the physical license and the electronic data should be in sync for the duration of the calendar year.

At completion of the sale, the internet customer should print the physical license on a printer using blank 8 ½ X 11 stock paper. The ELS internet application should provide the customer with easy to follow instructions for printing the license. A "test print" option should allow the customer to verify that the ELS internet application can print the license on the home printer. The ELS should clearly identify any test prints as not being a valid license and the printed image should not resemble a license. A "print preview" option should allow the customer to see the license before it is printed. Documents printed via the Internet should be clearly marked as an internet sale.

The ELS internet application should send the customer an email receipt/confirmation. The receipt should include a URL the customer can link to produce a reprint that should group and print all active (non-voided) current year licenses and privileges. The original date(s) of sale of the licenses and privileges as well as the valid dates (such as the valid date of a one day fishing license) should be printed on the reprint. No expired or past licenses or privileges should be reprinted. A reprinted license should contain a clear notation of the reprint which could be a "Reprinted" text or symbols printed on the output.

A license sold at an agent site can be reprinted on the internet.

6.05 TRANSACTION PROCESS

The ELS internet application should correlate all licenses and privileges sold as a bundled unit but record the sale as individual transactions, with appropriate information for an audit, if necessary. Each transaction should include a sequential serial number (unique to that customer) allowing DNR to identify conditions where transactions have been dropped. The transactions should be marked to identify them as internet transactions.

For each electronic transaction, the ELS internet application should record audit information sufficient to define the transaction, such as date and time, agent, device, and fee. An electronic transaction should be valid only within a series of products authorized by DNR. In general, a transaction should pertain to a single customer and the various license or privilege components desired. The ELS should support multiple combinations of license components for a single customer.

6.06 TRANSACTIONS THAT AFFECT STATUS

Each license or privilege should have a status, i.e., active or inactive. This is point-in-time data; a license or privilege can have only one status at one point.

The ELS internet application should maintain an audit trail of status changes.

Revoking a license simply invalidates it without changing the history (purchase, usage) of the license.

A license cannot be voided through the ELS internet application. An internet issued license can be voided only by an authorized DNR administrator. A voided license is then considered inactive.

6.07 HIP SURVEY

The ELS internet application should enable electronic reporting of migratory game harvest and required reporting to the U.S. FWS, as required by the HIP. The ELS internet application should prompt customers to record survey information prior to issuing a migratory bird license.

Lifetime license holders should be able to login to the ELS internet application and complete a HIP survey only.

6.08 SURVEYS

Survey questions are normally be related to the purchase; DNR anticipates no more than three questions per transaction. The ELS internet application should allow multiple surveys to exist simultaneously, such as one question directed to anglers and a different one to hunters, or different questions based on the geography of the agent, the agent's volume of sales.

The ELS internet application should record survey results; DNR is responsible for tabulating them.

6.09 DONATIONS

The ELS internet application should allow customers purchasing hunting licenses to make a donation to charities such as Hunters Helping the Hungry or the Coyote Fund.

Functional Specifications: License Sales Management - Internet	
SPEC #	**Specification Description**
6.01	**Internet specifications**
F 564.	The vendor should provide a browser-based internet application for the sale of licenses and privileges
F 565.	The ELS internet application will be a pseudo agent
F 566.	The ELS internet application should be fully integrated with the West Virginia DNR website
F 567.	The ELS internet application should be consistent with the West Virginia website look and feel
F 568.	The ELS internet application should include a user's guide
F 569.	The ELS internet application should include a link to the user's guide
F 570.	The ELS internet application should "time out" after a specified period of inactivity
F 571.	The ELS internet application should include a link to the webmaster
F 572.	The ELS internet application should have the capability to sell any license designated by DNR for sale on the internet
F 573.	The ELS internet application should have the capability to sell any privilege designated by DNR for sale on the internet
F 574.	The ELS internet application should be consistent with POS required customer data
F 575.	The ELS internet application should track transactions consistent with that of a POS agent
F 576.	The ELS internet application should identify the customer on the transaction
F 577.	The ELS internet application should identify the session on the transaction
F 578.	The ELS internet application should enforce all DNR regulations regulating the sale of licenses and privileges
F 579.	The ELS internet application should enforce all DNR business rules regulating the sale of licenses and privileges
F 580.	The ELS internet application should present the customer with only the licenses they are eligible to purchase
F 581.	The ELS internet application should present the customer with only the privileges they are eligible to purchase
F 582.	The ELS internet application will allow the customer to print a license
F 583.	The ELS internet application should allow the customer to reprint a license
F 584.	The ELS internet application should impose a limit on the number of reprinted licenses
F 585.	The ELS internet application shall not allow the customer to void a license
F 586.	The ELS internet application should apply all revocation rules to internet sales
F 587.	The ELS internet application should apply all hunter education rules to internet sales
F 588.	The ELS internet application should require a connection between the host and the customer's computer
F 589.	The ELS internet application should require the connection to remain throughout the sale process
6.02	**License Generation**
F 590.	The ELS internet application should not issue lifetime licenses
F 591.	The ELS internet application should not issue specialized licenses
6.03	**Access**
F 592.	The ELS internet application should require the first time customer to enter personal data
F 593.	The ELS internet application should require the first time customer to enter demographic data

Functional Specifications: License Sales Management - Internet	
SPEC #	**Specification Description**
F 594.	The ELS internet application should require the first time customer to enter SSN
F 595.	The ELS internet application should always mask the display of SSN
F 596.	The ELS internet application should require the SSN to be entered twice
F 597.	The ELS internet application should compare the two SSN values
F 598.	The ELS internet application should require the two SSN values to match before continuing
F 599.	The ELS internet application should require the customer to re-enter the SSN if the two values do not match
F 600.	The ELS internet application should validate the SSN
F 601.	The ELS internet application should allow the first time customer to enter demographic information and exit without a sale
F 602.	The ELS internet application should allow the returning customer to search for and retrieve their customer information
F 603.	The ELS internet application should require at least two search values to be entered
F 604.	The ELS internet application should allow customer ID to be a search value
F 605.	The ELS internet application should allow customer name to be a search value
F 606.	The ELS internet application should allow SSN to be a search value
F 607.	The ELS internet application should allow driver license and state to be a search value
F 608.	The ELS internet application should allow state issued ID number and state to be a search value
F 609.	The ELS internet application should allow DOB to be a search value
F 610.	Using the search values, the ELS internet application should search the ELS customer database in an attempt to locate the customer's data
F 611.	The ELS internet application search should not be case sensitive
F 612.	The ELS internet application should require an exact match between all search values and the ELS customer database
F 613.	The ELS internet application should prompt the internet customer for additional information if the search yields multiple results
F 614.	The ELS internet application should display customer information if there is an exact match between all search values and the ELS customer database
F 615.	The ELS internet application should display a "customer not found" message if there is no match between search values and the ELS customer database
F 616.	The ELS internet application should allow the customer to reenter search information if there is no match between search values and the ELS customer database
F 617.	The ELS internet application should allow the customer to update demographic information and exit without a sale
F 618.	The ELS internet application should allow the customer to enter all information necessary to the related purchase
F 619.	The ELS internet application should prompt the customer for additional information when necessary
F 620.	The ELS internet application should validate all customer entered information
F 621.	The ELS internet application should enforce all DNR business rules appropriate to the customer
F 622.	The ELS internet application should enforce all DNR business rules appropriate to the licenses purchased
F 623.	The ELS internet application should enforce all relationship edits for the purchase of a license
F 624.	The ELS internet application should prevent the customer from making certain

Functional Specifications: License Sales Management - Internet	
SPEC #	**Specification Description**
	demographic changes based on previously issued current active licenses and privileges
F 625.	The ELS internet application should prompt the customer to re-enter invalid information
F 626.	The ELS internet application should prompt the customer to electronically sign affidavits where appropriate
F 627.	The ELS internet application should require all prompts to be unambiguous
F 628.	The ELS internet application should require all prompts to relate to a DNR business rule or DNR policy
F 629.	The ELS internet application should allow the customer to review their purchase before the sale is complete
F 630.	The ELS internet application should display total cost of the purchase to the customer before the sale is complete
F 631.	The ELS internet application should allow the sale to be cancelled only prior to the printing of the license
F 632.	The ELS internet application should not retain any customer or purchase information if the sale is cancelled
F 633.	The ELS internet application should process the credit card to complete the sale
F 634.	The ELS internet application shall use the West Virginia Treasurer's payment gateway for all credit card transactions
F 635.	The ELS internet application should allow the customer to re-enter credit card information if the sale cannot be completed due to a problem with the credit card
F 636.	The ELS internet application should not disclose the reason if the ELS internet application is prevented from selling the license or privilege due to DNR business rules or DNR policy
F 637.	The ELS internet application should provide the customer with a phone number if the ELS internet application is prevented from selling the license or privilege due to DNR business rules or DNR policy
F 638.	The ELS internet application should create a audit record if a customer is not able to complete the purchase due to violation of DNR business rules or DNR policy
F 639.	The ELS internet application should allow DNR to disallow access to the ELS internet application for certain customers
6.04	**Output**
F 640.	The ELS internet application should allow the internet customer to print the license on a printer using 8 ½ X 11 plain paper
F 641.	The ELS internet application should provide the customer with easy to understand printing instructions
F 642.	The ELS internet application should provide the internet customer with a "test print" option
F 643.	The ELS internet application should clearly identify all "test print" documents as not being a valid license
F 644.	The ELS internet application should not print a license or any document that resembles a license in the "test print" mode
F 645.	The ELS internet application should provide the internet customer with a "print preview" option for all completed license sales
F 646.	The ELS internet application should clearly indicate on the printed license that it was an internet sale
F 647.	The ELS internet application should generate an email receipt to the internet customer
F 648.	The ELS internet application should include a URL in the email to allow the internet customer a one-time license reprint
F 649.	The ELS internet application should group and print all current year active licenses and

Functional Specifications: License Sales Management - Internet	
SPEC #	**Specification Description**
	privileges on the reprint
F 650.	The ELS internet application should not print any expired licenses or privileges on the reprint
F 651.	The ELS internet application should print the original date of sale of the licenses or privileges on the reprint
F 652.	The ELS internet application should clearly indicate on the reprinted license that it was reprinted from the internet
F 653.	The ELS internet application should allow a license sold at an agent site to be reprinted from the internet
6.05	**Transaction Process**
F 654.	The ELS internet application should record each item sold as an individual transaction
F 655.	The ELS internet application should associate all transactions in the sale
F 656.	The ELS internet application should include a serial number, unique to each customer session, on each transaction
F 657.	The ELS internet application should indicate the transaction resulted from an internet sale
F 658.	The ELS internet application should include audit trail information on each transaction sufficient to define the transaction such as date and time, the session, device, and fee
6.06	**Transactions that Affect Status**
F 659.	The ELS internet application should assign a status to a customer's license or privilege
F 660.	A license or privilege status should be "active" or "inactive"
F 661.	The ELS internet application should maintain an audit trail of any changes to a customer's license or privilege status
F 662.	The ELS internet application shall not permit a license to be voided through this process
F 663.	The ELS internet application should consider a voided license or privilege to be inactive status
F 664.	The ELS shall require a license sold through the internet to be voided only by an authorized DNR administrator
6.07	**HIP Survey**
F 665.	The ELS internet application should enable the electronic reporting of migratory game harvest to U.S. Fish & Wildlife Services
F 666.	The ELS internet application should prompt the customer to record HIP survey information if the customer chooses
F 667.	The ELS internet application should indicate on the customer's license that the migratory bird HIP survey has been completed at the time of the license purchase or provide a separate printout for surveys completed subsequently
F 668.	The ELS internet application should accumulate the survey results in the ELS for electronic submission to U.S. Fish & Wildlife Services
F 669.	The ELS internet application should allow lifetime license holders to login to the ELS and complete a HIP survey without completing a purchase
6.08	**Surveys**
F 670.	The ELS internet application should allow DNR to include optional survey questions as part of the purchase
F 671.	The ELS internet application should prompt the customer to complete the survey
F 672.	The ELS internet application should allow DNR to develop the survey questions
F 673.	The ELS internet application should allow no more than three (3) questions in a survey
F 674.	The ELS internet application should electronically record the results of the survey
F 675.	The ELS internet application should allow multiple surveys to exist simultaneously
6.09	**Donations**

Functional Specifications: License Sales Management - Internet	
SPEC #	**Specification Description**
F 676.	The ELS internet application should allow the customer to make a charitable donation as part of the purchase
F 677.	The ELS internet application should allow the customer to choose from multiple charities
F 678.	The ELS internet application should account for each charitable donation

7. Specialized Licensing

The DNR manages certain processes such as issuance of Lifetime licenses and controlled hunts and drawings.

7.01 LIFETIME LICENSES AND PERMITS

An individual can purchase various combinations of lifetime hunting, trapping, and fishing licenses and the appropriate associated privileges. Only a fulltime resident of West Virginia can purchase a lifetime license. Currently, DNR offers the following lifetime licenses and privileges:

- Adult Lifetime License
  - Combination hunting, trapping, and fishing license
  - Hunting and trapping license
  - Fishing license
  - Small arms hunting privilege
  - Trout fishing privilege

- Infant Lifetime Licenses
  - Combination hunting, trapping, and fishing license
  - Hunting and trapping license
  - Fishing license
  - Trout fishing privilege

- Resident Senior Lifetime License
  - Hunting, trapping, and fishing
  - Trout Fishing Privilege
  - Bear Damage

Certain lifetime licenses have purchase restrictions based on age of the licensee:

The infant lifetime license must be purchased before the child's second birthday

The resident senior lifetime license must be purchased by an individual who reaches 65 years of age on or after January 1, 2012. Resident senior lifetime licenses may also be purchased on a voluntary basis by individuals who turned 65 prior to January 1, 2012.

Lifetime licenses are valid only during the life of the licensee. Lifetime licenses cannot be transferred to another individual.

Other specialized licenses and permits are discussed in the General Business Specifications.

7.02 LIFETIME LICENSE GENERATION

Due to the nature of the lifetime license, these licenses, with the exception of the resident senior lifetime license, are sold only at DNR headquarters. Resident senior lifetime licenses are available at POS or DNR headquarters only. Applications for the adult and infant lifetime license are available at agent sites and on the internet. The individual purchasing the adult or infant license is required provide certain documentation and forward that with payment to DNR. DNR staff review the documentation, and if approved, issue the lifetime license. The adult and resident senior license requirement of

hunter education are in effect (based on the birth date). DNR prints the lifetime licenses on material and size similar to a credit card and sends it to the purchaser.

A lifetime license can be revoked by DNR law enforcement. When the revocation expires, the license privileges should be restored.

7.03 LIMITED PERMIT ACTIVITIES AND DRAWINGS

During any given season, an individual can apply for one or more limited permit activities, including payment of an application fee and possible prepayment of the desired privileges. The ELS should support the issuance of permits for specific areas and timeframes that may have species, animal gender, antler, and weapon restrictions. The ELS can limit the issuance of permits to a DNR established quota and may set the maximum number of choices (for example, for a WMA or county) for which an individual can apply. When there are multiple choices, the ELS should maintain the sequence of each choice. The applications may have specific deadlines which are unique to the permit applied for. The ELS needs to maintain information on the applications and their ultimate resolution.

Applications may be submitted through the internet and mail-in applications where appropriate. DNR enters mail-in applications in the ELS. The ELS should provide a mechanism to differentiate between activities for which permits may be issued to the general public on a first-come-first-serve basis and those issued through drawings. All mail-in applications should be received before the "cut off" date and entered into the ELS system before any drawing or lottery takes place. Applications that are incomplete or do not meet the business rules should not be included in the drawing or lottery.

Sportspersons may be permitted to apply for a permit as an individual or as a group on a multi-party application.

7.04 APPLICATIONS

The ELS should allow applications for future activities; fees may or may not be associated with the application. The application is normally associated with a drawing or some other random or subsequent determination of eligibility for the activity.

The ELS should allow a customer (existing or new) to submit an application for a limited-availability activity via the internet or mailed-in paper to DNR. When an application is submitted to DNR on paper, DNR enters the application in the ELS. Submitting an application can also occur as a stand-alone transaction, either before or after purchasing a license.

Business rules for accepting an application may differ from the business rules for purchasing the related activity. For example, an individual can apply for an antlerless deer permit without a base license; after winning a randomized drawing, he/she must meet applicable license requirements. The ELS should thus enforce point-in-time rules appropriate for the business process. However, other rules such as the hunter education requirement and the revoked license check should apply to accepting the application for future activities.

The ELS should record payment associated with the application if required, even if the amount of the payment is incorrect. This normally occurs with applications received in

the mail and can result in a refund when the associated permits are generated. Some fees are non-refundable.

Applications may be submitted by an individual licensee or a group of licensees. The ELS can limit the number of parties in the activity and one of the licensees serves as the primary contact for the group.

7.05 Eligibility Determination: First-In, First-Out (FIFO)

FIFO is also known as "first come, first served." This can occur at a POS device, via the internet, or at DNR Headquarters. The system should allow the purchase of permits, assuming the allocated quota is not depleted. Business rules (including maximum per customer) should continue to apply. The system should immediately issue the license or permit and update the available quota.

The ELS may also use the FIFO methodology to issue licenses or permits not completely awarded by lottery or drawing; see below.

7.06 Eligibility Determination: Randomized Routines (Lottery Drawings)

This occurs when the ELS uses randomization routines to determine eligibility. A spot drawing occurs as an instant lottery; the determination occurs on the spot. A mass drawing occurs at a later date and can result in multiple winners and alternates.

The ELS should identify the customer and determine their eligibility to participate in the activity before allowing them to submit an application. Applications may specify an area such as a WMA or county. Customers are allowed only one entry for each activity.

The ELS should provide a random selection algorithm for determining lottery winners. The randomization process should be auditable; the process should allow an auditor to review numbers assigned in the randomization process.

Where additional payment is not required, the ELS should notify DNR and DNR generates the license or permit for mailing to the winners. When payment is required, the ELS should notify DNR and DNR generates notices to the successful applicants; the license or permit can be then purchased at a POS site or via internet.

At the discretion of DNR, permits not issued through the drawing can be issued on a first-come-first-served basis after the drawing is completed. DNR controls the date and time that leftover permit is made available on a first-come-first-served basis.

The ELS should also notify DNR of the unsuccessful applicants; DNR contacts the unsuccessful applicants.

7.07 Eligibility Determination: Spot (Lottery-Style) Drawing

The spot drawing should occur at the point of sale at an agent location. In this scenario, the "application" is merely a request to purchase a permit; if allowed (won), the agent sells it at the point of sale. The ELS should use mathematical randomization routines to determine whether the individual may purchase the permit.

7.08 Eligibility Determination: Batched Drawings

Batched drawings occur at DNR after all qualifying applications have been received. The ELS should generate random results for limited license activities based on preferences selected on the application such as geography, season, or species.

Some drawings may allow for ranked preferences, such as WMA in order of preference:

- Criteria for establishing maximum quotas, i.e., per hunt, per sex, per geography
- Pre-elimination of ineligible applicants, such as prior winners or sportspersons with revoked licenses

DNR may also elect to use other criteria to weight applicants' chances, such as giving preference to residents.

DNR executes the randomization as one or more background tasks; separately executed, they would normally be for a different quota – fall hunt versus spring hunt, for example. The ELS randomization process should select winners (and ranked alternates, if relevant) for each quota. The ELS should retain the results of the drawing to enable the individual winners to subsequently purchase their permit; POS and internet purchases should apply business rules relevant for the activity itself.

The ELS should notify DNR of the winners, and notification of the winners is the responsibility of DNR. The ELS should also enable DNR to update the eligibility of an alternate, i.e., if winners fail to purchase their permits within a certain timeframe. DNR can switch the allocation to FIFO after a period of time.

Functional Specifications: Specialized Licensing	
SPEC #	**Specification Description**
7.01	**Lifetime Licenses and Permits**
F 679.	The ELS should support the issuance of lifetime hunting, trapping, and fishing licenses
F 680.	The ELS should support the issuance of other specialized licenses as described in the General Business Specifications
F 681.	The ELS should allow only authorized DNR personnel to issue adult and infant lifetime licenses and other specialized licenses and permits
7.02	**Lifetime License Generation**
F 682.	The ELS should allow the internet customer to print applications for lifetime licenses
F 683.	The ELS should require infant and adult lifetime licenses to be sold only at DNR Headquarters
F 684.	The ELS should print all lifetime licenses on a "credit card" type printer at DNR Headquarters (Fargo HDP-5000 printer or equivalent, capable of printing more than 6,000 cards/year)
7.03	**Limited Permit Activities and Drawings**
F 685.	The ELS should allow a customer to apply for one or more limited permit activities
F 686.	The ELS should allow a customer to pay an application fee when applying for the activity
F 687.	The ELS should allow a customer to prepay for the desired activity
F 688.	The ELS should support issuance of permits for specific areas such as county or WMA
F 689.	The ELS should support issuance of permits for specific time periods
F 690.	The ELS should support issuance of permits for specific species and/or sex
F 691.	The ELS should allow DNR to establish a quota for the number of permits that may be issued
F 692.	The ELS should limit the issuance of permits so not to exceed the quota
F 693.	The ELS should maintain the sequence of choices when multiple choices can be selected on the application
F 694.	The ELS should maintain the resolution of the application
F 695.	The ELS should accept applications through the internet
F 696.	The ELS should accept applications mailed to DNR
F 697.	The ELS should enable the DNR to enter paper applications received by mail
F 698.	The ELS should issue licenses and permits on a first-come-first-served basis
F 699.	The ELS should issue licenses and permits as the result of a drawing or lottery
F 700.	The ELS should not accept applications received after a cut-off date
F 701.	The ELS should support multi-party applications
7.04	**Applications**
F 702.	The ELS should allow a customer to apply for a limited availability activity without possessing a current active license
F 703.	The ELS should require the successful applicant to purchase all licenses and permits required for the activity
F 704.	The ELS should require the successful applicant to meet all applicable license requirements
F 705.	The ELS should record the payment submitted with the application
F 706.	The ELS should have the ability to limit the number of parties in a multi-party activity
F 707.	The ELS vendor should be responsible for notifying DNR of successful applicants
F 708.	The DNR should be responsible for notifying the successful applicants
7.05	**Eligibility Determination – First-In, First-Out**

Functional Specifications: Specialized Licensing	
SPEC #	**Specification Description**
F 709.	The ELS should support a first-in, first-out method for allocating permits providing the quota has not been met
F 710.	The ELS should accept first-in, first-out applications at an agent POS site
F 711.	The ELS should accept first-in, first-out applications via the internet
F 712.	The ELS should immediately issue the permit if the applicant is successful
F 713.	The ELS should immediately update the quota if the applicant is successful
7.06	**Eligibility Determination – Randomized Routines**
F 714.	The ELS should support randomized or lottery drawings
F 715.	The ELS should utilize a randomization routine (random selection algorithm) to select successful applicants
F 716.	The ELS should determine the customer's eligibility before allowing them to submit an application
F 717.	The ELS should allow the applicant to specify an area (such as county or WMA)
F 718.	The ELS should allow the customer to submit only one application for each event
F 719.	The ELS randomized results should be auditable (the numbers generated by the routine must be available for review by an auditor)
F 720.	The ELS vendor should be responsible for notifying DNR of successful or unsuccessful applicants
F 721.	The DNR should be responsible for notifying the successful and unsuccessful applicants
F 722.	The ELS should allow successful applicants to purchase the license or permit at an agent site when payment is required
F 723.	The ELS should allow license or permits not issued through the drawing to be sold on a first come, first served basis
7.07	**Eligibility Determination – Spot Drawing**
F 724.	The ELS should support a spot drawing at the agent location
F 725.	The ELS should allow the agent to sell the permit if the customer wins the spot drawing
F 726.	The ELS should utilize a mathematical randomization routine to determine if the customer is a winner
7.08	**Eligibility Determination – Batched Drawings**
F 727.	The ELS should support a batched drawing at DNR headquarters after all qualifying applications have been received
F 728.	The ELS should generate random results based on preferences selected on the application (such as geography or season)
F 729.	The ELS should support the pre-elimination of ineligible applicants
F 730.	The ELS should allow DNR to choose other methods of weighting
F 731.	The ELS should utilize a mathematical randomization routine to select winners
F 732.	The ELS should enforce all rules relevant to the license or permit if purchased at an agent site
F 733.	The ELS should enforce all rules relevant to the license or permit if purchased on the internet
F 734.	The ELS should allow successful applicants to purchase their license or permit at an agent site
F 735.	The ELS should allow successful applicants to purchase their license or permit on the internet
F 736.	The ELS vendor should be responsible for notifying DNR of the winners
F 737.	The DNR should be responsible for notifying the winners

8. Game Checking

Specifications that deal with game check reporting and other supplementary processes.

8.01 GAME CHECKING

Accurate harvest information is a critical part of wildlife management. Game checking in West Virginia is currently reported on paper at game check stations operated by DNR biologists and wildlife officers or at approximately 700 independent game check stations.

8.02 FIELD TAGS

Depending on the species, the animal must be field tagged at the point of harvest. Field tags are not numbered or controlled, and are available at agent locations and can be printed from the internet. During the reporting process, each game check should be assigned a Game Check Report Number.

8.03 GAME CHECK DATA

Depending on the species, hunters are required to report harvest information. Reporting requirements change from year to year; thus the ELS should be flexible enough to vary reporting requirements from year to year. Whether reporting at an agent site, by internet, or by telephone, the ELS should edit the hunter response and prompt for incorrect entries. The edit data should be easily changed from year to year by DNR staff.

The ELS should maintain information about each harvest. A game check record may have fixed data elements and may have ad-hoc data elements; DNR should define the data elements that best defines the specific harvest. Each game check should be associated with a customer and license if the customer is required to purchase a license.

8.04 REPORTING

The ELS should allow hunters to perform game checking at an agent location, through the ELS internet system, and via telephone. The ELS should use the customer's unique ID to access the game check to ensure validation. After some initial questions to define the species, the ELS should present the hunter with the appropriate check-in entry screen or questions to complete the game check report entry. When the check is completed, the ELS should generate a Game Check Report Number. The format of the Game Check Report Number should be agreed upon by DNR and the vendor.

8.05 AGENT GAME CHECK TRANSACTIONS

When the hunter checks game at an agent site, the agent logs in to the game check module. The agent can retrieve the hunter's record using the same criteria as at time of sale. The hunter supplies all tagging information to the agent. Responding to prompts, the agent enters the tagging information and the ELS should validate the information. When complete, the ELS should issue the Game Check Report Number.

8.06 INTERNET GAME CHECK TRANSACTIONS

When the hunter checks game through the internet, they log into ELS internet (like at time of sale) and select the game check option. The hunter should enter all tagging

information and the ELS should validate the information. When complete, the ELS should issue the Game Check Report Number.

8.07 Telephone – Interactive Voice Response (IVR) Game Check Transactions

When the hunter checks game using the vendor provided toll free telephone number, the hunter responds to IVR prompts (verbal or touch-tone) to enter personal information. The hunter should supply a valid customer number. The IVR should prompt the hunter for the tagging information. The ELS should validate each response. When complete, the ELS should generate the Game Check Report Number and the IVR should issue the Game Check Report Number.

8.08 Game Check for Non-licensed Hunters

Non-licensed hunters must report harvest like any other licensed hunter. The non-licensed hunter must have a customer number to use for game checking; the customer number can be obtained at any time via the internet or at an agent POS; the ELS should have the functionality to establish a customer record without completing a sale. The ELS should recognize a non-licensed hunter and not require a license number when reporting the harvest.

8.09 Limited Search Capability

From time to time, DNR law enforcement may require the capability to search the current production game check database. For example, law enforcement may have the need to search current data by species or county. The search arguments should be predefined and agreed upon by the vendor and West Virginia DNR law enforcement.

Functional Specifications: Game Checking	
SPEC #	**Specification Description**
8.01	**Game Checking**
F 738.	The ELS should provide automated game checking
8.02	**Field Tags**
F 739.	The ELS should assign a unique Game Check Report Number to each game check
8.03	**Game Check Data**
F 740.	The ELS should support multiple game check record formats (such as species-specific game check data)
F 741.	The ELS should allow DNR to create a new game check record format
F 742.	The ELS should allow DNR to change an existing game check record format
F 743.	The ELS should support unique game check record formats by reporting year
F 744.	The ELS should not allow a game check record to be deleted
F 745.	The ELS should allow a game check record format to have fixed data elements and ad-hoc data elements
F 746.	The ELS should allow the entry of data elements that describe the game check
F 747.	The ELS should allow drop-down boxes, radio buttons, check boxes, and text fields for the ad-hoc data elements
F 748.	The ELS should not limit the number of ad-hoc data fields
F 749.	The ELS should allow DNR to indicate whether or not an ad-hoc data element is required
F 750.	The ELS should allow DNR to define allowable input values for each ad-hoc data element
F 751.	The ELS should validate each hunter response
F 752.	The ELS should prompt the hunter for correct entries
F 753.	The ELS should require entry of a valid customer ID at time of game check
F 754.	The ELS should require entry of a license number for all licensed hunters at time of game check
F 755.	The ELS should associate the game check to a customer
F 756.	The ELS should associate the game check to a license number for all licensed hunters
8.04	**Reporting**
F 757.	The ELS should support game checking via the internet
F 758.	The ELS should support game checking at an agent site
F 759.	The ELS should support game checking via telephone
F 760.	Based on initial criteria provided by the hunter (such as species) , the ELS should determine the appropriate record format for the game being checked
F 761.	The ELS should generate the Game Check Report Number at completion of the game checking
F 762.	The DNR and the vendor should agree on a format for the Game Check Report Number
8.05	**Agent Game Check Transactions**
F 763.	The ELS should allow the agent to look-up a customer
F 764.	The ELS should utilize the same search criteria as used at the time of a POS sale
F 765.	The ELS should allow the agent to enter harvest information
F 766.	The ELS should issue the Game Check Report number to the customer
F 767.	The ELS should add the game check record to the ELS database
8.06	**Internet Game Check Transactions**
F 768.	The ELS should allow the hunter to log into the ELS internet application
F 769.	The ELS should utilize the same search criteria as used at time of internet sale
F 770.	The ELS should allow the hunter to enter harvest information

Functional Specifications: Game Checking	
SPEC #	**Specification Description**
F 771.	The ELS should issue the Game Check Report number to the customer
F 772.	The ELS should add the game check record to the ELS database
8.07	**Telephone Game Check Transactions**
F 773.	The ELS should support telephone game checking via an IVR
F 774.	The ELS vendor should provide a toll free telephone number
F 775.	The ELS IVR should support touch tone and/or verbal responses
F 776.	The ELS IVR should require the hunter to supply a valid customer number
F 777.	The ELS IVR should validate each response
F 778.	The ELS IVR should prompt the hunter for information
F 779.	The ELS IVR should log the responses and add the game check record to the ELS database
F 780.	The ELS IVR should report the Game Check Report Number to the hunter
8.08	**Game Check for Non-Licensed Hunters**
F 781.	The ELS should allow non-licensed hunters to report harvest information in the ELS
F 782.	The ELS should allow a non-licensed hunter to register and obtain a customer number at any time
F 783.	The ELS should require first time non-licensed hunters to obtain a customer number
F 784.	The ELS should not allow first time non-licensed hunters to report via IVR
F 785.	The ELS should recognize a non-licensed hunter and not require a license number
8.09	**Limited Search Capability**
F 786.	The ELS should allow DNR to search production game check data using predefined search criteria
F 787.	The ELS vendor and DNR should agree on the predefined search criteria

9. Financial Management

This section discusses processing specifications related to fees, payment and associated financial transactions and reporting those transactions that occur between buyers, agents, DNR, and the state of West Virginia.

9.01 ANNUAL PRICING/CONTROLS

This section describes specifications for determining external prices to the buyer and calculating cash flow between agents and DNR. The ELS should provide table-driven capabilities for modifying financial components; the functionality should be highly restricted to specific authorized DNR users. Once established for a license year, the pricing and control structure do not change.

Multiple factors control the potential issuance of a license component, and they can change over time, i.e., for a given year. Some of the more significant factors include:

- Denoting specific license components as nonrefundable
- Establishing statewide quotas
- Assigning agent-level quota (including by county or WMA)
- Only authorized DNR personnel may issue a refund of an internet license purchase
- DNR can associate a specific license with a drawing or other means of determining eligibility

9.02 UNIT PRICING

The factors above affect the licenses, privileges, and applications at the unit level. The unit price of each item is based on multiple factors, primarily related to the age, residency, and status of the customer. The net result is that virtually all licenses are issued at a normal price. DNR does not offer a combination discount for bundled purchases of two items or more, or as an upgrade with a cost differential between the previous license and the new one.

9.03 AGENT COMPENSATION

Currently, the agent handling fee is optional and determined by the agent; the fee can range from zero to $3.00, payable to the agent. It is payable as a result of issuing the license and is not denoted as a separate line on the license. This occurs outside of the ELS.

DNR is interested in continuing this practice.

9.04 ELECTRONIC ISSUANCE FEE

The system should have flexibility to allow DNR to assess an electronic issuance fee. DNR needs the flexibility to assess the fee on each detail license and/or privilege making up the sale, or one time on the complete sale. The issuance fee is paid by the buyer. This is different than the Agent Compensation discussed above (9.03).

9.05 DNR ACCOUNTING

The ELS system should associate each license component with one or more accounting funds or revenue codes used to create the associated electronic entries in the State's accounting system. In addition, some combination license types may correlate to the revenue codes of the underlying licenses. The ELS should allow DNR to allocate revenue from a license or privilege to multiple accounting funds based on a percentage of the license or privilege cost. The West Virginia Treasurer uses the cash accounting method.

The primary factors are the type of item, the type of fee, and the type of transaction. Items are generally licenses, privileges, and applications; fees in the current environment are agent handling fees and GoWILD transaction fees; transaction types include purchases, reprints, and voids.

9.06 DONATIONS

DNR administers charitable funds such as Hunters Helping the Hungry and the Coyote Fund. During the process of purchasing a license, the customer may be asked if they are interested in making a financial contribution to any of the funds. The ELS should have the capability for simultaneous multiple fund raising projects, with each project having its own accounting or revenue codes. Donations should appear as individual lines on the license or receipt.

9.07 PERIODIC ELECTRONIC REMITTANCE

This section describes specifications for automated remittance and accounting of monies collected by agents. The ELS should generate transactions both for EFT and for automated entries into CGI's Advantage (referred to as OASIS), the financial system used by the state.

Each agent is required to have a checking or savings account from which transfers may be authorized. EFT transactions should be created using the "Banking Information" described in "Agent Management" specifications. Using the unique identifier (not the bank account information), the ELS should generate transactions that allow the West Virginia Treasurer to cross reference agent bank account information and perform the EFT. The West Virginia Treasurer will report the success or failure status back to the ELS.

Currently all agents remit on a monthly basis; in the future DNR may choose a more frequent remittance schedule for certain agents. For commercial agents, the ELS should provide the capability to facilitate a corporate EFT representing all agents within a given corporation. This enables retail chains to complete electronic remittance from a headquarters account.

When the electronic remittance process begins, the ELS should prompt for a cut-off date: the last date or "through" date for the sweep. The electronic remittance process should evaluate all unprocessed POS transactions between the prior successful sweep and the cut-off date, calculate monies due to DNR, generate the resulting EFT transaction(s), and generate a corresponding electronic CGI Advantage transaction. In addition to the unprocessed POS transactions, it should also include into the accounting any other financial transfers required for voids; related discussion appears immediately below

under the "Void Processing" heading. The EFT transactions should not have a negative distribution. DNR and Treasury may make manual adjustments to agents or adjust bank transactions when necessary. Treasury should be able to manually process all or a portion of an EFT or place a "hold" if required.

The ELS should send a "sweep pre-notice" email to each agent (copied to DNR) at a time determined by DNR prior to the EFT sweep, notifying them of the EFT sweep date and amount of the sweep. For commercial agents where a corporate EFT is generated, the ELS should generate a sweep notice to corporate as well as to each of the individual agents showing their share of the EFT amount. It is the agent's responsibility to assure the funds are available for the sweep.

The ELS should provide a method for DNR to indicate the success or failure of a sweep. The ELS should provide an alternate method of payment (such as certified check), for unsuccessful sweeps.

The system should also retain detailed information to correlate all electronic POS transactions to the resulting EFT sweep. Agents should be able to cross-reference all detail for their own audit purposes; DNR will also use this information for verification and auditing, as necessary.

The ELS should record detailed information on the EFT transactions sufficient for West Virginia to trace the deposits from bank to bank, as necessary. The ELS should track rejected EFTs and update the agent's account as appropriate.

DNR has the ability to execute an on demand sweep of an agent or several agents. For example, if an agent's sales exceed the risk threshold amount, DNR may want to initiate a draft to limit risk.

9.08 POS PRICING

At the point of sale, the ELS should price each component based on the business rules in effect for that year. This is normally based on the license or privilege itself, the customer (for example, residency, age, and status), and bundling components within the transaction.

In addition, the pricing function needs to account for any prepayment with an application.

9.09 AGENT CHANGES

This DNR functionality pertains to add and change functions for agents. It includes authorizing specific agents to sell specific licenses and specific privileges.

9.10 CUSTOMER CHANGES

Authorized DNR staff need the ability to "flag" a customer as deleted, although the ELS should not physically delete the customer from the database. In addition, authorized DNR staff can bar the individual from the licensing process altogether.

In addition, changes to customer status can affect his/her eligibility for certain license components. This can occur when an in-state customer moves out of state and becomes a nonresident.

9.11 VOID PROCESSING

When voiding a previously generated license, DNR requires agents to return the physically printed license(s) within a specified period of time. The ELS should provide a

means to enforce this policy. This may entail a user interface to allow authorized DNR staff to record receipt of the approved voided license, thereby enabling the electronic remittance process to account for the void. DNR monitors outstanding voids, including those past due.

Conceptually, the remittance process could create an EFT based on the sale and a credit would be issued upon a subsequent EFT after DNR approves the void. When creating the EFT transaction, the agent voids should not be greater than the agent sales. The approved void transaction should generate the appropriate accounting entries to reverse fees to the same accounts that were credited with the sale. The approved void should also adjust the quota if the hunt has a quota and the quota has not been met. Approved voids should be marked as refunded if they have been part of a previous successful sweep.

9.12 MISCELLANEOUS PAYMENT/REFUNDS

The ELS needs to provide functionality for various financial transactions, including those noted here.

- **Applications**

  Sportspersons may prepay for a future potential permit, normally as part of a drawing.

- **Refunds**

  Authorized DNR staff can refund these same prepayments as well as overpayments such as can occur with mailed-in applications and checks. DNR staff can also process refunds when voiding a license, such as a hunting license returned prior to the start of the season.

  DNR staff needs to be able to process a refund, including overriding any business rules normally preventing a refund. The system should process the refund similar to a void, generating accounting entries to reverse the original transaction; a separate transaction code may be required for refunds.

- **Agent Adjustments**

  Authorized DNR staff should be able to make monetary adjustments (debit/credit) to agent accounts for reconciliation purposes.

9.13 EFT/ACH TRANSACTIONS

Initiated by DNR, the ELS will generate transactions that will be passed to the West Virginia Treasurer for the purpose of collecting funds owed by issuing agents. The Treasurer will use this data to process EFT transactions through an Automated Clearing House (ACH) maintained by the Federal Reserve; specifications are available from the Federal Reserve. The Treasurer will transmit the success and failure status for these transactions to the ELS or DNR to be recorded in the ELS.

9.14 CGI ADVANTAGE INTERFACE

The ELS should transmit the appropriate revenue accounting information to the CGI Advantage system to reflect the funds collected during the EFT process. These transactions consist of summarized revenues by account code.

9.15 FINANCIAL REPORTS

DNR needs financial reports to sufficiently trace all activity resulting in exchange of funds between the agent and DNR; this directly correlates to the EFT transactions and their impact on DNR's respective general ledger accounts. The vendor should provide this information via online access.

Each agent firm requires access to its own data; parent firms such as retail chains need access to their individual stores. DNR needs access to individual and collective agents, based on the agents' relationship to DNR.

Data available to DNR either online or via "canned" reports include:

- EFT balance including agent ID and name, account balance due by agent, last sweep date
- EFT sweep history showing agent ID and name, contact information, sweep dates and amount, and sweep status (successful or failed)
- Failed EFT sweep showing agent ID and name, contact information, number of times sweep failed per month/year
- Voided transactions by agent ID and name, void dates, void amount, document returned or outstanding
- Adjustments to the agent's account showing the adjustment date, amount, and reason
- Detail of contributions made by customers during the sale process

The system should produce a report identifying each day's deposits.

The system should provide the capability to report on the money owed to DNR (accounts receivable) by agent/bank account and for each individual sales transaction.

The system should allow authorized DNR staff to query and report on detailed agent sales, payment, and adjustment information.

The system should produce a report identifying deposits for a specific date or date range to their appropriate funds.

The system should allow DNR to view and/or report on the financial accounting information for a specific agent, or for all agents in a retail chain.

9.16 LIFETIME LICENSE LOST REVENUE MODEL

On an annual basis, DNR estimates the cumulative number of lifetime licenses by age so they can estimate the amount of annual license revenue they would have received if customers were buying annual licenses. Since the ELS database includes customer data and lifetime license sales (including that converted from the old system), DNR can extract the necessary data elements from the replicated database. The Lifetime License Lost Revenue Model functionality will exist outside the ELS.

Functional Specifications: Financial Management	
SPEC #	**Specification Description**
9.01	**Annual Pricing/Controls**
F 788.	The ELS should provide table driven financial components
F 789.	The ELS should allow authorized DNR staff to modify the financial components
9.02	**Unit Pricing**
F 790.	The ELS should allow DNR to set a fee (cost) for each license
F 791.	The ELS should allow DNR to set a fee (cost) for each privilege
F 792.	The ELS should not support discounts for bundled items
F 793.	The ELS should not support upgrades to existing licenses or privileges
9.03	**Agent Compensation**
F 794.	Agent fees are assessed external to the ELS, therefore the ELS should not support the calculation and assessment of agent fees
9.04	**Electronic Issuance Fee**
F 795.	The ELS should allow DNR to assess an electronic issuance fee
F 796.	The ELS should allow DNR to assess the fee on each license or privilege (item) sold
F 797.	The ELS should allow DNR to assess the fee on each complete sale
F 798.	The ELS should allow DNR to choose the assessment method
F 799.	The ELS should include the issuance fee in the cost charged to the buyer
9.05	**DNR Accounting**
F 800.	The ELS should associate each license item with multiple accounting funds (revenue codes)
F 801.	The ELS should allocate revenue from each license item to the accounting funds based on a percentage
F 802.	The ELS should require each license item to have at least one accounting fund and percentage combination
F 803.	When a license item has multiple accounting funds, the ELS should require the percentage to equal 100%
9.06	**Donations**
F 804.	The ELS should allow a customer to make a donation to a charity administered by the DNR
F 805.	The ELS should support multiple charities simultaneously
F 806.	The ELS should allow the customer to select the charity or charities they wish to donate to
F 807.	The ELS should not require the customer to make a donation
F 808.	The ELS should require each charity to have an accounting fund code
9.07	**Periodic Electronic Remittance**
F 809.	The ELS should generate EFT transactions
F 810.	The ELS should generate transaction entries for the CGI Advantage accounting system used by the West Virginia Treasurer
F 811.	The ELS should generate all transactions for CGI Advantage using the cash method
F 812.	The ELS should support a “corporate” sweep for agents that are part of a larger organization
F 813.	The ELS should support a method to allow the West Virginia Treasurer to report the success or failure of each sweep to the ELS
F 814.	The ELS should require DNR to enter a “cut-off” date for the sweep
F 815.	The ELS should allow DNR to select the agents to be included in a specific sweep
F 816.	The ELS should allow DNR to group agents for a sweep
F 817.	The ELS should retain the selected agents or groups of agents for use in future sweeps

Functional Specifications: Financial Management	
SPEC #	**Specification Description**
F 818.	The ELS should evaluate unprocessed transactions from the last successful sweep through the cut-off date for each agent to calculate monies due DNR
F 819.	The ELS should generate appropriate the EFT transaction(s) for each agent in the sweep
F 820.	The ELS should generate the appropriate entries for the CGI accounting system for each agent in the sweep
F 821.	The ELS should deduct DNR approved voids from the agent sweep amount
F 822.	The ELS should not generate an EFT transaction with a negative balance
F 823.	The ELS should allow authorized DNR personnel to make manual adjustments to the agent sweep amount
F 824.	The ELS should allow authorized DNR personnel to place a “hold” on an agent’s sweep
F 825.	The ELS should send a pre-sweep email notice to each agent in the sweep
F 826.	The ELS should send a copy of the pre-sweep email to DNR
F 827.	The ELS should allow DNR to determine the time the pre-sweep email will be generated
F 828.	The ELS should include the sweep amount in the electronic email
F 829.	The ELS should include the sweep date in the electronic email
F 830.	The ELS should not include the agent bank account in the electronic email
F 831.	The ELS should send a “corporate” pre-sweep notice where appropriate
F 832.	The ELS should associate all agent, internet, and DNR transactions with the EFT transaction(s) in the sweep
F 833.	The ELS should only update the sweep as successful when the treasurer reports the success of the sweep
F 834.	The ELS should notify DNR of all unsuccessful sweeps
F 835.	The ELS should DNR to sweep an agent on demand
F 836.	The ELS should provide an alternate method of payment, such as cashier check
9.08	**POS Pricing**
F 837.	The ELS should price each license item individually
F 838.	The ELS should support prepayment with an application
9.09	**Agent Changes**
F 839.	The ELS should allow DNR to identify which license items an agent may sell
9.10	**Customer Changes**
F 840.	The ELS should allow DNR to “flag” a customer as deleted
F 841.	The ELS should not delete the physical customer record from the database
F 842.	The ELS should not include “flagged deleted” customers in any report
F 843.	The ELS should allow DNR to bar a customer from access to the ELS
9.11	**Void Processing**
F 844.	The ELS should require DNR to approve a returned voided license before including the void EFT void credit transaction
F 845.	The ELS should provide a method for authorized DNR personnel to indicate the voided license has been returned by the agent and approved by DNR
F 846.	The ELS should provide a method for DNR to monitor voids not returned by the agent within the predetermined time.
F 847.	The ELS should adjust quotas if the voided hunt has a quota and the quota has not yet been met
F 848.	The ELS should mark the approved void as refunded after the EFT is successfully processed

Functional Specifications: Financial Management	
SPEC #	**Specification Description**
F 849.	The ELS should generate the appropriate accounting entries for approved voids to reverse the fees to the same accounts as were credited with the sale
9.12	**Miscellaneous Payments/Refunds**
F 850.	The ELS should allow authorized DNR staff to issue a refund
F 851.	The ELS should process the refund much like the void
F 852.	The ELS should generate accounting entries to reverse the original transaction(s)
F 853.	The ELS should allow authorized DNR personnel to make monetary adjustments to agent accounts
9.13	**EFT/ACH Transactions**
F 854.	The ELS should generate EFT transactions in a format acceptable to the Automated Clearing House
9.14	**CGI Advantage Interface**
F 855.	The ELS should generate the appropriate accounting transactions for import to the CGI Advantage accounting system used by the West Virginia Treasurer
F 856.	The ELS should generate the accounting entries in summarized format for each account
9.15	**Financial Reports**
F 857.	The ELS should provide a simple user-friendly method of setting report criteria
F 858.	The ELS should produce a daily revenue report for an agent, a group of agents, or all agents
F 859.	The ELS should produce a monthly sales report for an agent, a group of agents, or all agents. The report can be printed in detail by day or summarized for the month
F 860.	The ELS should produce a monthly sales report by license class for an agent, a group of agents, or all agents. The report can be printed in detail by day or summarized for the month
F 861.	The ELS should produce a report of monthly void requests submitted to DNR for an agent, for a group of agents, or for all agents
F 862.	The ELS should produce a report of monthly void requests approved by DNR for an agent, for a group of agents, or for all agents
F 863.	The ELS should produce a report of monthly void requests denied by DNR for an agent, for a group of agents, or for all agents
F 864.	The ELS should produce an EFT balance due (accounts receivable) by agent, for a group of agents, or for all agents
F 865.	The ELS should produce an EFT sweep history report by agent, for a group of agents, or for all agents
F 866.	The ELS should produce a failed EFT sweep report by agent, for a group of agents, or for all agents
F 867.	The ELS should produce a voided transaction report for an agent, for a group of agents, or for all agents
F 868.	The ELS should produce an agent adjustment report for an agent, for a group of agents, or for all agents
F 869.	The ELS should produce a contribution report in detail or summary format
F 870.	The ELS should produce a daily deposit report
F 871.	The ELS should produce a detail bank draft report for a specific sweep. The report also can be produced showing agents rolled up to a corporate sweep
9.16	**Lifetime License Lost Revenue Model**
F 872.	The ELS should not include any processing for the lifetime license lost revenue model

10 Reporting & Decision Support Services

In general, DNR will use their replicated copy of the data base for ad-hoc reporting. This section focuses on specifications for standard reports to be generated by the ELS.

10.01 Report Format

The ELS reports should conform to the following:

The reports can easily be downloaded into Excel or Access
The reports can be distributed to recipients electronically
The reports can be marked final and cannot be changed after that point
The process for setting report criteria is simple and user friendly
Electronic access of report

10.02 Service Level Agreement (SLA) Reports

The ELS should generate all SLA metrics without requiring manual manipulation. The vendor may summarize these into PowerPoint or other format, but core metrics should be traceable to a system-executed procedure. The proposed SLA metrics appear separately in the RFP (Appendix E), and the final reporting specifications will derive from the negotiated metrics.

DNR also requests access to the vendor's Help Desk software to track trends, identify issue patterns and frequencies; this can be via direct access or extracted data or reports.

10.03 Financial Reports

Financial reports are discussed in detail in the Financial Management Specifications section of this Appendix.

10.04 Standard Management Reports

DNR will generate a number of reports from their replicated copy of the ELS database. This section describes standard management reports needed by DNR. The vendor can produce these reports online or via background task. In addition, DNR prefers to have the capability to sort, select, or filter by multiple fields and to display, print, or export the resultant data as needed. Vendors should describe any pre-existing capabilities for filtering the selection criteria.

The ELS should allow DNR to set and manage employee access to all individual reports.

In the ELS, the internet should be considered a virtual agent to be included in all appropriate agent reports.

10.05 Agent Reporting

- Where the agent belongs to a group of agents (such as an individual Wal-Mart store is part of the Wal-Mart chain), the ELS should produce a master agent list for each agency that includes basic information including ID numbers, names, address information (including county), agent type, chain affiliation and other contact data
- Agent status report (new, active, hold, pending close, closed) and the date the status was set

- Equipment report for agents listing agent ID and name, POS device number, type of device, last sales date
- Agent issues list by the issue status and date (includes agent ID, name, issue classification)
- An unusual activity report identifying certain above-threshold conditions such as excessive void transactions, activity at unusual hours, a high number of licenses and privileges sold to a customer
- A list of all void requests by agent or customer for a specified period of time. Also unprocessed voids and voids not approved by DNR for a specified time

DNR users should be able to display, print, or export the resultant data as needed.

10.06 CUSTOMER REPORTING

The ELS needs to provide a method to look up data for an individual customer or customers that meet search criteria including but not limited to:

- Geographic area
- Personal data (e.g., age or gender)
- Specialized licensing type (lifetime, disabled vet, military, special licenses or permits)
- Customers not meeting eligibility requirements (e.g., education requirements not met, attempted to buy more licenses than allowed by quota, attempted to purchase licenses while on revocation/restriction)
- Historical data (licenses currently or previously held, agent location of purchase, date, time, transaction data)
- Responses to customer surveys at the time of sale

Users should be able to display, print, or export the resultant data as needed

10.07 LICENSE ITEM REPORTING

- A master list of all license and privilege items tracked by the system which includes the year, license or privilege class, license or privilege code, license or privilege name, license or privilege type, license or privilege category, and agent(s) authorized to issue the item
- Query, print, or display a list of all licenses and privileges that may be issued by authorized agent type

Users should be able to display, print, or export the resultant data as needed

10.08 LICENSE SALES REPORTING

- An agent sales report including agent name and ID, county, type of agent, items sold, and sales dollar amounts for each agent. DNR should have the option of selecting the range of dates (from-to dates) to be included in the report. This report can be requested in summary or detail form
- Yearly sales comparison showing sales volumes and revenue; offers a comparison of historical data from previous year to the following year by license or privilege within a given month or quarter. At a minimum, users must be able to select and/or group by the following report parameters:
    - Year (range)

    - License or privilege class (one, list, or all)
    - License or privilege code (one, list, or all)
    - License or privilege type (one, list, or all)
    - License or privilege category (resident, non-resident, all)
- The ability to look up customer sales data by age, ZIP code, gender, county, or residency
- Each agent should be linked with all applicable locations (i.e., parent with subsidiary, commercial agent with multiple locations) for sales reporting and inquiry purposes
- Produce a specialized licensing and privilege report with breakdown of number of items and sales dollars issued
- The system should produce item sales reports that include license or privilege count, price and extended sales amount (count X price each) for each license or privilege
- The system should provide the ability to report sales by period, identifying sales totals by license or privilege type and geographic area (WMA, district, or county) for user specified time intervals (day, week, month, calendar year, fiscal year) and user specified duration
- The system should provide the ability to automatically generate sales reports by license or privilege and identifying sales totals by license or privilege class for user specified license years. At a minimum, users should be able to select and/or group by the following report parameters:
    - License or privilege class (one, list, or all)
    - License or privilege code (one, list, or all)
    - License or privilege type (one, list, or all)
    - License or privilege category (one, list, or all)
    - Year (range)
    - Agent ID (one, list, or all)
- The system should provide a comprehensive report of every attempted, completed, and voided transaction in the ELS. The report should include the identifying transaction information. At the user option, the report could be qualified by agent or time period
- Limited Licenses reports including individuals who applied for limited license permits, individuals who were successful, individuals who were unsuccessful, and individuals who were disqualified

Users should be able to display, print, or export the resultant data as needed

10.09 POS REPORTING

The ELS should allow the agent to view:

- Daily sales reports by POS device or agent device
- Individual sales for the current day
- Clerk reports for the current day
- Week-to-date sales report showing sales from Sunday to Saturday (or the current day and time)
- Weekly invoice report showing sales from last week (including any adjustments such as voids) to the agent's account

- A report listing any returnable documents the agent must return to DNR, such as voids
- Accounts Payable to DNR listing all sales since the last successful EFT sweep. Since the agent is responsible for voided licenses until DNR receives and processes the void, the accounts payable report should not include voids that have not been received and processed by DNR

Users should be able to display, print, or export the resultant data as needed.

Individual customer data should NOT be included or accessible by the POS agent.

10.10 HIP SURVEY REPORTING

The ELS should enable electronic reporting of migratory game harvest and required reporting to the U.S. Fish and Wildlife Service (FWS), as required by the Harvest Information Program (HIP). The system should prompt for survey information via the POS device or internet prior to issuing a migratory bird license.

10.11 CUSTOMER SURVEY REPORTS

Certain surveys may be collected at the time of sale as part of the purchase process. DNR should have access to survey data and the ability to generate ad-hoc reports.

10.12 GAME HARVEST REPORTS

DNR does not require any "canned" or standard harvest reports. Rather, DNR needs the raw harvest data in a usable format so they can develop their own reports. The ELS should have a daily, weekly, or monthly extract from the data base into an Excel or Access format.

10.13 LAW ENFORCEMENT REPORTS

The ELS should provide law enforcement, at a minimum, the following reports:

- Attempts to issue a revoked license
- Attempts to issue a license without required hunter education certification
- Attempts to reprint a voided license
- Licenses reprinted more than a certain threshold
- All currently effective revocations
- Revocations by effective date
- Revocations by end date
- Changes to customer demographics for revoked licenses
- Game check reports in excess of bag limits

Functional Specifications: Reporting & Decision Support Services	
SPEC #	**Specification Description**
10.01	**Report Format**
F 873.	The ELS should produce standard (canned) reports from the replicated database
F 874.	The ELS should produce reports that can be downloaded to the user
F 875.	The ELS should produce reports that can be distributed electronically
F 876.	The ELS should produce reports that can be downloaded in Excel format
F 877.	The ELS should produce reports that can be downloaded in Access format
F 878.	The ELS should produce reports that can be printed by DNR
F 879.	The ELS should produce reports that can be printed by the agent at the POS device
F 880.	The ELS should produce reports that cannot be changed
F 881.	The ELS should provide a simple user-friendly method of setting report criteria
10.02	**SLA Reports**
F 882.	The ELS should produce SLA reports that monitor the negotiated SLA metrics
F 883.	The ELS should produce SLA reports automatically without manual manipulation
F 884.	The ELS should produce SLA core metric reports that are traceable to system executed procedures
F 885.	The ELS should have access to the vendor's help desk software database
10.03	**Financial Reports**
F 886.	The ELS should produce financial reports that meet the specifications specified in the Financial Management Specifications
10.04	**Standard Management Reports**
F 887.	The ELS should produce standard management reports from the replicated data base
F 888.	The ELS should include parameters to allow DNR to select the content of the report
F 889.	The ELS should include parameters to allow DNR to order the content of the report
F 890.	The ELS should include parameters to allow DNR to filter the content of the report
F 891.	The ELS should support the selection, ordering, and filtering to be on multiple fields
F 892.	The ELS should allow DNR to display the report results
F 893.	The ELS should allow DNR to print the report results
F 894.	The ELS should allow DNR to export the report results
10.05	**Agent Reporting**
F 895.	The ELS should produce a master agent list which should include chain affiliation if appropriate to the agent
F 896.	The ELS should produce an agent status report for one agent, a group of agents, or all agents
F 897.	The ELS should produce an agent equipment report for one agent, a group of agents, or all agents
F 898.	The ELS should produce an agent issue report for one agent, a group of agents, or all agents
F 899.	The ELS should produce an "unusual activity" report, identifying above-threshold conditions for an agent
F 900.	The ELS should produce a void report by agent or customer
F 901.	The ELS should produce an unprocessed void report for all agents
F 902.	The ELS should produce a "voids not approved by DNR" report for all agents
10.06	**Customer Reporting**
F 903.	The ELS should provide authorized DNR personnel the ability to search for and retrieve customer information
F 904.	The ELS should produce a report listing customers with specialized licenses
F 905.	The ELS should produce a report listing customers who attempted to purchase a license

Functional Specifications: Reporting & Decision Support Services	
SPEC #	**Specification Description**
	but did not meet eligibility specifications
F 906.	The ELS should produce a customer history report
F 907.	The ELS should produce a report listing customer responses to a survey
10.07	**License Item Reporting**
F 908.	The ELS should produce a report listing all licenses and privileges available for sale
F 909.	The ELS should produce a report listing the licenses and privileges an agent is authorized to sell. Produced for one agent, a group of agents, or all agents
10.08	**License Sales Reporting**
F 910.	The ELS should produce an agent sales report for one agent, a group of agents, or all agents; produced in summary or detail format. Alternately, the agents to be included in the report could be selected by a geographic area
F 911.	The ELS should produce a comparative sales report which includes sales volume and revenue by license or privilege; produced in detail or summary for a specified period (month, quarter, or year). Alternately, the agents to be included in the report could be selected by a geographic area
F 912.	The ELS should allow authorized DNR personnel to search and retrieve customer sales data
F 913.	The ELS should produce a report listing all attempted, completed, not completed, and voided transaction for an agent, a group of agents, or all agents. Alternately, the agents to be included in the report could be selected by a geographic area
F 914.	The ELS should produce a report listing customers who applied for limited license activities, customers who were successful, customers who were unsuccessful, and customers who were disqualified
10.09	**POS Reporting**
F 915.	The ELS should produce a report for the agent listing, in detail or summary format, the sales history for a POS device
F 916.	The ELS should produce a report for the agent listing, in detail or summary format, the sales history for the agent
F 917.	The ELS should produce a report for the agent listing sales, in detail or summary format, for the current day
F 918.	The ELS should produce a report for the agent listing sales for the current day for each POS device user
F 919.	The ELS should produce a report for the agent listing week-to-date sales in detail or summary format. The report should begin with Sunday and end with Saturday
F 920.	The ELS should produce a report for the agent listing any documents which must be returned to DNR, such as voided licenses
F 921.	The ELS should produce a report for the agent listing all accounts payable to DNR. This report should not include accounting for voids not yet approved by DNR
F 922.	The ELS should not include customer demographic information in any report produced by/for the agent
10.10	**HIP Survey Reporting**
F 923.	The ELS should record the responses to the HIP survey in the ELS database
F 924.	The ELS should provide the survey results (in electronic form) to the U S Fish and Wildlife Service
10.11	**Customer Survey Reports**
F 925.	The ELS should allow the customer to complete an optional customer survey at the time of sale
F 926.	The ELS should record the results to the survey in the ELS database
F 927.	The ELS should provide DNR with a survey data extract

Functional Specifications: Reporting & Decision Support Services	
SPEC #	**Specification Description**
F 928.	The ELS should format the extracted survey data in Excel or Access format
10.12	**Game Check Reports**
F 929.	The ELS should provide DNR with the game check data extract
F 930.	The ELS should format the extracted game check data in Excel or Access format
10.13	**Law Enforcement Reports**
F 931.	The ELS should produce a report listing customers who attempted to purchase a license while in a revocation status
F 932.	The ELS should produce a report listing customers who attempted to purchase a license without the required hunter education certification
F 933.	The ELS should produce a report listing customers who attempted to reprint a voided license
F 934.	The ELS should produce a report listing licenses reprinted more than once
F 935.	The ELS should produce a report listing game check reports in excess of bag limits

Service Level Agreement

This section of the appendix presents the proposed service level agreement (SLA) for the term of the contract. The SLA is the overarching agreement and is made up of SLA components. Each SLA component represents a reckoning of accountability, and consists of one or more measurable events and the corresponding Service Level Goal and metric calculation.

The vendor should present its invoice for the prior month along with the accompanying SLA reports for that month. Format for both will be determined during project initiation.

DNR seeks a vendor who will provide a high level of service to users with reliable access to critical systems and services. This section of the appendix details the minimum acceptable service levels required from the ELS vendor, as well as related vendor responsibilities such as service level monitoring and reporting.

This SLA covers the following service categories:

- System Operations Management
- Help Desk Support
- Asset/Inventory Management
- Game Checking
- Financial Services
- Contract Reporting
- Conversion
- Implementation

For each service within scope, this SLA describes specific services, performance targets, and committed service levels that are to be used to monitor the overall effectiveness of the services provided by the vendor.

System Operations Management

The vendor is responsible for 24x7 availability of the ELS service and timely processing of transactions. The vendor can provide output from its system monitoring software to measure each Service Level Goal.

The following terms are used to define components of the SLA.

SYSTEM AVAILABILITY

The ready state of the facility and environmental systems, servers, storage devices, interfaces, and internal network to accept user logons and provide complete online and batch access to run application programs and access databases

AVAILABLE PRODUCTION MINUTES

Number of minutes available in the reporting period less the number of minutes that are required for approved system maintenance windows, i.e. [(60 x 24 x days-in-month)-approved downtime]

TRANSACTION RESPONSE TIME

Elapsed seconds between receipt of a request at the central processor and the ELS systems' initiation of the appropriate response back to the issuing device. In other words, this measurement excludes the telecommunications transmission to and from the central server.

IMPLEMENTATION OF CHANGES

This involves impact and risk analysis of requested software changes, notification of the affected user community, and implementation of software changes. The vendor will not make software changes (releases of new/modified software code affecting DNR's production system, including software code changes, database structures, control data, configuration changes, or stored procedures furnishing interfaces to DNR's real-time production database) without prior notice to DNR, and approval by DNR, which approval shall not be unreasonably withheld, conditioned or delayed. All software changes will be made within negotiated maintenance windows except by prior approval. If a software change is an emergency change necessary to repair or correct a defect that puts vendor or any vendor customer at risk of immediate system failure, financial loss, or lack of system integrity, emergency approval from DNR will be sought during DNR's business hours Monday through Friday, and vendor may make such emergency change without prior approval after DNR's business hours or on weekends or holidays. In such case, vendor shall furnish an explanation of the circumstances necessitating the emergency change on the next business day. Successful rollout of a change within the maintenance window constitutes a successful change.

DISASTER RECOVERY

Disaster Recovery (DR) involves providing an alternate site with the appropriate production hardware/software, developing and maintaining the DR plan, developing

and maintaining the DR recovery scripts, scheduling and testing the DR plan, and recovery of production environment in the event of an actual disaster.

COMPROMISED SECURITY

Any event that results in unauthorized access to the ELS databases that contain the private information of Issuing Agents and Licensees.

Measurable Event	Service Level Goal	Calculation
System Availability	The system should be available 99.9% of Available Production Minutes	Actual minutes system is available / Available Production Minutes
Transaction Response Time	99% of transactions occur within 10 seconds	Number meeting SLA/ Total number of transactions
Implementation of Changes	100% of all system changes are completed successfully	Number of successful changes / Number of changes implemented.
Disaster Recovery	100% of DR tests and any needed recoveries result in System Availability within two days.*	Number of successful recoveries / Number of disaster recovery tests and actual disasters
Compromised Security	The system will not allow the system security to be compromised	Met if the system security is not compromised

* Although the goal for DR testing and DR recovery is within two days, the vendor will still be assessed damages for system unavailability.

Help Desk Support

This SLA component addresses the provision and integration of help desk services for agents and DNR staff. The vendor is responsible for providing 9:00 a.m. to 9:00 p.m., 7 days/week help desk support except during the month of November when 24 x 7 help desk support is required. Services include telephone support for problem reporting and resolution as well as the tools, procedures, and resources necessary to log, manage and resolve problems with the ELS hardware, software and telecommunications infrastructure. The vendor should use help-desk software to track and manage help desk calls and to generate reports showing metrics for the service.

The vendor is not responsible for answering license or West Virginia regulation related questions; DNR staff is responsible for answering all licensing and West Virginia regulation related questions.

The following terms are used to define components of the SLA.

INCIDENT

A single support issue, typically denoted by a request for service or identification of a problem.

QUEUE AVAILABLE

The vendor call center queue is available for all help desk customers at all times. Vendor will not be responsible for a telecommunications outage or issue that prevents a call from reaching vendor's phone system.

ABANDONED CALL

A call that is disconnected by the caller prior to a call center representative answering.

FIRST CONTACT

Initial contact with a call center representative for a service request or problem.

TIME TO RESOLVE

The elapsed time between the first contact between the end-user with the vendor and resolution of the problem and restoration of functionality.

LEVEL 1 CLOSED CALL

A call to the Help Desk is considered closed if the caller agrees that the issue is resolved or the ELS vendor escalates the call.

LEVEL 2 CLOSED CALL

These are calls that will require activity such as repairing or replacing a device, referring the call to DNR, or providing supplies. Resolution is expected in days instead of minutes.

The accompanying table describes all service levels, measurable event, and target levels for help desk services. The following service levels are applicable to 1st level (participant only) and 2nd level and higher support.

Measurable Event	Service Level Goal	Calculation
Queue Available	Queue will be available 100% of the time	Queue availability at all times
Call abandonment	95% of calls result in First Contact	Number of calls resulting in First Contact/Number of calls received
First Contact	90% of calls reaching queue will be answered < 2 minutes by a person	Number of calls answered within allotted time / Total number of calls
Time to Resolve (Level 1)	95% of incidents arising from answered calls are closed < 30 minutes from initial call to help desk	Number of closed calls within 30 minutes / Total number of calls
Time to Resolve (Level 2)	100% of incidents arising from answered calls are monitored to completion	Met if all calls are monitored

Asset/Inventory Management

The vendor is responsible for replacing defective equipment and for upgrading equipment that wears out over the life of the contract. Replacement of defective or malfunctioning equipment applies only to vendor provided license sale hardware. Replacement/upgrade can normally occur via overnight delivery. Vendor shall be prepared to provide on-site assistance to ensure that equipment is functioning within the required service level.

In addition, the vendor is responsible for shipping consumable inventory (license stock) to agents upon request or based upon the system detection that the agent supply needs replenished.

The following terms are used to define components of the SLA.

PEAK TIME

Peak business dates will be communicated annually in writing by DNR and are directly related to two specific events, as follows:

- The week immediately preceding the opening of deer archery season and the opening day of the season. Deer archery season typically opens on the Saturday closest to October 1. As an example, in 2012, deer archery season opens on September 29, so peak would be Saturday, September 22 through Saturday, September 29.
- The week immediately preceding the opening of buck hunting season and the opening day of the season. As an example, in 2012, buck gun season opens on Monday November 19, so peak would be Monday, November 12 through Monday, November 19.

NON-PEAK TIME

Any time not included in Peak Time.

REPLACEMENT OF DEFECTIVE OR MALFUNCTIONING EQUIPMENT

A malfunctioning device is considered replaced when the equipment is operational and capable of selling licenses. This excludes problems with agent-provided equipment.

Measurable Event	Service Level Goal	Calculation
Replacement of defective or malfunctioning equipment	NON-PEAK: 95% of calls received prior to 2 PM Eastern Time will result in overnight shipment and replacement before 2 PM Eastern Time the next business day of the affected agent. PEAK: 99% of calls received prior to 2 PM Eastern Time will result in overnight shipment and replacement before 2 PM Eastern Time the next business day of the affected agent.	Number meeting SLA/ Total number requiring shipment
Provision of consumable inventory	100 % of consumable inventory is received by the Issuing Agent within three business days of request.	Number meeting SLA/ Total number of requests
POS Installation/ Training (New Agents) During New Implementation Rollout	Installation, testing, and training for new agents will occur within 10 business days of successful upload of new agent record to the host 99% of the time (subject to a maximum of 100 per week).	Number meeting SLA/ Total number of new agents
POS Installation/ Training (New Agents) Additions after Implementation	Installation, testing, and training for new agents will occur within 10 business days of successful upload of new agent record to the host (not counting time during which agent is unwilling, unable or uncooperative to proceed).	Per Instance of Failure

Game Checking

The vendor is responsible for 24 x 7 availability of the ELS Game Checking service during an open season. Service includes game checking by Internet, at an agent location, or telephone via Interactive Voice Response (IVR).

The following term is used to define this component of this SLA.

IVR AVAILABILITY

The ready state of the IVR to accept game checking calls.

Measurable Event	Service Level Goal	Calculation
IVR Availability	IVR should be available 99.9% of Available IVR Minutes	Actual minutes IVR is available/Available IVR minutes

Financial Services

The vendor will serve as fiduciary agent for DNR in calculating, preparing, and transmitting EFT "feeder" transactions. The SLA applies to the accuracy of the following components:

- Calculated cash flow, i.e. the correctness of ELS-determined charges
- Executed EFT "feeder" transactions (the West Virginia Treasurer's E-Government Program executes the actual electronic funds transfer based on the "feeder" transactions from ELS)
- Executed accounting transactions into the CGI Advantage system

The following terms are used to define components of the SLA.

CORRECT EFT TRANSACTION

Transmission of the correct funds transfer information to the EFT/ACH interface but does not include the success or failure of the transfer.

CORRECT CGI TRANSACTION

Transmission of the correct revenue accounting information to the CGI Advantage interface.

Measurable Event	Service Level Goal	Calculation
Batch sweep, per final specifications	100% of agent remittances are calculated correctly prior to initiating the EFT	Number of agents with correct remittances / Total number of agents selling during the period
EFT "feeder" transactions submitted to ACH from each sweep	100% of EFT "feeder" transactions result in the correct transfer of funds	Number of correct EFT "feeder" transactions / Number of EFT "feeder" transactions
CGI transactions submitted	100% of CGI transactions occur with the correct distribution of funds into revenue accounts	Number of correct CGI transactions / Number of CGI transactions

Contract Reporting

Detailed measurement and performance reports will be prepared by the vendor and submitted to DNRs as follows:

The following terms are used to define components of the SLA.

EFT STATUS REPORT

This will provide detailed information on prior-day EFT activity and is due by 8:00 a.m. on the following business day.

MONTHLY STATUS REPORT

This will allow DNR to monitor and track performance. Either party as needed to ensure service level fulfillment may call Service Reviews. This is due within ten (10) days of month end. The SLA reports to be included within the Monthly Status Report are:

- Transaction Processing Outage Log
- Internet Availability Report
- Report of Event of Compromised Security
- Help Desk First Contact Report

ANNUAL SERVICE LEVEL REPORT

This will be made available to all involved parties/support groups participating in the annual SLA performance review. This report shall contain the same SLA reports required as part of the Monthly Status Report, with the required data covering a reporting year.

Measurable Event	Service Level Goal	Calculation
EFT Status Report	100% of EFT Status Reports must be available by the specified time	Number of EFT Status reports delivered within the specified time / Number of required EFT status reports
Monthly Status Report	100% of Monthly Status Reports will be delivered within 10 business days of month-end	Met if Monthly Status Report is delivered within the required timeframe
Annual Service Level Report	100% of Annual Service Level Reports will be delivered by January 31 for the preceding calendar year	Met if Annual Status Report is delivered within specified time frame

Conversion

The timing and accuracy of converting DNR agents, customers, license items, and licenses (the licenses held by the customer) from the current POS, Internet, and lifetime systems to the ELS is a critical factor in the success for DNR. DNR is responsible for providing the data to the vendor in a format agreed to by DNR and the vendor. The vendor is responsible for converting DNR-supplied data and loading that data into the ELS database within the timeframe identified in the approved Project Plan.

The following terms are used to define components of the SLA.

ELS DATABASE LOAD

The process of converting DNR-provided data and loading that data into the ELS database.

CONVERSION

All data has been migrated from the existing DNR databases and successfully loaded into the ELS database. Additionally, all ELS processes are able to access and process the converted data.

Measurable Event	Service Level Goal	Calculation
ELS Database Load	99% of all records provided the vendor by DNR are converted and successfully loaded into the ELS database within the timeframe identified in the approved Project Plan	Number of records converted successfully/Number of records to be converted

Implementation

The timing of system acceptance and implementation is a critical factor in the success for DNR. The following dates pertain to this SLA component.

JANUARY 1, 2015

The vendor must commit to a production implementation date of January 1, 2015.

The following term is used to define components of the SLA.

IMPLEMENTATION

"Implementation" is defined as a fully functional system, operating as defined per specifications, with electronic accessibility by all impacted users. In addition, all impacted agents will have received device(s), supplies, and training; and all impacted DNR staff have received relevant device(s) and training.

Measurable Event	Service Level Goal	Calculation
Implementation	Implementation completed as defined, with sign-off by DNR	Met if the agreed upon implementation date is achieved

Technical Specifications

This section describes the technical specifications for the Electronic Licensing and Game Checking System (ELS). The system will be hosted at the vendor-designated location. The vendor should own all Point of Sale configurations and be responsible for providing them to the DNR-designated agents.

Technical Specifications	
SPEC #	**Specification Description**
	General
T 1.	The vendor should provide a system that includes secure authentication and authorization in order to protect customer and DNR information
T 2.	The system should be available 24 X 7, 365 days a year, except for scheduled maintenance
T 3.	Scheduled maintenance periods should be pre-approved by DNR and should avoid peak sales periods
T 4.	The system should operate in a real time, integrated transactions mode
T 5.	The vendor should provide a system utilizing industry standard database, application, and query functionality
T 6.	The software developed should be subject to review and approval by DNR, OT, or its authorized agents.
T 7.	The vendor shall provide a complete hosting solution for the system including, but not limited to hardware, system software, application software, database management system, middleware, connectivity, operations, and maintenance for the life of the contract
T 8.	The vendor should be responsible for all costs associated with the hosting the solution at all stages (development through production)
T 9.	The system should provide users with the ability to log out which should remove session information associated with the user (cached data) so that no remnants of the prior session remains or is carried to the next user log in
T 10.	The vendor should provide a system that will communicate via dial-up, broadband, and DSL (agents will be responsible for obtaining their own ISP and internet connectivity. Wireless connectivity is prohibited)
T 11.	The system should have full compatibility with Microsoft Internet Explorer 7.0 and later; other browser compatibility should be determined jointly by vendor and DNR and/or OT
T 12.	The system should be browser-based; WV DNR will consider exceptions related to POS devices
T 13.	The system should employ a standard, consistent design style sheet for all modules, using the same page layouts, color scheme, data fields, and labels
T 14.	The system should provide the ability to set a session time out period
T 15.	The system shall interface with the West Virginia Treasurer's credit card processing system for the purpose of collecting the credit card information and determining if the transaction has successfully cleared (thus, no credit card information may be collected or stored by the ELS itself)
	Security
T 16.	The system should provide secure access via application-enabled, role-based security which permits the assignment of certain functions (or group of functions) to certain roles
T 17.	The system should verify the identity or authenticate all of its users before allowing them to use its capabilities
T 18.	The vendor should ensure that the system software is protected from infection by undesirable programs (e.g., computer viruses)

Technical Specifications	
SPEC #	**Specification Description**
T 19.	The system should enforce unique user names
T 20.	The system should enforce the use of complex passwords in compliance with West Virginia Office of Technology standards
T 21.	The system should encrypt passwords and other mutually agreed upon Personal Identification Information (PII) while in transmission and at rest in the database (if applicable)
T 22.	The application should not store authentication credentials or sensitive data in its code
T 23.	The system should detect and record all accesses that fail identification or authentication requirements
T 24.	The vendor should ensure that subsequent application changes (e.g., fixes, enhancements) do not remove or degrade security requirements
T 25.	Vendor should adhere to formal maintenance procedures which prevent authorized software modifications from defeating security mechanisms
T 26.	The vendor should inform DNR and OT's Security Team of any security breach as soon as possible and in no case more than one business day following discovery of such breach
T 27.	The vendor should assume full responsibility for any security breach with no liability accruing to DNR or other West Virginia state agency
	License Sales Equipment – General
T 28.	Equipment should accommodate users who possess a broad range of technical expertise
T 29.	Equipment configuration at POS locations should have a minimal footprint due to the wide variety of POS agent facilities in West Virginia
T 30.	Capabilities of the equipment should not limit the effective application of business rules to the license sale process
T 31.	Vendor should provide all equipment needed at each POS to manage the license sales process at that location except that vendors may provide agents with the option of using the agents' own PC with vendor-supplied peripherals (Agents will supply internet connectivity via their ISP)
T 32.	Vendor provided equipment should include a scanner capable of reading (via bar code, magnetic stripe, or similar technologies) customer data by scanning identification cards such as drivers' licenses, including those in compliance with the REAL ID Act of 2005
T 33.	Vendor should provide all supplies needed to produce hard copy licenses on pre-watermarked (or otherwise designated) paper which is durable and retains readability after being soaked with water and dried
T 34.	Vendor should manage the equipment distribution process
T 35.	Vendor should manage the equipment repair or replacement process
T 36.	Vendor should provide technical help (troubleshooting, problem resolution) for POS via email and telephone, from 9:00 a.m. to 9:00 p.m. (except during the month of November when availability is 24 hours a day), 7 days a week
T 37.	POS equipment configuration should be approved by West Virginia DNR and Office of Technology
T 38.	Equipment should be easy to set up and maintain by non-technical staff with little or minimal assistance
T 39.	ELS equipment and application should provide online or local printer access to POS agent reports
	License Sales Equipment – Set up and Maintenance
T 40.	Vendor should be responsible for initial and subsequent equipment deployment (DNR is responsible for retrieving existing DNR-owned equipment)
T 41.	The vendor should be responsible for developing a comprehensive equipment

Technical Specifications	
SPEC #	**Specification Description**
	deployment plan that meets DNR approval
T 42.	The vendor should be responsible for executing the equipment deployment plan
T 43.	Vendor should be responsible for vendor supplied equipment set up and successful connection to agent-provided internet access
T 44.	Vendor should be responsible for verifying that the equipment functions properly at agent location
T 45.	Clear equipment set up documentation should be shipped with all equipment; this same documentation should be available online
T 46.	Equipment documentation including a quick reference guide should be provided to each agent on paper
T 47.	Equipment documentation including a quick reference guide should be made available to each agent in electronic format
T 48.	In the event of a POS equipment problem, the vendor should have the ability to perform diagnostic and/or software fixes remotely
T 49.	Vendor must maintain an adequate supply of replacement equipment
T 50.	Vendor should identify where replacement equipment is located
T 51.	Vendor should describe the procedure to deploy the replacement equipment when needed
T 52.	Vendor should adhere to the following time frames when deploying replacement equipment: requests received before 2:00 p.m. Eastern Time Monday through Friday should ship the same day; all requests received after 2:00 p.m. or anytime Saturday or Sunday should ship the next business day; designated federal holidays should be treated as weekend days
T 53.	Vendor should provide a process for license agents to return equipment; the process should be approved by DNR
T 54.	Vendor should responsible for shipping costs of returned equipment
	Agent Help Desk
T 55.	Vendor should provide an agent help desk that is available 7 days a week, from 9:00 a.m. to 9:00 p.m. (except during the month of November when availability is 24 hours a day) via a toll free number; usage should be reviewed jointly by vendor and DNR one year post-implementation to refine availability to optimal hours
T 56.	The help desk should offer assistance to license agents to resolve technical issues with equipment and ordering supplies
T 57.	Vendor should track problem calls through use of an electronic help desk application
T 58.	Vendor should annotate each call ticket with a reasonable explanation of the resolution
T 59.	Vendor should allow read only access to help desk system by DNR
T 60.	Vendor should develop an escalation procedure if calls are not resolved within a time frame agreed upon between vendor and DNR
T 61.	Vendor should provide reports of agent call activity to DNR; report content should be mutually agreed upon
	Database
T 62.	The ELS should store the data in a relational database management system (RDBMS), either Oracle or SQL Server
T 63.	Database logging should be invoked
T 64.	The database purge criteria should be approved by the DNR (lifetime license information should not be purged)
T 65.	Data purged from the database should be stored offline in an easily accessible manner
T 66.	A mechanism should be established for reactivating purged data
T 67.	Adequate back-up resources should be required to minimize down time

Technical Specifications	
SPEC #	**Specification Description**
	Disaster Recovery
T 68.	Vendor should have a fully realized Disaster Recovery (DR) plan which covers all aspects of disaster recovery and business continuity
T 69.	Vendor should supply DNR with documentation of their Disaster Recovery (DR) Plan prior to go-live and annually thereafter
T 70.	Vendor should review the plan with DNR and OT prior to go-live and annually thereafter
T 71.	Vendor should test the DR Plan prior to go-live and annually thereafter
T 72.	Vendor should submit annual DR Plan test results to DNR and OT prior to go live and then annually to demonstrate that the plan works as designed to provide business continuity or recovery from a disaster
T 73.	Vendor DR Plan should provide for no loss of DNR data
T 74.	Vendor should provide a DR site that allows the system to be fully operational within two days in the event of a major disaster at the primary processing site
T 75.	Primary and DR sites should be geographically stationed in low risk natural disaster (e.g., earthquake, flood) areas
T 76.	Primary and DR sites should be at least 75 miles apart
	Replicated Database for DNR Use
T 77.	Vendor should provide a complete replica of the production database nightly for use by DNR
T 78.	Vendor should collaborate with DNR on the exact details and specifications of the replication during the design/customization phase
T 79.	The replicated database should be stored on West Virginia OT server (in Oracle or SQL Server, as designated by DNR and OT)
T 80.	Communication of the data should be conducted over a secure network connection
T 81.	The replication process should allow DNR database administrators to add indexes and views for report processing
T 82.	Vendor should provide a complete data dictionary of the replicated database which includes a complete description of each field
	Data
T 83.	West Virginia's data should be securely segregated from any other customer's data
T 84.	West Virginia DNR should own all West Virginia application data (e.g., licensing, customer, game checking) including that housed at the vendor's site
T 85.	All data in transit should be encrypted, including data transfers
T 86.	Vendor should secure sensitive, at-rest data such as Social Security Number (SSN), Drivers License (DL) number, and other mutually agreed-upon PII data using a standard encryption method
T 87.	The application should mask the SSN and other mutually agreed upon PII in the maintenance logs, customer logs, and printed documents (including licenses)
T 88.	The system should perform address formatting in accordance with USPS Publication 28, Postal Addressing Standards
T 89.	The system should utilize standard data tables such as country codes, state abbreviations, and county codes
T 90.	The system should validate all input data for validity (e.g., all dates must be actual, possible dates) and reasonability, (e.g., a one day license effective date cannot be prior to the license purchase date)
T 91.	The system should validate input data against business rules
T 92.	The system should perform all data validation at the point of entry, i.e., invalid data should not be committed to the data base
T 93.	The system should validate SSN for validity (e.g., all numeric) and reasonability (e.g., not all 1s, conforms to Social Security Administration issuance criteria)

Technical Specifications	
SPEC #	**Specification Description**
T 94.	The system should employ interactive help features for specific data elements to offer guidance (e.g., mouse-over or pop-ups)
T 95.	The system should facilitate easy and accurate data entry through the use of such capabilities as drop down lists for fields with limited possible values
T 96.	Customer-facing error messages should be meaningful, easy to understand, and subject to DNR approval
T 97.	Agent-facing error messages should be meaningful, easy to understand, and subject to DNR approval
	Backup and Recovery
T 98.	Vendor should meet or exceed the provisions of Policy Number WVOT-PO1013 “State of West Virginia Office of Technology Policy: Data Backup and Retention”
T 99.	Vendor should provide for adherence to a defined and documented back up schedule of all system resources and data
T 100.	Vendor should provide backup plan and schedule to DNR for approval prior to go-live and on an annual basis thereafter
T 101.	Scheduled backups of all servers should be completed regularly
T 102.	Vendor should provide for off-site system and data backups at least daily
T 103.	Tapes and other backup media transported off site should be securely transferred
T 104.	Data encrypted while “at rest” on the production database should be similarly encrypted on backup files
T 105.	Vendor should provide documented recovery procedures to meet defined Service Level Goals relative to system and data availability
	System Failover
T 106.	The system should require adequate backup resources in order to minimize downtime
T 107.	“Fail over” to the alternate server should occur within 30 minutes of detection of a fault in the primary server
T 108.	The “fail over” system should be an exact copy of the primary servers at any given time
T 109.	The vendor should also provide the ability to transfer operations to a fail over server maintained by the vendor at a separate geographic location
T 110.	The vendor should provide both database and application “fail over” support
T 111.	The vendor should ensure that no data is lost as a result of the “fail over” process
T 112.	The vendor should maintain a mirrored database server that is kept synchronized with the primary database server in real time
T 113.	The mirrored database server should be configured exactly like the primary database server and should be able to be easily switched to the role of primary server in the case of a significant outage of the primary database
	Hosting/Central Computing Environment/Physical Site Security
T 114.	Vendor should develop the ELS application in accordance with WV DNR requirements
T 115.	Vendor should maintain the ELS application
T 116.	Vendor shall operate the ELS application in an environment it provides (“hosting”)
T 117.	The ELS should be integrated with and accessible from the WV DNR web site
T 118.	The ELS should not carry advertising unless explicitly permitted by DNR
T 119.	Vendor should provide WV with complete technical documentation of system design and architecture
T 120.	The vendor-provided hosting solution should be robust enough to meet continuous operational service levels and near-immediate recovery in the event of service interruption
T 121.	The host location should be physically secure
T 122.	The hosting solution should provide for (at least) separate development, systems test,

Technical Specifications		
SPEC #		**Specification Description**
		user acceptance test, and production environments
T	123.	The hosting solution should have adequate performance and storage capacity to meet transaction time, data storage, and other functional specifications specified in this RFP
T	124.	The hosting solution should be sufficiently scalable to a retail license population of 350 agent's devices
T	125.	All servers and devices should have currently supported and hardened operating systems
T	126.	All servers and devices should have the latest anti-viral, anti-hacker, anti-spam, anti-spyware, and anti-malware utilities
T	127.	The overall hosting solution should include aggressive intrusion detection and firewall protection
T	128.	The vendor's hosting solution should provide a redundant power source
T	129.	The vendor's hosting solution should provide network redundancy
		Outage Notification
T	130.	The vendor should notify DNR when any single unplanned system outage lasts or is anticipated to last longer than five minutes, including an estimate of when the system should be back on-line
T	131.	For an unplanned outage lasting longer than five minutes, the vendor should provide DNR with an explanation of the root cause of the outage and the measures that have been taken to avoid its reoccurrence within 48 hours of the outage
T	132.	The vendor should provide notification to the user community in the event of widespread problems with the system; the notification should include an expected time when service will become available and may take the form of redirecting users to a temporary message page
		Network
T	133.	The production system should be accessible by all agents, DNR, and other authorized state agency users, via an IP network connection utilizing standard secure internet protocols (HTTPS)
T	134.	The system should accommodate concurrent processing for all POS agents, DNR users, and internet customers
T	135.	Vendor should be responsible for monitoring the system to achieve availability requirements
T	136.	Downtime, performance, and other related network statistics should be made available to DNR monthly as mutually agreed upon
		Methodology
T	137.	Vendor should utilize a robust, documented system development life cycle (SDLC) methodology to design, develop (build and/or customize), test, implement, and maintain the system
T	138.	Vendor shall utilize a project management methodology based on the Project Management Institute (PMI) principals contained in the Project Management Body of Knowledge (PMBOK) to manage the development and implementation of the system

Implementation Specifications

Installation of Hardware at Agent Locations

The agent must ensure that the site is ready for installation of vendor supplied hardware and provide dial-up or internet connectivity between the vendor and the agent, it should be the responsibility of the vendor to ensure delivery and installation of vendor supplied POS hardware at the agent location. It should also be the responsibility of the vendor to verify that the vendor supplied POS devices at the agent site function properly with the ELS, and the vendor should immediately notify DNR of any operational problems at the agent site.

It is the responsibility of DNR to pack-up and return any old POS equipment or collect paper applications, licenses, and stamps at agent locations.

ELS Roll-out

Currently, DNR has 280 agents selling paper and POS issued licenses.

DNR will identify 8 – 10 agents (including DNR Headquarters) as pilot agents. The ELS should be installed and brought online at these pilot agents, where the ELS can be tested in the agent/customer environment. If the pilot does not meet the satisfaction of DNR, DNR has the option to postpone full implementation until the system meets with DNR's satisfaction.

The pilot agents should represent a cross-section, representative of various agent profiles, license sales, and technical demographics.

Following successful implementation and operation at the pilot agent sites, DNR will roll out the ELS to the remaining agents. DNR and the vendor should agree on a plan, and the ELS should be implemented in an orderly fashion.

The Vendor should be responsible for deployment of all equipment, software, training, and documentation prior to the implementation dates. The Vendor should present a deployment plan for approval by DNR prior to deployment.

Following successful implementation and operation at the pilot sites, the ELS internet system should become available.

Documentation Specifications

The Vendor should provide agent and ELS system documentation. The vendor should maintain the documentation, keeping it updated as needed to reflect changes in policy, support phone numbers, and equipment. Revised documentation should be provided to the agents and/or DNR as required.

The vendor should be responsible for providing vendor supplied POS device equipment instructions to the agents, county clerks, Elkins Operations Center, and state parks. The Vendor should provide the documentation to DNR Headquarters for approval at least two weeks prior to the start of the ELS pilot.

The Vendor should be responsible for providing DNR Headquarters with documentation.

Training Specifications

The ELS vendor should be responsible for ensuring successful agent training at various locations across the State. This section describes the minimum requirements for training that should occur as part of initial implementation for newly enrolled agents and DNR staff as well as requirements for post-implementation. All training materials should be developed in collaboration with DNR. The curriculum includes topics relevant to West Virginia policy associated with the new system.

DNR will require DNR acceptance for any training targeted to external audiences, such as commercial agents and county clerks. The vendor should review the materials with and demonstrate the training presentations to DNR. Recommendations made by DNR should be incorporated into the program before the training is approved.

INITIAL IMPLEMENTATION

DNR has several different agent types that operate in a similar fashion and are authorized to issue similar licensing components. These agents can be grouped together for training purposes into two distinct levels listed below:

- Level 1 – Commercial Agents, Elkins Operations Center, county clerks, and state parks (280 attendees)
- Level 2 – DNR Headquarters - DNR licensing staff, DNR administrators, biologists (from Headquarters and Elkins Operations Center), and law enforcement officers (40 attendees)

During the initial implementation phase of the system, both levels require instructor-led training in a classroom environment. DNR will work with the ELS vendor to locate appropriate training locations. Training should coincide with the deployment of the system to maximize effectiveness. The number of attendees listed for each level is just an approximation. DNR recommends that agents attend training; however agents may opt not to attend at their discretion. The maximum class size should be approximately 50 students.

Many large commercial agents may forgo classroom training and rely exclusively on material(s) provided by the vendor. Consequently Level 1 commercial agent training may require additional training options for major retail chains and for those agents who opt to not attend class. This could include videotape, DVD, or other forms of multimedia including telephone. The vendor should also include written installation instructions and job aids such as manuals and POS help card(s).

CURRICULUM

This subsection describes the minimum level of contents to be covered, presented in ascending order of complexity. The audience of Level 2 training should also receive Level 1 training. Training materials should also be developed that are appropriate to each level.

Level 1: Commercial Agents, Elkins Operations Center, county clerks, and state parks. The curriculum should cover the topics relating to the set-up, maintenance, and use of the POS equipment; the license sales process; handling of error messages; and help desk protocol.

The vendor may propose to deliver both the device(s) and the training to these attendees at the session, if appropriate. These Level 1 training sessions should be relatively short in duration, no more than 4 hours.

Level 2: DNR Headquarters. Headquarters training focuses on the administrative processes required to use and support the ELS. As appropriate, the vendor may choose special break-out modules for highly specialized functions, such as licensing administration, information technology, or accounting.

Help Desk. The ELS vendor needs to train its own help desk staff, specifically in areas where agent questions may pertain to West Virginia technical issues and procedures. DNR reserves the right to attend this training.

POST IMPLEMENTATION TRAINING

Classroom training is required only as part of the initial systems implementation; all subsequent training will be provided by DNR.

Performance Management

The ELS should be designed, developed, and maintained to electronically monitor network and system services, availability, and transaction volumes in real time and to immediately alert the Vendor's operations staff of any network and/or system problems. The Vendor should proactively perform full system operation monitoring.

The Vendor should define and implement performance management procedures agreed to by Vendor and DNR.

Additionally, the Vendor should develop or acquire performance benchmarking methodologies and tools for predicting and demonstrating that the ELS meets the performance requirements sufficiently to support SLA metrics on throughput and system availability.

System performance, utilization, and availability should be measured by the Vendor on an ongoing basis. DNR should be provided access to the ELS performance measurement and estimating tools. The Vendor should design the performance tests appropriate to benchmark end-to-end processing.

On a monthly basis, the Vendor should provide DNR all raw data used to calculate service levels to ensure the Vendor has met appropriate SLAs, including but not limited to trouble tickets and automated call distribution logs.

All ELS performance information should be retained by the Vendor for at least the time period necessary to support enforcement of contractual SLAs.

Help Desk Support

The ELS Vendor should provide ongoing help desk support to agents and DNR staff, based on current and projected usage. This includes a current user community of approximately 280 locations in West Virginia, consisting of commercial agents, county clerks, the Elkins Operations Center, state parks, and DNR Headquarters.

The Vendor should provide expertise to cover all technical issues arising from help desk calls, with procedures to be defined as part of the approved Help Desk Support Plan. Vendor responsibility focuses on technical and procedural issues related to the ELS as

implemented; the Vendor should direct calls relating to policy and regulations to the appropriate DNR staff, as necessary.

The Vendor should provide telephone support for problem resolution and troubleshooting of issues presented by agent and DNR staff, per terms of the approved Help Desk Support Plan. The help desk should be operated on a 9:00 a.m. to 9:00 p.m. EST, 7 day/week basis except during the month of November when 24 X 7 operation should be provided; help desk personnel should be trained on end user equipment, including POS devices, as well as the ELS system.

The Vendor should develop, provide and maintain documented help desk procedures. The Vendor should develop and provide DNR with standard help desk reports, including monthly operational statistics reports and weekly incident reports to ensure the Vendor has met appropriate Help Desk SLA goals.

The Vendor should provide procedures and software tools to log, manage, escalate, and resolve problems identified by ELS users. The Vendor should maintain information on problems or events, including but not limited to, problem description, start and end dates/times, actual or potential cause(s), corrective action taken, and future action required.

The Vendor should develop and provide standard historical reports on issue tracking and problem resolution to help identify issue patterns and frequencies.

Asset/Inventory Management

The Vendor should responsible for maintaining an inventory of devices and supplies needed by agents to issue licenses on behalf of DNR. Elsewhere in Appendix A, DNR has provided historical data on license sales; the Vendor should monitor actual usage of devices, printers, and supplies throughout the contract and re-supply agents with consumable inventory and/or replacement device(s) as needed.

The Vendor should be responsible for ensuring the quality and durability of the hardware and software components deployed at agent locations. DNR will update agent agreements to ensure that agents in turn take appropriate care of the devices.

Under terms of this contract, the Vendor should replace broken or defective vendor supplied equipment as soon as possible. Response requirements appear in the Service Level Agreement section of this Appendix A. Use of mail or package delivery for replacement of devices is acceptable, but vendors should be prepared to provide on-site assistance to ensure that equipment is functioning within the required service level.

Vendors should anticipate requirements to replace printers and other vendor supplied POS devices as they wear out over the life of the contract, based on volume and durability of the devices. The Vendor should be responsible for all costs associated with replacement and upgrade. The Vendor should also be responsible collection or disposal of all equipment, including when agents terminate their relationship with DNR.

The Vendor should be responsible for maintaining a supply of preprinted stock for creating the license components required by the contract. This includes monitoring consumption of material by agent over the life of the contract and responding to agent requests for additional inventory. It also includes distribution of new inventory; if/as DNR changes the standard stock over the life of the contract.

Financial Services

Following the schedule determined during project transition, the Vendor will be responsible for creating electronic transactions that will be transmitted to the West Virginia Treasurer to facilitate the EFT sweep of agent bank accounts. As noted elsewhere in Appendix A, this should initially be a monthly sweep, based on the face value of each license/privilege less agent handling fees, if any. The Vendor will also generate and submit corresponding electronic entries into the State's CGI Advantage accounting system.

By 8:00 a.m. Eastern Time, on the morning following the receipt of the EFT status from the West Virginia Treasurer, the Vendor should provide DNR with associated soft-copy reports documenting the disposition of the financial transactions. The ELS and/or these reports should enable DNR staff to trace financial transactions through the process, audit their correctness, and evaluate issues related to the sweep. The format of the reporting mechanism will be determined during the detailed design phase of the project.

The Vendor should provide a single point of contact for DNR staff regarding problems with these financial services; this may or may not be the ELS help desk.

The Vendor should be responsible for invoicing DNR monthly or otherwise as defined in the purchase order.

Application Software Support

The Vendor should provide the appropriate technical resources to modify or enhance the ELS application to ensure that ELS continues to support West Virginia's legislative, regulatory, and operational requirements. This section describes anticipated software changes to be included within the scope of work.

The Vendor shall ensure that any software modifications are deployed using the configuration management, documentation, and integration, regression, and acceptance testing requirements approved by the West Virginia Office of Technology and DNR. Software changes will follow the same consistent implementation path, no matter how they are classified.

The Vendor should provide justifiable resource and timeframe estimates for software design, development, testing, and deployment of all application modifications and upgrade requests within the time frame established in the contract. DNR anticipates needing technical support from approximately one fulltime equivalent (FTE) person for the first year after implementation and one-half FTE person for the subsequent years of the initial contract period; that person should provide assistance with support for the annual cycle of generating licenses as well as additional technical support related to policy changes. The Vendor should oversee his/her work and report accomplishments across the life of the contract.

APPLICATION MAINTENANCE

The Vendor should be responsible for maintaining the integrity of the application, including all data structures. The Vendor should define and maintain all version control methods and tools used to control the release of software versions and source code. The

Vendor should implement an automated software upgrade and software distribution process.

Application maintenance for the ELS solution should be performed by the Vendor as part of the annual operation and maintenance.

APPLICATION ENHANCEMENTS

Change requests will undoubtedly emerge over the course of the contract, both in response to agent requests, DNR requirements and West Virginia legislative initiatives. To that extent the Vendor can implement changes within the technical FTE designated for the contract. This section describes specifications for in-scope enhancements.

DNR anticipates approximately five substantive enhancements per year. These could be significant new reports, changes to specific licenses or permits, or introduction of a new license or permit. Within the seven-year horizon the Vendor should anticipate additional licenses and privileges and combinations of licenses and privileges as West Virginia adapts to the ELS. The Vendor should be responsible for making required application code changes and/or configuration changes to applicable system tables.

For any specific enhancement, DNR will describe the business requirements and ask the Vendor to evaluate it and provide an estimate of work required for completion. On occasion, DNR may request occasional external Independent Validation & Verification (IV&V) review of estimates to ensure fair value for services rendered. DNR will commit to providing sufficient lead-time for implementing enhancements, both to ensure the ELS system will meet DNR business requirements and to enable the Vendor to adjust work schedules and/or collaboratively reprioritize work in progress.

By definition, one scope boundary of an enhancement pertains to its testability by end-users: the appropriate DNR staff should be able to test the specific modification in 40 hours or less in the user acceptance testing environment.

APPLICATION UPGRADES

The vendor should distribute upgrades to the application and/or device software at no additional cost to DNR.

The Vendor shall make the upgrades available to DNR in accordance with procedures approved by the West Virginia Office of Technology and DNR.

SOFTWARE CHANGE MANAGEMENT

For application changes that are neither maintenance nor enhancements, DNR may allow a change order. These will cover extensive changes, for example introduction of significant new functionality to agents or DNR. By definition, these changes involve multiple interfaces, multiple parties (agencies/users), and require creation of a separate work and implementation plan.

Contract Reporting

During the post-implementation period, the Vendor should provide monthly and/or weekly SLA metrics in electronic format as defined in the purchase order. As noted elsewhere, SLA metrics by definition should be calculated from software without manual intervention.

DNR also requests quarterly status reports, which the Vendor can attend on-site in South Charleston or via teleconference call. At least one quarterly meeting will be designated an annual meeting; Vendor staff should be on-site for this meeting. Also, during the first year, an additional quarterly meeting will be designated on-site.

Roll-Out & Post-Implementation Support Specifications	
SPEC #	**Specification Description**
	Installation of Hardware at Agent Locations
I 1.	The ELS vendor should be responsible for delivery and installation of vendor supplied POS hardware at agent location
I 2.	The ELS vendor should be responsible for verifying that the vendor supplied POS devices at the agent site are functioning properly
I 3.	The ELS vendor should notify DNR immediately if there are operational problems at agent site
I 4.	DNR should be responsible for returning currently installed DNR POS equipment and supplies from agent sites to DNR Headquarters
	ELS Roll-Out
I 5.	The ELS vendor should install POS devices at pilot agents selected by DNR
I 6.	DNR Headquarters should be a pilot agent site
I 7.	When in production mode, the pilot agents should issue valid licenses
I 8.	DNR should require the pilot to meet with their satisfaction before full implementation (roll-out) begins
I 9.	DNR should have the option of postponing full implementation until the ELS meets DNR's satisfaction
I 10.	DNR and the ELS vendor should agree upon a roll-out plan for the remaining agents
I 11.	The ELS vendor should perform the roll-out in an orderly fashion
I 12.	The ELS vendor should be responsible for deployment of all equipment, software, training, and documentation prior to roll-out
I 13.	The ELS vendor should present to DNR a deployment plan prior to deployment
I 14.	DNR and the ELS vendor should agree upon the deployment contingency plan prior to deployment
I 15.	The ELS vendor should deploy the ELS internet system following successful completion of the agent beta test
	Documentation Specifications
I 16.	The ELS vendor should provide agent and ELS system documentation
I 17.	The ELS vendor should keep all documentation up to date
I 18.	The ELS vendor should provide all documentation revisions to POS agents and DNR
I 19.	The ELS vendor should provide agent documentation to all approved POS agents
I 20.	The ELS vendor should provide agent and ELS documentation to DNR
I 21.	The ELS vendor should provide documentation to DNR Headquarters for approval at least two weeks prior to delivery of the documentation to the agent
I 22.	DNR should approve the agent documentation
I 23.	The ELS vendor should provide the agent pre-installation checklist and requirements document
I 24.	The ELS vendor should provide the agent a step-by-step guide for installing the POS device(s)
I 25.	The ELS vendor should provide the agent a reference guide for using the POS device(s) features
I 26.	The ELS vendor should provide the agent a trouble shooting reference guide
I 27.	The ELS vendor should provide the agent a one page "Quick Guide" for POS users
I 28.	The ELS vendor should provide the agent a report user guide
I 29.	The ELS vendor should provide ELS system documentation to DNR Headquarters
I 30.	The ELS vendor should provide DNR Headquarters an ELS user guide, documenting use of all features in the ELS
I 31.	The ELS vendor should provide DNR Headquarters a guide, documenting use of all

Roll-Out & Post-Implementation Support Specifications	
SPEC #	**Specification Description**
	accounting functions in the ELS
I 32.	The ELS vendor should provide DNR Headquarters a guide, documenting use of all operational and standard management reports in the ELS
I 33.	The ELS vendor should provide DNR Headquarters a guide, documenting use of all HIP reporting and extract functions in the ELS
I 34.	The ELS vendor should provide DNR Headquarters a guide, documenting conversion and mapping used to convert from the current DNR systems to the ELS
I 35.	The ELS vendor should provide DNR Headquarters the ELS data model
I 36.	The ELS vendor should provide DNR Headquarters all documentation and guides provided the POS agents
	Training Specifications
I 37.	The ELS vendor should be responsible for successful agent training
I 38.	The ELS vendor should conduct training at various locations across the state
I 39.	DNR and the ELS vendor should agree on the training schedule
I 40.	The ELS vendor should provide training for newly enrolled agents and DNR
I 41.	The ELS vendor should provide training to DNR associated with post-implementation
I 42.	The ELS vendor should include topics relevant to West Virginia policy in the training
I 43.	The ELS vendor should collaborate with DNR when developing training material
I 44.	The ELS vendor should review with DNR all training materials targeted to external audiences
I 45.	The ELS vendor should demonstrate to DNR all training materials targeted to external audiences
I 46.	DNR should approve all training material
I 47.	The ELS vendor should incorporate recommendations made by DNR into the training material
	Initial Implementation
I 48.	The ELS vendor should identify training for agents, county clerks, state parks, and the Elkins Operations Center as “Level 1”
I 49.	The ELS vendor should identify training for DNR Headquarters as “Level 2”
I 50.	The ELS vendor should provide instructor lead training in a classroom environment to both Level 1 and Level 2 audiences
I 51.	DNR and the ELS vendor should work together to locate appropriate training facilities
I 52.	The ELS vendor should coordinate training with deployment of the system
I 53.	The ELS vendor should allow for a maximum class size of 50 students
I 54.	The ELS vendor should supply Level 1 training materials to agents who forgo classroom training
I 55.	The ELS vendor should provide Level 1 training options which may include videotape, DVD, or other forms of multimedia
	Curriculum
I 56.	The ELS vendor should provide Level 1 training to Level 2 audience
I 57.	The ELS vendor should develop training appropriate to the target audience
I 58.	The ELS vendor should include installation procedures in the Level 1 training curriculum
I 59.	The ELS vendor should include an overview of the POS functions, capabilities, limitations, components, and physical characteristics in the Level 1 training curriculum
I 60.	The ELS vendor should include a thorough review of the license sales process in the Level 1 training curriculum
I 61.	The ELS vendor should include a thorough review of void requests and license reprints in

Roll-Out & Post-Implementation Support Specifications	
SPEC #	**Specification Description**
	the Level 1 training curriculum
I 62.	The ELS vendor should include a presentation of support functions in the Level 1 training curriculum
I 63.	The ELS vendor should include a review of agent reports in the Level 1 training curriculum
I 64.	The ELS vendor should include call center operations and protocol in the Level 1 training curriculum
I 65.	The ELS vendor should include procedures for handling error messages and exceptions in the Level 1 training curriculum
I 66.	The ELS vendor should include a review of help features in the Level 1 training curriculum
I 67.	The ELS vendor should include a discussion of procedures for issuing agents multiple devices in the Level 1 training curriculum
I 68.	The ELS vendor should include procedures for agent game checking in the Level 1 training curriculum
I 69.	The ELS vendor should include procedures for issuing specialized and lifetime licenses in the Level 2 training curriculum
I 70.	The ELS vendor should include procedures for license administration in the Level 2 training curriculum
I 71.	The ELS vendor should include database training in the Level 2 training curriculum
I 72.	The ELS vendor should include procedures for annual license set-up in the Level 2 training curriculum
I 73.	The ELS vendor should include procedures for printing lifetime licenses at DNR in the Level 2 training curriculum
I 74.	The ELS vendor should include a review of audit support functions and features in the Level 2 training curriculum
I 75.	The ELS vendor should include reporting procedures in the Level 2 training curriculum
I 76.	The ELS vendor should provide thoroughly trained vendor help desk staff
I 77.	The ELS vendor should allow DNR to attend help desk training
	Post-Implementation Training
I 78.	DNR should be responsible for providing all post-implementation training
	Performance Management
I 79.	The ELS vendor should electronically monitor network and system services, including system accessibility and real-time volumes
I 80.	The ELS should immediately notify vendor operations staff of any network or system problems
I 81.	The ELS vendor should monitor the condition of the system and all subsystem components
I 82.	The ELS vendor should monitor system availability and performance
I 83.	The ELS vendor should define and implement performance management procedures
I 84.	DNR and the ELS vendor should agree on the performance management procedures
I 85.	On an ongoing basis, the ELS vendor should develop or acquire performance benchmarking methodologies to demonstrate that the ELS meets performance requirements set in the SLA
I 86.	The ELS vendor should measure and report on system availability
I 87.	The ELS vendor should measure and report on CPU utilization
I 88.	The ELS vendor should measure and report on I/O utilization
I 89.	The ELS vendor should measure and report on network utilization

Roll-Out & Post-Implementation Support Specifications	
SPEC #	**Specification Description**
I 90.	The ELS vendor should measure and report on disk utilization
I 91.	The ELS vendor should measure and report on transaction volumes
I 92.	The ELS vendor should measure and report on system and device response time
I 93.	The ELS vendor should measure and report on end-to-end transaction response time
I 94.	The ELS vendor should provide DNR access to the performance measurement and estimating tools
I 95.	The ELS vendor should design performance tests appropriate to DNR needs
I 96.	The ELS vendor should design performance tests to benchmark end-to-end processing
I 97.	On a monthly basis, the ELS vendor should provide to DNR the raw data used to validate SLAs
I 98.	The ELS vendor should provide DNR access to trouble tickets and automated call distribution logs
I 99.	The ELS vendor should retain all performance information for a time period determined by DNR
	Help Desk Support
I 100.	The ELS vendor should provide ongoing help desk support to agents and DNR staff
I 101.	The ELS vendor should provide help desk expertise for technical and procedural issues relating to the ELS as implemented for DNR
I 102.	The ELS vendor should direct help desk calls relating to West Virginia policy and regulations to DNR staff
I 103.	The ELS vendor should not be responsible for providing help relating to West Virginia policy and regulations
I 104.	The ELS vendor should train help desk staff on use of end user equipment, problem resolution, and troubleshooting of agent issues
I 105.	The ELS vendor should develop and maintain written help desk procedures
I 106.	The ELS vendor should make the written help desk procedures available to DNR
I 107.	The ELS vendor should provide DNR with help desk reports necessary to validate that the ELS vendor has met SLA goals
I 108.	The ELS vendor should provide procedures and tools necessary to log, manage, escalate, and resolve problems identified by ELS users
I 109.	The ELS vendor should provide historical reports on issue tracking and problem resolution
	Asset/Inventory Management
I 110.	The ELS vendor should maintain an inventory of POS devices and supplies used by agents
I 111.	The ELS vendor should monitor usage of devices and supplies and provide agents with replacement devices and supplies as necessary
I 112.	The ELS vendor should ensure the quality and durability of vendor supplied hardware and software deployed at agent locations
I 113.	The ELS vendor should be responsible for replacing broken or defective vendor supplied end user equipment in compliance with the SLA goals
I 114.	The ELS vendor should be prepared to provide on-site equipment assistance if necessary
I 115.	The ELS vendor should be responsible for all costs associated with replacement and/or upgrade of vendor supplied agent end user equipment
I 116.	The ELS vendor should be responsible for collecting and disposing of all defective vendor supplied equipment from an agent site
I 117.	The ELS vendor should maintain a supply of preprinted license stock

Roll-Out & Post-Implementation Support Specifications	
SPEC #	**Specification Description**
I 118.	The ELS vendor should distribute new supplies to agents if DNR changes the standard stock
I 119.	The ELS vendor should be responsible for responding to agent request for supplies in compliance with the SLA goals
	Financial Services: Cash Flow Support
I 120.	The ELS vendor should create electronic transactions to facilitate the EFT sweep of agents accounts
I 121.	The ELS vendor shall provide the electronic transactions to the West Virginia Treasurer's Office for processing
I 122.	The West Virginia Treasurer's Office shall perform the EFT sweep
I 123.	The ELS vendor should create corresponding electronic transactions for import into the West Virginia CGI Advantage accounting system
I 124.	The ELS vendor should provide DNR with soft copy reports documenting the disposition of the EFT sweep
I 125.	The ELS vendor should provide a point-of-contact for DNR staff regarding problems with the financial services
I 126.	The ELS vendor should invoice DNR on a monthly or other agreed to basis
I 127.	The ELS vendor should provide supporting documentation with the invoice to DNR
	Application Software Support
I 128.	The ELS vendor should provide appropriate technical resources to support the ELS
I 129.	The ELS vendor shall ensure that all software changes or modifications to the ELS are deployed using configuration management, documentation, integration, regression, and acceptance testing requirements approved by the West Virginia Office of Technology and DNR
I 130.	The ELS vendor should justify resources and timeframe estimates for software design, development, testing, and deployment of all application modifications and upgrade requests
I 131.	The ELS vendor should provide one Full Time Equivalent (FTE) person to DNR for technical support during the first year of the contract
I 132.	The ELS vendor should provide one-half FTE person to DNR for technical support during the remainder of the contract period
I 133.	The ELS vendor should assume responsibility to oversee the work of the FTE provided to DNR
	Application Maintenance
I 134.	The ELS vendor should be responsible for maintaining the integrity of the ELS application
I 135.	The ELS vendor should be responsible for maintaining the integrity of all data structures
I 136.	The ELS vendor should maintain version control for source code and when releasing software
I 137.	The ELS vendor should implement an automated software distribution process
I 138.	The ELS vendor should perform preventative maintenance to the ELS including source code restructuring, database reorganizations, and application tuning
I 139.	The ELS vendor should repair and test defects in the ELS
I 140.	The ELS vendor should test and verify configuration changes
I 141.	The ELS vendor should provide assistance to DNR with the creation of license items for the new license year
I 142.	The ELS vendor should, in consultation with DNR, complete minor software modifications
I 143.	The ELS vendor should implement periodic installation and upgrade of software releases
I 144.	The ELS vendor should update the ELS data dictionary as necessary

Roll-Out & Post-Implementation Support Specifications	
SPEC #	**Specification Description**
I 145.	The ELS vendor should provide the updated ELS data dictionary to DNR following updates to the data dictionary
	Application Enhancements
I 146.	The ELS vendor should provide DNR with at least five substantive enhancements per year
I 147.	The ELS vendor should provide a time estimate of the work necessary for the substantive enhancement
I 148.	DNR should provide the ELS vendor sufficient lead time for implementing enhancements
I 149.	DNR and the ELS vendor should collaborate to reprioritize work in progress when necessary
	Application Upgrades
I 150.	The ELS vendor should distribute upgrades to the ELS at no additional cost to DNR
I 151.	The ELS vendor shall provide the upgrades in accordance with procedures approved by the West Virginia Office of Technology and DNR
	Software Change Management
I 152.	The ELS vendor should follow a change order process approved by DNR
I 153.	The ELS vendor should include testing, DNR acceptance, and deployment in their change order process
I 154.	The ELS vendor should include a process for software deployment in their change order process
	Contract Reporting
I 155.	The ELS vendor should provide SLA metrics to DNR on a predetermined schedule
I 156.	The ELS vendor should provide the SLA metrics to DNR in electronic format
I 157.	The ELS vendor should calculate the SLA metrics from software without manual intervention
I 158.	The ELS vendor should provide quarterly status reports to DNR
I 159.	The ELS vendor should be on-site in South Charleston for two quarterly meetings during the first year of the initial contract
I 160.	The ELS vendor should be on-site in South Charleston for at least one quarterly meeting per year in subsequent years of the initial contract