PROPOSAL

Transforming the Public Sector

State of West Virginia
Valuation and Assessment Administration System
CRFQ 0702 TAX2000000003

September 12, 2019

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tyler technologies

Empowering people who serve the public®

September 12, 2019

Brittany E. Ingraham
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, West Virginia 25305-0130

RE: CRFQ 0702 TAX2000000003 – Valuation and Assessment System.

Dear Ms. Ingraham:

Tyler Technologies, Inc. (Tyler) is pleased to respond to the West Virginia State Tax Department's Request for Quotation for a Valuation and Assessment System. Tyler is absolutely committed to the continued success of West Virginia's Assessment and Valuation system. This important step to modernize and streamline the assessment and valuation functions of the State Tax Department and the County Assessors is of critical importance to ensure the continued, uninterrupted operations of the State users and the County Assessors.

By following an upgrade path from the client-server version – IAS 4.0 – to the thin-client, web-based iasWorld solution allows for the State to realize the investment it made over two decades ago when it invested in IAS. By upgrading to iasWorld, the State eliminates the need to go through a difficult conversion of the more than 1 million parcels that currently reside in the system today and the State and County users learning curve is reduced as many of the processes and functions are already familiar to them.

To be clear, Tyler is completely committed to meeting – and exceeding – all the requirements within the State CRFQ and our response reflects this position.

Thank you for your consideration. We look forward to discussing our proposal with the State. This proposal is valid for 150 days from submission.

I will be your contact on this proposal. Should you have any questions please feel free to contact me at 800-800-2581, ext. 1924 or via email at gus.tenhundfeld@tylertech.com.

Sincerely,

Gus Tenhundfeld
Inside Sales Manager

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Executive Summary

Tyler Technologies is absolutely committed to the success of this project. The need to leverage a tested, proven, scalable, Computer-Assisted Mass Appraisal (CAMA) System with the flexibility to respond and comply with legislative and policy changes is critically important. This proposal is reflective of our commitment to meet your specific requirements while leveraging Tyler's deep experience in West Virginia. Tyler is proud to offer an approach the eliminates the need for a difficult conversion and minimizes the end users learning curve. Perhaps most importantly, the same valuation algorithms and calculation routines will come forward in iasWorld eliminating the need to learn new valuation processes and answer questions on why values changed simply because the system changed.

Tyler's iasWorld® solution has realized significant success in the marketplace over other solutions for very good reasons. Tyler's sole commitment to providing software and services to local government and our more than 80 years in the assessment industry cannot be matched. Our commitment to significant re-investment and R&D in the iasWorld solution guarantees that this solution will continue to remain both technically and functionally current for years into the future. Our track record of success can be seen through successful implementation in some of the largest projects including New York City, the State of Tennessee, the State of NY (ongoing), the State of Massachusetts (ongoing), British Columbia Assessment (ongoing) and the Commonwealth of the Bahamas, to name a few of the most prominent. No other vendor can match the experience and success that Tyler has had with these large, complex multi-jurisdictional projects.

Tyler commits to meeting all the State's requirements as described in the CRFQ and throughout our proposal. We can complete the time within the prescribed timeline and are confident, based on our long history with the State, we can deliver a solution that will exceed your expectations.

Continuing to Innovate

At this year's recently completed IAAO conference in Niagara Falls, Canada, Tyler introduced the next evolution of our vision of how the industry is moving from simply needing a vendor to provide the core functions of a CAMA system to a partner that can help our clients leverage and maximize the volumes of data that are collected in stored not only within the CAMA system but linking together other data streams to drive actionable information. Assessment Connect is just that.

Assessment Connect

Tyler Technologies is the only provider capable of, and uniquely positioned to, surface and connect assessment data across offices and jurisdictions in the state of West Virginia. Additionally, the depth and breadth of our appraisal and tax client base, industry expertise, and solution portfolio are unparalleled.

More than 50 percent of the nation's population is served by Appraisal & Tax solutions from Tyler, and we are known for putting clients first, as well as developing innovative technology solutions.

This new solution, Assessment Connect, uses a strategic approach to help organizations transform assessment data from existing CAMA systems, as well as aggregate data from other sources for faster understanding and precise, data-driven decision-making. As opposed to spending valuable time searching through reports and spreadsheets for critical information, the solution offers an easy-to-understand, intuitive visualization of data with insights for action. Appraisers no longer have to guess at unique real estate valuations or rely on manual efforts to secure comparable data. Advanced, shared transaction and real estate data allow for improved work environments and valuations. This technology gives organizations one place to find critical information in real time, enabling staff to share information across any geographic network — county to county, or otherwise. Staff can collaborate and take action with a mutual understanding of the analyzed data sets — improving productivity, increasing efficiency, and reducing operating costs. Assessment Connect can also be customized and tailored to the needs of the organization to prioritize specific results and display KPIs across counties, as necessary.

We invite West Virginia to engage in discussions with us to determine how we can implement iasWorld® and Assessment Connect for a stronger foundation for future operations. We are excited to assist the state of West Virginia in streamlining processes, improving valuations, accessing critical data, revealing trends, minimizing lost revenues, eliminating manual effort, and increasing public trust as a result of our proposed solution offerings.

This offering will go to market in Q1 2020.

Financial Stability

Tyler Technologies is a successful publicly traded company with a strong balance sheet. This provides the financial capability to deliver a project of this scale without the business insolvency risk that exists with other organizations.

Qualifications

Vendor, or Vendor's staff if requirements are inherently limited to individuals rather than corporate entities, shall have the following minimum qualifications:

3.1. Demonstrated Implementation Services Experience

The Vendor <u>must have completed by Bid Opening Date for this solicitation</u> an implementation of an Appraisal/Assessment Valuation system for a State or local government. The software that was implemented during this engagement must currently be in use by that client. The purpose of this requirement is to ensure that Vendors possess the experience, knowledge, and lessons learned associated with large implementations that include multiple locations/offices/jurisdictions.

Tyler has completed six of the seven state or province-wide property tax installations in North America with our multi-jurisdictional solutions. Tyler has provided all the necessary implementation services on its projects. As one of the first statewide deployments, the State of West Virginia is keenly aware of Tyler's ability to deliver a successful solution as the State has been running the Tyler IAS solution since the initial deployment in 1997. To meet the stated requirement that the proposed iasWorld solution be in use by a client we are pleased to offer the following:

1. *State of Tennessee*: running the iasWorld (currently in state of maintenance)
2. *Province of Nova Scotia*: running the iasWorld application (currently in state of maintenance)
3. *New York City, NY*: running the iasWorld application (currently in state of maintenance)
4. *Loudoun County, Virginia*: running the iasWorld application (currently in state of maintenance)
5. *Montgomery County, Ohio*: running the iasWorld application (currently in state of maintenance)

No other vendor in the valuation and assessment administration industry has the level of experience that Tyler has in delivering integrated state-wide solution, including being the State's incumbent vendor for the last twenty-two (22) years.

3.2. Demonstrated Software Provider Experience

The proposed system software must be currently in production m a public-sector environment which includes a state or local government.

As described in 3.1 above, Tyler has vast experience in delivering a solution that meets the State's requirements in a number of public sector clients. To date, Tyler has iasWorld installations in 149 separate locations and will cover over 1,400 assessment offices at the state, county and local assessment levels. There is no other vendor that can demonstrate the level of experience in implementing a single assessment solution over such a large client base.

3.3. *Vendor must provide any documentation requested by the State to assist in confirmation of compliance with provisions. References, documentation, or other information to confirm compliance with experience requirements may be requested after bid opening and prior to contract award.*

Tyler will provide this documentation after bid opening, upon request by the State.

Mandatory Requirements

5.1. Mandatory Contract Services Requirements and Deliverables: *Contract Services must meet or exceed the mandatory requirements listed below.*

5.1.1. Commodity Line 1 - System Integration Design

5.1.1.1. *All phases of the project as described in this CRFQ, to include design, implementation, installation, conversion, testing, support and training shall be completed within thirty-six 36 months of the award date.*

Tyler will complete the upgrade of the base system, including migration of the initial test pilot counties and the associated training of the State staff and pilot county users within the 36 month timeframe. As this is an upgrade to the State's current IAS4.0 system there is **no conversion of existing data**. All data in the current solution will be migrated to the iasWorld solution in its current state without the need to convert any data. This is not an insignificant difference from other vendors. Other vendors will need to convert the existing IAS4.0 data into a new format for use in the new system and with the new valuation routines.

5.1.1.1.1 Acceptance: *Acceptance shall be defined as successful demonstration and testing of all system requirements, including training, with the ability for all users to navigate and utilize the system to perform their defined roles. The Agency with the Vendor's Acceptance will issue a written letter and Change Order request to WV Purchasing Division as formal Acceptance of the system. Upon mutual agreement of Acceptance by both the Agency and the Vendor the Change Order issued by WV Purchasing Division will start the First Year's maintenance, support, warranty and by providing a signed/dated letter agreeing to the start date of the First Year's Maintenance and Support. These dates will be used for yearly maintenance, supp01t/ warranty and hosting renewals, initiated by the Agency and issued by Purchasing Division.*

Tyler agrees and will conform to these requirements

5.1.1.2. *The awarded Vendor shall inform the State Tax Department of the project progress during meetings held twice (2) monthly. While vendor is onsite, meetings will be held at the Albert T Summers Center located at 1124 smith Street, Charleston, WV 25301. When vendor is working remotely, meetings will be via conference call. A progress report shall be provided by the awarded vendor 48 hours*

prior to the meeting and to allow sufficient time for review prior to the meeting.

Tyler agrees and will conform to these requirements

5.1.1.3. *The Vendor must provide as part of their bid submission a list of requirements for **IaaS** purposes. The Vendor should include the minimum requirements for storage and computing resources required to: 1) operate a full production system at full capacity whereby back end resources are not a limiting factor in speed, system responsiveness, or delays in user experience; and, 2) a standalone independent system for testing purposes. This testing system need not be as responsive as the production system and the vendor should explain any possible differences in the end users experience while operating in the testing system. These parameters will not be utilized as part of bid evaluation. they will however be the standards used in the state's procurement of cloud hosting resources.*

See the **Recommended Hosted Server Configuration** section of this proposal.

5.1.1.4. *The Tax Department estimates that the current system in production will require approximately 3.0 Terabytes for data storage and conversation purposes. The Vendor must provide a breakdown of the system requirements taking into account this requirement.*

See the **Recommended Hosted Server Configuration** section of this proposal.

5.1.1.5. *The Vendor must provide an integrated system using the three (3) approaches to value for all properties. The three approaches are: cost, market, and income.*

The iasWorld system builds upon the State's current Integrated Appraisal System (IAS) that has been in production in the state since the late 1990s. iasWorld will build upon the data and models currently in use within the IAS solution and it utilizes all three approaches to value: Cost, Income, and Market.

5.1.1.6. *The Vendor must provide sketches for surface improvements, multiple year capacity, and on-line help.*

All sketches in the State's current IAS system will be available within iasWorld. The structure of the sketching tool native to iasWorld is an extension of the sketch program the State's users are accustomed to and the natural progression to the new tool will facilitate training on the new package.

5.1.1.7. *The Vendor will be responsible for and must convert or provide replacement reports and forms for those listed in Appendix A. This is to include all reports or job tasks related to rollover of data from year to year.*

Tyler has included the necessary services in the base project to include the reports and forms included in Appendix A within the base project costs. This is inclusive of all year end rollover functions that currently process within the existing system.

> **5.1.1.8.** *The vendor must provide the ability for the user to request reports at the local level and allow the reports to be printed at the local level or to the mainframe printer at the data center in Charleston.*

Yes, Tyler complies with this requirement.

> **5.1.1.9.** *The Vendor must provide training for Information Technology and Property Tax Division staff during the first stage of the project to allow for State staff to fully participate in the implementation and design of the system. Training will take place at 1001 Lee Street East, Charleston WV, 25301 (or the current location of the main headquarters for the Department within the confines of the City of Charleston, Kanawha County, West Virginia). Approximately fifty (50) individuals will be in attendance. An agenda and all relevant training materials should be provided at the training location.*

Tyler will provide training for the State IT staff during the first stages of the project to facilitate the State staff knowledge of the new system. This initial training will allow the State staff to more fully participate in the initial stages of the project as well as throughout the upgrade effort. In addition, this will allow the State staff to more fully participate in the County training sessions that will occur in the final stages of the project.

Further, although Tyler will be responsible for the configuration changes during the implementation, we will provide the State IT staff with the knowledge necessary to make configuration changes such as adding fields, moving them around the screen, and any administration functions needed on an ongoing basis. State IT staff will sign off on customization specifications and participate in testing and approve modifications. Tyler will maintain source control.

> **5.1.1.10.** *The Vendor must provide the initial training of State users prior to the training of the up to three test counties. This will include approximately 60 individuals. The vendor must provide a training manual to all participants which describes in detail the functionality of the system to include a description of all fields, keying instructions, reports, sales ratios, appraisal and assessment functions.*

Yes, Tyler will provide training and documentation for the State users in the three test counties. Ultimately, the training of State users will be more simplified on the iasWorld solution as it is an upgrade to the existing State system and functions and process that the users are familiar with today will exist

within the upgraded solution lessening the learning curve on the new system as compared to converting a completely new software package.

> **5.1.1.11.** *It is anticipated that one test county will be located in the northern region of the state, one in the southern region of the state, and one in the Kanawha, Putnam, Cabell area of the State. The training of the three test counties is to take place in the test county and is anticipated a total of two hundred (200) county individuals would be involved. The vendor is to provide a manual to each attendee describing the functionality of all aspects of the system as described in Section 5.1.1.10 above. The vendor is to provide training that when completed will allow all users to fully access and use all aspects of the system.*

Tyler will provide the necessary training and documentation to the County individuals located within the three test counties. At the conclusion of the training, users that have actively participated and have been engaged in the training will understand the full use of the system and be able to successfully use it for their day-to-day operations. Like with the State users, training of the County users in both the three test counties as well as all other County users is helped by the fact that all users are familiar with the base system that is being upgraded to the new platform, thereby lessening the learning curve on use of the new solution.

> **5.1.1.12.** *The system must be available to county and State users seven (7) days a week, twenty-four (24) hours a day. Any scheduled downtime required by the vendor for software updates or improvements must have a one (1) week notice in advance in writing and the approval of the West Virginia State Tax Department Property Tax and Information Technology Divisions.*

The system being proposed will run 24/7/365. As the State will be operating this system in a third-party hosting environment downtime and availability should be negotiated with the ultimate vendor selected for that service. Tyler does not 'force' or 'require' clients to upgrade versions (however, staying on a current release schedule is highly recommended) so as new releases – either quarterly updates or the annual release – are made available it will be incumbent upon the State staff to coordinate the upgrade with their assigned Tyler Client Manager and their hosting provider to ensure minimal interruption to their business processing calendar. Tyler would have no issue in meeting a one week notice requirement.

> **5.1.1.13.** *Vendor must provide a user's manual designed to explain the use of the system. The manual shall include screen shots and step-by-step procedures for viewing, updating the system and running reports and processes. The Vendor is to provide one (1) user manual for each of*

the fifty-five (55) counties and one (1) for the State Tax Department. A soft copy of all manuals and materials must also be provided.

Tyler maintains user guide documents for the primary functional areas of the application that explain how to use the application along with screen captures and step-by-step procedures and how to run reports. Tyler can provide the required copies of the user manual to the State and Counties.

> **5.1.1.13.1.** *The system must provide for the storing of parcel related photos, scanned documents, Microsoft Word documents, fonts and other similar or associated file types.*

iasWorld includes base functionality that allows for the storage and retrieval of the documents/document types described in this section.

> **5.1.1.13.2.** *The system must fully allow the integration with third party GIS vendors, mapping vendors, aerial photography vendors, or other associated or similar vendors.*

The iasWorld solution fully integrates with GIS/mapping solutions, aerial/ortho-photography vendors. As a modern solution, the system can integrate with a wide variety of other solutions and Tyler has standard APIs that can be made available to facilitate such integrations.

> **5.1.1.14.** **Confidentiality:** *Each employee and/or subcontractor employee performing duties that in any manner involve handling or having access to confidential tax information, regardless of position held, shall sign both a Confidentiality Acknowledgement and a Certification of Disclosure and Awareness which shall be provided and retained by the WV State Tax Disclosure Officer prior to beginning work on the project, immediately after contract award. All data involved in this project shall be considered confidential tax information and shall not be disclosed to any party. Any unauthorized use or disclosure of confidential tax information furnished pursuant to this Agreement, or the absence of adequate procedures for safeguarding the confidentiality of such tax information, constitute grounds for termination of this Agreement and possible Criminal/Civil Sanctions .*

Tyler employees sign Tyler's standard Confidentiality Statement. Tyler staff that are deemed necessary can sign the documents as required by the State. Tyler agrees to comply with applicable State and Federal privacy and confidentiality laws.

> **5.1.1.14.1.** **Criminal/Civil Sanctions:** *In accordance with W.Va. Code §11-10-5d, §l 1-l A-23, in the event of an unauthorized disclosure, employees shall report to Tax within 24 hours after identification of any possible, potential, or actual unauthorized disclosure or access of State or Federal*

> *confidential taxpayer info1mation by calling Tax's Disclosure Officer and or Privacy Officer.*

The Company can comply with this notification requirement, provided that the notification timing requirement is based upon when Tyler becomes aware of any such unauthorized disclosure.

> **5.1.1.14.2. Inspections:** *Vendors and/or contractors working on the project shall allow the West Virginia State Tax Department to send its officers or employees into their offices for inspection of any facilities or operations providing any work under this contract. Based on such inspection, specific measures may be required in cases where the vendor and/or contractors are found to be noncompliant with contract safeguards. The vendor must permit the Tax Department conduct these inspections no less than every twelve (12) months, or, as deemed necessary by Tax.*

Tyler is willing to host the State in site visit(s) to the Tyler facilities. We would only ask for sufficient prior notice of the State's intent to visit.

> **5.1.1.14.3. Annual Security Training:** *Each employee and/or subcontractor performing duties that in any manner involve handling or having access to confidential tax information or state data will be required to participate in annual State/IRS Data Safeguard Training conducted by Tax and any additional training deemed necessary. This training shall occur before any employee and/or subcontractor obtains access to confidential tax information. In the event of non- local employees and/or subcontractors, the WV State Tax Department may provide the relevant training mate1ials to the vendor who shall be responsible for conducting the training as provided to its employees and subcontractors and returning the required documentation back to the WV State Tax Department.*

Tyler will ensure that its employees who access State's data to perform work under the contract, understand, agree to be bound by, and receive appropriate instruction as to how to comply with the data protection provisions of this Agreement.

> **5.1.1.14.4. Audit and Accountability:** *Audit and Accountability procedures must be developed, documented, and implemented as part of the project. Such audit and*

> *accountability controls include auditable events, content of audit records, audit storage capacity, audit review and timestamps at the operating system, database and application levels. The system must generate audit records for all security-relevant events, including all security and system administrator accesses and functionality performed.*
>
> *Security-relevant events include the recording of unauthorized attempts and access. Within the application and database, at a minimum auditing must be enabled to the extent necessary to capture access, modification and deletion of data. The system shall alert the appropriate organizational officials in the event of an audit processing failure and protect the audit information and tools from unauthorized access, modification and deletion.*

Yes, Tyler complies with this requirement.

> **5.1.1.14.5.** **Offshore Access:** *Tax Department data* **CANNOT** *be accessed by agency employees, agents, representatives, or contractors located offshore (outside of the United States territories, embassies or military installations.)* **Further, Tax Department data may not be received, processed, stored, transmitted, or disposed of by information technology systems located offshore.**

The Company warrants that the data stored and managed as part of this project will only be stored in the continental United States, and never moved or stored offshore. The Company also warrants that the West Virginia iasWorld database will not be accessed by any person or persons outside of the United States.

> **5.1.1.14.6.** **Remote Access:** *Vendors and/or subcontractors using remote access and/or VPN technologies must configure the technology that they are using for remote access so that it requires two factor authentication and that the technology may not be used from an offshore site.*

Tyler can comply with this requirement consistent with the Company's current access protocol in support of the current IAS solution.

> **5.1.1.14.7.** **Encryption**
>
> **5.1.1.14.7.1.** *Vendor must provide Data Encryption in Transit. All Tax Department data must be*

> *encrypted when transmitted across networks. All mechanisms used to encrypt Tax Department data must be FIPS 140-2 compliant and operate utilizing the FIPS 140-2 compliant module. This requirement must be included in the SLA along with a description of the encryption algorithm that will be used.*

Tyler provides data encryption in transit to Tyler applications via SSL/TLS protocol. We rely on standard TLS 1.1, 1.2 algorithms for encryption in transit and they are FIPS compliant.

> **5.1.1.14.7.2.** *Vendor must provide for data encryption including at rest. All mechanisms used to encrypt Tax Department data must be FIPS 140-2 compliant and operate utilizing the FIPS 140-2 compliant module. This requirement must be detailed in the SLA along with a description of the encryption algorithm that will be used.*

Tyler provides data encryption at rest via Transparent Data Encryption in the Oracle Enterprise suite. Oracle TDE can be configured to be FIPS compliant. The appropriate Oracle licenses are included as part of our response to 5.1.1.3.

> **5.1.1.14.7.3.** *The Vendor must completely comply with Internal Revenue Service (IRS) Publication 1075 and the additional mandatory IRS safeguards listed on their website regarding tax information safeguards for protecting confidential tax infom1ation and project data. To meet functional and assurance requirements, the security features of the environment must provide for the managerial, operational, and technical controls. All security features must be available and activated to protect against unauthorized use of and access to tax information.*

Many of the requirements of the IRS document relate to hosting infrastructure and should be a component of that engagement. The iasWorld solution, itself, is compliant.

5.1.1.15. Database, Data Management System and Application Requirements

5.1.1.15.1. *Vendor must list those items to be provided on the account record.*

As this is an upgrade to the current system at the State, the data elements that are included on the account record are the same that the State currently tracks in the existing system. The system also has, nearly, an unlimited number of user definable fields that can be added to an account record if additional fields beyond what is in use today are needed.

5.1.1.15.2. *Vendor must include a data dictionary. The data dictionary shall include all names, definitions, and attributes about data elements/objects that are being used or captured in a database.*

Tyler can provide the State with a data dictionary as part of the project; however, we have not included one here as to protect the confidentiality of that document. We would be happy to provide the data dictionary for iasWorld under a separate request where we could put a non-disclosure in place to protect Tyler proprietary information contained therein.

5.1.1.15.3. *Vendor must provide the ability to match or add files across jurisdictions.*

Yes, Tyler complies with this requirement.

5.1.1.15.4. *Vendor must establish a uniform statewide relational database management system that has a web-based interface.*

Yes, Tyler complies with this requirement. The State's existing, multi-jurisdictional, single database management system will be enhanced and expanded upon as part of the upgrade. iasWorld is a fully web-based solution.

5.1.1.15.5. *State data and each counties' data must be kept separate physically and/or logically from the other counties and State Tax information by the system having a separate but uniform database for each county or using views (security controls) to ensure that each county can only review and access its own data at the database levels and from within the application itself. State Tax employees shall have access to all county and state data. The method used to separate the data should be provided with a description of the controls.*

Yes, Tyler complies with this requirement. Access to iasWorld is created with a combination of access permissions and underlying configuration of items such as pages and menus. Permissions are granted to

roles and users; typically, permissions configured for roles are overridden at the user level (when required).

Roles provide access to menu options, pages, functions and even some page-based actions. Roles have a many-to-one relationship with users—you can add a user to as many roles as required to provide them with the access they need to perform their work. The user can switch between roles as needed to gain access to different areas of iasWorld.

For multi-jurisdictional installations, like the State of West Virginia, there are additional access permissions that hide data in different jurisdictions from users. Jurisdiction data restrictions are created for each user by selecting the jurisdictions that will be available with each role to which the user has access. State users will have appropriate access to all County data and County users will have access only to their jurisdiction's data based on the County in which they work. Security and access to data is enhanced from the current practice within IAS.

> **5.1.1.15.6.** *Each parcel must have one, and only one, parcel record that contains the basic data used in land valuation and assessment notification.*

Yes, Tyler complies with this requirement.

> **5.1.1.15.7.** *During the project span, a nationally accepted motor vehicle valuation guide will be provided by the State Tax Department. The Vendor shall provide a process or procedure to be used for loading the data accurately into the system and a testing procedure or process to verify accuracy.*

Yes, Tyler complies with this requirement.

> **5.1.1.15.8.** *The real property data structure must, at a minimum include:*
> - *A parcel component*
> - *A residential component*
> - *An industrial component*
> - *A commercial component*
> - *A farm component*
> - *Must have the ability to capture any combination of the above components*
> - *A sales file*
> - *An income-expense file*

Yes, Tyler complies with this requirement.

> **5.1.1.15.9.**   *Must have the ability to capture values from all valuation models.*

Yes, Tyler complies with this requirement.

> **5.1.1.15.10.**   *The following items must be included in the parcel record:*
> - *Parcel Identification Number*
> - *Legal Description*
> - *Site Address*
> - *Owner's Name and Address*
> - *Spouse's Name*
> - *Tax Class*
> - *Zoning*
> - *Property Use Code*
> - *Census Tract*
> - *Neighborhood Identifier*
> - *Land type and size*
> - *Site characteristics (topography, utilities, water frontage, etc.)*
> - *Building improvement data for main structures and other improvements*
> - *Previous appraised and assessed values and previous value source*
> - *Current appraised and assessed values and Current value source*
> - *Buyer's name*
> - *Buyer's address*
> - *Penalty and forfeiture information*
> - *Lending institution identifier*
> - *Building permit*
> - *Homestead Information*

Yes, Tyler complies with this requirement.

> **5.1.1.15.11.**   *The parcel record must maintain the date, price and validation code of the three (3) most recent sales (if any) of the parcel, along with fields indicating whether the sales involved multiple parcels.*

Yes, Tyler complies with this requirement.

> ### 5.1.1.16. Residential and commercial building records must contain different items and should be logically separate.

Yes, Tyler complies with this requirement.

> **5.1.1.16.1.** The residential record must be in a standard format, contain one record per building and include those items commonly important in valuing residential improvements in West Virginia.

Yes, Tyler complies with this requirement.

> **5.1.1.16.2.** Items must include use code, construction grade (at least six grades must be provided), square feet of primary living area, basement areas, garages, wall type(s), and fireplaces.

Yes, Tyler complies with this requirement.

> **5.1.1.16.3.** Records must be in a standard format; for example, fireplaces must always reside in the same field. This does not limit how a given item will be coded or measured. However, each field must stand on its own.

Yes, Tyler complies with this requirement.

> **5.1.1.16.4.** The commercial/industrial record must be in a standard format, contain one record per building, and include those items commonly important in the valuation of commercial/industrial improvements in West Virginia.

Yes, Tyler complies with this requirement.

> **5.1.1.16.5.** Items must include use code, construction grade, wall type(s), wall height, number of units (for example, apartments), and gross area. The items must include those required to computerize the cost approach to value.

Yes, Tyler complies with this requirement.

> ### 5.1.1.17. The personal property file must have the following:
> **5.1.1.17.1.** An account files

Yes, Tyler complies with this requirement.

> **5.1.1.17.2.** Separate individual owner file

Yes, Tyler complies with this requirement.

> **5.1.1.17.3.** *Separate commercial and industrial owner file*

Yes, Tyler complies with this requirement.

> **5.1.1.17.4.** *Separate trending and depreciation file*

Yes, Tyler complies with this requirement.

> **5.1.1.17.5.** *Each account must have one, and only one, record that contains the basic data used in valuation and assessment notification. These items must include, but not be limited to:*
> - *Account Identification Number*
> - *County Code*
> - *District Code*
> - *Site Address*
> - *Owner's Name and Address*
> - *Spouse's Name*
> - *Tax Class*
> - *North American Industry Classification*
> - *System Code (NAICS)*
> - *Property Use Code*
> - *Items Owned and Year Acquired*
> - *Original Acquisition Code-Square foot of real*
> - *property-Previous appraised and assessed value and previous value source*
> - *Current appraised and assessed value and current value source*
> - *Penalty and forfeiture information*
> - *Homestead information*
> - *Telephone number*
> - *Social Security number*
> - *Tax Year*
> - *Dog data*

Yes, Tyler complies with this requirement.

> **5.1.1.17.6.** *The records must be in a standardized and consistent format with all county data having the same fields, formatting, and design elements. No particular format is required, only that all fifty-five (55) counties be of the same database structure. For example, the personal*

property records must be in a standard format and items such as "vehicle" must always be in the same field, machinery and equipment must always reside in the same field, etc.

Yes, Tyler complies with this requirement. As with the current State system, all users will be entering data in a common interface and the data is stored in the same database and identified by a specific jurisdiction id for security purposes.

5.1.1.18. **The natural resource file must include the following:**

    5.1.1.18.1. An Account file that identifies properties by type:

- *Coal*
- *Oil and Gas*
- *Manager Timber*
- *Other Minerals*
- *Sandstone*
- *Limestone*
- *Sand/Gravel*
- *Clay/Shale; Salt Brine*
- *Minerals as listed in WV Code 11-lc-10 (http://www.wvlegislature.gov/WVCODE/ChapterEntire.cfm?chap=11&art=lC&section=l0#1C)*

We have this functionality in our current client server product serving the State and the functionality/requirements will be migrated to our iasWorld platform as part of the implementation efforts.

    5.1.1.18.2. Individual owner file

        5.1.1.18.2.1. Producer file - Natural Resource Account Number

Yes, Tyler complies with this requirement.

        5.1.1.18.2.2. Map and Parcel number, Mineral Account Number

Yes, Tyler complies with this requirement.

    5.1.1.18.3. Each account must have one, and only one, record that contains the basic data used in valuation and assessment notification. These items must include, but are not limited to:

- *Account Identification Number*
- *Latitude*

- Longitude
- Legal Description
- Site Address
- Owner's Name
- Owner's Address
- Tax Class
- Previous value and previous value source
- Current value and current value source
- Penalty and forfeiture infom1ation
- Active farm income
- Non-farm income
- Royalty income
- County Code
- District Code
- Contact person telephone number
- Well or lease name
- Producer's name
- Landbook acreage
- Leased acreage
- Percent ownership
- Number of wells
- Homestead information

Yes, Tyler complies with this requirement.

> **5.1.1.18.4.** Vendor must provide for a coefficient file containing information
> necessary for the valuation of natural resources at the following
> levels:
> - State
> - Region
> - County
> - District
> - Coal/Other Minerals (Tax Year Specific)
>   - Seams
>   - Aggregate Value for TCRIV Calculation
>   - Barren Rate per resource

- o   *Density Rate per resource*
- o   *Mined out rate perresource*
- o   *Mine life rates for Deep Mines per resource*
- o   *Mine life rates for Surface Mines perresource*
- o   *Multipliers for Mine Life per resource, type and use type*
- o   *Percentage RCVM to TCVM*
- o   *Weight per year per resource*
- o   *Royalty multiplier per resource, per type and use type*
- • *Oil/Gas (Tax Year Specific)*
  - o   *Capitalization rate*
  - o   *Formations*
  - o   *Expense Maximum per well status type*
  - o   *Expense Percent per well status type*
  - o   *Tolerance for link process for State*
  - o   *Complete and Incomplete Tolerance for County*
  - o   *Acreage allowed per well type before excess acreage charged*
  - o   *Well life*
  - o   *Year difference for initial production date*
  - o   *Acreage for plugged well*
  - o   *Well equipment or minimum value per well status type*
  - o   *Home use only value*
  - o   *MCF/BBL rate for DEP/industrial wells*
  - o   *Non-filer percentages for working interest and royalty/overriding royalty*
  - o   *Reserve rates per county per district*
- • *Managed Timber Grades*
- • *The records must be in a standard format*
- • *Vendors should provide the layout or otherwise desc1ibe the proposed natural resource property record.*
- • *Vendor must provide the ability for the system to accept electronic returns for natural resource property.*

Yes, Tyler complies with this requirement.

> **5.1.1.19.** *There must be a separate sales file (or files) that include sales data and property characteristics as of the sale date.*

Yes, Tyler complies with this requirement.

> **5.1.1.19.1.** *To facilitate market and income analyses, there must be one and only one sale record per sale.*

Yes, Tyler complies with this requirement.

> **5.1.1.19.2.** *If there are multiple building records for a sale parcel, the data must be aggregated or "collapsed" to a single record. The Vendor must indicate how this will be accomplished.*

The product does maintain the history and the information for the sales as a single 'sales' record, but the detail about the parcel in its multiple record format is maintained.

> **5.1.1.20.** *The Vendor should describe how data items can be added or redefined.*

iasWorld provides an administrative interface that allows the project team, and ultimately the client, to configure items such as screen layouts. Each table/screen in iasWorld contains a base set of fields and then a set of user-defined fields. The number of user-defined fields per screen varies, but typically is a minimum of 25 and could be as many as 150. For example, the Owner table/screen in iasWorld contains a base set of fields to store owner information (i.e. name, address, email, phone, etc.) but also includes 40 user-defined fields that can be used to store flags, numbers, dates, etc. Using the iasWorld screen editor, you have the option to put as many or as few of these base and user-defined fields as needed on each screen. Each user-defined field (as well as most other fields) can be configured to control settings such as field length, type of data being stored (date, number, character), validation checks (i.e. drop down list, required field, range of values) and whether it is a required field.

> **5.1.1.21.** *The Vendor must provide for a separate income and expense file for the accumulation of income-expense valuation data, including key property characteristics current at the time the income data were obtained. The income and expense file can be an integrated part of the vendor's database.*

Yes, Tyler complies with this requirement.

> **5.1.1.22.** *The Vendor must implement this uniform property use code.*
> - *R - **RESIDENTIAL** to indicate one to four family residential use.*
> - *A-**APRATMENT** to indicate multi-family use, five or more families.*
> - *F- **FARM** to indicate rural properties, generally defined by a minimum acreage requirement, and usually but not necessarily devoted to agriculture.*
> - *C - **COMMERCIAL** to indicate properties devoted to trade, services, and recreational use.*
> - *I - **INDUSTRIAL** to indicate properties devoted to the manufacturing and/or processing of products.*
> - *X - **EXEMPT** to indicate non-taxable properties.*

- *U - UTILITY* to indicate properties devoted to the production of public utility commodities or services under the control of governmental agencies such as Public Utility Commission.

Yes, Tyler complies with this requirement.

5.1.1.22.1. *The code must be assigned to each parcel and account and be carried on the real property parcel, building, sale records, personal property record, and natural resource record.*

Yes, Tyler complies with this requirement.

5.1.1.22.2. *Vendors must assign unique account identifiers to all personal property accounts and to all-natural resource accounts.*

Yes, Tyler complies with this requirement.

5.1.1.23. *The proposed system must have computerized perimeter sketching.*

Yes, Tyler complies with this requirement.

5.1.1.23.1. *Users must be able to enter sketches on computer terminals and the computer should be able to draw the building, check closure, print the image on the property record card, and calculate and store building perimeter and area.*

Yes, Tyler complies with this requirement.

5.1.1.23.2. *If the parcel is queried, the building perimeter sketch must be displayed on the screen.*

Yes, Tyler complies with this requirement.

5.1.1.23.3. *Vendor should indicate what hardware is required to print the resulting graphics and the effective production rates for the proposed hardware.*

Yes, Tyler complies with this requirement. No special hardware is required.

5.1.1.24. *The system must provide for the automation of building permit processing.*

iasWorld provides a permit screen to capture any information related to building permits. This information can be captured electronically through integration with other permitting systems, through batch file processing, or is entered manually through the iasWorld user interface.

5.1.1.25. *The system must provide the ability to retrieve records directly by entering the parcel number, account number, street address, owner's name, or buyer's name.*

Yes, Tyler complies with this requirement.

5.1.1.26. *The system must provide to ability to automate land book creation and printing. Data included in the land books must be easily identifiable and separated physically or logically from other data within the system.*

Yes, Tyler complies with this requirement.

5.1.1.27. *Screen layouts must correspond to field data collection documents ("cards" for short).*

Yes, Tyler complies with this requirement. iasWorld provides an administrative interface that allows the project team, and ultimately the client, to configure items such as screen layouts.

5.1.1.27.1. *The layout must flow and be able to move screen to screen, make intuitive use of menus and function keys, and the user must be able to print individual screens or a set of related screens on command based upon current business processes and return layouts. Business process and form changes can be considered to accommodate system design, but this should be limited in nature.*

Yes, Tyler complies with this requirement.

5.1.1.28. **Processing**

The system must support on-line real time record updates and calculations, so that users can see additions or changes to the database, along with computer values, immediately. The system must support batch updating, so that a user can request certain time-consuming jobs to be processed in a batch mode.

Yes, Tyler complies with this requirement.

5.1.1.29. *The data management system must check keyed and imported data for validity and restrict the entry of invalid data, e.g. alphanumeric data in a numeric field or a construction class code of zero when valid codes range from 1 to 6.*

Yes, Tyler complies with this requirement.

5.1.1.30. *The database management system must enforce referential integrity to ensure, for example, that no building records are orphaned by the deletion of a parcel record.*

Yes, Tyler complies with this requirement.

5.1.1.31. *Data integrity must be protected by preventing the entry of duplicate parcels, record numbers, account numbers and the like.*

Yes, Tyler complies with this requirement.

> **5.1.1.32.** *The application must be password protected, and there must be a facility for restricting access to certain fields (e.g., estimated income data). Password complexity at a minimum shall require eight (8) characters, an alphanumeric requirement and a special character. The system must require that the password must be changed every thirty (30) calendar days. Default passwords that are created when an account is created must require the user to set a new password when the user account is logged into the first time. The system must maintain a password history of at least the last ten previously used passwords and not allow passwords to be re-used from that password history or as an alternative the system must integrate with active directory for this purpose.*

iasWorld complies with all of the security requirements related to field level access, password complexity and password expiry. iasWorld does not currently provide functionality to retain the last 10 previously used passwords and restrict use of those passwords as a new password. As an alternative, because iasWorld does integrate with Active Directory, it is possible that the password rules could be handled through the Active Directory administrator settings.

> **5.1.1.33.** *The application must provide for unique non-sequential user names and passwords to log into the application. The system must maintain an audit log of successful, failed, and attempted logins to the system with timestamps.*

Yes, Tyler complies with this requirement.

> **5.1.1.34.** *Vendors should describe their security provisions and indicate which of them, if any, are inherent in ancillary software, such as the operating system and which of them are implemented in the vendor's proprietary software.*

iasWorld can be configured to use a third-party user authentication agent (which allows single-sign-on within your network environment) or internal iasWorld user authentication. For either third-party authentication agents or internal iasWorld user authentication, you can also enable a secondary authentication provider and define a subnet and sub-net mask for that authentication provider.

With either authentication option, you must create a unique user ID for each iasWorld user. The iasWorld user ID is given role permissions, and each role provides access to selected iasWorld functionality and features, and in multi-jurisdiction implementations, to the data in selected jurisdictions. You can also configure account defaults, which are used to control login attempts and login failure handling, and the number of concurrent active user sessions. In addition, you can create an activation date for new accounts and specify an account validity period.

> **5.1.1.35.** *The system must provide an audit trail of record changes.*

Yes, Tyler complies with this requirement.

> **5.1.1.36.** The system must preserve the history of records before and after updating, along with an indicator of the user and timestamp of change.

Yes, Tyler complies with this requirement.

> **5.1.1.37.** The system must include an account management module that allows the help desk to manage user accounts, password and application level security. Screen shots, reporting capability, the functionality that can be secured shall be included.

Yes, Tyler complies with this requirement.

> **5.1.1.38.** The data management system must be able to generate property record cards (or close substitutes for them) on request for all real property, personal property and natural resource property accounts.

Yes, Tyler complies with this requirement.

> **5.1.1.38.1.** When there are multiple buildings for a parcel, there must be one record "card" for each building (parcel level data need not be repeated).

Yes, Tyler complies with this requirement.

> **5.1.1.38.2.** Property record cards must show or indicate how values were calculated.

Yes, Tyler complies with this requirement.

> **5.1.1.38.2.1.** For the cost approach, this involves showing the building size, base rate, adjustments, replacement cost new, depreciation and net value must be displayed.

Yes, Tyler complies with this requirement.

> **5.1.1.38.2.2.** For the income approach, the following must be displayed: market rent per unit, number of units (e.g. apartment units or square feet of warehouse area), vacancy allowance , potential gross income, allowable expense ratio, net income, and net value.

Yes, Tyler complies with this requirement.

> **5.1.1.38.2.3.** The market approach must be documented by showing the calculated value on a-per unit

basis and listing any applicable comparable sales.

Yes, Tyler complies with this requirement.

5.1.1.38.2.4. *Users must be able to request that property records be printed by parcel range, use codes, or neighborhood, for example, all single-family residences in a given neighborhood or map or all actively mined coal parcels in a taxing district.*

Yes, Tyler complies with this requirement.

5.1.1.38.2.5. *The system must provide for integrated tablet application for appraisal fieldwork. This function would provide the appraiser in the field to review and update parcel characteristics, including the sketch and upload all information directly to the system. This function does not exist in our current system.*

Yes, Tyler complies with this requirement through its Field Mobile solution.

5.1.1.39. *The system must allow for prior years data to be "locked" so that the historical data may be viewed, accessed, and reported on while prohibiting the historical records from being updated. The identification of when and what data is historical shall be configurable in a manner that a job or process can be initiated to lock all prior year records.*

Yes, Tyler complies with this requirement.

5.1.1.40. *Valuation - the system must have the ability to value the following:*

Yes, Tyler complies with this requirement.

5.1.1.40.1. **Real Property**
- *Residential property including manufactured housing*
- *Commercial property*
- *Industrial prope11y*
- *Farm property use value based on farm rental income*
- *Natural Resource property*
- *Active and reserves*
- *Oil & Gas- active and reserves*

- *Sand, gravel, etc. - active and reserves*
- *Managed Timberland - use value based on soil productivity*

Yes, Tyler complies with this requirement.

5.1.1.40.2. Personal Property
- *Tangible personal property*
- *Manufactured housing*
- *Automobiles, trucks, planes, boats, campers and other transport items, -low book value*
- *Machinery and equipment*
- *Furniture and fixtures*
- *Inventory*
- *Computer hardware and software*
- *Royalties and working interests for natural resource producers*
- *Buildings on leased land*
- *Chattels real*
- *Leasehold interests*
- *Pollution abatement equipment, 5% of original cost*
- *Salvage value, 5% of original costs*
- *Specialized tooling, 5% of original costs*
- *High technology/internet adve1iising servers, personal property, 5% of original costs*

Yes, Tyler complies with this requirement.

5.1.1.41. Valuation of Surface Real Property- *the system must have the ability to value surface real property as follows:*

Yes, Tyler complies with this requirement.

5.1.1.41.1. Land valuation
5.1.1.41.1.1. *The software must provide a table-driven land valuation system with percentage adjustments for site characteristics.*

Yes, Tyler complies with this requirement.

5.1.1.41.2. **Land valuation tables**

5.1.1.41.2.1. The system must include a set of land valuation tables based on the average unit value method and the base lot method.

Yes, Tyler complies with this requirement.

5.1.1.41.2.2. The tables must be indexed by neighborhood and land use code.

Yes, Tyler complies with this requirement.

5.1.1.41.2.3. The user must be able to specify land valuation rates for the following units of comparison:
- Acre
- Square Foot
- Front Foot
- Parcel or Lot

Yes, Tyler complies with this requirement.

5.1.1.41.2.4. Appraisers must be able to select which valuation method to use for individual parcels.

Yes, Tyler complies with this requirement.

5.1.1.41.2.5. The system must support size and depth adjustments.

Yes, Tyler complies with this requirement.

5.1.1.41.2.5.1. Size adjustment that can be built into square foot valuation tables.

Yes, Tyler complies with this requirement.

5.1.1.41.2.5.2. Size adjustments that can stand as separate tables.

Yes, Tyler complies with this requirement.

5.1.1.41.2.5.3. Depth adjustments for land appraised on a front foot basis should stand as a separate table.

Yes, Tyler complies with this requirement.

5.1.1.41.3. *Percentage adjustments for site characteristics*

5.1.1.41.3.1. *Users must be able to specify percentage adjustments for site characteristics, such as topography, water frontage, view, excess traffic, and so forth.*

Yes, Tyler complies with this requirement.

5.1.1.41.3.2. *These adjustments must be table-driven so that the user does not have to specify them for individual parcels.*

Yes, Tyler complies with this requirement.

5.1.1.41.3.3. *Users must be able to specify separate adjustment factors by neighborhood, for example, factor of 1.50 for lake frontage in one neighborhood and a factor of 1.70 in another neighborhood.*

Yes, Tyler complies with this requirement.

5.1.1.41.3.4. *Users must have the ability to flag and retrieve adjustments for review by query routine or batch reports.*

Yes, Tyler complies with this requirement.

5.1.1.41.3.5. *The system must have the ability to support manual appraisals.*

Yes, Tyler complies with this requirement.

5.1.1.41.3.6. *When land is appraised manually, appraisers must have the ability to enter an "override" value that takes precedence over any table-computed value*

Yes, Tyler complies with this requirement.

5.1.1.41.3.7. *The system must have the ability to override land rates and adjustment factors on an individual parcel basis.*

Yes, Tyler complies with this requirement.

> **5.1.1.41.4.** *The proposed system must allow multiple land uses for a single parcel and to be separately coded and priced.*

Yes, Tyler complies with this requirement.

> **5.1.1.41.5.** *The proposed system must allow users the ability to calibrate land rates and adjustment factors.*

Yes, Tyler complies with this requirement.

5.1.1.42. Cost Approach

> **5.1.1.42.1.** *The system must contain a current cost module that is table-driven and customized for West Virginia.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.2.** *Once the cost module is completed the Vendor must indicate the source of the cost factors and how they should be updated by the user and provide documentation of their derivation.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.3.** *The cost system must cover all common structures found in West Virginia.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.4.** *The system must operate in both batch and interactive mode.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.5.** *Cost tables must handle common structure types with the ability to manually price unusual structures.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.6.** *Costs must include all applicable direct and indirect costs according to commonly accepted industry standards and practices.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.7.** *. Residential and commercial pricing tables must start at a size of not less than 300 square feet.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.8.** *The system must contain the ability to adjust for significant building characteristics and extra features, including, but not*

> *limited to, wall type, roof type, heating, cooling, fireplaces and swimming pools.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.9.** *The cost system must recognize differences in construction costs per unit among buildings of various sizes and types. This can be done by varying base rates with size or through a separate adjustment table or formula.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.10.** *Economy-of-scale factors must be centered on typical building sizes, so that no adjustment is required for buildings of standard size.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.11.** *Height adjustments must be developed for commercial parcels.*

Yes, Tyler complies with this requirement.

> **5.1.1.42.12. Computerized pricing**
>> **5.1.1.42.12.1.** *The cost system must be able to price commonly found structures including manufactured housing.*

Yes, Tyler complies with this requirement.

>> **5.1.1.42.12.2.** *Tables must exist for the following:*
>> - *Base rates*
>> - *Percentage adjustments or factors for building features such as design, wall type, heating and cooling.*
>> - *Lump sum or dollar adjustment for extra features, such as fireplaces, Jacuzzis, and sheds.*
>> - *The user must be able to update these tables interactively.*
>> - *Lookup tables must be utilized so that new codes and features can be assigned by users based on instructions contained in the user documentation.*

Yes, Tyler complies with this requirement.

5.1.1.43. *Calibrated cost tables*

> **5.1.1.43.1.** *The Vendor must provide updated statewide cost tables including appropriate modifiers for each county to account for any significant differences in construction costs within each county. This data can be procured. If procured, the vendor should provide the source of this information in their bid, or, if completed by the vendor they must provide proof that the methodology employed by the vendor meets best practices and industry standards.*

Yes, the Tyler Cost Approach being used by the State is a model-in-place approach. The application could integrate with Marshall & Swift of other third-party cost service if the State should choose to purchase any of those third party cost services. The current Tyler Cost Approach will come forward on the upgrade.

> **5.1.1.43.2.** *The cost tables must reflect the current market as of the time of system delivery defined as the initial launch of the first counties. The costs must be validated in and reflect the local market.*

Yes, the cost tables meet this requirement.

> **5.1.1.43.3.** *At the time of system delivery, the Vendor must describe the source of construction cost data and whether it is proprietary, developed from an analysis of local costs, or based on a commercial service, such as Marshall & Swift.*

The cost tables that will be delivered are Tyler proprietary cost tables and are the cost tables currently in use in the State. A third-party cost system could be implemented if the State would chose to move in that direction.

> **5.1.1.43.4.** *At the time of system delivery, the vendor must describe how cost data will be validated and adjusted to the local market.*

Tyler will establish test county/Charleston area as the primary or base region for the cost table studies. We will conduct the base region cost studies for the residential dwelling, residential/agricultural OB&Y structures, and associates depreciation tables, including applicable testing.

> **5.1.1.43.5.** *At the time of system delivery vendor must present information on current fees for updating costs tables if a proprietary source of construction cost data is used.*

Yes, if a proprietary source of information is used, this information will be provided.

> **5.1.1.43.6.** *At the time of system delivery, the vendor must provide the cost manual or other documentation which describes how users can update cost schedules and test them for accuracy.*

As part of the update, Tyler will review the instructions, cost tables, depreciation and residual schedules, and a glossary of terms for residential, apartment, agricultural, commercial, and industrial buildings. The text and cost tables will be updated to reflect current construction costs and methods.

> **5.1.1.43.7.** *The vendor must provide an update to the current West Virginia Real Property Appraisal reflecting the appraisal, practices examples and procedures associated with the proposed system in addition to current construction cost schedules.*

This is included as part of the response.

> **5.1.1.44.** *Depreciation tables must be provided that are based on age, structure type and construction quality.*
>
> > **5.1.1.44.1.** *Depreciation tables must be based on observed effective age, actual age, and remodel year.*

The IAS CAMA residential and C/I improvements accrued depreciation or percent good tables are a matrix which is set up by the "Year Built" and the "Condition, Desirability, and Usefulness" (CDU) rating of the dwelling, a by "Year Built" and "Condition" for other classes of improvements.

> > **5.1.1.44.2.** *The tables must be indexed by use class and construction grade.*

Yes, the tables can be indexed by use class and construction grade.

> > **5.1.1.44.3.** *The Vendor must provide multiple residential, multiple commercial, and industrial depreciation tables that recognize differences in market value within structure type, construction quality and age.*

Yes, the iasWorld CAMA system has multiple residential and multiple commercial depreciation tables that recognize differences in market value within structure type, construction quality and age.

> **5.1.1.45.** *The Vendor must include the ability to appraise using the Income Approach.*

Yes, Tyler complies with this requirement.

> > **5.1.1.45.1.** *The vendor must provide a facility for entering and analyzing income and expense data and building income-expense, gross- income-multiplier, and overall rate tables.*

Yes, Tyler complies with this requirement.

5.1.1.45.1.1. *The vendor must provide a program for entering and analyzing income and expense questionnaires, including the computation of median market rents, vacancy ratios, and expense ratios.*

Yes, Tyler complies with this requirement.

5.1.1.45.1.2. *The program must be part of the vendor's software.*

Yes, Tyler complies with this requirement.

5.1.1.45.2. *Appraisers must have the ability to override income, expense and capitalization rates to recognize special features or conditions.*

Yes, Tyler complies with this requirement.

5.1.1.45.3. *Since some income properties cannot be calculated on a mass basis, the system must have the ability whereby the appraiser would enter the necessary data and assumptions, and the computer would calculate the value.*

Yes, Tyler complies with this requirement.

5.1.1.45.4. *Income value must be calculated at the parcel level.*

Yes, Tyler complies with this requirement.

5.1.1.45.5. *Vendor must provide ability to merge income/expense and sales data.*

Yes, Tyler complies with this requirement through the iasWorld Inquire tool. The Inquire feature within iasWorld provides a user-friendly interface for selecting, organizing, summarizing and extracting information maintained in the iasWorld solution.

5.1.1.45.5.1. *The merged file, like the sales file, must contain one record per parcel.*

Yes, Tyler complies with this requirement.

5.1.1.45.5.2. *The data for both sold and unsold parcels must be matched to the income and expense file.*

Yes, Tyler complies with this requirement.

5.1.1.46. A Market Approach *(Improved Parcels) must be provided.*

Yes, Tyler complies with this requirement.

>> **5.1.1.46.1.** *The system must provide the ability to maintain tables of market-derived per-unit values and adjustments and, optionally, to develop multiple regression models.*

Yes, Tyler complies with this requirement.

> **5.1.1.47. Value Reconciliation**

>> **5.1.1.47.1.** *The system must produce values based on the cost, income and market approaches.*

Yes, Tyler complies with this requirement.

>> **5.1.1.47.2.** *Appraisers must have the ability to select the value deemed most applicable or to assign an override value.*

Yes, Tyler complies with this requirement.

>> **5.1.1.47.3.** *Reports must summarize existing values and highlight any parcels for which values could not be computed.*

Yes, Tyler complies with this requirement.

>> **5.1.1.47.4.** *The system must provide separate fields for values computed by the cost approach, market approach, gross income multiplier method and net income capitalization method.*

Yes, Tyler complies with this requirement.

>> **5.1.1.47.5.** *Additional fields must be provided for an appraiser override value, an appeals board value and a court determined value.*

Yes, Tyler complies with this requirement.

>> **5.1.1.47.6.** *A value source code must specify which of these values to use for tax purposes.*

Yes, Tyler complies with this requirement.

>> **5.1.1.47.7.** *A valuation comment field must be provided for appraisers to explain an override value (codes may be used for this purpose) or to enter other information.*

Yes, Tyler complies with this requirement.

>> **5.1.1.47.8.** *Appraisers must not have to update value sources on an individual parcel basis except for cases where the default source is overridden.*

Yes, Tyler complies with this requirement.

>> **5.1.1.47.9.** *The system must provide a value application report.*

Yes, Tyler complies with this requirement.

> **5.1.1.48.** *There must be an overall value summary report that must include, but not be limited to, the following for each use class, tax class or property type:*
> - *The number of parcels*
> - *Total value*
> - *Average value per square foot (or other appropriate unit of comparison).*
> - *Number of valid sales.*
> - *Key sales ratio statistics (most importantly the median and coefficient of dispersion).*
> - *For single family residential properties, the report must have the ability to be broken out by neighborhood.*

Yes, Tyler complies with this requirement.

> **5.1.1.49.** *There must be a value error report that identifies and lists such parcels for which applicable values could not be computed because of invalid or missing data.*

Yes, Tyler complies with this requirement.

> **5.1.1.49.1.** *The report must list the problem data or otherwise indicate why a value could not be computed.*

Yes, Tyler complies with this requirement.

> **5.1.1.49.2.** *The report must list parcels with extreme, unusual or inconsistent data, such as a single-family residence with fewer than (300) square feet or more basement area than main living area.*

Yes, Tyler complies with this requirement through the iasWorld Inquire tool.

> **5.1.1.49.3.** *The system must supply sales lists for each of several major property types and a program for identifying the most comparable sales for a given subject parcel.*

Yes, Tyler complies with this requirement.

> **5.1.1.49.4.** *There must be a report that lists sales by parcel number, by parcel number stratified by land use code or major property group and tax class for a user selected sale date range.*

Yes, Tyler complies with this requirement through the iasWorld Inquire tool.

> **5.1.1.49.5.** *The report must display these items:*
> - *County*

- *District*
- *Neighborhood*
- *Tax Class*
- *Property Type*
- *Vacant or improved*
- *Previous year's value, source code and validity code*
- *Current year's value, source code and validity code*
- *Key land and improvement characteristics*
- *Sale date and price*
- *Reports must be generated for each county, district/corporation*
- *There must be a statewide report.*
- *For single family residential properties, there must be a program that finds and reports comparable sales, or comparable properties, for a given subject parcel.*

Yes, Tyler complies with this requirement through the iasWorld Inquire tool.

> **5.1.1.49.6.** *The user must have the ability to query all valid sales based on any combination of attributes contained in the database.*

Yes, Tyler complies with this requirement through the iasWorld Inquire tool.

> **5.1.1.49.7.** *The Vendor must provide documentation and instruction on operation of the comparable sales system, including how distance metrics are computed and how to change sale selection parameters, for example, variable weights and sale data ranges.*

Yes, Tyler complies with this requirement.

> **5.1.1.50.** *The sales record must contain a sales validation code indicating whether sales are valid indicators of market value or, if not, why not. The codes should be consistent with professional standards and State of West Virginia guidelines which include the following:*

Valid Code	Description
0	Valid sale
1	Involved additional parcels
2	Not open market

3	Changes after sale
4	Related individuals or corporations
5	Liquidation/forced sale
6	Financial/ land contract
7	Construction cost only
8	Included excessive personal property
9	Blank
10	Natural Resource Rights
11	Partial interest only
12	AG use or managed timber

Yes, Tyler complies with this requirement.

> **5.1.1.50.1.** There must be a parameter-driven sales ratio program that displays traditional sales ratio studies by strata of the sales price. Statistics reported must include:
> - Number of sales in the applicable time period
> - Number of valid or usable sales
> - Median, mean, and standard deviation
> - Coefficient of dispersion
> - Price related differential
> - Whether improved or vacant
> - Sale price
> - Aggregate ratio
> - Ratios which are calculated by excluding outliers with a median + or - twice the standard deviation.
> - Ratios calculated by excluding State appraised property (industrial, natural resources).
> - These statistics must be computed as defined in most recent IAAO Standard on Ratio Studies.
> - Totals by category with or without farm and managed timberland sales.

Yes, Tyler complies with this requirement.

> **5.1.1.50.2.** Users must be able to obtain reports of results by major property group, use class and tax class as well as key subgroups of single-family residential properties, including neighborhoods.

Yes, Tyler complies with this requirement.

> **5.1.1.50.3.** *Users must be able to specify parameters for sales included in the study, including assessment year, sale date range, sale price range and ratio range.*

Yes, Tyler complies with this requirement.

> **5.1.1.50.4.** *Users must be able to request an optional report listing all sales used in sales ratio calculations.*

Yes, Tyler complies with this requirement.

> **5.1.1.50.4.1.** *The report must be sorted to match the basic strata used in the sales ratio report.*

Yes, Tyler complies with this requirement.

> **5.1.1.50.4.2.** *Reported data must include parcel number, land use code, neighborhood, key property characteristics, sale date, sale price, adjusted sale price, tax class and sale ratio.*

Yes, Tyler complies with this requirement.

> **5.1.1.50.4.3.** *Within strata, sales must be sorted by sale ratio.*

Yes, Tyler complies with this requirement.

> **5.1.1.50.5.** *At the time of system delivery, the Vendor must describe any graphics capabilities that will be used in sales ratio analyses.*

The iasWorld solution includes a few options for analysis of sales, income and cost data. One of the provided features is the embedded business intelligence and reporting tool, Inquire. Inquire is used for the effective review and analysis of property and economic data maintained in the iasWorld business layer. The Inquire feature within iasWorld provides a user-friendly interface for selecting, organizing, summarizing, drilling-down and extracting all information maintained in the iasWorld solution. The Inquire tool is leveraged by the iasWorld Digital Dashboard to drive the information which is displayed on the dashboard in a graphical or tabular format.

Another feature that provides robust analysis functionality is iasWorld's reporting solution. iasWorld reporting solution contains hundreds of analysis reports which have been created for jurisdictions all over the country, including Pennsylvania. Some of the available reports include STEB analysis reports, sales ratio studies, cost table analysis and commercial income sales analysis (to help develop cap rates and GIMs).

And finally, iasWorld provides another tool for analysis called Analyze. The Analyze tool provides the following features to assist in analysis:

- Advanced data visualization options: explore data visually on instant click-and-display views, including a scatter diagram, GIS maps, Pictometry, data detail tables, distribution charts and comprehensive statistical measures and moments.

- Real-time, quick and easy data exploration; isolate individual parcels or distribution chart bars and switch views for different types of analysis. Selections made in one view are highlighted on different views, enabling further exploration of details for individual parcels or parcel groups.

- Scatter diagram view; display parcels in the dataset as points on a scatter diagram; select the ratio format (median ratio, mean ration, or ratio = 1) and lines of tolerance. View point labels (sale price). Zoom in to clustered areas. Select or deselect individual points.

- Data table views; review comprehensive data and sales details about each parcel in the dataset – data details are configurable.

- Statistical distribution views; select attribute/measure combinations to use to analyze the dataset on a graph display. Select any bar for a drill-down detail view, and change the attribute/measure combination for the detail view to get a different perspective on the selected members.

- Map view; view parcels in the dataset using a map display. Apply color coding using sales ratio bin values. Select or deselect parcels using area, line, or polygon draw tools.

- Create reports with optional inclusion of analysis views in Analyze (scatter diagram, charts, map, statistics), with separate details for the selected and unselected sets.

> **5.1.1.50.6.** *The system must compare percentages changes in assessed values for those properties that were sold in a defined period and those that did not sell during the defined period.*

Yes, Tyler complies with this requirement.

> **5.1.1.50.6.1.** *Reports that present only summary information for each stratum or group being analyzed (giving mean and median percentage changes, counts, and the results of the Mann- Whitney test).*

Yes, Tyler complies with this requirement.

> **5.1.1.50.6.2.** *Reports that present the preceding information plus a one-line characterization*

of each property (such as address, type codes, size and assessed value).

Yes, Tyler complies with this requirement.

> **5.1.1.50.6.3.** Reports that use multiple lines to describe the properties in greater detail.

Yes, Tyler complies with this requirement.

> **5.1.1.50.7.** At the time of system delivery, the Vendor must provide a user's manual documenting operation and use of the sales analysis and sales ratio study system. The awarded Vendor is to provide one (1) user manual for each of the fifty-five (55) counties and one (1) for the State Tax Department. A soft copy of all manuals and materials must also be provided.

Yes, Tyler complies with this requirement.

> **5.1.1.51. Personal Property Valuation**
>
> **5.1.1.51.1.** The following personal property types must be valued:
>
> - Manufactured housing
> - Automobiles, trucks, aircraft, boats, campers and other transport items.
> - Machinery and equipment
> - Furniture and fixtures
> - Inventory
> - Computer hardware and software
> - Overriding royalties and working interests for producers
> - Buildings on leased land
> - Chattels real
> - Leasehold improvements
> - Incomplete construction
> - High technology and internet advertising servers and tangible   personal prope1iy, pollution abatement equipment, tools, dies and molds - salvage value.

Yes, Tyler complies with this requirement.

> **5.1.1.51.2.** The proposed system(s) must provide at least as much valuation flexibility as the current Personal Property system provides which includes:
>
> - Ability to place owners' value

- *Ability to place assessors' value*
- *Ability to use nationally accepted car guide*

Yes, Tyler complies with this requirement.

5.1.1.51.3. *The proposed system(s) must provide for the following valuation procedures.*

Yes, Tyler complies with this requirement.

5.1.1.51.3.1. *Transportation equipment valuation system*

Yes, Tyler complies with this requirement.

5.1.1.51.3.1.1. *The vehicle valuation system must provide for on-line interactive valuation using both the "VIN" number and "make-year-mode]" approach.*

Yes, Tyler complies with this requirement.

5.1.1.51.3.1.2. *The system must provide a valuation module to value other transport equipment including, but not limited to, motorcycles, boats, airplanes, campers, recreational vehicles, and all-terrain vehicles.*

Yes, Tyler complies with this requirement.

5.1.1.51.3.1.3. *The State will provide the valuation tables for cars, trucks, motorcycles, boats, recreational vehicles and all-terrain vehicles.*

Yes, Tyler complies with this requirement.

5.1.1.51.3.2. *The system must allow depreciation and trending tables to value computer equipment, machinery, equipment, furniture and fixtures and leasehold improvements.*

Yes, Tyler complies with this requirement.

> **5.1.1.51.3.3.** *The system must provide tables to provide for current market values for manufactured housing.*

Yes, Tyler complies with this requirement.

> **5.1.1.51.3.3.1.** *The values for manufactured housing from the personal property module and the real property module must arrive at the same values for the same property.*

Yes, Tyler complies with this requirement.

> **5.1.1.51.3.3.2.** *The values for additional items for manufactured housing such as skirts, underpinnings, decks and porches, must be the same whether the property is considered real or personal property.*

Yes, Tyler complies with this requirement.

> *The system must provide the ability for a taxpayer to file online personal property returns for individual owners, owners of commercial businesses and owners of industrial property. This function does not exist in our current system.*

This functionality is included with the Tyler SmartFile solution.

5.1.1.52. Natural Resource Valuation

> **5.1.1.52.1.** *For each section the vendor must describe and provide samples of layouts, screens, repo1is, and any other items required in that section.*

This functionality will be migrated to iasWorld from our IAS 4.0 product as part of the implementation effort.

> **5.1.1.52.2.** *The system must provide the ability for taxpayers to file online for oil, gas, and coal natural resource property returns. This ability is currently contained in our existing natural resource appraisal/assessment system.*

This functionality is included with the Tyler SmartFile solution.

5.1.1.53. Coal

> **5.1.1.53.1.** *The vendor must integrate our current stand-alone Coal Valuation Model as an integrated module of the new valuation/assessment system.*

Tyler will comply with this requirement.

> **5.1.1.53.1.1.** *The coal valuation module must perform the following valuation assessment and GIS functions as contained in the current model and defined in WV Legislative Rule Title 110, II:*
> - *Compute the active coal acre rate as defined in WV Legislative Rule 110-1I, Appendix A, Formula 7*
> - *Compute the active coal acre rate as defined in WV Legislative Rule 110-1I, appendix A, Formula 3*
> - *Compute the value of permitted reserve coal by:*
>   - *Integration of GIS data by Geocode to identify location.*
>   - *Value by applying WV Legislative Rule 110-1J, Appendix A, Formula 6*
> - *Compute the value of reserve coal by:*
>   - *Integration of GIS data by Geocode to identify location*
>   - *Value reserve coal by applying WV Legislative Rule 110-1I, Appendix A, Formula 6.*

Tyler will comply with this requirement.

> **5.1.1.53.2.** *Coal and other mined mineral types must be valued according to West Virginia Codel 1-1c-10 and Legislative Regulations Title 110 Series II using the income approach for active and producing, market or income for reserves resulting in a value per seam per acre or per mineral type.*

This functionality will be migrated to the product from our IAS 4.0 product as part of the implementation effort.

> **5.1.1.53.2.1.** *The user must be able to specify valuations for the following units of coal (by individual seam) and/or mineral type:*
> - *Permitted including active producing and active reserve coal*
> - *Reserves*
> - *Mineable*
> - *Un-mineable*
> - *Mined out and/or barren*

This functionality will be migrated to the product from our IAS 4.0 product as part of the implementation effort.

5.1.1.54. Gas and Oil Valuation

> **5.1.1.54.1.** *Gas and oil property types must be valued according to West Virginia State Code 11-1c-10 and Legislative Regulations Title 110 Series 1J using the income approach for active and producing, market or income for reserves resulting in a value per acre.*

This functionality will be migrated to the product from our IAS 4.0 product as part of the implementation effort.

> **5.1.1.54.2.** *The user must be able to specify valuations for the following units:*
> **5.1.1.54.2.1.** *Producing Gas & Oil*

This functionality will be migrated to the product from our IAS 4.0 product as part of the implementation effort.

5.1.1.55. Reserve Gas & Oil
> - *Leased non-producing*
> - *Non-leased/non- income producing*

This functionality will be migrated to the product from our IAS 4.0 product as part of the implementation effort.

5.1.1.56. Managed Timberland

> *Managed timberland property must be valued according to West Virginia Code 11-1c-11 and Legislative Regulations Title 110 Series IH by soil grade, by county, by region.*

This functionality will be migrated to the product from our IAS 4.0 product as part of the implementation effort.

5.1.1.57. *Valuation reports must be available for the following:*

- *State*
- *Region*
- *County*
- *District*
- *Seam/or other mineral type*
- *Formation type*
- *Type of mineral- coal, oil, gas or other*
- *Type of activity*
- *Permit number*
- *API well number*
- *Owner's name*
- *Producer's name*
- *Type of mine - deep or surface*
- *Type of well - oil, gas or salt brine*

This functionality will be migrated to the product from our IAS 4.0 product as part of the implementation effort.

5.1.1.58. **Hardware and Software Backend Environment Requirements**

The vendor is responsible for providing a detailed list for all hardware and software required to implement and support the system at the IaaS Cloud hosted provider managed by the State. A listing of the software, with pricing, required to run and support the application shall be included along with a description of its functionality within the scope of the project. Sufficient processing resource must be calculated to accommodate both a production system and a test system as detailed in Section 5.1.1.66 below.

See the **Recommended Hosted Server Configuration** section of this proposal.

5.1.1.59. *Client-side Hardware and Software Requirements*

Vendor will provide a complete description of the minimum and recommended hardware and software requirements that the State and Counties will need to access and use the system. PC and laptop operating system requirements , software requirements, processor information and RAM size shall be disclosed, in addition to any other mandatory or recommended requirements to fully access and use the system without a performance delay. Operating systems supported should be the two most current versions of Windows.

Please see the table below for recommended PC specifications for workstations.

		Operating System		
		Windows 7	**Windows 8**	**Windows 10**
CPU	Minimum	2.0 x the Microsoft recommended CPU requirements	2.0 x the Microsoft recommended CPU requirements	2.0 x the Microsoft recommended CPU requirements
	Recommended	3.0 x the Microsoft recommended CPU requirements	3.0 x the Microsoft recommended CPU requirements	3.0 x the Microsoft recommended CPU requirements
RAM	Minimum	2.0 x the Microsoft recommended RAM	2.0 x the Microsoft recommended RAM	2.0 x the Microsoft recommended RAM
	Recommended	3.0 x the Microsoft recommended RAM	3.0 x the Microsoft recommended RAM	3.0 x the Microsoft recommended RAM
Examples	Minimum	2 GHz x64 processor 2 GB RAM	2 GHz x64 processor 2 GB RAM	2 GHz x64 processor 2 GB RAM
	Recommended	3 GHz x64 processor 3 GB RAM	3 GHz x64 processor 3 GB RAM	3 GHz x64 processor 3 GB RAM
Architecture		The use of the 64bit versions of the Windows operating system on 64bit supported workstations is highly recommended. The 32bit versions are supported, but we recommend using the higher recommendations for CPU and RAM.		
Browser		iasWorld supports Internet Explorer 11.0. Note: The Microsoft Edge browser is not currently certified for use with iasWorld. Those users on Windows 10 can leverage the Microsoft Edge compatibility mechanism which allows Microsoft Edge to automatically use Internet Explorer 11 for sites that are hosted on their internal network (intranet) or that are included in the organization's Enterprise Mode Site List.		
Screen Resolution		iasWorld is designed for use on client workstations with a screen resolution of at least 1024x768, but a screen resolution of 1366x768 or higher is most desirable. Resolutions lower than 1024x768 are not supported. The use of multiple monitors is beneficial and can increase productivity.		

5.1.1.60. *Configuration Change Management & Version Control*

The Vendor shall provide a full description of the configuration change management system and controls for system processes and system design and change. The Vendor shall outline what version control is available in the system for reports and fonts/screens.

The software for the iasWorld product is managed in Microsoft's TFS source control product. Producing a release requires a process that is linear in nature. This process establishes certain dates by which milestones in the process must be completed.

1. Cutoff Date for Release Consideration: This is the last date for any submission of enhancements to the iasWorld product for the planned release date. The date is set to provide sufficient time for the development requests to be planned, resources allocated, and coding to be completed without risk to the quality of the product. Any submissions after this date would need to be distributed in the next release.

2. Cutoff Date for Software Changes: A software change is any change to the source of the iasWorld product. These changes include but are not necessarily limited to tables, views, transactions, web services, etc., – any item maintained in our Microsoft TFS source control. This date is established more as an internal control for the iasWorld product group. The date indicates that all coding changes must be complete by this point to be included in the release (i.e., all source check-ins completed) and allows adequate time for the release to go through the Quality Control testing processes.

3. Release Production Process: During the iasWorld product release production process, several items are addressed including:
   a. The creation and testing of all needed installation and setup scripts,
   b. The completion of documentation updates, installation instructions, and read me files; and,
   c. Testing by the Quality Assurance team who completes a variety of actions including automated and manual tests to verify the expected operation of all systems and functionality to ensure the final release adheres to a strong level of quality.

4. Final Production of Release: The last phase in this process is producing the finalized release. After the completion of the release production processes, a final release version is created, packaged and shipped. Subsequently, all new support requirements and new feature development occurs in a new code/version stream.

5.1.1.61. *Testing, Documentation, and Training*

5.1.1.61.1. *System software must perform as required by the mandatory specifications in this CRFQ.*

Tyler will configure and modify iasWorld to meet the mandatory requirements of the CRFQ based on our responses.

> *5.1.1.61.2.* *Vendors must submit a plan describing their standard software testing and change management procedures including samples of prior user acceptance testing protocols used in prior implementations of similar size andscope.*

Tyler Testing Plan

A Quality Management / Testing Plan establishes processes and activities to ensure that project objectives outlined within the Implementation Management Plan are successfully implemented. The Quality Management / Testing Plan addresses both the project and the product, meaning that tests are conducted at appropriate times throughout the project and that they test different facets of the product as the future-state system evolves. The tests examine all of the implemented functions and processes to ensure that the goals and requirements for the project are fully satisfied.

Purpose

The Quality Management / Testing Plan defines and monitors critical milestones. Failure to meet critical milestones may negatively impact project timing, which could affect go-live. It also provides a controlled environment for high-level product testing, taking into account full product integration, import and export interface integrity, functional flow and reliability.

Methodology

Although potential problems can be exposed using standard quality assurance testing methods, the project teams also conduct testing throughout the life of the project to expose issues that would normally only be revealed in a production environment. A comprehensive testing plan is set in place and may include the following: system infrastructure audit, conversions, third-party data exchange, customization, form/reporting, configuration validation testing, and user acceptance testing. The Quality Management / Testing Plan will be mutually agreed upon prior to executing any of the tests.

Overview

System Infrastructure Audit

The foundation of the system is fully vetted to ensure that the system hardware meets specifications and vital system infrastructure information is available.

Conversion Validation and Testing

Conversion proofing is performed after each pass of converted data is loaded. Control reports, filtering techniques, comparison reports and visual inspection are all part of this process. The purpose is to

identify all issues with data, whether due to mapping inconsistencies, source data issues, data submission content or conversion programming errors. The goal is to have acceptance of conversion programming completed prior to the pre-live period so that final conversions have little or no risk of data or conversion programming issues. Final acceptance is necessary prior to live processing as the last step before data is loaded in the live database for live processing to begin.

Data Exchange Testing

Exchange testing involves the observation of inter-functionality and third-party data flow and effect. Throughout the implementation, special attention is paid to the exchange integrity of the system, which is validated via standard training, parallel testing and customization testing. Whether between Tyler applications or third-party exchanges, all aspects of functional integrity are tested thoroughly. Customization testing is performed to verify that contracted custom modifications delivered from Tyler work as specified in the approved product specifications.

System Design Validation

Testing ensures that the system has been built to conform to the design determined during the Assess and Design stage, and that it complies with the business process decisions you have made. The purpose of the test is to provide an opportunity for validation of business process decisions in the actual application. A key part of the test is to conduct a transaction test, during which typical business transactions, specific to a given area of configuration, are duplicated and validated.

Forms and Report Testing

Testing of your constituent-facing output — valuation notices, personal property returns/abstracts, bills, receipts, refund checks, etc. — is an essential component of the testing plan. Each constituent-facing form and report is validated using the data output created during the system design validation. This continues as a repeated and iterative process whereby testing occurs as your users validate processes, print these outputs as part of training sessions and perform User Acceptance Testing (UAT).

User Acceptance Testing (UAT)

The objective of UAT is to confirm that the system is ready for daily deployment and operational use. During UAT, your functional leads and power users are required to participate by testing the system's functionality, features and performance. Tyler guides you through this process by assisting in the establishment of a test plan and implementing routine communication protocols to ensure reported issues are prioritized and addressed based on established standards. Thorough end-to-end testing sets the tone for the success of the production cutover process, both in system readiness for live transactions and in user proficiency in the software tools prior to go-live.

The Benefits of Testing

Through this process, end-users gain extensive product experience, develop a high level of confidence in Tyler's products and understand their specific functions within the system. Expected benefits from the completion of these tests also include:

- The infrastructure of hardware and network design is thoroughly tested
- Customizations and exchanges are fully integrated into the product
- A managed issues list is fully quantified

Software Environments

Customizations, exchanges, conversions and other data and programmatic elements are tested in a non-production environment. This environment also serves as the UAT environment.

This environment provides the structure and supporting programs for user testing performed throughout the duration of the project. The desired result of the user testing process is functional goal acceptance achieved through managed issue identification, resolution and testing.

Measurement and Tracking

Once corrections have been delivered, your Project Manager and the Tyler Project Managers determine if repeat testing can continue from a stopped point or if it must be restarted.

Tyler requires a final sign-off prior to going live on any product. This sign-off document will outline the status of any remaining open issues related to the product, confirming the issue status and the associated priority code. Your project team and the Tyler project team will review all items and make a decision as to the ability to begin live processing. The sign-off will signify the end of the system test stage for the product. The decision to delay live processing should not be based on issues whose status is a priority 2 or 3, defined as follows:

- Priority 1 Critical Issue: Cannot proceed without correction
- Priority 2 High Issue: Can proceed but needs correction before go-live
- Priority 3 Medium Issue: Can proceed with live processing but fix needs to be delivered to comply with project goals
- Priority 4 Low Priority Issue: Can proceed with go-live, new desired functionality

Testing Conclusion

Clear communication, recordkeeping and analysis by your project team, Tyler Project Manager(s) and Tyler implementation teams are critical in order to move through the testing phase both successfully and in a timely manner. A member of these teams will need to identify the issues and then determine

what type of issue resolution is necessary. Most issues can be categorized as they relate to the following:

- Product design or setup
- Best practice re-engineering
- Change in scope
- Software modification requests

Issue tracking, resolution accountability, timely testing and completed issue resolution are absolutely necessary in a successfully completed project. The testing phase is a shared responsibility and must be recognized as such.

Organizational Change Management

Public sector organizations of all sizes find it challenging to adopt new approaches and processes even when given the opportunity to do so through the implementation of a new software system. To realize the benefits our software can provide to our clients, it is necessary to adopt business practices and approaches that leverage the features and tools provided by Tyler. It is only through enterprise-wide adoption of new technology, processes and business practices, that the biggest improvements to key areas such as efficiency, data access and cost savings are realized as an organization. Organizational change management practices and principals are designed to help our clients through the change process, achieving a higher level of adoption and reaping the benefits of changes required by the implementation of a new software system.

Tyler's Project Managers assist during the implementation process with the human side of change. Effective communication is one of the core components of change management: identifying who to communicate with, the proper communication methods and determining the timing, tone and content of the messaging. A communication plan encompassing these critical decisions will be updated during the planning stage of the project by both project teams. Tyler believes that for your project to be successful, change management must be sponsored from top down in your organization, because it requires a high level of adoption of desired changes. In addition, leveraging our extensive past experience, our project team will do everything possible to advise you in this process throughout implementation.

As a company, we embrace the following principles and we assist our clients in their efforts to achieve these principles.

- Start to Finish: Change management must begin early on, and extend through and beyond the transition to the new system. Creating ownership early on is absolutely essential to a successful implementation.

- Integrated and Holistic Approach: Change management strategies must be integrated into overall project management and not treated as a separate and distinct effort. Additionally, since most agencies are experiencing multiple changes at any given time during the project, change strategies and efforts should be managed in a holistic way.
- Collaborate and Leverage Strengths, Experience: Working collaboratively ensures that the implementation process leverages internal capabilities, organizational knowledge and relationships. Moreover, collaboration and engagement are essential to building support, establishing ownership and gaining buy-in from all affected users.
- Engage and Rely Upon Key Stakeholders: Identifying and empowering representatives from primary stakeholder groups is fundamental to an effective change program, allowing the project team to obtain critical feedback on your needs and change acceptance at key milestones.
- Build on Established Change Methodology: Tyler helps you build on your established change methodology, if and where it exists, advising you on practices we have seen as effective in other projects similar to yours. Our intent is to supplement and strengthen it where possible.
- Create Frameworks and Build Capability: The most successful projects are those that build lasting capability within the organization, allowing internal resources to support and engender lasting change.

> *5.1.1.61.3. Vendor will be required to provide training as outlined below to train all county and state staff end users and back end administrators, both program and Information Technology staff.*

Tyler has included the necessary training based on the assumptions in the State's CRFQ.

> *5.1.1.61.3.1. **Methodology** Vendor should bid to account for a regional training model dividing the state into regions based upon the West Virginia Division of Highways regional delineations found here: https://transportation.wv.gov/highways/distri ct s/Pages/default.aspx These trainings should have no more than thirty (30) individuals in a cohort for training purposes. Multiple cohorts may be required in each region. Vendor should provide length of time required to complete training of end users from each county. Generally, we expect this training to run for approximately five (5) days, starting on Monday at noon and running through Friday at noon to allow for travel time to the destination training facility. Vendor*

> *must provide a list of technology resource required for these trainings. The Tax Department will facilitate securing the space required to host the training. The Vendor is permitted to propose a model requiring less time should they believe that is feasible.*

Sufficient training based on this approach is included.

> ***5.1.1.61.3.2.*** *A hybrid model that allows for web-based training with multiple users engaged to be combined with some number of in person trainings. This would be considered a true, "train the trainer" model.*

Web-based train-the-trainer sessions are also included in the base proposal.

5.1.1.62. Software Ownership

> ***5.1.1.62.1.*** *The Vendor will retain ownership of all application source code.*
>
> ***5.1.1.62.2.*** *While the State will not own the application source code it must be granted the ability to view and request updates to the Vendor's system. The vendor must provide Application Program Interfaces (API) and Software Developer Kits (SKD) to allow the State to affect changes to the system as is required to meet future law, rule, or policy modifications, or, for the purposes of modifying processing parameters to meet system processing demands.*

State users will be trained on how to manage configurations within the system as well as the standard APIs that are available with the application.

> ***5.1.1.62.3.*** *The State wholly and solely owns all data contained in the system. The vendor, upon termination of any contract that results from this RFQ, must provide tools and support to extract said data in a format dictated by the State for the purposes of conversion to any future system utilized by the State.*

Tyler agrees to provide all data to the State at the end of any resulting contract.

5.1.1.63. Performance Measures

After the contract is awarded The Vendor shall outline what performance measures, they use to evaluate their system regarding system response and production support response times.

Under an IaaS model much of the performance measures and standards would apply to your hosting vendor. We agree to work with the State and its selected vendor on these measures.

5.1.1.64. Project Management

The Tax Department may increase its staff in consequence of the undertakings described in the RFQ. However, Tax intends to rely on day- to-day administration of the contract through the project manager (PM), through whom the vendor will report. Ultimate authority, of course, will lie with the State. The State will assign an IT executive sponsor, a project manager who will coordinate the IT activities of the project with other State IT initiatives and be responsible for all IT technical decisions and IT aspects of the project.

Tyler will assign a project manager to this effort. The Tyler PM will work with the State assigned Project Manager.

5.1.1.64.1. *Within four (4) weeks after the award of the contract the Vendor must have a formal project management methodology, entailing time and resource management using such techniques as Gantt charts, resource planning, leveling, and deployment critical path management, and the like, embedded in a standard PC-based software package to be provided to the State.*

Tyler can meet the requested timeline for establishing a formal project management methodology. For project collaboration, we will provide a Microsoft SharePoint site.

5.1.1.65. Quality Assurance

Once the contract is awarded the Vendor must describe their quality assurance programs to the department contact for the Agency within 4 weeks.

Tyler can meet this requirement.

5.1.1.66. Testing System

The vendor must establish and maintain a test system in order to test changes to system reports, forms/screens, components and or processes prior to implementation within the production environment. Change requests may also require direct updates to data and the test system needs to be available for testing data changes prior to implementation within the production environment. The test system should contain production data that is updated at least twice-a-month. The test system must encompass all system functionality including, but not limited to, any web-based functionality in place for electronic filing, etc. The test system must be available to State Tax Department users and the State IT staff for performing and testing any change request prior to a production implementation. The testing procedures must be outlined by the vendor. The State Tax Department users and the State IT staff must be trained on the procedures for testing and for final implementation of a change into the production system.

Tyler will provide a test site.

5.1.1.67. Major Non-Monetary Resource Requirements

5.1.1.67.1. *No later than two (2) weeks after the award of the contract the awarded Vendor must indicate their non-monetary resource requirements, such as work space, access to selected State and county personnel, etc.,*

Tyler can provide the non-monetary requirements within two weeks after the execution of the contract with the State.

Person-hour scheduling and reaction time requirements for responsible personnel from the counties, State, Property Tax and the PM relating to the detailed design, specification, and acceptance testing of the software.

Similar to our response in section 5.1.1.67.1 above, Tyler will provide to the State the anticipated personnel needs from the State and Counties within two weeks of contract execution.

5.1.1.68. Assessment Administration

5.1.1.68.1. *Should have the ability to link proper tax class and accompanying tax rates to each account. For a description of tax classes, **see Appendix "B".***

Yes, Tyler complies with this requirement.

> **5.1.1.68.2.** *Should have the ability to calculate and maintain back tax amounts at correct tax class and rate for 5 previous years.*

Yes, Tyler complies with this requirement.

> **5.1.1.68.3.** *Should have the ability to establish a fractional assessed value at a percentage of appraised value. Currently 60% is to be used.*

Yes, Tyler complies with this requirement.

> **5.1.1.68.4.** *Should have the ability to split values because of multiple owners for an individual account, double assessments for an individual account, and multiple tax classes for an individual account.*

Yes, Tyler complies with this requirement.

> **5.1.1.68.5.** *Should have the ability to give each county sheriff computer readable data for generation of tax tickets and statements.*

Yes, Tyler complies with this requirement.

> **5.1.1.68.6.** *Should have the ability to maintain penalty and forfeiture information or allow the information to be inputted manually or by and interface program.*

iasWorld does allow for penalty and forfeiture information to be stored within the system. Since the taxes are currently collected outside of the state system, the expectation is that this information would be inputted manually or potentially by an interface program. Further information and research may be required during the project implementation.

> **5.1.1.68.7.** *Should have the ability to send "increase" letters to taxpayers based on selecting a percent increase from the previous tax year.*

Yes, Tyler complies with this requirement.

> **5.1.1.68.8.** *Should have the ability to handle foreign addresses.*

Yes, Tyler complies with this requirement.

> **5.1.1.68.9.** *Must have the ability to add barcodes to letters and reports to the sides of letters. Currently 2 of 5 interleaved barcodes are utilized by our printshop.*

Yes, Tyler complies with this requirement.

> **5.1.1.68.10.** *Should have the ability to track real property parcels and personal property accounts and items which are included in a Tax Increment Financing (TIF) District.*

Yes, Tyler complies with this requirement.

> **5.1.1.68.11.** *Should have the ability to maintain base year, assessed value, current assessed value and assessed value differences for those real property parcels and personal property accounts and items which are part of a TIF District.*

Yes, Tyler complies with this requirement.

5.1.2. Commodity Line 2 - System Support

> **5.1.2.1.** *The Vendor must provide initial support for the system for year one (1) beyond sign-off upon successful completion of system testing at Tax and in all counties, whichever is later. At the end of year one (1), year two (2) will be initiated by Change Order.*

Tyler will provide the necessary support and hosting services for a minimum of three years beyond the completion of system testing and the deployment in all counties. Tyler has provided pricing on the price sheets for the initial 3 year term of implementation and five years of hosting and support for a total 8 year term.

> **5.1.2.2.** *The Vendor must also include in their bid the cost of System Support optional Annual renewals for years 3, 4, and 5. These optional Annual renewals will be initiated by the Agency, agreed to by the Vendor and processed as a Change Order authorized by the West Virginia Purchasing Division.*

Tyler is prepared to provide support and hosting beyond the initial support period. Tyler's maintenance program provides significant value to our clients through future enhancements and releases of new functionality. Tyler does not have any plans to not support the proposed system.

> **5.1.2.3.** *Upon termination of this Agreement for any reason, the Vendor will provide to the State a complete copy of the data in a format required by the Department and agreed to by the Vendor, and the code set for those modules they have purchased. The copy of the data will be sent to the State along with a Letter of Transmittal that includes a signoff by the Director of Information Technology or their assignee, that the State approves the data received. The Vendor can also assist the State at the State's request in loading this data and code set on State supplied hardware at the Vendor's then prevailing Time and Material rates. Additionally, the Vendor will provide access to the data by the Department for thirty (30) days after the date of termination and shall retain a copy of the data for ninety (90) days after the date of termination.*

Tyler will provide the State with the State data in the event of termination or non-renewal of the support and hosting agreement, along with the software that has been licensed and purchased by the State. Tyler can agree to provide transition services that the then current Time and Materials Rates. Tyler would like to discuss the scope of the request to access the application for up to thirty days after termination as there may be costs associated with that access for the State.

5.1.3 Customization of the System

5.1.3.1 *All customization of software required to meet the requirements of the Solicitation and the Agency, and to achieve Acceptance, shall be included in the Base bid.*

Tyler complies with this requirement.

5.1.3.2 *Customization hours from the Vendor to be used by the Agency for making minor customizations at the hourly rate as listed on the Pricing Pages.*

Tyler complies with this requirement.

5.1.3.3 *Should customization require hours from the Vendor, the Vendor shall be required to create a scope of work and a signed, dated quote for the actual cost of the work (with hours billed per the Unit Price on the Pricing Pages provided in wvOASIS, to be processed as a Change Order request for increasing the Contract amount. Note: only upon approval by the State Purchasing Division and the WV Attorney General's Office (as to form only) shall any work be undertaken on such a customization request. This scope of work should also include a timeline for deliverables, and notification of any potential downtime (including estimated dates and times of occurrence and duration) required for its implementation.*

Tyler will comply with this requirement.

5.1.3.4 *All (post-Acceptance) customization requiring hours from the Vendor shall include all installation, testing and post-installation defect correction.*

Tyler will comply with this requirement.

Recommended Hosted Server Configuration

The following are Tyler's recommendations for hardware requirements in an IaaS installation.

Networking Protocol – TCP/IP

Port 80/443 - Requires a server Certificate (SSL Certificate)

Oracle RDBMS: Oracle 19c Enterprise Edition with:

- Oracle Partitioning
- Oracle Advanced Security
- Oracle Transparent Data Encryption (TDE)

*Note – Oracle Real Application Clusters (RAC) can be implemented, if High Availability (HA) is required.

Production Environment

iasWorld

Table 1: iasWorld Web/Application Server – Presentation Tier (Enterprise / Internal) -

Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	8 GB RAM	73 GB hard drive SSD drives	RAID 1 optional
Optimal:	Dual Xeon 2.5 GHz 10 - Core	16 GB RAM	73 GB hard drive SSD drives	RAID 1 optional
Operating System	Windows 2016 Server			
Typical System	Dell PowerEdge R740 Rack Mount server			
Software	iasWorld software Oracle Client software Microsoft Internet Information Services (IIS)		Requires iasWorld Site License and relevant iasWorld application licenses. Requires a server Certificate (SSL Certificate)	
Responsibilities	Enterprise/Intranet web site.		Main enterprise web site running all iasWorld applications, connections with Property Tax Engine database server and other server interfaces. This server can also be used to host the TEST environment.	
Number of Servers	2			

Table 2: iasWorld Oracle Database Server (Enterprise / Internal)

Hardware Min:	Dual Xeon 3.8 GHz 4 - Core	192 GB RAM	3 TB hard drive (usable space) - RAID10
Optimal:	Quad Xeon 2.5 GHz 10 - Core	256 GB RAM	4 TB hard drive (usable space) – RAID10 SSD drives
Operating System	Windows 2016 Server / Linux		
Software	Oracle 19c Enterprise Edition with Oracle Partitioning Oracle Advanced Secuity Oracle Transparent Data Encryption (TDE)		
Typical System	Dell PowerEdge R940 Rack Mount server		
Responsibilities	Property Tax Engine database instances	Property Tax Engine database production.	
	iasWorld application configuration & Property Tax Engine production database instances.	Houses all production web site configuration parameters and the master Property Tax Engine database	
Number of Servers	1		

Table 3: iasWorld Reports Server (Enterprise / Internal)

Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	8 GB RAM	500 GB hard drive (usable space) SSD drives	RAID 1 optional
Optimal:	Dual Xeon 2.5 GHz 10 - Core	16 GB RAM	600 GB hard drive(usable space) SSD drives	RAID 1 optional
Operating System	Windows 2016 Server			
Software	Dell PowerEdge R740 Rack Mount server			
Typical System	Oracle Client Software, Oracle Forms and Reports Services and iasWorld Report software. Microsoft Internet Information Services (IIS)			
Responsibilities	Property Tax Engine Reports Server	Property Tax Engine Report generation. This server will also server as the image repository for Production and Test enviornments.		
Number of Servers	1			

Tyler Workflow

Table 4: Tyler Workflow Web Server

Hardware	Min:	Dual Xeon 3.6 GHz 8 - Core	4 GB RAM	73 GB hard drive. SSD drives	RAID 1 optional
	Optimal:	Dual Xeon 2.5 GHz 10 - Core	8 GB RAM	146 GB hard drive. SSD drives	RAID 1 optional
Operating System		Windows 2016 Server			
Typical System		Dell PowerEdge R740 Rack Mount server			
Software		iasWorld software Oracle Client software Microsoft Internet Information Services (IIS)		Requires a server Certificate (SSL Certificate)	
Responsibilities		Tyler Workflow Web/Application Server.			
Number of Servers		1			

Table 5: Tyler Workflow SQL Server – (Enterprise / Internal)

Hardware	Min:	Dual Xeon 3.6 GHz 8 - Core	4 GB RAM	73 GB hard drive SSD drives	RAID 1 optional
	Optimal:	Dual Xeon 2.5 GHz 10 - Core	8 GB RAM	146 GB hard drive SSD drives	RAID 1 optional
Operating System		Windows 2016 Server			
Typical System		Dell PowerEdge R740 Rack Mount server			
Software		MS SQL Server Standard or Enterprise Edition. SQL Server 2016 Tyler Workflow			
Responsibilities		Required for Workflow Persistence and Monitoring database.		The SQL Server database can exist on an existing sql server installation with minimal impact.	
Number of Servers		1			

SmartFile

Table 6: SmartFile Web/Application Server

Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	4 GB RAM	73 GB hard drive. SSD drives	RAID 1 optional
Optimal:	Dual Xeon 2.5 GHz 10 - Core	8 GB RAM	73 GB hard drive. SSD drives	RAID 1 optional
Operating System	Windows 2016 Server			
Typical System	Dell PowerEdge R740 Rack Mount server server			
Software	iasWorld software Oracle Client software Microsoft Internet Information Services (IIS)		Requires a server Certificate (SSL Certificate)	
Responsibilities	Smartfile Public Web site			
Number of Servers	2			

Table 7: SmartFile - Oracle Database Server

Hardware Min:	Dual Xeon 3.6 GHz 8 – Core	16 GB RAM	200 GB hard drive (usable space) - RAID10 SSD drives
Optimal:	Dual Xeon 2.5 GHz 10 - Core	32 GB RAM	300 GB hard drive (usable space) – RAID10 SSD drives
Operating System	Windows 2016 Server / Linux		
Typical System	Oracle 19c Standard or Enterprise Edition		
Software	Dell PowerEdge R740 Rack Mount server		
Responsibilities	Smartfile Database		
Number of Servers	1		

Public Access

Table 8: Public Access Web Server

Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	8 GB RAM	73 GB hard drive. SSD drives	RAID 1 optional
Optimal:	Dual Xeon 2.5 GHz 10 - Core	16 GB RAM	73 GB hard drive. SSD drives	RAID 1 optional
Operating System	Windows 2016 Server			
Typical System	Dell PowerEdge R740 Rack Mount server			
Software	iasWorld software Oracle Client software Microsoft Internet Information Services (IIS)	Requires a server Certificate (SSL Certificate)		
Responsibilities	Public Access Web site			
Number of Servers	1			

Table 9: Public Access - Oracle Database Server

Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	16 GB RAM	500 GB hard drive (usable space) - RAID10 SSD drives
Optimal:	Dual Xeon 2.5 GHz 10 - Core	32 GB RAM	1TB hard drive (usable space) – RAID10 SSD drives
Operating System	Windows 2016 Server / Linux		
Typical System	Oracle 19c Standard or Enterprise Edition	Space is dependent on how much data State wants to make accessible on the web site.	
Software	Dell PowerEdge R740 Rack Mount server server		
Responsibilities	Public Access Database		
Number of Servers	1		

Test Environment

Networking Protocol – TCP/IP

Port 80/443 - Requires a server Certificate (SSL Certificate)

Oracle RDBMS, Oracle 19c Enterprise Edition with:

- Oracle Partitioning
- Oracle Advanced Secuity
- Oracle Transparent Data Encryption (TDE)

iasWorld

Table 10: iasWorld Web Server – Presentation Tier (Enterprise / Internal)

Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	8 GB RAM	73 GB hard drive SAS drives (15k RPM)	RAID 1 optional
Optimal:	Dual Xeon 2.5 GHz 10 - Core	16 GB RAM	73 GB hard drive SAS drives (15k RPM)	RAID 1 optional
Operating System	Windows 2016 Server			
Typical System	Dell PowerEdge R740 Rack Mount server			
Software	iasWorld software Oracle Client software Microsoft Internet Information Services (IIS)		Requires iasWorld Site License and relevant iasWorld application licenses. Requires a server Certificate (SSL Certificate)	
Responsibilities	Enterprise/Intranet web site.		Main enterprise web site running all iasWorld applications, connections with Property Tax Engine database server and other server interfaces. This server can also be used to host the TEST environment.	

Table 11: iasWorld Oracle Database Server (Enterprise / Internal)

Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	128 GB RAM	3 TB hard drive (usable space) (15k RPM drives) - RAID10
Optimal:	Dual Xeon 2.5 GHz 10 - Core	192 GB RAM	4 TB hard drive (usable space) (15k RPM drives) – RAID10
Operating System	Windows 2016 Server / Linux		
Software	Oracle 19c Enterprise Edition with Oracle Partitioning Oracle Advanced Secuity Oracle Transparent Data Encryption (TDE)		
Typical System	Dell PowerEdge R740 Rack Mount server		
Responsibilities	Property Tax Engine database instances	Property Tax Engine database production.	
	iasWorld application configuration & Property Tax Engine production database instances.	Houses all production web site configuration parameters and the master Property Tax Engine database	

Table 12: iasWorld Reports Server (Enterprise / Internal)

Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	4 GB RAM	500 GB hard drive (usable space) (15k RPM drives)	RAID 1 optional
Optimal:	Dual Xeon 2.5 GHz 10 - Core	8 GB RAM	600 GB hard drive(usable space) (15k RPM drives)	RAID 1 optional
Operating System	Windows 2016 Server			
Typical System	Dell PowerEdge R740 Rack Mount server			
Software	Oracle Client Software, Oracle Forms and Reports Services and iasWorld Report software. Microsoft Internet Information Services (IIS)			
Responsibilities	Property Tax Engine Reports Server	Property Tax Engine Report generation. This server will also server as the image repository for Production and Test enviornments.		

Tyler Workflow

Table 13: Tyler Workflow Web Server

Hardware Min:	Single Xeon 3.6 GHz 8 - Core	4 GB RAM	73 GB hard drive. (15k RPM drives)	RAID 1 optional
Optimal:	Dual Xeon 2.5 GHz 10 - Core	8 GB RAM	146 GB hard drive. (15k RPM drives)	RAID 1 optional
Operating System	Windows 2016 Server			
Typical System	Dell PowerEdge R740 Rack Mount server			
Software	iasWorld software Oracle Client software Microsoft Internet Information Services (IIS)		Requires a server Certificate (SSL Certificate)	
Responsibilities	Tyler Workflow Web/Application Server.			

Table 14: Tyler Workflow SQL Server – (Enterprise / Internal)

Hardware Min:	Single Xeon 3.6 GHz 8 - Core	4 GB RAM	73 GB hard drive (15k RPM drives)	RAID 1 optional
Optimal:	Dual Xeon 3.6 GHz 8 - Core	8 GB RAM	146 GB hard drive (15k RPM drives)	RAID 1 optional
Operating System	Windows 2016 Server			
Typical System	Dell PowerEdge R740 Rack Mount server			
Software	MS SQL Server Standard or Enterprise Edition. SQL Server 2016 Tyler Workflow			
Responsibilities	Required for Workflow Persistence and Monitoring database.		The SQL Server database can exist on an existing sql server installation with minimal impact.	

SmartFile

Table 15: SmartFile Web Server

Hardware Min:	Single Xeon 3.6 GHz 8 - Core	4 GB RAM	73 GB hard drive. (15k RPM drives)	RAID 1 optional
Optimal:	Dual Xeon 3.6 GHz 8 - Core	8 GB RAM	73 GB hard drive. (15k RPM drives)	RAID 1 optional
Operating System	Windows 2016 Server			
Typical System	Dell PowerEdge R740 Rack Mount server			
Software	iasWorld software Oracle Client software Microsoft Internet Information Services (IIS)	Requires a server Certificate (SSL Certificate)		
Responsibilities	Smartfile Public Web site			

Table 16: SmartFile - Oracle Database Server

Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	16 GB RAM	200 GB hard drive (usable space) - RAID10 (15k RPM drives)
Optimal:	Dual Xeon 2.5 GHz 10 - Core	32 GB RAM	300 GB hard drive (usable space) – RAID10 (15k RPM drives)
Operating System	Windows 2016 Server / Linux		
Typical System	Oracle 19c Standard or Enterprise Edition		
Software	Dell PowerEdge R740 Rack Mount server		
Responsibilities	Smartfile Database		

Public Access

Table 17: Public Access Web Server

Hardware Min:	Single Xeon 3.6 GHz 8 - Core	4 GB RAM	73 GB hard drive. (15k RPM drives)	RAID 1 optional
Optimal:	Dual Xeon 3.6 GHz 8 - Core	8 GB RAM	73 GB hard drive. (15k RPM drives)	RAID 1 optional
Operating System	Windows 2016 Server			
Typical System	Dell PowerEdge R740 Rack Mount server			
Software	iasWorld software Oracle Client software Microsoft Internet Information Services (IIS)		Requires a server Certificate (SSL Certificate)	
Responsibilities	Public Access Web site			

Table 18: Public Access - Oracle Database Server

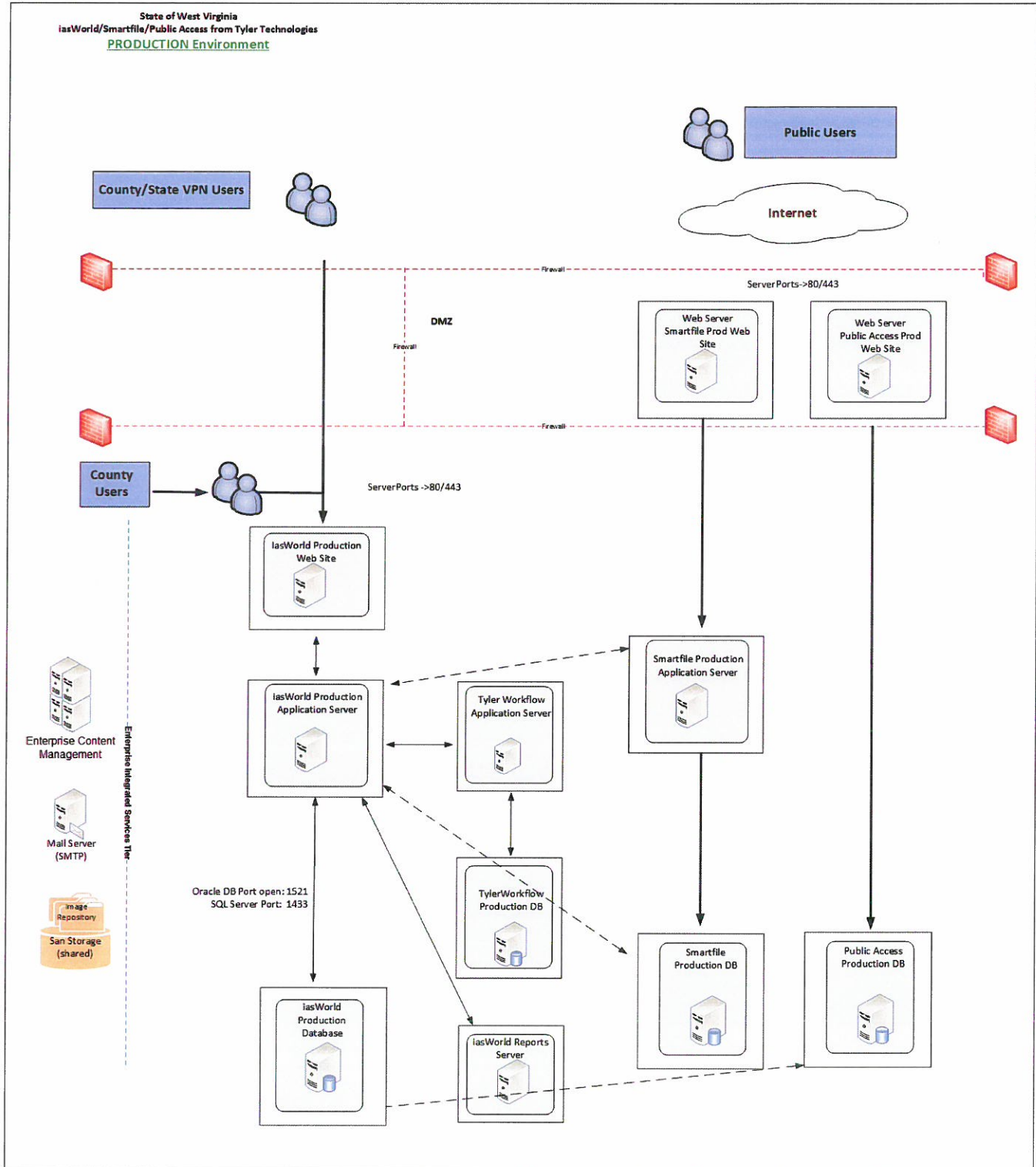| Hardware Min:	Dual Xeon 3.6 GHz 8 - Core	16 GB RAM	500 GB hard drive (usable space) - RAID10 (15k RPM drives)
Optimal:	Dual Xeon 2.5 GHz 10 - Core	32 GB RAM	1TB hard drive (usable space) – RAID10 (15k RPM drives)
Operating System	Windows 2016 Server / Linux		
Typical System	Oracle 19c Standard or Enterprise Edition	Space is dependent on how much data State wants to make accessible on the web site.	
Software	Dell PowerEdge R740 Rack Mount server.		
Responsibilities	Public Access Database		

State of West Virginia
iasWorld/Smartfile/Public Access from Tyler Technologies
PRODUCTION Environment

Public Users

County/State VPN Users

Internet

Firewall

ServerPorts->80/443

DMZ

Firewall

Web Server
Smartfile Prod Web Site

Web Server
Public Access Prod Web Site

Firewall

County Users

ServerPorts ->80/443

IasWorld Production Web Site

Enterprise Content Management

Mail Server (SMTP)

Image Repository

San Storage (shared)

Enterprise Integrated Services Tier

IasWorld Production Application Server

Tyler Workflow Application Server

Smartfile Production Application Server

Oracle DB Port open: 1521
SQL Server Port: 1433

TylerWorkflow Production DB

iasWorld Production Database

iasWorld Reports Server

Smartfile Production DB

Public Access Production DB

Figure 1: Recommended Server Configuration for iasWorld IaaS Implementation

Contract Manager

12.1 During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager:	Jeff Henderson, Implementation Manager
Telephone Number:	210.238.3669
Fax Number:	866.658.4258
Email Address:	Jeff.Henderson@tylertech.com

Pricing

Tyler's completed pricing pages are attached.

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

State of West Virginia
Request for Quotation
21 — **Info Technology**

Proc Folder: 613105

Doc Description: Addendum No.2 Valuation and Assessment Administration System

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No		Version
2019-09-05	2019-09-12 13:30:00	CRFQ	0702 TAX2000000003	3

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON   WV   25305
US

VENDOR

Vendor Name, Address and Telephone Number:

Tyler Technologies, Inc.
One Tyler Way
Moraine, OH 45439
800.800.2581

FOR INFORMATION CONTACT THE BUYER

Brittany E Ingraham
(304) 558-2157
brittany.e.ingraham@wv.gov

Signature X _(signature)_   FEIN #   75-2303920   DATE September 11, 2019

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

Addendum

ndum No.2 issued to publish and distribute the attached information to the vendor community.

****

Request for Quotation

The West Virginia Purchasing Division is soliciting bids on behalf of the WV State Tax Department to establish a fixed term contract for a valuation and assessment administration system for the 55 county assessors and for the West Virginia State Tax Department, Property Tax Division, per the bid requirements, specifications, terms, and conditions attached to this solicitation.

The total projected maximum concurrent users is approximately eight hundred-fifty (850) staff inclusive of all fifty-five (55) counties and state staff.

INVOICE TO	SHIP TO
OPERATIONS DIVISION	PROPERTY TAX DIVISION
TAX DIVISION OF	TAX DIVISION OF
PO BOX 11748	ALBERT T SUMMERS CENTER
	1124 SMITH ST
CHARLESTON WV 25339-1748	CHARLESTON WV 25301
US	US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Commodity Line 1 - Systems Integration Design	1.00000	LS	$6,091,600.00	$6,091,600.00

Comm Code	Manufacturer	Specification	Model #
81111503			

Extended Description :

System Integration Design as described in section 5.1.1 of the attached specifications.

INVOICE TO	SHIP TO
OPERATIONS DIVISION	PROPERTY TAX DIVISION
TAX DIVISION OF	TAX DIVISION OF
PO BOX 11748	ALBERT T SUMMERS CENTER
	1124 SMITH ST
CHARLESTON WV 25339-1748	CHARLESTON WV 25301
US	US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Commodity Line 2 - System Support year 1	1.00000	YR	$714,735.00	$714,735.00

Comm Code	Manufacturer	Specification	Model #
81111805			

Extended Description :

System Support as described in section 5.1.2 of the attached specifications.

INVOICE TO		SHIP TO	
OPERATIONS DIVISION		PROPERTY TAX DIVISION	
TAX DIVISION OF		TAX DIVISION OF	
3OX 11748		ALBERT T SUMMERS CENTER	
		1124 SMITH ST	
CHARLESTON	WV 25339-1748	CHARLESTON	WV 25301
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	System Support year 2	1.00000	YR	$714,735.00	$714,735.00

Comm Code	Manufacturer	Specification	Model #
81111805			

Extended Description :
System Support as described in section 5.1.2 of the attached specifications.

INVOICE TO		SHIP TO	
OPERATIONS DIVISION		PROPERTY TAX DIVISION	
TAX DIVISION OF		TAX DIVISION OF	
PO BOX 11748		ALBERT T SUMMERS CENTER	
		1124 SMITH ST	
CHARLESTON	WV 25339-1748	CHARLESTON	WV 25301
		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	System Support year 3	1.00000	YR	$714,735.00	$714,735.00

Comm Code	Manufacturer	Specification	Model #
81111805			

Extended Description :
System Support as described in section 5.1.2 of the attached specifications.

INVOICE TO		SHIP TO	
OPERATIONS DIVISION		PROPERTY TAX DIVISION	
TAX DIVISION OF		TAX DIVISION OF	
PO BOX 11748		ALBERT T SUMMERS CENTER	
		1124 SMITH ST	
CHARLESTON	WV 25339-1748	CHARLESTON	WV 25301
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	System Support year 4	1.00000	YR	$714,735.00	$714,735.00

Comm Code	Manufacturer	Specification	Model #
81111805			

Extended Description :

System Support as described in section 5.1.2 of the attached specifications.

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON WV 25339-1748 US	PROPERTY TAX DIVISION TAX DIVISION OF ALBERT T SUMMERS CENTER 1124 SMITH ST CHARLESTON WV 25301 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	System Support year 5	1.00000	YR	$714,735.00	$714,735.00

Comm Code	Manufacturer	Specification	Model #
81111805			

Extended Description :

System Support as described in section 5.1.2 of the attached specifications.

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF BOX 11748 CHARLESTON WV 25339-1748 US	PROPERTY TAX DIVISION TAX DIVISION OF ALBERT T SUMMERS CENTER 1124 SMITH ST CHARLESTON WV 25301 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
12	Customization of the System Software	1000.00000	HOUR	$115.00	$115,000.00

Comm Code	Manufacturer	Specification	Model #
43230000			

Extended Description :

Customization of the System Software as described in section 5.1.3 of the attached specifications.

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

Required Forms

The signed forms required by the CRFQ are attached.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFQ TAX20*03

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

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

Addendum Numbers Received:
(Check the box next to each addendum received)
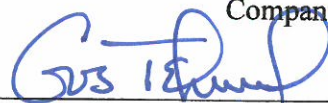
[✓] Addendum No. 1	[ ] Addendum No. 6
[✓] Addendum No. 2	[ ] Addendum No. 7
[ ] Addendum No. 3	[ ] Addendum No. 8
[ ] Addendum No. 4	[ ] Addendum No. 9
[ ] Addendum No. 5	[ ] Addendum No. 10

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

Tyler Technologies, Inc.
_____
Company

_____
Authorized Signature

September 10, 2019
_____
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

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

Gus Tenhundfeld, Inside Sales Manager
_____
(Name, Title)

Gus Tenhundfeld, Inside Sales Manager
_____
(Printed Name and Title)

One Tyler Way, Moraine, OH 45439
_____
(Address)

800.800.2581 ext. 1924 / 866.658.4258 Fax
_____
(Phone Number) / (Fax Number)

gus.tenhundfeld@tylertech.com
_____
(email address)

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

Tyler Technologies, Inc.
_____
(Company)

_____
(Authorized Signature) (Representative Name, Title)

Gus Tenhundfeld, Inside Sales Manager
_____
(Printed Name and Title of Authorized Representative)

September 10, 2019
_____
(Date)

800.800.2581 Ext. 1924 / 866.658.4258 Fax
_____
(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: **(1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.**

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: _____Tyler Technologies, Inc._____

Authorized Signature: _____ Date: __September 6, 2019___

State of ____OHIO_____

County of ___MONTGOMERY____, to-wit:

Taken, subscribed, and sworn to before me this 6th day of ___September_____, 20 19.

My Commission expires _____Feb. 25_____, 20 22.

AFFIX SEAL HERE   KAREN A JACKSON, Notary Public NOTARY PUBLIC _____
In and for the State of Ohio
My Commission Expires Feb. 25, 2022

Purchasing Affidavit (Revised 01/19/2018)

West Virginia Ethics Commission

Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of $1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

"Interested party" or *"Interested parties"* means:

(1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
(2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
(3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts
(Required by *W. Va. Code* § 6D-1-2)

Name of Contracting Business Entity: Tyler Technologies, Inc. **Address:** One Tyler Way

Moraine, Ohio 45439

Name of Authorized Agent: Gus Tenhundfeld **Address:** One Tyler Way, Moraine, OH 45439

Contract Number: CRFQ 0702 TAX2000000003 **Contract Description:** Valuation and Assessment Admin System

Governmental agency awarding contract: Property Tax Division

☐ **Check here if this is a Supplemental Disclosure**

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (*attach additional pages if necessary*):

1. **Subcontractors or other entities performing work or service under the Contract**
   ☑ Check here if none, otherwise list entity/individual names below.

2. **Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)**
   ☑ Check here if none, otherwise list entity/individual names below.

   Tyler is a publicly traded company.

3. **Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)**
   ☑ Check here if none, otherwise list entity/individual names below.

Signature: _____ Date Signed: September 6, 2019

Notary Verification

State of ____OHIO____ , County of ____MONTGOMERY____ :

I, ____Gus Tenhundfeld____ , the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this ___6th___ day of ___September___ , 2019 .

_____
Notary Public's Signature

To be completed by State Agency:
Date Received by State Agency: _____
Date submitted to Ethics Commission: _____
Governmental agency submitting Disclosure: _____

KAREN A JACKSON, Notary Public
In and for the State of Ohio
My Commission Expires Feb. 25, 2022

Revised June 8, 2018

Exceptions and Clarifications

Tyler expects to use the standard Tyler contract as the basis for beginning contract negotiations, as it contains language specific to the software industry, such as license grant and intellectual property infringement. Tyler recognizes that there may be clauses of particular importance to the Client that may not be included in the Tyler contract. Tyler is amenable to accommodating the Client's contract requests by incorporating mutually agreed clauses into the Tyler contract. Tyler is also agreeable to incorporating certain provisions of the Request for Quotation and proposal into the final contract, provided, however, that the order of precedence shall be 1) the contract, 2) the proposal, and 3) the Request for Quotation. *Tyler reserves the right to negotiate any and all terms to the mutual satisfaction of the parties.*

Request for Quotation: Tyler takes a general exception to the Request for Quotation regarding language stating a bid signifies agreement to be bound to the terms and conditions, specifications, and/or bid requirements. Tyler agrees to comply with the terms and conditions, bid requirements, and specifications set forth in the Request for Quotation, unless otherwise stated in Tyler's Proposal.

Request for Quotation: Tyler provides Client with a perpetual license grant and maintenance and support terms are provided on an annual basis. Tyler reserves the right to negotiate a mutually agreeable term.

Instructions to Vendors Submitting Bids, Section 11; General Terms and Conditions, Section 26: As noted above, Tyler expects to use the standard Tyler contract as the basis for beginning contract negotiations, as it contains language specific to the software industry. Tyler is amenable to accommodating the Client's contract requests by incorporating mutually agreed clauses into the Tyler contract. Tyler is also agreeable to incorporating certain provisions of the Request for Quotation and proposal into the final contract, provided, however, that the order of precedence shall be 1) the contract, 2) the proposal, and 3) the Request for Quotation.

General Terms and Conditions, Section 3; Specifications, Section 5.1.2.1: Provided the Client pays annual maintenance fees on the Tyler software, Tyler will provide maintenance and support services on the Tyler software for at least five years from contract signing.

The initial term for maintenance and support commences on the project initiation date and is provided on an annual basis.

General Terms and Conditions, Section 3 **and** Section 4; Specifications, Section 5.1.1.1 **and** Section 7: Tyler's Proposal includes a sample project plan. Tyler will deliver the actual project plan upon obtaining further information from the Client. Tyler will begin work on the project in accordance with the project plan.

General Terms and Conditions, Section 3 **and** Section 28: Tyler warrants that it will perform services in a professional, workmanlike manner, consistent with industry standards. In the event Tyler provides services that do not conform to this warranty, Tyler will re-perform the services at no additional cost to the Client.

For as long as the Client has a current maintenance agreement in place, Tyler warrants that the Tyler software will substantially conform to the functional descriptions of the Tyler software contained in Tyler's Proposal, or their functional equivalent. Future functionality may be updated, modified, or otherwise enhanced through Tyler's maintenance and support services, and the governing functional descriptions for such future functionality will be set forth in Tyler's then-current documentation.

Tyler passes through to its clients all warranties received on third party products.

Tyler does not provide implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, as they are subjective. Tyler provides a comprehensive, objective warranty tied to functional descriptions of the Tyler software.

General Terms and Conditions, Section 5: Where services are quoted and provided on a time and materials basis, the Client may increase or decrease quantities of services purchased at any time. The Client may not decrease quantities of software licensed after contract signing.

General Terms and Conditions, Section 8: Tyler will provide the insurance coverages as stated in its sample certificate of insurance. Any additional insurance requirements and/or coverages must be agreed to by Tyler.

The Client can be listed as an additional insured on Tyler's Commercial General Liability policy and Automobile Liability policy, which automatically adds Client as an additional insured on Tyler's Excess/Umbrella Liability policy. Tyler's carrier has issued a blanket endorsement whereby any customer named as additional insured in the contract is afforded such status under the policy. Tyler's carrier does not issue separate additional insured endorsement specific to the Client.

The certificate of insurance will list the Client as a certificate holder after the contract is signed by both parties and an insurable interest exists.

Renewal certificates of insurance will be provided as close as practicable to the renewal date of any insurance policy. Tyler will provide Client with a renewal certificate once it is available from Tyler's insurer.

If required in the contract, Tyler will provide Client with notice of cancellation, non-renewal or reduction in its insurance coverages below the minimum requirements set forth in the contract within thirty (30) days thereof.

General Terms and Conditions, Section 13: Tyler provides pricing to customers on an individual basis based on each customer's specific requirements and needs. Tyler does not provide publicly advertised sale prices.

General Terms and Conditions, Section 14; Specifications, Section 8: Tyler's standard payment terms are set forth in the Invoicing and Payment Policy (Exhibit B) to the standard Tyler contract. Payment is due within forty-five days of invoicing.

General Terms and Conditions, Section 16: The fees quoted by Tyler do not include any taxes, including, without limitation, sales, use or excise tax. All applicable taxes shall be paid by Tyler to the proper authorities and shall be reimbursed by the Client to Tyler. In the event the Client possesses a valid direct-pay permit, the Client will forward such permit to Tyler on the effective date of the contract. In such event, the Client shall be responsible for remitting all applicable taxes to the proper authorities. If tax-exempt, the Client shall provide Tyler with the Client's tax-exempt certificate.

General Terms and Conditions, Section 17; Specifications, Section 5.1.3: Tyler's proposed pricing is based on Tyler's understanding of the specifications provided in the Request for Quotation. If additional work is required or if Client requests additional services, Tyler will provide a quote outlining the costs for the additional work.

General Terms and Conditions, Section 17; Specifications, Section 9: The Client shall be liable for and Tyler will incur travel expenses in accordance with Tyler's then-current business travel policy. Tyler's current business travel policy is attached to the contract as an exhibit.

General Terms and Conditions, Section 19; Specifications, Section 5.1.1.14 **and** Section 11: The Client may terminate the contract for cause in the event Tyler fails to cure a material breach according to the terms of the dispute resolution process set forth in Tyler's standard contract. The Client will make payment to Tyler for all undisputed products, services and expenses delivered or incurred through the effective date of termination. Payment for disputed products, services and expenses, and the Client's remedies, will be determined through the mutually agreed dispute resolution process.

The Client may terminate the contract for convenience on thirty days' prior written notice. Upon termination, the Client shall remit payment for all products and services delivered to the Client and all expenses incurred by Tyler prior through the effective date of termination. The Client will not be entitled to a refund or offset of previously paid license and other fees.

General Terms and Conditions, Section 20: Tyler does not agree to "time being made of the essence." Tyler will begin and perform services in accordance with the mutually agreed upon implementation plan schedule.

General Terms and Conditions, Section 21 **and** Section 22 **and** Section 42 **and** Section 43; Specifications, Section 5.1.1.62.2: Tyler reserves the right to review and discuss with the Client specific laws and regulations that the Client wishes to incorporate into the final contract. To the extent compliance requires a modification to the Tyler software, Tyler will provide that modification according to the provisions set forth in Exhibit C to the Tyler contract or as otherwise agreed to by the parties.

General Terms and Conditions, Section 27: Neither party may assign the contract without the prior written consent of the other party, except that Tyler may, without the prior written consent of the Client, assign the contract in its entirety to the surviving entity of any merger or consolidation or to any purchaser of substantially all of Tyler's assets.

General Terms and Conditions, Section 30; Specifications, Section 10.4 **and** Section 10.5: Tyler reserves the right to review and discuss with Client any Client policies and procedures it wishes to incorporate into the final contract. Tyler agrees to comply with mutually agreed upon Client policies and procedures.
General Terms and Conditions, Section 33: Depending on the scope of this project, anti-trust claims against third parties may not be applicable because Tyler is not acting as a reseller. Tyler reserves the right to discuss the applicability of the assignment of its anti-trust claims to Client.

General Terms and Conditions, Section 35 **and** Section 36: Tyler shall defend, indemnify and hold harmless the Client from and against any and all direct claims, losses, liabilities, damages, costs and expenses (including reasonable attorney's fees and costs) from third parties for personal injury or property damage arising from Tyler's negligence or willful misconduct; or Tyler's violation of a law applicable to Tyler's performance under the contract. The Client must notify Tyler promptly in writing of the claim and give Tyler sole control over its defense or settlement. The Client agrees to provide Tyler with reasonable assistance, cooperation, and information in defending the claim at Tyler's expense.

Tyler will defend, indemnify, and hold harmless the Client from third-party claims that the Tyler software and/or documentation infringes an intellectual property right in accordance with Section H(1) of Tyler's standard contract.

General Terms and Conditions, Section 38: Tyler agrees that the final contract may be used as a cooperative procurement vehicle by eligible jurisdictions, but Tyler reserves the right to negotiate and customize the terms and conditions of the final contract, including but not limited to pricing, to the scope and circumstances of that cooperative procurement.

General Terms and Conditions, Section 40: Tyler and Client shall mutually agree to the types of reports to be provided by Tyler.

<u>General Terms and Conditions, Section 41; Specifications, Section 1</u>: Tyler conducts routine background checks as part of pre-employment screening. Any additional background checks for Tyler personnel providing onsite services must be mutually agreed to by Tyler and the Client.

<u>Specifications, Section 1</u>: Tyler will use commercially reasonable efforts to not remove Tyler personnel providing ongoing services from the Client's implementation.

<u>Specifications, Section 2</u>: The parties' contract will contain such definitions as are mutually agreeable to the parties and based on the substantive terms of the contract.

<u>Specifications, Section 5.1.1.1.1</u>: Tyler is willing to negotiate a mutually agreeable acceptance process based on warranted functionality.

<u>Specifications, Section 5.1.1.12 **and** Section 5.1.1.62.2</u>: Tyler provides maintenance and support of its software in accordance with its Maintenance and Support Agreement and Support Call Process as set forth in Exhibit C and Exhibit C Schedule 1 to the standard Tyler contract.

<u>Specifications, Section 5.1.1.13 **and** Section 5.1.1.50.7</u>: Tyler provides standard system documentation electronically as part of its implementation plan and is willing to negotiate scope and pricing with the Client if additional documentation is requested. The documentation provided by Tyler will be based on industry standards and will allow end users who have sufficient training, experience, expertise, and technical competence to operate the Tyler software.

<u>Specifications, Section 5.1.1.14</u>: Tyler reserves the right to review and negotiate the contents of any confidentiality statements which Client requires Tyler to sign and such confidentiality statements shall only be signed by Tyler at a company level.

<u>Specifications, Section 5.1.1.14</u>: Tyler's liability for damages arising out of the contract, whether based on a theory of contract or tort, including negligence and strict liability, shall be limited to Client's actual direct damages, not to exceed (a) prior to formal transition to maintenance and support, the total one-time fees set forth in the investment summary, or (b) after formal transition to maintenance and support, the then-current annual maintenance and support fee. The prices set forth in the contract are set in reliance upon this limitation of liability. The foregoing limitation of liability shall not apply to claims that are subject to Tyler's indemnification obligations.

To the maximum extent permitted by applicable law, in no event shall Tyler be liable for any special, incidental, punitive, indirect, or consequential damages whatsoever, even if Tyler has been advised of the possibility of such damages.

Specifications, Section 5.1.1.14.1: This section is not applicable to the services to be provided by Tyler as Tyler will not be hosting Client's data. Tyler's handling of security breaches, including notification to customers, conforms to applicable state and federal law.

Specifications, Section 5.1.1.14.2: Tyler does not believe the software and services it is proposing to provide requires an onsite inspection. If the Client believes onsite inspection is warranted, Tyler is willing to negotiate a mutually agreeable scope and timeline for such inspection.

Specifications, Section 5.1.1.14.3: Tyler's employees conduct annual security compliance training. Any additional training requirements will be mutually agreed to by Tyler and Client.

Specifications, Section 5.1.1.14.7: This section is not applicable to the services to be provided by Tyler as Tyler will not be hosting Client's data. If Client believes encryption is applicable, Tyler and Client shall discuss this provision upon contract award.

Tyler only provides an SLA when Tyler is hosting Client's data.

Specifications, Section 5.1.1.14.7.3: This section is not applicable to the services to be provided by Tyler as Tyler will not access federal tax information to perform the services.

Specifications, Section 5.1.1.62.2 **and** Section 5.1.2.3: Tyler has an Escrow Agreement in place with Iron Mountain. In the event the Client desires to enroll as a beneficiary, the Client will pay the annual beneficiary fee. Release of the Tyler source code will be in accordance with such Escrow Agreement. Source code escrow is only available to clients purchasing perpetual licenses.

Specifications, Section 5.1.1.62.3 **and** Section 5.1.2.3: Transition services are considered by Tyler to be additional services. Tyler and Client will negotiate the scope and cost of the transition services at the time of providing the services.

LICENSE AND SERVICES AGREEMENT

This License and Services Agreement is made between Tyler Technologies, Inc. and Client.

WHEREAS, Client selected Tyler to license the software products and perform the services set forth in the Investment Summary and Statement of Work and Tyler desires to perform such actions under the terms of this Agreement;

NOW THEREFORE, in consideration of the foregoing and of the mutual covenants and promises set forth in this Agreement, Tyler and Client agree as follows:

SECTION A – DEFINITIONS

- **"Agreement"** means this License and Services Agreement.
- **"Business Travel Policy"** means our business travel policy. A copy of our current Business Travel Policy is attached as Schedule 1 to Exhibit B.
- **"Client"** means _____.
- **"Defect"** means a failure of the Tyler Software to substantially conform to the functional descriptions set forth in our written proposal to you, or their functional equivalent. Future functionality may be updated, modified, or otherwise enhanced through our maintenance and support services, and the governing functional descriptions for such future functionality will be set forth in our then-current Documentation.
- **"Developer"** means a third party who owns the intellectual property rights to Third Party Software.
- **"Documentation"** means, as applicable, any online or written documentation related to the use or functionality of the Tyler Software that we provide or otherwise make available to you, including instructions, user guides, manuals and other training or self-help documentation.
- **"Effective Date"** means the date by which both your and our authorized representatives have signed the Agreement.
- **"Force Majeure"** means an event beyond the reasonable control of you or us, including, without limitation, governmental action, war, riot or civil commotion, fire, natural disaster, extreme inflation (eight percent or greater per year), or any other cause that could not with reasonable diligence be foreseen or prevented by you or us.
- **"Investment Summary"** means the agreed upon cost proposal for the software, products, and services attached as Exhibit A.
- **"Invoicing and Payment Policy"** means the invoicing and payment policy. A copy of our current Invoicing and Payment Policy is attached as Exhibit B.
- **"Maintenance and Support Agreement"** means the terms and conditions governing the provision of maintenance and support services to all of our customers. A copy of our current Maintenance and Support Agreement is attached as Exhibit C.
- **"Project Initiation Date"** means the date on which a kickoff meeting is held, a project calendar is established, and Tyler personnel begin work.
- **"Statement of Work"** means the industry standard implementation plan describing how our professional services will be provided to implement the Tyler Software, and outlining your and our roles

and responsibilities in connection with that implementation. The Statement of Work is attached as Exhibit D.

- **"Support Call Process"** means the support call process applicable to all of our customers who have licensed the Tyler Software. A copy of our current Support Call Process is attached as Schedule 1 to Exhibit C.
- **"Third Party Hardware"** means the third party hardware, if any, identified in the Investment Summary.
- **"Third Party Products"** means the Third Party Software and Third Party Hardware.
- **"Third Party Services"** means the third party services, if any, identified in the Investment Summary.
- **"Third Party Software"** means the third party software, if any, identified in the Investment Summary.
- **"Third Party Terms"** means, if any, the end user license agreement(s) or similar terms for the Third Party Software, as applicable and attached as Exhibit E.
- **"Tyler"** means Tyler Technologies, Inc., a Delaware corporation.
- **"Tyler Software"** means our proprietary software, including any integrations, custom modifications, and/or other related interfaces identified in the Investment Summary and licensed by us to you through this Agreement.
- **"we", "us", "our"** and similar terms mean Tyler.
- **"you"** and similar terms mean Client.

SECTION B – SOFTWARE LICENSE

1. License Grant and Restrictions.

    1.1 We grant to you a license to use the Tyler Software for your internal business purposes only, in the scope of the internal business purposes disclosed to us as of the Effective Date. You may make copies of the Tyler Software for backup and testing purposes, so long as such copies are not used in production and the testing is for internal use only. Your rights to use the Tyler Software are perpetual but may be revoked if you do not comply with the terms of this Agreement.

    1.2 The Documentation is licensed to you and may be used and copied by your employees for internal, non-commercial reference purposes only.

    1.3 You may not: (a) transfer or assign the Tyler Software to a third party; (b) reverse engineer, decompile, or disassemble the Tyler Software; (c) rent, lease, lend, or provide commercial hosting services with the Tyler Software; or (d) publish or otherwise disclose the Tyler Software or Documentation to third parties.

    1.4 The license terms in this Agreement apply to updates and enhancements we may provide to you or make available to you through your Maintenance and Support Agreement.

    1.5 The right to transfer the Tyler Software to a replacement hardware system is included in your license. You will give us advance written notice of any such transfer and will pay us for any required or requested technical assistance from us associated with such transfer.

    1.6 Where applicable with respect to our applications that take or process card payment data, we are responsible for the security of cardholder data that we possess, including functions relating to storing, processing, and transmitting of the cardholder data and affirm that, as of the Effective Date, we comply with applicable requirements to be considered PCI DSS compliant and have performed the necessary steps to validate compliance with the PCI DSS. We agree to supply the current status of our PCI DSS compliance program in the form of an official Attestation of Compliance, which can be found at

https://www.tylertech.com/about-us/compliance, and in the event of any change in our status, will comply with applicable notice requirements.

1.7 We reserve all rights not expressly granted to you in this Agreement. The Tyler Software and Documentation are protected by copyright and other intellectual property laws and treaties. We own the title, copyright, and other intellectual property rights in the Tyler Software and the Documentation. **The Tyler Software is licensed, not sold.**

2. <u>License Fees</u>. You agree to pay us the license fees in the amounts set forth in the Investment Summary. Those amounts are payable in accordance with our Invoicing and Payment Policy.

3. <u>Escrow</u>. We maintain an escrow agreement with a third party under which we place the source code for each major release of the Tyler Software. You may be added as a beneficiary to the escrow agreement by completing a standard beneficiary enrollment form and paying the annual beneficiary fee set forth in the Investment Summary. You will be responsible for maintaining your ongoing status as a beneficiary, including payment of the then-current annual beneficiary fees. Release of source code for the Tyler Software is strictly governed by the terms of the escrow agreement.

4. <u>Limited Warranty</u>. We warrant that the Tyler Software will be without Defect(s) as long as you have a Maintenance and Support Agreement in effect. If the Tyler Software does not perform as warranted, we will use all reasonable efforts, consistent with industry standards, to cure the Defect as set forth in the Maintenance and Support Agreement.

SECTION C – PROFESSIONAL SERVICES

1. <u>Services</u>. We will provide you the various implementation-related services itemized in the Investment Summary and described in the Statement of Work. You will receive those services according to our industry standard implementation plan, which outlines roles and responsibilities in calendar and project documentation. We will finalize that documentation with you upon execution of this Agreement.

2. <u>Professional Services Fees</u>. You agree to pay us the professional services fees in the amounts set forth in the Investment Summary. Those amounts are payable in accordance with our Invoicing and Payment Policy.

3. <u>Additional Services</u>. The Investment Summary contains, and the Statement of Work describes, the scope of services and related costs (including programming and/or interface estimates) required for the project based on our understanding of the specifications you supplied and our assumption that each party timely meets its obligations pursuant to the project schedule as mutually developed and managed by the parties pursuant to the Statement of Work. If additional work is required, or if you use or request additional services, we will provide you with an addendum or change order, as applicable, outlining the costs for the additional work. The price quotes in the addendum or change order will be valid for thirty (30) days from the date of the quote.

4. <u>Cancellation</u>. We make all reasonable efforts to schedule our personnel for travel, including arranging travel reservations, at least two (2) weeks in advance of commitments. Therefore, if you cancel services less than two (2) weeks in advance (other than for Force Majeure or breach by us), you will be liable for all (a) non-refundable expenses incurred by us on your behalf, and (b) daily fees associated with cancelled professional services if we are unable to reassign our personnel. We will make all reasonable efforts to reassign personnel in the event you cancel within two (2) weeks of scheduled commitments.

5. <u>Services Warranty</u>. We will perform the services in a professional, workmanlike manner, consistent with industry standards. In the event we provide services that do not conform to this warranty, we will re-perform such services at no additional cost to you.

6. <u>Site Access and Requirements</u>. At no cost to us, you agree to provide us with full and free access to your personnel, facilities, and equipment as may be reasonably necessary for us to provide implementation services, subject to any reasonable security protocols or other written policies provided to us as of the Effective Date, and thereafter as mutually agreed to by you and us. You further agree to provide a reasonably suitable environment, location, and space for the installation of the Tyler Software and any Third Party Products, including, without limitation, sufficient electrical circuits, cables, and other reasonably necessary items required for the installation and operation of the Tyler Software and any Third Party Products.

7. <u>Client Assistance</u>. You acknowledge that the implementation of the Tyler Software is a cooperative process requiring the time and resources of your personnel. You agree to use all reasonable efforts to cooperate with and assist us as may be reasonably required to meet the agreed upon project deadlines and other milestones for implementation. This cooperation includes at least working with us to schedule the implementation-related services outlined in this Agreement. We will not be liable for failure to meet any deadlines and milestones when such failure is due to Force Majeure or to the failure by your personnel to provide such cooperation and assistance (either through action or omission).

8. <u>Background Checks</u>. For at least the past twelve (12) years, all of our employees have undergone criminal background checks prior to hire. All employees sign our confidentiality agreement and security policies.

SECTION D – MAINTENANCE AND SUPPORT

We will provide you with maintenance and support services for the Tyler Software under the terms of our standard Maintenance and Support Agreement. You agree to pay us the annual maintenance and support fees in accordance with our Invoicing and Payment Policy.

SECTION E – THIRD PARTY PRODUCTS

To the extent there are any Third Party Products set forth in the Investment Summary, the following terms and conditions will apply:

1. <u>Third Party Hardware</u>. We will sell, deliver, and install onsite the Third Party Hardware, if you have purchased any, for the price set forth in the Investment Summary. Those amounts are payable in accordance with our Invoicing and Payment Policy.

2. <u>Third Party Software</u>. Upon payment in full of the Third Party Software license fees, you will receive a non-transferable license to use the Third Party Software and related documentation for your internal business purposes only. Your license rights to the Third Party Software will be governed by the Third Party Terms.

   2.1 We will install onsite the Third Party Software. The installation cost is included in the installation fee in the Investment Summary.

   2.2 If the Developer charges a fee for future updates, releases, or other enhancements to the Third Party Software, you will be required to pay such additional future fee.

2.3 The right to transfer the Third Party Software to a replacement hardware system is governed by the Developer. You will give us advance written notice of any such transfer and will pay us for any required or requested technical assistance from us associated with such transfer.

3. Third Party Products Warranties.

   3.1 We are authorized by each Developer to grant or transfer the licenses to the Third Party Software.

   3.2 The Third Party Hardware will be new and unused, and upon payment in full, you will receive free and clear title to the Third Party Hardware.

   3.3 You acknowledge that we are not the manufacturer of the Third Party Products. We do not warrant or guarantee the performance of the Third Party Products. However, we grant and pass through to you any warranty that we may receive from the Developer or supplier of the Third Party Products.

4. Third Party Services. If you have purchased Third Party Services, those services will be provided independent of Tyler by such third-party at the rates set forth in the Investment Summary and in accordance with our Invoicing and Payment Policy.

5. Maintenance. If you have a Maintenance and Support Agreement in effect, you may report defects and other issues related to the Third Party Software directly to us, and we will (a) directly address the defect or issue, to the extent it relates to our interface with the Third Party Software; and/or (b) facilitate resolution with the Developer, unless that Developer requires that you have a separate, direct maintenance agreement in effect with that Developer. In all events, if you do not have a Maintenance and Support Agreement in effect with us, you will be responsible for resolving defects and other issues related to the Third Party Software directly with the Developer.

SECTION F – INVOICING AND PAYMENT; INVOICE DISPUTES

1. Invoicing and Payment. We will invoice you for all fees set forth in the Investment Summary per our Invoicing and Payment Policy, subject to Section F(2).

2. Invoice Disputes. If you believe any delivered software or service does not conform to the warranties in this Agreement, you will provide us with written notice within thirty (30) days of your receipt of the applicable invoice. The written notice must contain reasonable detail of the issues you contend are in dispute so that we can confirm the issue and respond to your notice with either a justification of the invoice, an adjustment to the invoice, or a proposal addressing the issues presented in your notice. We will work with you as may be necessary to develop an action plan that outlines reasonable steps to be taken by each of us to resolve any issues presented in your notice. You may withhold payment of the amount(s) actually in dispute, and only those amounts, until we complete the action items outlined in the plan. If we are unable to complete the action items outlined in the action plan because of your failure to complete the items agreed to be done by you, then you will remit full payment of the invoice. We reserve the right to suspend delivery of all services, including maintenance and support services, if you fail to pay an invoice not disputed as described above within fifteen (15) days of notice of our intent to do so.

SECTION G – TERMINATION

1. Termination. This Agreement may be terminated as set forth below. In the event of termination, you will pay us for all undisputed fees and expenses related to the software, products, and/or services you have

received, or we have incurred or delivered, prior to the effective date of termination. Disputed fees and expenses in all terminations other than your termination for cause must have been submitted as invoice disputes in accordance with Section F(2).

1.1 <u>For Cause</u>. If you believe we have materially breached this Agreement, you will invoke the Dispute Resolution clause set forth in Section I(3). You may terminate this Agreement for cause in the event we do not cure, or create a mutually agreeable action plan to address, a material breach of this Agreement within the thirty (30) day window set forth in Section I(3).

1.2 <u>Force Majeure</u>. Either party has the right to terminate this Agreement if a Force Majeure event suspends performance of this Agreement for a period of forty-five (45) days or more.

1.3 <u>Lack of Appropriations</u>. If you should not appropriate or otherwise receive funds sufficient to purchase, lease, operate, or maintain the software or services set forth in this Agreement, you may unilaterally terminate this Agreement upon thirty (30) days written notice to us. You will not be entitled to a refund or offset of previously paid license and other fees. You agree not to use termination for lack of appropriations as a substitute for termination for convenience.

SECTION H – INDEMNIFICATION, LIMITATION OF LIABILITY AND INSURANCE

1. <u>Intellectual Property Infringement Indemnification</u>.

   1.1 We will defend you against any third party claim(s) that the Tyler Software or Documentation infringes that third party's patent, copyright, or trademark, or misappropriates its trade secrets, and will pay the amount of any resulting adverse final judgment (or settlement to which we consent). You must notify us promptly in writing of the claim and give us sole control over its defense or settlement. You agree to provide us with reasonable assistance, cooperation, and information in defending the claim at our expense.

   1.2 Our obligations under this Section H(1) will not apply to the extent the claim or adverse final judgment is based on your: (a) use of a previous version of the Tyler Software and the claim would have been avoided had you installed and used the current version of the Tyler Software, and we provided notice of that requirement to you; (b) combining the Tyler Software with any product or device not provided, contemplated, or approved by us; (c) altering or modifying the Tyler Software, including any modification by third parties at your direction or otherwise permitted by you; (d) use of the Tyler Software in contradiction of this Agreement, including with non-licensed third parties; or (e) willful infringement, including use of the Tyler Software after we notify you to discontinue use due to such a claim.

   1.3 If we receive information concerning an infringement or misappropriation claim related to the Tyler Software, we may, at our expense and without obligation to do so, either: (a) procure for you the right to continue its use; (b) modify it to make it non-infringing; or (c) replace it with a functional equivalent, in which case you will stop running the allegedly infringing Tyler Software immediately. Alternatively, we may decide to litigate the claim to judgment, in which case you may continue to use the Tyler Software consistent with the terms of this Agreement.

   1.4 If an infringement or misappropriation claim is fully litigated and your use of the Tyler Software is enjoined by a court of competent jurisdiction, in addition to paying any adverse final judgment (or

settlement to which we consent), we will, at our option, either: (a) procure the right to continue its use; (b) modify it to make it non-infringing; (c) replace it with a functional equivalent; or (d) terminate your license and refund the license fees paid for the infringing Tyler Software, as depreciated on a straight-line basis measured over seven (7) years from the Effective Date. We will pursue those options in the order listed herein. This section provides your exclusive remedy for third party copyright, patent, or trademark infringement and trade secret misappropriation claims.

2. <u>General Indemnification</u>.

   2.1 We will indemnify and hold harmless you and your agents, officials, and employees from and against any and all third-party claims, losses, liabilities, damages, costs, and expenses (including reasonable attorney's fees and costs) for (a) personal injury or property damage to the extent caused by our negligence or willful misconduct; or (b) our violation of PCI DSS requirements or a law applicable to our performance under this Agreement. You must notify us promptly in writing of the claim and give us sole control over its defense or settlement. You agree to provide us with reasonable assistance, cooperation, and information in defending the claim at our expense.

   2.2 To the extent permitted by applicable law, you will indemnify and hold harmless us and our agents, officials, and employees from and against any and all third-party claims, losses, liabilities, damages, costs, and expenses (including reasonable attorney's fees and costs) for (a) personal injury or property damage to the extent caused by your negligence or willful misconduct; or (b) your violation of a law applicable to your performance under this Agreement. We will notify you promptly in writing of the claim and will give you sole control over its defense or settlement. We agree to provide you with reasonable assistance, cooperation, and information in defending the claim at your expense.

3. **DISCLAIMER. EXCEPT FOR THE EXPRESS WARRANTIES PROVIDED IN THIS AGREEMENT AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, WE HEREBY DISCLAIM ALL OTHER WARRANTIES AND CONDITIONS, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES, DUTIES, OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

4. **LIMITATION OF LIABILITY. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, OUR LIABILITY FOR DAMAGES ARISING OUT OF THIS AGREEMENT, WHETHER BASED ON A THEORY OF CONTRACT OR TORT, INCLUDING NEGLIGENCE AND STRICT LIABILITY, SHALL BE LIMITED TO YOUR ACTUAL DIRECT DAMAGES, NOT TO EXCEED (A) PRIOR TO FORMAL TRANSITION TO MAINTENANCE AND SUPPORT, THE TOTAL ONE-TIME FEES SET FORTH IN THE INVESTMENT SUMMARY; OR (B) AFTER FORMAL TRANSITION TO MAINTENANCE AND SUPPORT, THE THEN-CURRENT ANNUAL MAINTENANCE AND SUPPORT FEE. THE PARTIES ACKNOWLEDGE AND AGREE THAT THE PRICES SET FORTH IN THIS AGREEMENT ARE SET IN RELIANCE UPON THIS LIMITATION OF LIABILITY AND TO THE MAXIMUM EXTENT ALLOWED UNDER APPLICABLE LAW, THE EXCLUSION OF CERTAIN DAMAGES, AND EACH SHALL APPLY REGARDLESS OF THE FAILURE OF AN ESSENTIAL PURPOSE OF ANY REMEDY. THE FOREGOING LIMITATION OF LIABILITY SHALL NOT APPLY TO CLAIMS THAT ARE SUBJECT TO SECTIONS H(1) AND H(2).**

5. **EXCLUSION OF CERTAIN DAMAGES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL WE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**

6. <u>Insurance</u>. During the course of performing services under this Agreement, we agree to maintain the following levels of insurance: (a) Commercial General Liability of at least $1,000,000; (b) Automobile Liability

of at least $1,000,000; (c) Professional Liability of at least $1,000,000; (d) Workers Compensation complying with applicable statutory requirements; and (e) Excess/Umbrella Liability of at least $5,000,000. We will add you as an additional insured to our Commercial General Liability and Automobile Liability policies, which will automatically add you as an additional insured to our Excess/Umbrella Liability policy as well. We will provide you with copies of certificates of insurance upon your written request.

SECTION I – GENERAL TERMS AND CONDITIONS

1. <u>Additional Products and Services</u>. You may purchase additional products and services at our then-current list price, by executing a mutually agreed addendum. The terms of this Agreement will control any such additional purchase(s), unless otherwise specifically provided in the addendum.

2. <u>Optional Items</u>. Pricing for any listed optional products and services in the Investment Summary will be valid for twelve (12) months from the Effective Date.

3. <u>Dispute Resolution</u>. You agree to provide us with written notice within thirty (30) days of becoming aware of a dispute. You agree to cooperate with us in trying to reasonably resolve all disputes, including, if requested by either party, appointing a senior representative to meet and engage in good faith negotiations with our appointed senior representative. Senior representatives will convene within thirty (30) days of the written dispute notice, unless otherwise agreed. All meetings and discussions between senior representatives will be deemed confidential settlement discussions not subject to disclosure under Federal Rule of Evidence 408 or any similar applicable state rule. If we fail to resolve the dispute, then the parties shall participate in non-binding mediation in an effort to resolve the dispute. If the dispute remains unresolved after mediation, then either of us may assert our respective rights and remedies in a court of competent jurisdiction. Nothing in this section shall prevent you or us from seeking necessary injunctive relief during the dispute resolution procedures.

4. <u>Taxes</u>. The fees in the Investment Summary do not include any taxes, including, without limitation, sales, use, or excise tax. If you are a tax-exempt entity, you agree to provide us with a tax-exempt certificate. Otherwise, we will pay all applicable taxes to the proper authorities and you will reimburse us for such taxes. If you have a valid direct-pay permit, you agree to provide us with a copy. For clarity, we are responsible for paying our income taxes, both federal and state, as applicable, arising from our performance of this Agreement.

5. <u>Nondiscrimination</u>. We will not discriminate against any person employed or applying for employment concerning the performance of our responsibilities under this Agreement. This discrimination prohibition will apply to all matters of initial employment, tenure, and terms of employment, or otherwise with respect to any matter directly or indirectly relating to employment concerning race, color, religion, national origin, age, sex, sexual orientation, ancestry, disability that is unrelated to the individual's ability to perform the duties of a particular job or position, height, weight, marital status, or political affiliation. We will post, where appropriate, all notices related to nondiscrimination as may be required by applicable law.

6. <u>E-Verify</u>. We have complied, and will comply, with the E-Verify procedures administered by the U.S. Citizenship and Immigration Services Verification Division for all of our employees assigned to your project.

7. <u>Subcontractors</u>. We will not subcontract any services under this Agreement without your prior written consent, not to be unreasonably withheld.

8. Binding Effect; No Assignment. This Agreement shall be binding on, and shall be for the benefit of, either your or our successor(s) or permitted assign(s). Neither party may assign this Agreement without the prior written consent of the other party; provided, however, your consent is not required for an assignment by us as a result of a corporate reorganization, merger, acquisition, or purchase of substantially all of our assets.

9. Force Majeure. Except for your payment obligations, neither party will be liable for delays in performing its obligations under this Agreement to the extent that the delay is caused by Force Majeure; provided, however, that within ten (10) business days of the Force Majeure event, the party whose performance is delayed provides the other party with written notice explaining the cause and extent thereof, as well as a request for a reasonable time extension equal to the estimated duration of the Force Majeure event.

10. No Intended Third Party Beneficiaries. This Agreement is entered into solely for the benefit of you and us. No third party will be deemed a beneficiary of this Agreement, and no third party will have the right to make any claim or assert any right under this Agreement. This provision does not affect the rights of third parties under any Third Party Terms.

11. Entire Agreement; Amendment. This Agreement represents the entire agreement between you and us with respect to the subject matter hereof, and supersedes any prior agreements, understandings, and representations, whether written, oral, expressed, implied, or statutory. Purchase orders submitted by you, if any, are for your internal administrative purposes only, and the terms and conditions contained in those purchase orders will have no force or effect. This Agreement may only be modified by a written amendment signed by an authorized representative of each party.

12. Severability. If any term or provision of this Agreement is held invalid or unenforceable, the remainder of this Agreement will be considered valid and enforceable to the fullest extent permitted by law.

13. No Waiver. In the event that the terms and conditions of this Agreement are not strictly enforced by either party, such non-enforcement will not act as or be deemed to act as a waiver or modification of this Agreement, nor will such non-enforcement prevent such party from enforcing each and every term of this Agreement thereafter.

14. Independent Contractor. We are an independent contractor for all purposes under this Agreement.

15. Notices. All notices or communications required or permitted as a part of this Agreement, such as notice of an alleged material breach for a termination for cause or a dispute that must be submitted to dispute resolution, must be in writing and will be deemed delivered upon the earlier of the following: (a) actual receipt by the receiving party; (b) upon receipt by sender of a certified mail, return receipt signed by an employee or agent of the receiving party; (c) upon receipt by sender of proof of email delivery; or (d) if not actually received, five (5) days after deposit with the United States Postal Service authorized mail center with proper postage (certified mail, return receipt requested) affixed and addressed to the other party at the address set forth on the signature page hereto or such other address as the party may have designated by proper notice. The consequences for the failure to receive a notice due to improper notification by the intended receiving party of a change in address will be borne by the intended receiving party.

16. Client Lists. You agree that we may identify you by name in client lists, marketing presentations, and promotional materials.

17. Confidentiality. Both parties recognize that their respective employees and agents, in the course of performance of this Agreement, may be exposed to confidential information and that disclosure of such information could violate rights to private individuals and entities, including the parties. Confidential

information is nonpublic information that a reasonable person would believe to be confidential and includes, without limitation, personal identifying information (*e.g.*, social security numbers) and trade secrets, each as defined by applicable state law. Each party agrees that it will not disclose any confidential information of the other party and further agrees to take all reasonable and appropriate action to prevent such disclosure by its employees or agents. The confidentiality covenants contained herein will survive the termination or cancellation of this Agreement. This obligation of confidentiality will not apply to information that:

(a) is in the public domain, either at the time of disclosure or afterwards, except by breach of this Agreement by a party or its employees or agents;

(b) a party can establish by reasonable proof was in that party's possession at the time of initial disclosure;

(c) a party receives from a third party who has a right to disclose it to the receiving party; or

(d) is the subject of a legitimate disclosure request under the open records laws or similar applicable public disclosure laws governing this Agreement; provided, however, that in the event you receive an open records or other similar applicable request, you will give us prompt notice and otherwise perform the functions required by applicable law.

18. <u>Business License</u>. In the event a local business license is required for us to perform services hereunder, you will promptly notify us and provide us with the necessary paperwork and/or contact information so that we may timely obtain such license.

19. <u>Governing Law</u>. This Agreement will be governed by and construed in accordance with the laws of your state of domicile, without regard to its rules on conflicts of law.

20. <u>Multiple Originals and Authorized Signatures</u>. This Agreement may be executed in multiple originals, any of which will be independently treated as an original document. Any electronic, faxed, scanned, photocopied, or similarly reproduced signature on this Agreement or any amendment hereto will be deemed an original signature and will be fully enforceable as if an original signature. Each party represents to the other that the signatory set forth below is duly authorized to bind that party to this Agreement.

21. <u>Cooperative Procurement</u>. To the maximum extent permitted by applicable law, we agree that this Agreement may be used as a cooperative procurement vehicle by eligible jurisdictions. We reserve the right to negotiate and customize the terms and conditions set forth herein, including but not limited to pricing, to the scope and circumstances of that cooperative procurement.

22. <u>Contract Documents</u>. This Agreement includes the following exhibits:

Exhibit A	Investment Summary
Exhibit B	Invoicing and Payment Policy
	Schedule 1: Business Travel Policy
Exhibit C	Maintenance and Support Agreement
	Schedule 1: Support Call Process
Exhibit D	Statement of Work
Exhibit E	Third Party Terms

IN WITNESS WHEREOF, a duly authorized representative of each party has executed this Agreement as of the date(s) set forth below.

Tyler Technologies, Inc.   [INSERT CLIENT NAME]

By:_____   By:_____

Name:_____   Name:_____

Title:_____   Title:_____

Date:_____   Date:_____

Address for Notices: Address for Notices:
    Tyler Technologies, Inc.   [INSERT CLIENT NAME]
    One Tyler Drive   [INSERT CLIENT ADDRESS]
    Yarmouth, ME 04096   [INSERT CLIENT ADDRESS]
    Attention: Chief Legal Officer   [INSERT CLIENT TITLE]

Exhibit A
Investment Summary

The following Investment Summary details the software, products, and services to be delivered by us to you under the Agreement. This Investment Summary is effective as of the Effective Date. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Agreement.

TO BE INCLUDED

Exhibit B
Invoicing and Payment Policy

We will provide you with the software and services set forth in the Investment Summary. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Agreement.

Invoicing: We will invoice you for the applicable license and services fees in the Investment Summary as set forth below. Your rights to dispute any invoice are set forth in the Agreement.

1. <u>Tyler Software</u>.

    1.1 *License Fees*: License fees are invoiced upon the Project Initiation Date.

    1.2 *Maintenance and Support Fees*: The first year maintenance and support fees for the one (1) year period commencing on the Project Initiation Date are waived. Subsequent maintenance and support fees are invoiced annually in advance on each anniversary of the Project Initiation Date.

2. <u>Professional Services</u>.

    2.1 *Implementation and Other Professional Services (including training)*: Implementation and other professional services (including training) are billed and invoiced as delivered, based on a percentage of completion.

    2.2 *Project Management Services*: Dedicated Project Management services, if any, will be billed monthly in arrears, beginning on the first day of the month immediately following initiation of project planning.

3. <u>Third Party Products</u>.

    3.1 *Third Party Software License Fees*: License fees for Third Party Software, if any, are invoiced when we make it available to you for downloading.

    3.2 *Third Party Software Maintenance*: The first year maintenance for the Third Party Software is included in the cost of the Third Party Software License Fees. Future year's Third Party Software Maintenance fees will be invoiced annually in advance on each anniversary of the Project Initiation Date.

    3.3 *Third Party Hardware*: Third Party Hardware costs, if any, are invoiced upon delivery.

    3.4 *Third Party Services*: Fees for Third Party Services, if any, are invoiced as delivered, along with applicable expenses, at the rates set forth in the Investment Summary.

4. <u>Expenses</u>. The service rates in the Investment Summary do not include travel expenses. Expenses for Tyler delivered services will be billed as incurred and only in accordance with our then-current Business Travel Policy, plus a 10% travel agency processing fee. Our current Business Travel Policy is attached to

this Exhibit B at Schedule 1. Copies of receipts will be provided upon request; we reserve the right to charge you an administrative fee depending on the extent of your requests. Receipts for miscellaneous items less than twenty-five dollars and mileage logs are not available.

Payment. Payment for undisputed invoices is due within forty-five (45) days of the invoice date. We prefer to receive payments electronically. Our electronic payment information is:

Bank:	Wells Fargo Bank, N.A.
	420 Montgomery
	San Francisco, CA 94104
ABA:	121000248
Account:	4124302472
Beneficiary:	Tyler Technologies, Inc. – Operating

Exhibit B
Schedule 1
Business Travel Policy

1. Air Travel

   A. Reservations & Tickets

   The Travel Management Company (TMC) used by Tyler will provide an employee with a direct flight within two hours before or after the requested departure time, assuming that flight does not add more than three hours to the employee's total trip duration and the fare is within $100 (each way) of the lowest logical fare. If a net savings of $200 or more (each way) is possible through a connecting flight that is within two hours before or after the requested departure time and that does not add more than three hours to the employee's total trip duration, the connecting flight should be accepted.

   Employees are encouraged to make advanced reservations to take full advantage of discount opportunities. Employees should use all reasonable efforts to make travel arrangements at least two (2) weeks in advance of commitments. A seven (7) day advance booking requirement is mandatory. When booking less than seven (7) days in advance, management approval will be required.

   Except in the case of international travel where a segment of continuous air travel is six (6) or more consecutive hours in length, only economy or coach class seating is reimbursable. Employees shall not be reimbursed for "Basic Economy Fares" because these fares are non-refundable and have many restrictions that outweigh the cost-savings.

   B. Baggage Fees

   Reimbursement of personal baggage charges are based on trip duration as follows:

   - Up to five (5) days = one (1) checked bag
   - Six (6) or more days = two (2) checked bags

   Baggage fees for sports equipment are not reimbursable.

2. Ground Transportation

   A. Private Automobile

   Mileage Allowance – Business use of an employee's private automobile will be reimbursed at the current IRS allowable rate, plus out of pocket costs for tolls and parking. Mileage will be calculated by using the employee's office as the starting and ending point, in compliance with IRS regulations. Employees who have been designated a home office should calculate miles from their home.

   B. Rental Car

   Employees are authorized to rent cars only in conjunction with air travel when cost, convenience, and the specific situation reasonably require their use. When renting a car for Tyler business, employees should select a "mid-size" or "intermediate" car. "Full" size cars may be rented when three or more employees are traveling together. Tyler carries leased vehicle coverage for business car rentals; except for employees traveling to Alaska and internationally (excluding Canada), additional insurance on the rental agreement should be declined.

   C. Public Transportation

   Taxi or airport limousine services may be considered when traveling in and around cities or to and from airports when less expensive means of transportation are unavailable or impractical. The actual fare plus a reasonable tip (15-18%) are reimbursable. In the case of a free hotel shuttle to the airport, tips are included in the per diem rates and will not be reimbursed separately.

   D. Parking & Tolls

   When parking at the airport, employees must use longer term parking areas that are measured in days as opposed to hours. Park and fly options located near some airports may also be used. For extended trips that would result in excessive parking charges, public transportation to/from the airport should be considered. Tolls will be reimbursed when receipts are presented.

3. Lodging

   Tyler's TMC will select hotel chains that are well established, reasonable in price, and conveniently located in relation to the traveler's work assignment. Typical hotel chains include Courtyard, Fairfield Inn, Hampton Inn, and Holiday Inn Express. If the employee has a discount rate with a local hotel, the hotel reservation should note that discount and the employee should confirm the lower rate with the hotel upon arrival. Employee memberships in travel clubs such as AAA should be noted in their travel profiles so that the employee can take advantage of any lower club rates.

   "No shows" or cancellation fees are not reimbursable if the employee does not comply with the hotel's cancellation policy.

   Tips for maids and other hotel staff are included in the per diem rate and are not reimbursed separately.

Employees are not authorized to reserve non-traditional short-term lodging, such as Airbnb, VRBO, and HomeAway. Employees who elect to make such reservations shall not be reimbursed.

4. Meals and Incidental Expenses

Employee meals and incidental expenses while on travel status within the continental U.S. are in accordance with the federal per diem rates published by the General Services Administration. Incidental expenses include tips to maids, hotel staff, and shuttle drivers and other minor travel expenses. Per diem rates are available at www.gsa.gov/perdiem.

Per diem for Alaska, Hawaii, U.S. protectorates and international destinations are provided separately by the Department of State and will be determined as required.

A. Overnight Travel

For each full day of travel, all three meals are reimbursable. Per diems on the first and last day of a trip are governed as set forth below.

Departure Day

Depart before 12:00 noon	Lunch and dinner
Depart after 12:00 noon	Dinner

Return Day

Return before 12:00 noon	Breakfast
Return between 12:00 noon & 7:00 p.m.	Breakfast and lunch
Return after 7:00 p.m.*	Breakfast, lunch and dinner

*7:00 p.m. is defined as direct travel time and does not include time taken to stop for dinner.

The reimbursement rates for individual meals are calculated as a percentage of the full day per diem as follows:

Breakfast	15%
Lunch	25%
Dinner	60%

B. Same Day Travel

Employees traveling at least 100 miles to a site and returning in the same day are eligible to claim lunch on an expense report. Employees on same day travel status are eligible to claim dinner in the event they return home after 7:00 p.m.*

*7:00 p.m. is defined as direct travel time and does not include time taken to stop for dinner.

5. Internet Access – Hotels and Airports

    Employees who travel may need to access their e-mail at night. Many hotels provide free high speed internet access and Tyler employees are encouraged to use such hotels whenever possible. If an employee's hotel charges for internet access it is reimbursable up to $10.00 per day. Charges for internet access at airports are not reimbursable.

6. International Travel

    All international flights with the exception of flights between the U.S. and Canada should be reserved through TMC using the "lowest practical coach fare" with the exception of flights that are six (6) or more consecutive hours in length. In such event, the next available seating class above coach shall be reimbursed.

    When required to travel internationally for business, employees shall be reimbursed for photo fees, application fees, and execution fees when obtaining a new passport book, but fees related to passport renewals are not reimbursable. Visa application and legal fees, entry taxes and departure taxes are reimbursable.

    The cost of vaccinations that are either required for travel to specific countries or suggested by the U.S. Department of Health & Human Services for travel to specific countries, is reimbursable.

    Section 4, Meals & Incidental Expenses, and Section 2.b., Rental Car, shall apply to this section.

Exhibit C
Maintenance and Support Agreement

We will provide you with the following maintenance and support services for the Tyler Software. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Agreement.

1. <u>Term</u>. We provide maintenance and support services on an annual basis. The initial term commences on the Project Initiation Date, and remains in effect for one (1) year. The term will renew automatically for additional one (1) year terms unless terminated in writing by either party at least thirty (30) days prior to the end of the then-current term.

2. <u>Maintenance and Support Fees</u>. The maintenance and support costs for the Tyler Software beginning on the Project Initiation Date are as stated in the Investment Summary. Ninety (90) days prior to the maintenance renewal term the Client may contact Tyler to request a quote for the upcoming year's maintenance rates. We reserve the right to suspend maintenance and support services if you fail to pay undisputed maintenance and support fees within sixty (60) days of the due date. We will reinstate maintenance and support services only if you pay all past due maintenance and support fees, including all fees for the periods during which services were suspended.

3. <u>Maintenance and Support Services</u>. As long as you are not using the Help Desk as a substitute for our training services on the Tyler Software, and you timely pay your maintenance and support fees, we will, consistent with our then-current Support Call Process:

    3.1 perform our maintenance and support obligations in a professional, good, and workmanlike manner, consistent with industry standards, to resolve Defects in the Tyler Software (limited to the then-current version and the immediately prior version); provided, however, that if you modify the Tyler Software without our consent, our obligation to provide maintenance and support services on and warrant the Tyler Software will be void;

    3.2 provide telephone support during our established support hours;

    3.3 maintain personnel that are sufficiently trained to be familiar with the Tyler Software and Third Party Software, if any, in order to provide maintenance and support services;

    3.4 provide you with a copy of all major and minor releases to the Tyler Software (including updates and enhancements) that we make generally available without additional charge to customers who have a maintenance and support agreement in effect; and

    3.5 provide non-Defect resolution support of prior releases of the Tyler Software in accordance with our then-current release life cycle policy.

4. <u>Client Responsibilities</u>. We will use all reasonable efforts to perform any maintenance and support services remotely. Currently, we use a third-party secure unattended connectivity tool called Bomgar, as well as GotoAssist by Citrix. Therefore, you agree to maintain a high-speed internet connection capable of connecting us to your PCs and server(s). You agree to provide us with a login account and local administrative privileges as we may reasonably require to perform remote services. We will, at our option, use the secure connection to assist with proper diagnosis and resolution, subject to any reasonably applicable security protocols. If we cannot resolve a support issue remotely, we may be required to provide onsite services. In such event, we will be responsible for our travel expenses, unless it is determined that the reason onsite support was required was a reason outside our control. Either way, you agree to provide us with full and free access to the Tyler Software, working space, adequate facilities within a reasonable distance from the equipment, and use of machines, attachments, features, or other equipment reasonably necessary for us to provide the maintenance and support services, all at no charge to us. We strongly recommend that you also maintain a VPN for backup connectivity purposes.

5. <u>Hardware and Other Systems</u>. If you are a self-hosted customer and, in the process of diagnosing a software support issue, it is discovered that one of your peripheral systems or other software is the cause of the issue, we will notify you so that you may contact the support agency for that peripheral system. We cannot support or maintain Third Party Products except as expressly set forth in the Agreement.

In order for us to provide the highest level of software support, you bear the following responsibility related to hardware and software:

(a) All infrastructure executing Tyler Software shall be managed by you;
(b) You will maintain support contracts for all non-Tyler software associated with Tyler Software (including operating systems and database management systems, but excluding Third-Party Software, if any); and
(c) You will perform daily database backups and verify that those backups are successful.

6. <u>Other Excluded Services</u>. Maintenance and support fees do not include fees for the following services: (a) initial installation or implementation of the Tyler Software; (b) onsite maintenance and support (unless Tyler cannot remotely correct a Defect in the Tyler Software, as set forth above); (c) application design; (d) other consulting services; (e) maintenance and support of an operating system or hardware, unless you are a hosted customer; (f) support outside our normal business hours as listed in our then-current Support Call Process; or (g) installation, training services, or third party product costs related to a new release. Requested maintenance and support services such as those outlined in this section will be billed to you on a time and materials basis at our then current rates. You must request those services with at least one (1) weeks' advance notice.

7. <u>Current Support Call Process</u>. Our current Support Call Process for the Tyler Software is attached to this <u>Exhibit C</u> at Schedule 1.

Exhibit C
Schedule 1
Support Call Process

TO BE INCLUDED

Exhibit D
Statement of Work

The following Statement of Work details the services to be delivered by Tyler to Client under your Agreement. This Statement of Work is effective as of the Effective Date. Capitalized terms not otherwise defined will have the meaning assigned to such terms in your Agreement.

TO BE INCLUDED

Exhibit E
Third Party Terms

TO BE INCLUDED

Support Call Process

Scope of Maintenance and Support Services

The following outlines the standard support provided by Tyler Technologies, Inc. ("Tyler") for the following software systems installed on your hardware, for the time period specified in this Maintenance and Support Agreement ("Support Agreement").

The software systems listed in Exhibit A – Investment Summary running on your hardware shall be known as the Tyler Software. Any additional support, modifications, or services needed on the Tyler Software as it is installed at the Client site which are not expressly included in this Support Agreement, are outlined in an additional service level agreement or are provided at time and materials rates.

Modifications to the Tyler Software code and reports written by us for a specific jurisdiction or group of jurisdictions are considered part of the Tyler Software and, as such, the terms of this Support Agreement apply.

1. Terms and Definitions

The following is a list of common terms used in this Support Agreement:

1.1 Business Day(s)

The days and hours Tyler operates, defined as Monday through Friday (excluding holidays) between the hours of 8:00 AM and 5:00 PM ET. Tyler's current holiday schedules is as follows: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving, Christmas Eve, Christmas Day.

1.2 Coverage Period

The start and end date for the support offered in this Support Agreement.

1.3 Maintenance or Maintain

Providing support and Updates for the Tyler Software only. This does not include performing Updates at the Client site.

1.4 System Error

An error in the Tyler Software that is either a generated error (e.g., error screen) by the Tyler Software or lack of response (slow or stuck), or failure of a function as stated in the iasWorld User Guide (also referred to as "issues" or "bugs"). Note: Slow response time or system failure due to the Client's network or lack of system or DB administration is not covered.

1.5 Updates

Unlimited revisions to the Tyler Software source code that fixes errors and/or includes enhancements that are either deployed by Tyler to Client or available for Client to download on a FTP site. Updates include releases (e.g., new functionality or content) and patches (e.g., bug fixes).

1.6   VPN

The use of any secure connection on the Client system from any Tyler office.

2.   *Hot Line Support*

During the Coverage Period, Tyler will provide phone support for the Tyler Software. This support will provide assistance (via phone or delivered documentation) in determining the root cause of system errors (whether user error, operation related error, or Tyler Software) and the response as outlined in item 2.3 below, subject to Section 9 of this Support Agreement. The Hot Line is also available for questions on normal operation of the Tyler Software.

2.1. Hot Line Number

800-800-2581 extension 1

2.2. Hot Line Hours

The Hot Line is available from 8:00 A.M. to 5:00 P.M., ET, Monday through Friday. Weekend or evening coverage can be arranged with a five (5) day minimum notice. This special coverage could be billed under the conditions stated in Section 13 of this Support Agreement.

2.3. Hot Line Support Considerations

Tyler shall respond to the Client's request for telephone assistance within one (1) working hour from the initial call.

Tyler shall take steps to have the system error fixed, or an appropriate workaround, via phone or remote connection as defined in the following priority matrix:

Priority	Definition	Response	Resolution SLA
Critical	Software is inoperable for all Client users.	Client is contacted within 1 hour.	Within 1 business day or an agreed upon due date and time.
High	Issue affects daily processing or day-to-day functions of the Client. Issue affects a large group of Client users.	Client is contacted within 1 hour.	Within 2-5 business days or an agreed upon due date.
Medium	Issue affects a small group of users and does not affect day-to-day processing.	Client is contacted within 1 hour.	Within 4 – 10 business days, or an agreed upon due date.
Non-Critical	Issue affects 1 Client user and is non-critical to daily processing.	Client is contacted within 1 hour.	Typically 6+ business days from reported problem, or an agreed upon due date.

If the cause of the problem is related to an item in Section 12 of this Support Agreement or not an actual bug within the Tyler Software, Tyler will provide an action plan with an estimated cost to resolve the issue within a reasonable amount of time.

3. *Online Support*

During the Coverage Period, Tyler will provide access to Tyler's Customer Relationship Management System in order for the Client to have twenty-four (24) hour per day, seven (7) day per week access to answers to Tyler Software questions and to log Tyler Software issues.

4. *Modification and Change Procedure*

Changes to the Tyler Software (not directed by local laws pursuant to Section 6 of this Support Agreement) can be requested. These changes shall be submitted in writing to Tyler and cost estimates will be provided. Once the Client agrees to the cost estimate, a separate addendum or agreement will be drafted for acceptance by the parties.

5. *Updates*

Tyler Software Updates will be provided to the Client by Tyler during the Coverage Period.

5.1. iasWorld Updates

It is the responsibility of the Client to schedule the Update(s) and inform Tyler of any assistance needed. Tyler will distribute an estimated schedule of when Updates will be available. Tyler will provide assistance in performing such Updates, via remote connection, during Tyler's normal business hours. Onsite assistance may be obtained at time and materials rates. It is important that any Updates be done in a timely manner as the Update could contain fixes for one or more system errors. Tyler reserves the right to back-port certain bug fixes to the Client's current version of the Tyler Software or require that the Client upgrade to a newer release to obtain the required fix.

5.2. iasWorld Data Tables

The Client is responsible for updating any data stored in the Tyler Software data tables, whether such updates occur through the normal course of business from user data entry, through update from some iasWorld batch process, or through an SQL update. Updates may be performed to the iasWorld data for various reasons by Tyler as requested by the Client subject to time and materials rates.

5.3. Operating System ("OS") Updates

The Client is responsible for obtaining update(s), notifying Tyler of the update(s), and installing update(s). IT outsourcing or the system vendor might be needed for these updates. It is the Client's responsibility to contact and leverage these resources as needed. Tyler strongly recommends that the Client perform a system export/backup before updating the OS.

5.4. Oracle Updates

The Client is responsible for scheduling Updates to the Oracle software in order that the Client is on a version supported by Oracle. Tyler will provide assistance in performing such Updates via remote connection during Tyler's normal business hours. On-site assistance may be obtained at time and materials rates.

6. *Legislative Changes*

Tyler will provide up to eighty (80) Tyler Software programming hours per state per calendar year of this Support Agreement in order to comply with legislative changes. Programming hours encompass analysis,

coding, and testing of the changes. Additional legislative changes can be performed at time and materials rates.

7. *Data Ownership*

The Client owns the data stored and processed on the Tyler Software. While performing support services pursuant to this Support Agreement, Tyler will be exposed to this data and will take industry standard measures to ensure the confidentiality of the data.

8. *Backups and Recovery*

It is the responsibility of the Client to perform system (OS) and/or database (Oracle) backups.

8.1 Tyler does not take responsibility for any backup process or emergency plans in which the Client engages.

8.2 Tyler strongly suggests that the Client have a backup and recovery plan for the system and data. Tyler also recommends a safe storage for the Client data (i.e., offsite storage of data tapes).

9. *Dependent Software Licenses*

The Client is responsible for acquiring and maintaining software licenses and upgrades for all third-party software products including, but not limited to, hardware operating system, Oracle licenses, Adobe, ESRI, EDMS, etc.

10. *Server Operations*

The Client is responsible for on-site operational support of the iasWorld application server(s). Tasks will include performing system backups, system restarts, and providing on-site troubleshooting assistance to Tyler staff.

11. *Remote Access*

The Client will provide Tyler with the means to electronically connect to the Client and to the iasWorld server, to enable software transfers, electronic correspondence, and remote troubleshooting. The preferred remote connection is via the Internet.

12. *Out of Scope Items*

The following are examples of items that are **not** included in this Support Agreement. Tyler will provide such services as requested by the Client. Time and Materials rates will apply for such services. They are:

12.1. Resolution of problems that arise out of the Client's misuse of the Tyler Software.
12.2. Creating ad hoc reports or new iasWorld reports.
12.3. Recovery of software, operating system, or data due to system or hardware failure.
12.4. Modification of the iasWorld code.
12.5. Modification of iasWorld reports.
12.6. Updates to iasWorld cost tables, tax rate tables, etc.
12.7. Onsite training.
12.8. Oracle DBA and network administration activities. Such support may be provided in an additional service level agreement.
12.9. Process and procedures that could otherwise be performed by a non-technical iasWorld user during the Client's business cycle.
12.10. Performing the iasWorld Update on-site.
12.11. Errors and problems that arise out of the Client's modification of the Tyler Software code.
12.12. Errors and problems related to other 3rd party vendors' software not specifically covered by

this Support Agreement. Such support would need to be provided under a separate agreement.

13. *Additional Support*

No other additional support outside this Support Agreement is given unless stated in the License and Services Agreement. Additional support or services (such as those listed in Section 12 of this Support Agreement) can be requested and will be billed at Tyler's then prevailing time and materials rates.

ACORD® CERTIFICATE OF LIABILITY INSURANCE

	DATE (MM/DD/YYYY)
	3/28/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Moira Crosby	
Hays Companies Inc.	PHONE (A/C, No, Ext):	FAX (A/C, No):
133 Federal Street, 4th Floor	E-MAIL ADDRESS: mcrosby@hayscompanies.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
Boston MA 02110	INSURER A : Hartford Fire Insurance Company	19682
INSURED	INSURER B : Hartford Casualty Insurance Company	29424
Tyler Technologies, Inc.	INSURER C : Lloyds of London Syndicates	048337 &
5101 Tennyson Parkway	INSURER D :	048945
	INSURER E :	
Plano TX 75024	INSURER F :	

COVERAGES CERTIFICATE NUMBER: 19-20 GL Auto   REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
				08UENAY8572	4/1/2019	4/1/2020	MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	X POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS SCHEDULED AUTOS			08UENAY8572	4/1/2019	4/1/2020	BODILY INJURY (Per accident)	$
	X HIRED AUTOS X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
B	X UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$ 25,000,000
	EXCESS LIAB CLAIMS-MADE			08XHUAZ8392	4/1/2019	4/1/2020	AGGREGATE	$ 25,000,000
	DED RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		08WEEL5271	4/1/2019	4/1/2020	X PER STATUTE OTH-ER	
							E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
C	Cyber/Privacy Prof Liab			B0621PTYLE000218	12/17/2018	12/17/2019	Occurence Limit	$20,000,000
C	Cyber/Privacy Prof Liab			B0621PTYLE000318	12/17/2018	12/18/2019	Aggregate Limit	$20,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION
Evidence of Insurance	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE
	James Hays/MCROSB

Iron Mountain Intellectual Property Management

S 4006892

IRON MOUNTAIN®

Iron Mountain offers records management for both physical and digital media, disaster recovery support, consulting services, and is the leader in intellectual property protection, specializing in technology escrow and domain name records management. Comac, a subsidiary of Iron Mountain, provides marketing collateral fulfillment services. Iron Mountain is committed to delivering responsive and reliable service to meet our customers' needs. Our proven systems and processes ensure that we provide quality and consistent service to our customers. Be sure to visit our website, www.ironmountain.com for more information.

EFFECTIVE DATE: *Sept. 29, 2008*
MASTER DEPOSIT ACCOUNT NUMBER: *34953*

THREE-PARTY MASTER DEPOSITOR
ESCROW SERVICE AGREEMENT

1. Introduction.

This Three-Party Master Depositor Escrow Service Agreement (the "**Agreement**") is entered into by and between Tyler Technologies, Inc., ("**Depositor**"), and by any additional party enrolling as a "**Beneficiary**" upon execution of the Beneficiary Enrollment Form attached as Exhibit E to this Agreement and by Iron Mountain Intellectual Property Management, Inc. ("**Iron Mountain**"). Beneficiary, Depositor, and Iron Mountain may be referred to individually as a "Party" or collectively as the "Parties" throughout this Agreement.

(a) The use of the term "services" in this Agreement shall refer to Iron Mountain services that facilitate the creation, management, and enforcement of software or other technology escrow accounts as described in Exhibit A attached hereto ("**Services**"). A Party shall request Services under this Agreement by submitting a work request for certain Iron Mountain Services ("**Work Request**") via written instruction or the online portal maintained at the website located at www.ironmountainconnect.com or other websites owned or controlled by Iron Mountain that are linked to that website (collectively the "**Iron Mountain Website**").

(b) The Beneficiary and Depositor have, or will have, entered into a license agreement or other agreement conveying intellectual property rights to the Beneficiary ("**License Agreement**"), and the Parties intend this Agreement to be considered as supplementary to the License Agreement, pursuant to Title 11 United States [Bankruptcy] Code, Section 365(n).

2. Depositor Responsibilities and Representations.

(a) Depositor shall make an initial deposit that is complete and functional of all proprietary technology and other materials covered under this Agreement ("**Deposit Material**") to Iron Mountain within thirty (30) days of the Effective Date. Depositor may also update Deposit Material from time to time during the Term of this Agreement provided a minimum of one (1) complete and functional copy of Deposit Material is deposited with Iron Mountain at all times. At the time of each deposit or update, Depositor will provide an accurate and complete description of all Deposit Material sent to Iron Mountain via the Iron Mountain Website or using the form attached hereto as Exhibit B.

(b) Depositor represents that it lawfully possesses all Deposit Material provided to Iron Mountain under this Agreement free of any liens or encumbrances as of the date of their deposit. Any Deposit Material liens or encumbrances made after their deposit will not prohibit, limit, or alter the rights and obligations of Iron Mountain under this Agreement. Depositor warrants that with respect to the Deposit Material, Iron Mountain's proper administration of this Agreement will not violate the rights of any third parties.

(c) Depositor represents that all Deposit Material is readable and useable in its then current form; if any portion of such Deposit Material is encrypted the necessary decryption tools and keys to read such material are deposited contemporaneously.

(d) Depositor agrees, upon request by Iron Mountain, in support of Beneficiary's request for verification Services, to promptly complete and return the Escrow Deposit Questionnaire attached hereto as Exhibit Q. Depositor consents to Iron Mountain's performance of any level(s) of verification Services described in Exhibit A attached hereto and Depositor further consents to Iron Mountain's use of a subcontractor to perform verification Services. Any such subcontractor shall be bound by the same confidentiality obligations as Iron Mountain and shall not be a direct competitor to either Depositor or Beneficiary. Iron Mountain shall be responsible for the delivery of Services of any such subcontractor as if Iron Mountain had performed the Services. Depositor represents that all Deposit Material is provided with all rights necessary for Iron Mountain to verify such proprietary technology and materials upon receipt of a Work Request for such Services or agrees to use commercially reasonable efforts to provide Iron Mountain with any necessary use rights or permissions to use materials necessary to perform verification of the Deposit Material. Depositor agrees to reasonably cooperate with Iron Mountain by providing reasonable access to its technical personnel for verification Services whenever reasonably necessary.

3. Beneficiary Responsibilities and Representations.

(a) Beneficiary acknowledges that, as between Iron Mountain and Beneficiary, Beneficiary assumes all responsibility for the completeness and functionality of all Deposit Material.

(b) Beneficiary may submit a verification Work Request to Iron Mountain for one of more of the Services defined in Exhibit A attached hereto and further consents to Iron Mountain's use of a subcontractor if needed to provide such

Services. Beneficiary warrants that Iron Mountain's use of any materials supplied by Beneficiary to perform the verification Services described in Exhibit A is lawful and does not violate the rights of any third parties.

4. **Iron Mountain Responsibilities and Representations.**

(a) Iron Mountain agrees to use commercially reasonable efforts to provide the Services requested by Authorized Person(s) (as identified in the "Authorized Person(s)/Notices Table" below) representing the Depositor and Beneficiary in a Work Request. Iron Mountain may reject a Work Request (in whole or in part) that does not contain all required information at any time upon notification to the Party originating the Work Request.

(b) Iron Mountain will conduct a visual inspection upon receipt of any Deposit Material and associated Exhibit B. If Iron Mountain determines that the Deposit Material does not match the description provided by Depositor represented in Exhibit B attached hereto, Iron Mountain will notify Depositor of such discrepancies and notate such discrepancy on the Exhibit B.

(c) Iron Mountain will provide notice to the Beneficiary of all Deposit Material that is accepted and deposited into the escrow account under this Agreement.

(d) Iron Mountain will work with a Party who submits any verification Work Request for Deposit Material covered under this Agreement to either fulfill any standard verification Services Work Request or develop a custom Statement of Work ("SOW"). Iron Mountain and the requesting Party will mutually agree in writing to a SOW on the following terms and conditions that include but are not limited to: description of Deposit Material to be tested; description of verification testing; requesting Party responsibilities; Iron Mountain responsibilities; Service Fees; invoice payment instructions; designation of the paying Party; designation of authorized SOW representatives for both the requesting Party and Iron Mountain with name and contact information; and description of any final deliverables, prior to the start of any fulfillment activity. After the start of fulfillment activity, each SOW may only be amended or modified in writing with the mutual agreement of both Parties, in accordance with the change control procedures set forth therein.

(e) Iron Mountain will hold and protect all Deposit Material in physical or electronic vaults that are either owned or under the control of Iron Mountain, unless otherwise agreed to by the Parties.

(f) Upon receipt of written instructions by Depositor, Iron Mountain will permit the replacement or removal of previously submitted Deposit Material.

(g) Iron Mountain will return the Deposit Material to Depositor upon termination of this Agreement. If reasonable attempts to return the Deposit Material to Depositor are unsuccessful, Iron Mountain shall destroy the Deposit Material.

5. **Payment.**

The Party responsible for payment designated in Exhibit A ("Paying Party") shall pay to Iron Mountain all fees as set forth in the Work Request ("Service Fees"). Except as set forth below, all Service Fees are due to Iron Mountain within forty-five (45) calendar days from the date of invoice in U.S. currency and are non-refundable. Iron Mountain may update Service Fees with a ninety (90) calendar day written notice to the Paying Party during the Term of this Agreement. Iron Mountain shall not increase Service Fees by more than eight percent (8%) per year. The Paying Party is liable for any taxes related to Services purchased under this Agreement or shall present to Iron Mountain an exemption certificate reasonably acceptable to the taxing authorities. Applicable taxes shall be billed as a separate item on the invoice, to the extent possible. Any undisputed Service Fees not collected by Iron Mountain when due shall bear interest until paid at a rate of one percent (1%) per month (12% per annum) or the maximum rate permitted by law, whichever is less. Notwithstanding, the non-performance of any obligations of Depositor to deliver Deposit Material under the License Agreement or this Agreement, Iron Mountain is entitled to be paid all Service Fees that accrue during the Term of this Agreement

6. **Term and Termination.**

(a) The initial "Term" of this Agreement is for a period of one (1) year from the Effective Date ("Initial Term") and will automatically renew for additional one (1) year terms (each a "Renewal Term") and continue in full force and effect until one of the following events occur: (i) Depositor provides Iron Mountain with sixty (60) days' prior written notice of its intent to cancel this Agreement; (ii) Beneficiary provides Iron Mountain and Depositor with sixty (60) days' prior written notice of their intent to terminate this Agreement; (iii) the Agreement terminates under another provision of this Agreement; or (iv) any time after the Initial Term, Iron Mountain provides one hundred eighty (180) days prior written notice to the Depositor and Beneficiary of Iron Mountain's intent to terminate this Agreement During this notice period, Iron Mountain's Service Fees shall be paid by the Paying Party. If the Effective Date is not specified above, then the last date noted on the signature blocks of this Agreement shall be the Effective Date.

(b) Unless the express terms of this Agreement provide otherwise, upon termination of this Agreement, Iron Mountain shall return the Deposit Material to the Depositor. If reasonable attempts to return the Deposit Material to Depositor are unsuccessful, Iron Mountain shall destroy the Deposit Material.

(c) In the event of the nonpayment of undisputed Service Fees owed to Iron Mountain, Iron Mountain shall provide all Parties to this Agreement with written notice of Iron Mountain's intent to terminate this Agreement. Any Party to this Agreement shall have the right to make the payment to Iron Mountain to cure the default. If the past due payment is not received in full by Iron Mountain within forty-five (45) calendar days of the date of such notice, then Iron Mountain shall have the right to terminate this Agreement at any time thereafter by sending written notice to all Parties. Iron Mountain shall have no obligation to take any action under this Agreement (except to those obligations that survive termination of this Agreement) so long as any undisputed Service Fees due Iron Mountain under this Agreement remain unpaid.

7. **General Indemnity**.

Subject to Section 10 and 11, each Party shall defend, indemnify and hold harmless the others, their corporate affiliates and their respective officers, directors, employees, and agents and their respective successors and assigns from and against any and all claims, losses, liabilities, damages, and expenses (including, without limitation, reasonable attorneys' fees), arising under this Agreement from the negligent or intentional acts or omissions of the indemnifying Party or its subcontractors, or the officers, directors, employees, agents, successors and assigns of any of them.

8. **Warranties**.

(a) IRON MOUNTAIN WARRANTS ANY AND ALL SERVICES PROVIDED HEREUNDER SHALL BE PERFORMED IN A WORKMANLIKE MANNER. EXCEPT AS SPECIFIED IN THIS SECTION, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, AGAINST INFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE, ARE HEREBY EXCLUDED TO THE EXTENT ALLOWED BY APPLICABLE LAW. AN AGGRIEVED PARTY MUST NOTIFY IRON MOUNTAIN PROMPTLY OF ANY CLAIMED BREACH OF ANY WARRANTIES AND SUCH PARTY'S SOLE AND EXCLUSIVE REMEDY FOR BREACH OF WARRANTY SHALL BE RETURN OF THE PORTION OF THE FEES PAID TO IRON MOUNTAIN BY PAYING PARTY FOR SUCH NON-CONFORMING SERVICES. THIS DISCLAIMER AND EXCLUSION SHALL APPLY EVEN IF THE EXPRESS WARRANTY AND LIMITED REMEDY SET FORTH ABOVE FAILS OF ITS ESSENTIAL PURPOSE. THE WARRANTY PROVIDED IS SUBJECT TO THE LIMITATION OF LIABILITY SET FORTH IN THIS AGREEMENT.

(b) Depositor warrants that all Depositor Information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Depositor Information during the Term of this Agreement.

(c) Beneficiary warrants that all Beneficiary information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Beneficiary Information during the Term of this Agreement.

(d) Ownership Warranty. Depositor warrants that it is the owner or legal custodian of the Deposit Material and has full authority to store the Deposit Material and direct their disposition in accordance with the terms of this Agreement. Depositor shall reimburse Iron Mountain for any expenses reasonably incurred by Iron Mountain (including reasonable legal fees) by reason of Iron Mountain's compliance with the instructions of Depositor in the event of a dispute concerning the ownership, custody or disposition of Deposit Material stored by Depositor with Iron Mountain.

9. **Confidential Information**.

Iron Mountain shall have the obligation to reasonably protect the confidentiality of the Deposit Material. Except as provided in this Agreement Iron Mountain shall not use or disclose the Deposit Material. Iron Mountain shall not disclose the terms of this Agreement to any third party. If Iron Mountain receives a subpoena or any other order from a court or other judicial tribunal pertaining to the disclosure or release of the Deposit Material, Iron Mountain will immediately notify the Parties to this Agreement unless prohibited by law. After notifying the Parties, Iron Mountain may comply in good faith with such order. It shall be the responsibility of Depositor or Beneficiary to challenge any such order; provided, however, that Iron Mountain does not waive its rights to present its position with respect to any such order. Iron Mountain will cooperate with the Depositor or Beneficiary, as applicable, to support efforts to quash or limit any subpoena, at such party's expense. Any Party requesting additional assistance shall pay Iron Mountain's standard charges or as quoted upon submission of a detailed request.

10. **Limitation of Liability**.

NOTWITHSTANDING ANYTHING ELSE IN THIS AGREEMENT, ALL LIABILITY, IF ANY, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, OF ANY PARTY TO THIS AGREEMENT SHALL BE LIMITED TO THE AMOUNT EQUAL TO ONE YEAR OF FEES PAID OR OWED TO IRON MOUNTAIN UNDER THIS AGREEMENT. IF CLAIM OR LOSS IS MADE IN RELATION TO A SPECIFIC DEPOSIT OR DEPOSITS, SUCH LIABILITY SHALL BE LIMITED TO THE FEES RELATED SPECIFICALLY TO SUCH DEPOSITS. THIS LIMIT SHALL NOT APPLY TO ANY PARTY FOR: (I) ANY CLAIMS OF

INFRINGEMENT OF ANY PATENT, COPYRIGHT, OR TRADEMARK; (II) LIABILITY FOR DEATH OR BODILY INJURY; (III) PROVEN THEFT; OR (IV) PROVEN GROSS NEGLIGENCE OR WILLFUL MISCONDUCT.

11. Consequential Damages Waiver.

IN NO EVENT SHALL ANY PARTY TO THIS AGREEMENT BE LIABLE TO ANOTHER PARTY FOR ANY INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, LOST PROFITS OR LOST DATA OR INFORMATION, ANY COSTS OR EXPENSES FOR THE PROCUREMENT OF SUBSTITUTE SERVICES, OR ANY OTHER INDIRECT DAMAGES, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE EVEN IF THE POSSIBILITY THEREOF MAY BE KNOWN IN ADVANCE TO ONE OR MORE PARTIES.

12. General.

(a) Incorporation of Work Requests. All valid Depositor and Beneficiary Work Requests are incorporated into this Agreement.

(b) Purchase Orders. In the event that the Paying Party issues a purchase order or other instrument used to pay Service Fees to Iron Mountain, any terms and conditions set forth in the purchase order which constitute terms and conditions which are in addition to those set forth in this Agreement or which establish conflicting terms and conditions to those set forth in this Agreement are expressly rejected by Iron Mountain.

(c) Right to Make Copies. Iron Mountain shall have the right to make copies of all Deposit Material as reasonably necessary to perform the Services. Iron Mountain shall copy all copyright, nondisclosure, and other proprietary notices and titles contained on Deposit Material onto any copies made by Iron Mountain. Any copying expenses incurred by Iron Mountain as a result of a Work Request to copy will be borne by the Party requesting the copies. Iron Mountain may request Depositor's reasonable cooperation in promptly copying Deposit Material in order for Iron Mountain to perform Services.

(d) Choice of Law. The validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of Texas, United States of America, as if performed wholly within the state and without giving effect to the principles of conflicts of laws.

(e) Authorized Person(s). Depositor and Beneficiary must each authorize and designate one person whose actions will legally bind such party ("Authorized Person(s)" who shall be identified in the Authorized Person(s) Notices Table of this Agreement) and who may manage the Iron Mountain escrow account through the Iron Mountain Website or written instruction. The Authorized Person(s) for each the Depositor and Beneficiary will maintain the accuracy of their name and contact information provided to Iron Mountain during the term of this Agreement.

(f) Right to Rely on Instructions. Iron Mountain may act in reliance upon any instruction, instrument, or signature reasonably believed by Iron Mountain to be genuine and from an Authorized Person(s), officer, or other employee of a Party. Iron Mountain may assume that such representative of a Party to this Agreement who gives any written notice, request, or instruction has the authority to do so. Iron Mountain will not be required to inquire into the truth or evaluate the merit of any statement or representation contained in any notice or document reasonably believed to be from such representative. With respect to Release and Destruction of Deposit Materials, Iron Mountain shall rely on an Authorized Person(s).

(g) Force Majeure. No Party shall be liable for any delay or failure in performance due to events outside the defaulting Party's reasonable control, including without limitation acts of God, earthquake, labor disputes, shortages of supplies, riots, war, acts of terrorism, fire, epidemics, or delays of common carriers or other circumstances beyond its reasonable control. The obligations and rights of the excused Party shall be extended on a day-to-day basis for the time period equal to the period of the excusable delay.

(h) Notices. All notices regarding Exhibit C (release) shall be sent by commercial express mail or other commercially appropriate means that provide prompt delivery and require proof of delivery. All other correspondence, including invoices, payments, and other documents and communications, may be sent electronically or via regular mail. The Parties shall have the right to rely on the last known address of the other Parties. Any correctly addressed notice to last known address of the other Parties that is relied on herein that is refused, unclaimed, or undeliverable because of an act or omission of the Party to be notified as provided herein shall be deemed effective as of the first date that said notice was refused, unclaimed, or deemed undeliverable by electronic mail, the postal authorities by mail, through messenger or commercial express delivery services.

(i) No Waiver. No waiver of rights under this Agreement by any Party shall constitute a subsequent waiver of this or any other right under this Agreement.

(j) Assignment. No assignment of this Agreement by Depositor or Beneficiary or any rights or obligations of Depositor or Beneficiary under this Agreement is permitted without the written consent of Iron Mountain, which shall not be

unreasonably withheld or delayed, provided, however, Depositor may, without the prior written consent of Iron Mountain, assign this Agreement in its entirety to the surviving entity of any merger or consolidation or to any purchaser of substantially all of the Depositor's assets. Iron Mountain shall have no obligation in performing this Agreement to recognize any successor or assign of Depositor or Beneficiary unless Iron Mountain receives clear, authoritative and conclusive written evidence of the change of parties. No assignment of this Agreement by Iron Mountain or any rights or obligation of Iron Mountain under this Agreement is permitted without the written consent of Depositor, which shall not be unreasonably withheld or delayed, provided, however, that Depositor's consent shall not be required for any assignment of this Agreement to an Iron Mountain subsidiary or other Iron Mountain entity.

(k) Severability. In the event any of the terms of this Agreement become or are declared to be illegal or otherwise unenforceable by any court of competent jurisdiction, such term(s) shall be null and void and shall be deemed deleted from this Agreement. All remaining terms of this Agreement shall remain in full force and effect. If this paragraph becomes applicable and, as a result, the value of this Agreement is materially impaired for any Party, as determined by such Party in its sole discretion, then the affected Party may terminate this Agreement by written notice to the others.

(l) Independent Contractor Relationship. Depositor and Beneficiary understand, acknowledge, and agree that Iron Mountain's relationship with Depositor and Beneficiary will be that of an independent contractor and that nothing in this Agreement is intended to or should be construed to create a partnership, joint venture, or employment relationship.

(m) Attorneys' Fees. In any suit or proceeding between the Parties relating to this Agreement, the prevailing Party will have the right to recover from the other(s) it's costs and reasonable fees and expenses of attorneys, accountants, and other professionals incurred in connection with the suit or proceeding, including costs, fees and expenses upon appeal, separately from and in addition to any other amount included in such judgment. This provision is intended to be severable from the other provisions of this Agreement, and shall survive and not be merged into any such judgment.

(n) No Agency. No Party has the right or authority to, and shall not, assume or create any obligation of any nature whatsoever on behalf of the other Parties or bind the other Parties in any respect whatsoever.

(o) Disputes. Any dispute, difference or question relating to or arising among any of the Parties concerning the construction, meaning, effect or implementation of this Agreement or the rights or obligations of any Party hereof will be submitted to, and settled by arbitration by a single arbitrator chosen by the corresponding Regional Office of the American Arbitration Association in accordance with the Commercial Rules of the American Arbitration Association. The Parties in dispute shall submit briefs of no more than ten (10) pages and the arbitration hearing shall be limited to two (2) days maximum. The arbitrator shall apply Texas law. Unless otherwise agreed by the Parties, with agreement by Iron Mountain not to be unreasonably withheld, arbitration will take place in Dallas, Texas, U.S.A. Any court having jurisdiction over the matter may enter judgment on the award of the arbitrator. Service of a petition to confirm the arbitration award may be made by regular mail or by commercial express mail, to the attorney for the Party or, if unrepresented, to the Party at the last known business address. If however, Depositor and/or Beneficiary refuse to submit to arbitration, the matter shall not be submitted to arbitration and Iron Mountain may submit the matter to any court of competent jurisdiction for an interpleader or similar action. Unless adjudged otherwise, any costs of arbitration incurred by Iron Mountain, including reasonable attorney's fees and costs, shall be divided equally and paid by Depositor and Beneficiary.

(p) Regulations. All Parties are responsible for and warrant, to the extent of their individual actions or omissions, compliance with all applicable laws, rules and regulations, including but not limited to: customs laws; import; export and re-export laws; and government regulations of any country from or to which the Deposit Material may be delivered in accordance with the provisions of this Agreement.

(q) No Third Party Rights. This Agreement is made solely for the benefits of the Parties to this Agreement and their respective permitted successors and assigns, and no other person or entity shall have or acquire any right by virtue of this Agreement unless otherwise agreed to by all the parties hereto.

(r) Entire Agreement. The Parties agree that this Agreement, which includes all the Exhibits attached hereto and all valid Work Requests submitted by the Parties, is the complete agreement between the Parties hereto concerning the subject matter of this Agreement and replaces any prior or contemporaneous oral or written communications between the Parties. There are no conditions, understandings, agreements, representations, or warranties, expressed or implied, which are not specified herein. Each of the parties herein represents and warrants that the execution, delivery, and performance of this Agreement has been duly authorized and signed by a person who meets statutory or other binding approval to sign on behalf of its business organization as named in this Agreement. This Agreement may only be modified by mutual written agreement of the Parties.

(s) Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

(t) Survival. Sections 6 (Term and Termination), 7 (General Indemnity), 8 (Warranties), 9 (Confidential Information), 10 (Limitation of Liability), 11 (Consequential Damages Waiver), and 12 (General) of this Agreement shall survive termination of this Agreement or any Exhibit attached hereto.

DEPOSITOR: TYLER TECHNOLOGIES, INC.

SIGNATURE:	
PRINT NAME:	Richard E. Peterson, Jr.
TITLE:	President – FMS Division
DATE:	September 25, 2008
EMAIL ADDRESS	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.

SIGNATURE:	
PRINT NAME:	Mary K. English
TITLE:	Director of Operations
DATE:	9/29/08
EMAIL ADDRESS:	ipmclientservices@ironmountain.com

Approved as to Operational Content:
Iron Mountain Operations

I. Nicole King, Contracts Specialist
Date: September 19, 2008

Approved as to Form and Content:
Iron Mountain Legal Department

James E. Raymond, Contracts Specialist
Date: Sept. 8, 2008

NOTE: AUTHORIZED PERSONS/NOTICES TABLE, BILLING CONTACT INFORMATION TABLE AND EXHIBITS FOLLOW

DEPOSITOR AUTHORIZED PERSON(S)/NOTICES TABLE

Please provide the name(s) and contact information of the Authorized Person(s) under this Agreement. All notices will be sent electronically and/or through regular mail to the appropriate address set forth below.

PRINT NAME:	Stacey M. Gerard
TITLE:	Contracts Manager
EMAIL ADDRESS	stacey.gerard@tylertech.com
STREET ADDRESS	370 US Route 1
PROVINCE/CITY/STATE	Falmouth, ME
POSTAL/ZIP CODE	04105
PHONE NUMBER	800-772-2260
FAX NUMBER	207-781-2459

BILLING CONTACT INFORMATION TABLE

Please provide the name and contact information of the Billing Contact under this Agreement. All invoices will be sent electronically and/or through regular mail to the appropriate address set forth below.

PRINT NAME:	Lisa Carpenter
TITLE:	Senior A/P Specialist
EMAIL ADDRESS	lisa.carpenter@tylertech.com
STREET ADDRESS	370 US Route 1
PROVINCE/CITY/STATE	Falmouth, ME
POSTAL/ZIP CODE	04105
PHONE NUMBER	800-772-2260
FAX NUMBER	207-781-2459

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.

All notices should be sent to ipmclientservices@ironmountain.com OR Iron Mountain Intellectual Property Management, Inc., Attn: Client Services, 2100 Norcross Parkway, Suite 150, Norcross, Georgia, 30071, USA.

Tyler Technologies, Inc.
Confidential & Proprietary

SERVICE Check box(es) to order service	SERVICE DESCRIPTION-MASTER THREE PARTY ESCROW AGREEMENT - DEPOSITOR All services are listed below. Services in shaded tables are required for every new escrow account set up. Some services may not be available under the Agreement.	ONE-TIME FEES	ANNUAL FEES	PAYING PARTY Check to identify Paying Party
☒ Setup Fee ☒ Deposit Account Fee-including Escrow Management Center Access ☒ Beneficiary Fee including Escrow Management Center Access	Iron Mountain will setup a new escrow deposit account using a standard escrow agreement. Custom contracts are subject to the Custom Contract Fee noted below. Iron Mountain will set up one deposit account to manage and administrate access to Deposit Material that will be secured in a controlled storage environment. Furthermore, Iron Mountain will provide account services that include unlimited deposits, electronic vaulting, access to Iron Mountain Connect™ Escrow Management Center for secure online account management, submission of electronic Work Requests, and communication of status. A Client Manager will be assigned to each deposit account and provide training upon request to facilitate secure Internet access to the account and ensure fulfillment of Work Requests. An oversize fee may apply. Iron Mountain will fulfill a Work Request to add a Beneficiary to any number of escrow deposit accounts under this Agreement and manage access rights associated with the account(s). ,where possible, Beneficiary will have access to Iron Mountain Connect™ Escrow Management Center for secure online account management, submission of electronic Work Requests, and communication of status. A Client Manager will be assigned to each deposit account and provide training upon request to facilitate secure Internet access to the account and ensure fulfillment of Work Requests.	$1,912.50 $1,000 $700		☐ Depositor - OR - ☐ Beneficiary ☐ Depositor – OR ☐ Beneficiary ☐ Depositor – OR ☐ Beneficiary
☐ Add Additional Deposit Account	Iron Mountain will set up one additional deposit account to manage and administrate access to new Deposit Material that will be securely stored in controlled media vaults in accordance with the service description above and the Agreement that governs the Initial Deposit Account.		$1,000	☐ Depositor - OR - ☐ Beneficiary
☐ Add Additional Beneficiary	Iron Mountain will fulfill a Work Request to add a new Beneficiary to an escrow deposit account in accordance with the service description above and the Agreement.		$700	☐ Depositor - OR - ☐ Beneficiary
☐ Add Deposit Tracking Notification	At least semi-annually, Iron Mountain will send an update reminder to Depositor. Thereafter, Beneficiary will be notified of last deposit.	N/A	$375	☐ Depositor - OR - ☐ Beneficiary
☐ Add File List Report	Iron Mountain will fulfill a Work Request to provide a File List Test, which includes a deposit media readability analysis, a file listing, a file classification table, virus scan outputs, and assurance of completed deposit questionnaire. A final report will be sent to the Paying Party regarding the Deposit Material to ensure consistency between Depositor's representations (i.e., Exhibit B and Deposit Questionnaire) and stored Deposit Material. Deposit must be provided on CD, DVD-R, or deposited by sFTP.	$2,500	N/A	☐ Depositor - OR - ☐ Beneficiary
☐ Add Level 1 - Inventory and Analysis Test	Iron Mountain will perform an Inventory Test on the initial deposit, which includes Analyzing deposit media readability, virus scanning, developing file classification tables, identifying the presence/absence of build instructions, and identifying materials required to recreate the Depositor's software development environment. Output includes a report which will include build instructions, file classification tables and listings. In addition, the report will list required software development materials, including, without limitation, required source code languages and compilers, third-party software, libraries, operating systems, and hardware, as well as Iron Mountain's analysis of the deposit.	$5,000 or based on SOW if custom work required	N/A	☐ Depositor - OR - ☐ Beneficiary
☐ Add Level 2 – Deposit Compile Test	Iron Mountain will fulfill a Work Request to perform a Deposit Compile Test, which includes the outputs of the File Listing Report and the Level 1 - Inventory Test as described above plus recreating the Depositor's software development environment, compiling source files and modules, linking libraries and recreating executable code, pass/fail determination, creation of comprehensive build instructions with a final report sent to the Paying Party regarding the Deposit Material. The Paying Party and Iron Mountain will agree on a custom Statement of Work ("SOW") prior to the start of fulfillment.	Based on SOW	N/A	☐ Depositor - OR - ☐ Beneficiary
☐ Add Level 3 - Binary Comparison	Iron Mountain will fulfill a Work Request to perform one Deposit Usability Test - Binary Comparison which includes a comparison of the files built from the Deposit Compile Test to the actual licensed technology on the Beneficiary's site to ensure a full match in file size, with a final report sent to the Requesting Party regarding the Deposit Material. The Paying Party and Iron Mountain will agree on a custom Statement of Work ("SOW") prior to the start of fulfillment.	Based on SOW	N/A	☐ Depositor - OR - ☐ Beneficiary
☐ Add Level 4 - Full Usability	Iron Mountain will fulfill a Work Request to perform one Deposit Usability Test - Full Usability which includes a confirmation that the built applications work properly when installed, based on pre-determined test scripts provided by the Parties. A final report will be sent to the Paying Party regarding the Deposit Material. The Paying Party and Iron Mountain will agree on a custom Statement of Work ("SOW") prior to the start of fulfillment.	Based on SOW	N/A	☐ Depositor - OR - ☐ Beneficiary
☐ Add Dual/Remote Vaulting	Iron Mountain will fulfill a Work Request to store and manage the deposit materials in a remote location, designated by the client, outside of Iron Mountain's primary escrow vaulting location or to store and manage a redundant copy of the deposit materials in one (1) additional location. All Deposit Materials (original and copy) must be provided by the Depositor.	N/A	$500	☐ Depositor - OR - ☐ Beneficiary
☐ Release Deposit Material	Iron Mountain will process a Work Request to release Deposit Material by following the specific procedures defined in Exhibit C "Release of Deposit Materials" the Escrow Service Agreement.	$500	N/A	☐ Depositor - OR - ☐ Beneficiary
☐ Add Custom Services	Iron Mountain will provide its Escrow Expert consulting based on a custom SOW mutually agreed to by all Parties.	$175/hour	N/A	☐ Depositor - OR - ☐ Beneficiary
☐ Custom Contract Fee	Custom contracts are subject to the Custom Contract Fee, which covers the review and processing of custom or modified contracts.	$500	N/A	☐ Depositor - OR - ☐ Beneficiary

Note: Parties may submit Work Requests via written instruction or electronically through the online portal.
*15% Setup Fee discount applies to the first year only.

EXHIBIT B
DEPOSIT MATERIAL DESCRIPTION

COMPANY NAME: _____ DEPOSIT ACCOUNT NUMBER: *34953*

DEPOSIT NAME _____ AND DEPOSIT VERSION _____
(Deposit Name will appear in account history reports)
DEPOSIT MEDIA (PLEASE LABEL ALL MEDIA WITH THE DEPOSIT NAME PROVIDED ABOVE)

MEDIA TYPE	QUANTITY	MEDIA TYPE	QUANTITY
☐ CD-ROM / DVD		☐ 3.5" Floppy Disk	
☐ DLT Tape		☐ Documentation	
☐ DAT Tape		☐ Hard Drive / CPU	
		☐ Circuit Board	

	TOTAL SIZE OF TRANSMISSION (SPECIFY IN BYTES)	# OF FILES	# OF FOLDERS
☐ Internet File Transfer			
☐ Other (please describe below):			

DEPOSIT ENCRYPTION (Please check either "Yes" or "No" below and complete as appropriate)

Is the media or are any of the files encrypted? ☐ Yes or ☐ No

If yes, please include any passwords and decryption tools description below. Please also deposit all necessary encryption software with this deposit.

Encryption tool name_____ Version _____

Hardware required _____

Software required _____

Other required information_____

DEPOSIT CERTIFICATION (Please check the box below to Certify and Provide your Contact Information)

☐ I certify for Depositor that the above described Deposit Material has been transmitted electronically or sent via commercial express mail carrier to Iron Mountain at the address below.	☐ Iron Mountain has inspected and accepted the above described Deposit Material either electronically or physically. Iron Mountain will notify Depositor of any discrepancies.
NAME:	NAME:
DATE:	DATE:
EMAIL ADDRESS:	
TELEPHONE NUMBER:	
FAX NUMBER:	

Note: If Depositor is physically sending Deposit Material to Iron Mountain, please label all media and mail all Deposit Material with the appropriate Exhibit B via commercial express carrier to the following address:
Iron Mountain Intellectual Property Management, Inc.
Attn: Vault Administration
2100 Norcross Parkway, Suite 150
Norcross, GA 30071
Telephone: 800-875-5669
Facsimile: 770-239-9201

FOR IRON MOUNTAIN USE ONLY: (NOTED DISCREPANCIES ON VISUAL INSPECTION)	

EXHIBIT C

RELEASE OF DEPOSIT MATERIAL
Deposit Account Number: _3 4 9 5 3_

Iron Mountain will use the following procedures to process any Beneficiary Work Request to release Deposit Material. All notices under this Exhibit C shall be sent pursuant to the terms of Section 12(h) Notices.

1. Release Conditions. Depositor and Beneficiary agree that a Work Request for the release of the Deposit Material shall be based solely on one or more of the following conditions (defined as "Release Conditions"):
   (i) Depositor's failure to cure a material breach of the License Agreement or other agreement between the Depositor and Beneficiary regulating the use of the Deposit Material covered under this Agreement; or
   (ii) Joint written instructions from Depositor and Beneficiary; or
   (iii) Depositor is subject to voluntary or involuntary bankruptcy.

2. Release Work Request. A Beneficiary may submit a Work Request to Iron Mountain to release the Deposit Material covered under this Agreement. Iron Mountain will send a written notice of this Beneficiary Work Request within five (5) business days to the Depositor's Authorized Person.

3. Contrary Instructions. From the date Iron Mountain mails written notice of the Beneficiary Work Request to release Deposit Material covered under this Agreement, Depositor representative(s) shall have ten (10) business days to deliver to Iron Mountain contrary instructions. Contrary Instructions shall mean the written representation by Depositor that a Release Condition has not occurred or has been cured ("Contrary Instructions"). Contrary Instructions shall be on company letterhead and signed by an authorized Depositor representative. Upon receipt of Contrary Instructions, Iron Mountain shall promptly send a copy to Beneficiary's Authorized Person(s). Additionally, Iron Mountain shall notify both Depositor and Beneficiary Authorized Person(s) that there is a dispute to be resolved pursuant to the disputes provisions of this Agreement. Iron Mountain will continue to store Deposit Material without release pending (i) joint instructions from Depositor and Beneficiary with instructions to release the Deposit Material; or (ii) dispute resolution pursuant to the disputes provisions of this Agreement; or (iii) receipt of an order from a court of competent jurisdiction.

4. Release of Deposit Material. If Iron Mountain does not receive Contrary Instructions from an authorized Depositor representative, Iron Mountain is authorized to release Deposit Material to the Beneficiary or, if more than one Beneficiary is registered to the deposit, to release a copy of Deposit Material to that particular Beneficiary only. Iron Mountain is entitled to receive any undisputed, unpaid Service Fees due Iron Mountain from the Parties before fulfilling the Work Request to release Deposit Material covered under this Agreement. Any Party may cure a default of payment of Service Fees.

5. Termination of Agreement. This Agreement will terminate upon the release of Deposit Material held by Iron Mountain with regards to that particular Beneficiary only.

6. Right to Use Following Release. Beneficiary has the right under this Agreement to use the Deposit Material for the sole purpose of continuing the benefits afforded to Beneficiary by the License Agreement. Notwithstanding, the Beneficiary shall not have access to the Deposit Material unless there is a release of the Deposit Material in accordance with this Agreement. Beneficiary shall be obligated to maintain the confidentiality of the released Deposit Material.

EXHIBIT D

AUXILIARY DEPOSIT ACCOUNT TO ESCROW AGREEMENT

Deposit Account Number: _34953_

Auxiliary Account Number_____

_____("Depositor"), and Iron Mountain Intellectual Property Management, Inc. ("Iron Mountain") have entered into the above referenced Escrow Agreement ("Agreement"). Pursuant to that Agreement Depositor may create additional deposit accounts ("Auxiliary Deposit Account") for the purpose of holding additional Deposit Material in a separate account which Iron Mountain will maintain separately from other deposit accounts under this Agreement. The new account will be referenced by the following name: _____ ("Deposit Account Name").

Pursuant to the Agreement, Depositor may submit material to be held in this Auxiliary Deposit Account by submitting a properly filled out Exhibit B with the Deposit Material to Iron Mountain. For avoidance of doubt, Beneficiary's rights and obligations relative to the Deposit Material held in any deposit account under this Agreement are governed by the express terms of the Agreement; this form does not provide any additional rights in the Deposit Material.

The undersigned hereby agrees that all terms and conditions of the above referenced Escrow Agreement will govern this Auxiliary Deposit Account. The termination or expiration of any other deposit account will not affect this account.

DEPOSITOR

SIGNATURE:	
PRINT NAME:	
TITLE:	
DATE:	
EMAIL ADDRESS	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.

SIGNATURE:	
PRINT NAME:	
TITLE:	
DATE:	
EMAIL ADDRESS:	ipmclientservices@ironmountain.com

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.

All notices should be sent to ipmclientservices@ironmountain.com OR Iron Mountain Intellectual Property Management, Inc., Attn: Client Services, 2100 Norcross Parkway, Suite 150, Norcross, Georgia, 30071, USA.

EXHIBIT E
BENEFICIARY ENROLLMENT FORM

Depositor and Iron Mountain Intellectual Property Management, Inc. ("Iron Mountain"), hereby acknowledge that

BENEFICIARY COMPANY NAME: _____ is the Beneficiary referred to in the Escrow Agreement that supports
Deposit Account Number: *34953* _____ with Iron Mountain as the escrow agent. Beneficiary hereby agrees to be
bound by all provisions of such Agreement.

AUTHORIZED PERSON(S)/NOTICES TABLE
Please provide the name(s) and contact information of the Authorized Person(s) under this Agreement. All notices will be sent electronically
or through regular mail to the appropriate address set forth below. Please complete all information as applicable. Incomplete information
may result in a delay of processing.

BENEFICIARY		DEPOSITOR	
PRINT NAME:		PRINT NAME:	
TITLE:		TITLE:	
EMAIL ADDRESS		EMAIL ADDRESS	
STREET ADDRESS		STREET ADDRESS	
PROVINCE/CITY/STATE		PROVINCE/CITY/STATE	
POSTAL/ZIP CODE		POSTAL/ZIP CODE	
PHONE NUMBER		PHONE NUMBER	
FAX NUMBER		FAX NUMBER	

PAYING PARTY COMPANY NAME: _____
BILLING CONTACT INFORMATION TABLE
Please provide the name and contact information of the Billing Contact under this Agreement. All Invoices will be sent to
this individual at the address set forth below.

PRINT NAME:	
TITLE:	
EMAIL ADDRESS	
STREET ADDRESS	
PROVINCE/CITY/STATE	
POSTAL/ZIP CODE	
PHONE NUMBER	
FAX NUMBER	
PURCHASE ORDER #	

DEPOSITOR

SIGNATURE:	
PRINT NAME:	
TITLE:	
DATE:	
EMAIL ADDRESS	

BENEFICIARY

SIGNATURE:	
PRINT NAME:	
TITLE:	
DATE:	
EMAIL ADDRESS:	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.

SIGNATURE:	
PRINT NAME:	
TITLE:	
DATE:	
EMAIL ADDRESS:	ipmclientservices@ironmountain.com

All notices to Iron Mountain Intellectual Property Management, Inc. should be sent to ipmclientservices@ironmountain.com OR Iron
Mountain Intellectual Property Management, Inc., Attn: Client Services, 2100 Norcross Parkway, Suite 150, Norcross, Georgia, 30071, USA.

EXHIBIT Q
ESCROW DEPOSIT QUESTIONNAIRE

Introduction

From time to time, Beneficiaries may exercise their right to perform verification Services. This is a Service that Iron Mountain provides for the purpose of validating relevance, completeness, currency, accuracy and functionality of Deposit Materials.

Purpose of Questionnaire

In order for Iron Mountain to determine the Deposit Material requirements and to quote Fees associated with verification Services, a completed deposit questionnaire is requested. It is the responsibility of the Depositor to complete the questionnaire.

Instructions

Please complete the questionnaire in its entirety by answering every question with accurate data. Upon completion, please return the completed questionnaire to the Beneficiary asking for its completion, or e-mail it to Iron Mountain to the attention of verification@ironmountain.com

Escrow Deposit Questionnaire

General Description

1. What is the general function of the software to be placed into escrow?
2. On what media will the source code be delivered?
3. What is the size of the deposit in megabytes?

Requirements for the Execution of the Software Protected by the Deposit

1. What are the system hardware requirements to successfully execute the software? (memory, disk space, etc.)
2. How many machines are required to completely set up the software?
3. What are the software and system software requirements, to execute the software and verify correct operation?

Requirements for the Assembly of the Deposit

1. Describe the nature of the source code in the deposit. (Does the deposit include interpreted code, compiled source, or a mixture? How do the different parts of the deposit relate to each other?)
2. How many build processes are there?
3. How many unique build environments are required to assemble the material in the escrow deposit into the deliverables?
4. What hardware is required for each build environment to compile the software? (including memory, disk space, etc.)
5. What operating systems (including versions) are used during compilation? Is the software executed on any other operating systems/version?
6. How many separate deliverable components (executables, share libraries, etc.) are built?
7. What compilers/linkers/other tools (brand and version) are necessary to build the application?
8. What, if any, third-party libraries are used to build the software?
9. How long does a complete build of the software take? How much of that time requires some form of human interaction and how much is automated?
10. Do you have a formal build document describing the necessary steps for system configuration and compilation?
11. Do you have an internal QA process? If so, please give a brief description of the testing process.
12. Please list the appropriate technical person(s) Iron Mountain may contact regarding this set of escrow deposit materials.

Please provide your technical verification contact information below:

COMPANY:	
SIGNATURE:	
PRINT NAME:	
ADDRESS 1:	
ADDRESS 2:	
CITY, STATE, ZIP	
TELEPHONE:	
EMAIL ADDRESS:	

For additional information about Iron Mountain Technical Verification Services, please contact Manager of Verification Services at 978-667-3601 ext. 100 or by e-mail at mailto: verification@ironmountain.com

Iron Mountain®

Exhibit E
Beneficiary Enrollment Form

Depositor and Iron Mountain Intellectual Property Management, Inc. ("Iron Mountain"), hereby acknowledge that
Beneficiary Company Name: _____is the **Beneficiary**
referred to in the Escrow Agreement that supports **Deposit Account Number:** _____with Iron Mountain as the
escrow agent. **Beneficiary** hereby agrees to be bound by all provisions of such Agreement. The last date noted on the signature
blocks of this enrollment shall be the Effective Date.

Authorized Person(s) Notices Table				
Please provide the name(s) and contact information of the Authorized Person(s) under this Agreement. Please complete all information as applicable. Incomplete information may result in a delay of processing.				
DEPOSITOR			**BENEFICIARY**	
Print Name			Print Name	
Title			Title	
Email Address			Email Address	
Street Address			Street Address	
Province/City/State			Province/City/State	
Postal/Zip Code			Postal/Zip Code	
Phone Number			Phone Number	
Fax Number			Fax Number	
Billing Contact Information Table				
Please provide the name and contact information of the Billing Contact under this Agreement. All Invoices will be sent to this individual at the address set forth below.				
DEPOSITOR			**BENEFICIARY**	
☐ *Check if same as Authorized Person*			☐ *Check if same as Authorized Person*	
Company Name			Company Name	
Print Name			Print Name	
Title			Title	
Email Address			Email Address	
Street Address			Street Address	
Province/City/State			Province/City/State	
Postal/Zip Code			Postal/Zip Code	
Phone Number			Phone Number	
Fax Number			Fax Number	
Purchase Order #			Purchase Order #	

Beneficiary Enrollment Form Work Request

Please check boxes to order services and to identify the Paying Party

Service	Service Description	One-Time Fees	Annual Fees	Paying Party
☒ **Add Additional Beneficiary**	Iron Mountain will fulfill a Work Request to add a new Beneficiary to an escrow deposit account in accordance with the Agreement.		$850	☐ Depositor ☐ Beneficiary
☐ **Add Additional Deposit Account**	Iron Mountain will set up one additional deposit account to manage and administrate access to new Deposit Material that will be securely stored in controlled media vaults in accordance with the Agreement that governs the Initial Deposit Account.		$1,150	☐ Depositor ☐ Beneficiary
☐ **Add File List Report**	Iron Mountain will fulfill a Work Request to provide a File List Test, which includes a deposit media readability analysis, a file listing, a file classification table, virus scan outputs, and assurance of completed deposit questionnaire. A final report will be sent to the Paying Party regarding the Deposit Material to ensure consistency between Depositor's representations (i.e., Exhibit B and Deposit Questionnaire) and stored Deposit Material. Deposit must be provided on CD, DVD-R, or deposited by sFTP.	$2,750	N/A	☐ Depositor ☐ Beneficiary
☒ **Add Level 1 - Inventory and Analysis Test**	Iron Mountain will perform an Inventory Test on the initial deposit, which includes Analyzing deposit media readability, virus scanning, developing file classification tables, identifying the presence/absence of build instructions, and identifying materials required to recreate the Depositor's software development environment. Output includes a report which will include build instructions, file classification tables and listings. In addition, the report will list required software development materials, including, without limitation, required source code languages and compilers, third-party software, libraries, operating systems, and hardware, as well as Iron Mountain's analysis of the deposit.	$5,250 or based on SOW if custom work required	N/A	☐ Depositor ☐ Beneficiary
☐ **Custom Contract Fee**	Custom contracts are subject to the Custom Contract Fee, which covers the review and processing of custom or modified contracts.	$750	N/A	☐ Depositor ☐ Beneficiary

IN WITNESS WHEREOF, the Parties have duly executed this Enrollment as of the Effective Date by their authorized representatives:

DEPOSITOR		BENEFICIARY	
Signature		**Signature**	
Print Name		**Print Name**	
Title		**Title**	
Date		**Date**	
Email Address		**Email Address**	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.	
Signature	
Print Name	
Title	
Date	
Email Address	ipmclientservices@ironmountain.com

All notices **to Iron Mountain Intellectual Property Management, Inc.** should be sent to ipmclientservices@ironmountain.com OR Iron Mountain Intellectual Property Management, Inc., Attn: Client Services, 2100 Norcross Parkway, Suite 150, Norcross, Georgia, 30071, USA. Telephone: 800-875-5669. Facsimile: 770-239-9201