Supplement A:

State IT Policy, Standard and Service Requirements

Revision History:

Date:	Description of Change:
1/01/2019	Original Version
10/18/2019	Updated to modify service descriptions, include new services, and remove older services. A new Appendix A - Request for Variance to State IT Policy, Standard or Service Requirements was added.
12/15/2020	Updated to align with current service offerings, to incorporate the Cloud Smart strategy, and to clarify the variance request requirements.

Contents

1. Overview of Supplement

This supplement shall apply to any and all work, services, locations and computing elements that the Contractor will perform, provide, occupy or utilize in conjunction with the delivery of work to the State and any access to State resources in conjunction with delivery of work.

This includes, but is not limited to:

- Major and minor projects, upgrades, updates, fixes, patches and other software and systems inclusive of all State elements or elements under the Contractor's responsibility utilized by the State;
- Any systems development, integration, operations and maintenance activities performed by the Contractor;
- Any authorized change orders, change requests, statements of work, extensions or amendments to this contract;
- Contractor locations, equipment and personnel that access State systems, networks or data directly or indirectly; and
- Any Contractor personnel, or sub-contracted personnel that have access to State Data as defined below:
    - "State Data" includes all data and information created by, created for, or related to the activities of the State and any information from, to, or related to all persons that conduct business or personal activities with the State, including, but not limited to Sensitive Data.
    - "Sensitive Data" is any type of data that presents a high or moderate degree of risk if released, disclosed, modified or deleted without authorization. Sensitive Data includes but is not limited to:
        - Certain types of personally identifiable information (PII) that is also sensitive, such as medical information, social security numbers, and financial account numbers.
        - Federal Tax Information (FTI) under IRS Special Publication 1075.
        - Protected Health Information (PHI) under the Health Insurance Portability and Accountability Act (HIPAA).
        - Criminal Justice Information (CJI) under Federal Bureau of Investigation's Criminal Justice Information Services (CJIS) Security Policy.
    - The data may also be other types of information not associated with an individual such as security and infrastructure records, trade secrets, and business bank account information.
- The terms in this supplement are in addition to the Contract terms and conditions. In the event of a conflict for whatever reason, the highest standard contained in the Contract shall prevail.

1.1. Requirements Overview

Contractors performing the work under the Contract are required to comply with Ohio and DAS IT policies and standards (refer to Section 3 for additional information) and leverage State IT services outlined in this document unless the State has approved a variance. Refer to Section 2 for instructions on proposing variances to the requirements outlined in this supplement.

2. Proposed Variances to Supplement Requirements

Any proposed variances to the requirements outlined in this supplement are required to be identified in **Appendix A - Request for Variance to State IT Policy, Standard or Service Requirements**. Offerors are asked not to make any changes to the language contained within this supplement. In the event the Offeror finds it necessary to deviate from any of the IT policies, standards or State IT services, a variance may be requested, and the Offeror must provide a sufficient business justification for the variance request. In the event that a variance is requested post award (e.g., a material change to the architecture), the Enterprise IT Architecture Team will engage with the Contractor and appropriate State stakeholders to review and approve/deny the variance request.

3. State IT Policy and Standard Requirements

The Contractor will comply with State of Ohio IT policies and standards. For the purposes of convenience, a compendium of IT policy and standard links is provided in the table below.

Table 1 – State of Ohio IT Policies, Standards, IT Bulletins and DAS Polices

Item	Link
State of Ohio IT Policies	https://das.ohio.gov/Divisions/Information-Technology/State-of-Ohio-IT-Policies
State of Ohio IT Standards	https://das.ohio.gov/Divisions/Information-Technology/State-of-Ohio-IT-Standards
State of Ohio IT Bulletins	https://das.ohio.gov/Divisions/Information-Technology/State-of-Ohio-IT-Bulletins
DAS Policies	100-11 Protecting Privacy 100-12 ID Badges & Visitors Policy 700-00– Technology / Computer Usage Series 2000-00 – IT Operations and Management Series https://das.ohio.gov/Divisions/Administrative-Support/Employees-Services/DAS-Policies

Please affirm compliance with the State's IT policies and standards. If this section, or portions of this section are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

4. State of Ohio IT Services

DAS OIT delivers information technology (IT) and telecommunication services. DAS OIT is responsible for operating and maintaining IT and telecommunication hardware devices, as well as the related software. This document outlines a range of service offerings from DAS OIT that enhance performance capacity and improve operational efficiency. Explanations of each service are provided and are grouped according to the following solution categories.

4.1. State IT Cloud Smart Strategy

The Ohio Department of Administrative Services (DAS) Office of Information Technology (OIT) will support and guide agencies as they look to Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) opportunities and act as a broker of these services. State IT Cloud Smart is designed to provide a dynamic, cost-effective set of differentiating core enterprise services and innovative technologies from private and public clouds that will improve State operations and quality of services to Ohioans.

DAS OIT will leverage the Cloud Center of Excellence (CCoE) to focus on leveraging the State's investment in Private Cloud, while incorporating efficiencies from public cloud providers. The CCoE will provide the guidance to realize the value of being invested in the multicloud. The goal is to provide the most optimal hosting environment for all proposed solutions.

4.1.1. Private Cloud Data Center Services

4.1.1.1. AIX Systems:

Advanced Interactive Executive (AIX) is a proprietary version of the UNIX operating system developed by IBM. The AIX Systems Service enables customers to develop and run applications and/or databases without incurring the cost of setting up, administering and maintaining an operating system environment. DAS OIT runs the AIX operating system on IBM Power hardware, as a physical server or logical partition (LPAR)/virtual server. All of the AIX systems are connected to the DAS OIT Enterprise Storage Area Network (SAN) for performance, general purpose or capacity based storage. All systems are also provided backup and recovery services.

4.1.1.2. Enterprise Backup Services:

The Enterprise Backup service uses IBM Tivoli Storage Manager Software and provides for nightly backups of customer data. It also provides for necessary restores due to data loss or corruption. The option of performing additional backups, archiving, restoring or retrieving functions is available for customer data. DAS OIT backup facilities provide a high degree of stability and recoverability as backups are duplicated to the alternate site.

4.1.1.3. Data Center Co-Location Service:

The DAS OIT Co-Location service offers consumers a Tier 3 capable secure data center environment with reliable uptime, power redundancy and redundant cooling to ensure uninterrupted access of critical data and applications in the State of Ohio Computer Center (SOCC). The SOCC is staffed and available to authorized personnel 24 x 7 x 365 and is accessible via electronic card key only.

4.1.1.4. Enterprise Data Storage:

The services covered under Enterprise Data Storage include:

High Performance Disk Storage service offers high-performance, high-capacity, secure storage designed to deliver the highest levels of performance, flexibility, scalability and resiliency. The service has fully redundant storage subsystems, with greater than five-nines availability, supporting mission critical, externally-facing and revenue-generating applications 24x7x365. High Performance Disk Storage is supplied as dual Enterprise SAN fiber attached block storage.

General Purpose Disk Storage service offers a lower-cost storage subsystem, which is not on a High Performance Disk Storage. This service supports a wide range of applications, including email, databases and file systems. General Purpose Disk is also flexible and scalable and highly available. General Purpose Disk Storage is supplied as dual Enterprise SAN fiber attached block storage.

Capacity Disk Storage service is the least expensive level of disk storage available from DAS OIT. Capacity Disk Storage is suitable for large capacity, low performance data, such as test, development and archival. Capacity Disk Storage is supplied as dual Enterprise SAN fiber attached block storage or as file-based storage.

4.1.1.5. Open Systems DR-DRaaS:

Open Systems Disaster Recovery as a Service (DRaaS) offers server imaging and storage at a geographically disparate site from Columbus, Ohio. The service provides customers with a private Disaster Recovery as a Service solution connected to the State of Ohio Computer Center (SOCC) via the Ohio One Network that will consists of the following:

- Compute to allow expected performance in the event of a complete failover
- 24vCPU per host with 32 host in the environment all licensed with VMWare
- Support of the orchestration and replication environment
- Site connectivity
- Stored images available upon demand

Open Systems Disaster Recovery - Windows (1330 / 100607 / DAS505170/ 3854L) - Open Systems Disaster Recovery – Windows is a service that provides a secondary failover site for Windows based servers within the geographically disparate site. This service provides duplicative server compute and storage to match Server Virtualization and Data Storage capabilities as provisioned at the SOCC. This service is provided through a contracted third party who is responsible for all management and equipment at the facility.

Open Systems Disaster Recovery - AIX (1330 / 100607 / DAS505170/ 3854N) - Open Systems Disaster Recovery – AIX is a service that provides a secondary failover site for AIX based servers within the geographically disparate site. This service provides duplicative server compute and storage to match AIX Systems Services and Data Storage capabilities as provisioned at the SOCC. This service is provided through a contracted third party who is responsible for all management and equipment at the facility.

4.1.1.6. Mainframe Business Continuity and Disaster Recovery:

Business continuity involves planning for keeping all aspects of a business functioning in the midst of disruptive events. Disaster recovery, a subset of business continuity focuses on restoring the information technology systems that support the business functions.

Mainframe Disaster Recovery (DR) services are offered to customers of DAS OIT's IBM mainframe environment. Services are made available via IBM's Business Continuity and Resiliency Services which provides hot site computer facilities at a remote location.

Tests are conducted annually at IBM's hotsite location, during which DAS OIT's mainframe computer infrastructure is restored. Once the mainframe system is operational, participating agencies restore their production applications and conduct extensive tests to ensure that those applications have been successfully recovered and would be available in the event of an actual disaster.

This service is designed to expand business continuity and disaster recovery capabilities in the most cost effective and efficient manner possible for DAS customers and for agencies that have systems and applications that run on DAS/OIT infrastructure at the State of Ohio Computer Center (SOCC).

4.1.1.7. Mainframe Systems:

DAS OIT's Mainframe Systems services offer an IBM mainframe computer sysplex with a processing speed rating at 5052 Million of Instructions per Second (MIPS). This mainframe uses the z/OS operating system and the Job Entry Subsystem (JES3). Additionally, the system is connected via fiber to OIT's High Performance Disk Storage, which affords reliable and fast disk access and additional storage capacity when needed.

Services are provided using a wide range of application, transaction processing and telecommunications software. Data security and user authentication are provided by security software packages. This service enables customers to develop applications without incurring the costs of setting up and maintaining a mainframe operating system environment.

Mainframe tape service option is available:

- Mainframe Virtual Tape - Virtual tape technology that optimizes batch processing and allows for better tape utilization using the EMC Disk Library for Mainframe (DLM) virtual tape.

4.1.1.8. Metro Site Facility:

The Metro Site Facility Service provides a secondary, near real-time (measured in ms) failover from the SOCC. This service provides for the facility, site connectivity, on-going support of server images for Disaster Recovery as a Service, and associated services. Metro Site Facilities are offered to support Virtual Server and Data Storage customers providing Global/Metro Mirroring at a secondary near real time failover site within the Metro Columbus area. This service provides duplicative server facilities to match Server Virtualization and Data Storage Rates. Storage necessary for support of the disaster recovery image will be billable at the standard storage rates.

4.1.1.9. Server Virtualization:

Server Virtualization is the practice of abstracting the physical hardware resources of compute, storage and networking of a host server and presenting those resources individually to multiple guest virtual servers contained in separate virtual environments. DAS OIT leverages the VMware vSphere platform to transform standardized hardware into this shared resource model that is capable providing solutions around availability, security and automation.

Server Virtualization includes:

- **OIT Managed-Basic Server Virtualization**: DAS OIT hosts the virtual server and manages the hardware/virtualization layer. DAS OIT is also responsible for managing the server's operating system

(OS). This service includes 1 virtual CPU (vCPU), 1 GB of RAM and 50 GB of General Disk Storage used for the operating system.

Please explain how the State's Private Cloud Data Center Services will be incorporated into the proposed solution. If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

4.1.2. Public Cloud Brokered Services

The DAS Office of Information Technology has invested in a Cloud Operating Model where the State can take advantage of economies of scale with the large cloud vendors. The State-approved public cloud brokered services may be leveraged through the use of DAS master cloud service agreements (MCSAs). This will ensure that the selected solution is implemented as part of the State's tenant environment. The following public cloud providers' IaaS and PaaS frameworks are supported by the State's public cloud brokered services:

4.1.2.1. Infrastructure as a Service (IaaS) Frameworks

Microsoft:

Microsoft Azure Commercial and Government Cloud

Amazon:

Amazon AWS Commercial and Government Cloud

- State Managed Account with Guardrails
- Vendor Managed Account with Guardrails

Oracle:

Oracle Cloud Infrastructure (OCI)

4.1.2.2. Platform as a Service (PaaS) Frameworks

Microsoft:

Microsoft Azure Commercial and Government Cloud

- Subscription with Guardrails

Amazon:

Amazon AWS Commercial and Government Cloud

- Vetted Services provided in Control Tower Accounts

Oracle:

Oracle Cloud Infrastructure (OCI)

- Product Specific Compartments/Projects

Google:

Google Cloud Platform (GCP)

IBM:

IBM Cloud

Please explain how the State's Public Cloud Brokered Services will be incorporated into the proposed solution. If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

4.2. InnovateOhio Platform

Executive Order 2019-15D, “Modernizing Information Technology Systems in State Agencies,” established the InnovateOhio Platform (IOP) initiative. IOP focuses on digital identity, the experience of the individual authorized to access the system (“User”), analytics and data sharing capabilities. The InnovateOhio Platform provides integrated and scalable capabilities that better serve Ohioans.

4.2.1. Digital Identity Products

OH | ID - Digital identity solution for Ohio citizens:
Provides single sign-on for disparate systems, enhanced security and privacy, federal and state compliance, and personalized experience. Simple, secure access for citizens. Multiple levels of identity assurance.

- Single Sign-On
- Access Logging
- Real-Time Analytics
- 2-Factor Authentication (2FA)
- Access Management
- Self-Service Portal
- Identity Proofing
- Directory Integration

OH | ID Workforce - Digital identity solution for Ohio workforce
Provides single sign-on for disparate systems, enhanced security and privacy, federal and state compliance, and personalized experience. Simple, secure access for state and county employees, contractors, and external workers. Multiple levels of identity assurance.

- Single Sign-On
- Directory Integration
- Real-Time Analytics
- 2-Factor Authentication (2FA)
- Just-in-Time Provisioning
- User Management
- Access Logging
- Privileged Access Management

ID Platform – Software as a Service (SaaS) identity framework
Provides an authorization layer and allows for the integration and extension of InnovateOhio Platform identity services into applications. Customizable to User needs.

- Fine-Grain Authorization Management
- Real-Time Analytics
- Extendable Services from OH|ID
- Cloud-Based Infrastructure

4.2.2. User Experience Products

IOP Portal Builder - Website template accelerator:
An accelerator to easily create modern, responsive and ADA-compliant websites and portals for the InnovateOhio cloud platform. The InnovateOhio Portal Builder is available in a Software as a Service (SaaS) form.

- Standardized Dynamic Templates
- Automated Workflows
- Governance & Access Control
- Optimized Content Search
- ADA-Compliant
- Content Management
- Integration with OH|ID
- Real-Time Analytics
- Aggregate Applications
- Customizable Features
- Mobile Ready
- Site Analytics

IOP myOhio - The State’s Intranet platform
Features intuitive navigation, simplified access to on-boarded business applications, and a modernized, mobile-responsive design. Automates compliance with accessibility standards per Section 508 of the Rehabilitation Act.

- Single Sign-On
- Personalized Content
- Content Management
- Near Real-Time Syndication
- 2-Factor Authentication (2FA)
- Access Logging
- Optimized Content Search
- Application Store
- Mobile Ready
- Automated Workflows
- Real-Time Analytics
- Site Analytics

IOP Digital Toolkit - Free User experience digital toolkit
Reusable components for quick deployment of websites, portals and applications. Universal framework for developers and designers. Consistent and compliant User experiences.

- Mobile Ready
- Real-Time Analytics
- Style Guide
- Customizable Features
- Sample Code
- ADA-Compliant
- Standardized Dynamic Templates

4.2.3. Analytics and Data Sharing Products

Applied Analytics
Ohio's applied analytics solution provides the ability to build analytical and reporting solutions and deploy them in the most impactful manner possible by putting data in the hands of Users in their natural workflow. From ideation and solution design to data science and engineering, the applied analytics solution enables the User to move from concept to results.

- Advanced Data Science
- Data Strategy Optimization
- Ideation & Scoping
- Solution Design
- Visual Data Discovery
- Workflow Integration

Big Data Platform
Ohio's data sharing and analytics platform provides public/private cloud deployment models that are secure, flexible, and scalable, powering analytics across data of any type or source to gain deeper insights and drive impactful outcomes.

- Data Sharing
- Diverse Data
- Hybrid Cloud
- Massive Volumes
- Rapid Prototyping
- Real-Time Analytics
- Security & Compliance

Data Management
Ohio's self-service data management suite provides rich and secure capabilities to harness the power of the analytics platform leveraging User friendly and pre-configured technologies. Additionally, the suite supports a bring-your-own-tool approach allowing analysts and data scientists to work on the platform with the technologies they are most comfortable using.

- Audit
- Bring Your Own Tool (BYOT)
- Data Engineering
- Data Exploration
- Data Lineage
- Data Profiling
- Governance & Security
- Pre-Built Pipelines
- Self-Service Support

Please explain how the InnovateOhio Platform will be incorporated into the proposed solution. If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

4.3. Enterprise Application Services

4.3.1. Application Services:

Application Services provides standardized, integrated solutions for Application Development. The core components of the solution include:

- **Application Development Lifecycle Services** for creating new applications and systems.
- **Application Development Operations** for maintaining and enhancing existing applications and systems.
- **Website Lifecycle Services** for designing and creating new websites.
- **Website Operations** for maintaining and updating existing websites.
- **User Interface/User Experience Services** that work in connection with Application Development and Website work that define the "look and feel" of what users interacts with.

Supporting Technology Services which support the Applications, Systems and Websites developed. These services can include payment processing, application performance monitoring, and complex reporting/visualizations.

4.3.2. Enterprise Hosted Document Management:

The Enterprise Hosted Document Management is a standardized, integrated solution for document and content management. The core components of the solution include:

- **Document Management** core capabilities such as: secure check-in / check-out, version control, and index services for business documents, audio / video files, and Environmental Systems Research Institute (ESRI) / Geographic Information Systems (GIS) maps.
- **Image Processing** for capturing, transforming and managing images of paper documents via scanning and / or intelligent character recognition technologies such as Optical Character Recognition.
- **Workflow / Business Process Management (BPM)** for supporting business processes, routing content, assigning work tasks and creating audit trails.
- **Records Management** for long-term retention of content through automation and policy, ensuring legal, regulatory and industry compliance.
- **Web Content Management (WCM)** for controlling content including content creation functions, such as templating, workflow and change management and content deployment functions that deliver content to Web servers.
- **Extended Components** can include one or more of the following: Digital Asset Management (DAM), Document Composition, eForms, search, content and analytics, e-mail and information archiving.

4.3.3. Electronic Data Interchange (EDI) Application Integration:

EDI Application Integration service is a combination of Application Integration, Data Exchange and Electronic Data Interchange (EDI) functionality. This service provides application to application connectivity to support interoperable communication, data transformation, and business process orchestration amongst applications on the same or different computing platforms. Business process orchestration between many data formats may be supported including Web Services, XML, People-Soft, FTP, HTTP, MSMQ, SQL, Oracle, Flat File, SAP, DB2, CICS, EDI, HIPAA, HL7, Rosetta Net, etc.

The Data Exchange component allows unattended delivery of any electronic data format to a customer agency via encrypted files over public FTP, FTPS, SFTP, VPN.

Application Integration services are offered via:

- **End Points** – also referred to as a mailbox, this is a connectivity point to facilitate the movement or transaction of data between two or more entities.
- **KBs** – represents the size in kilobytes of a message that is transformed or processed. This typically refers to a document or file conversion or a format change.
- **Messages** – a discrete unit of data that is moved or transacted between two or more entities. A message typically represents a business document or a file.

4.3.4. Enterprise Business Intelligence:

The State of Ohio Enterprise Business Intelligence (BI) service provides reporting, data visualization, enterprise data warehousing, business and predictive analytics, and decision support solutions to users from all 120+ state agencies, boards and commissions, and institutions of higher education. With tools such as Cognos and Tableau, the Enterprise BI team can help turn raw data into usable information and powerful visualizations, in turn helping users analyze policies and programs, evaluate operations and drive decisions.

Enterprise BI Solutions — Standardized reporting solutions to benefit all State Agencies.

- Financial Information Cost-and Spend Management – State Agencies can gain valuable insights into planned, actual, and forecasted spending based on historical information as well as planned expenditures, budgets, and actual results.
- Workforce and Human Resources – State Agencies can gain valuable insights into position management, workforce composition, pay, leave and benefits, and more.
- Targeted Solutions – The BI Team currently provides data visualization solutions to State agencies and custom reporting solutions to 50+ agencies, with availability for additional options ranging from consultations through turn-key content delivery.

BI Core Reporting Services include:

Financial Information

- Enterprise Financial Dashboards
- General Ledger
- Budget and Planning (BPM)
- Travel and Expense
- Procure to Pay
- Accounts Receivable
- Asset Management
- Value Management
- Trends and Forecasts
- Statewide Cost Allocation Plan (SWCAP)
- MBE/EDGE and Equal Opportunity
- State of Ohio Payroll Projection Systems (SOPPS)

Workforce and Human Resources

- Enterprise HR Dashboards
- Workforce Profile
- Compensation
- ePerformance/ePAR
- Enterprise Learning Management

50+ Targeted Solutions including:

- Interactive Budget OBM
- Higher Education OHDE
- JFS dashboards
- State Health Facts
- BWC Core Reporting
- COVID-19 Dashboards
- Ohio Checkbook

4.3.5. eLicense Ohio Professional Licensure:

eLicense Ohio Professional Licensure is the State of Ohio's online system used to manage the issuance, certifications, inspections, renewals and administration of professional licenses across the State. The eLicense application is a public/business facing system that is designed to foster the creation and growth of businesses in the State and is the mechanism through which Agencies, Boards and Commissions support Ohio citizens. The system is a central repository for license and certificate data, in addition to managing the generation and storage of correspondence. Secure fee collection is performed through an on-line payment processor, which includes bank transfers, credit cards, and other payment types.

Core system capabilities include:

Customer Relationship Manager (CRM)
- Contact Management

Revenue
- Deposit Accounting Revenue Tracking
- Refund and Reimbursement Processing
- Fine and Penalty Tracking

License Administration
- Administration
- Workflow
- Reports

Enforcement
- Enforcement Activities
- Case Management Activities

Online Licensure Services
- Applications
- Renewals
- License Verification
- License Maintenance
- License Lookup Website
- Workflow
- Document Management
- Secure Payment Processing

Other Services
- Continuing Education Tracking
- Examinations
- Inspections
- Complaint Management

4.3.6. ePayment Business Solutions:

DAS OIT's ePayment Business Solution allows State agencies as well as boards and commissions to accept electronic credit card and Automated Clearing House (ACH) payments from customers. The ePayment solution is a highly flexible payment engine supporting a wide range of payment types: credit cards, debit cards, electronic checks, as well as recurring, remote capture and cash payments. The solution utilizes a single, common gateway to permit the acceptance of payments from multiple client application sources: Web, IVR, kiosk, POS, mobile, over the counter, etc. Payment processing is supported through multiple credit card gateway options, automated clearing house (ACH) bank processing, and check acceptance services.

The ePayment solution is compliant with the Payment Card Industry Data Security Standard (PCI DSS), the Electronic Fund Transfer Act (EFTA) and is audited to the standards of SSAE16 SOC1 Type II.

4.3.7. Enterprise eSignature Service:

OneSpan Sign is Ohio's enterprise solution for eSignatures. The product is a FedRAMP SaaS (Software as a Service) solution, which offers a standardized approach to cloud security. OneSpan Sign's eSignature functions include workflows, tracking, audit logs and protection against forgery/non-repudiation.

OneSpan Sign has an extensive library of open application programming interfaces (APIs) to integrate eSignatures with existing applications and core systems. OneSpan Sign's pre-built, third-party connectors enable the eSignature capabilities into business software products such as Dynamics CRM, Salesforce, Microsoft SharePoint, etc.

4.3.8. Identity Management:

Identity Management provides integrated authentication services across multiple enterprise service offerings. The service also streamlines the life cycle events for user credentials including onboarding, provisioning, administration, service consumption, change events, de-provisioning and off-boarding.

Identity Management is made up of four service functions:
- **Identity Repository** offers a centralized container for all user credentials and management tools for the administration of those credentials and credential attributes.
- **Core Shared Services** leverage the centralized credential from the identity repository for authentication. Service provisioning tools are available to provision access to various portions of the core shared services within the Identity Management service.

- **Application Integration** permits an agency's line of business application to authenticate to the centralized user credential within the Identity Repository using a secure Lightweight Directory Access Protocol (LDAP) and/or Active Directory Federation (SAML 2.0)
- **Endpoint Consumption** allows for the placement of desktops, laptops, and/or tablets to reside within the Identity Management service. This extends the ability to use a single credential to authenticate to workstations and applications.

4.3.9. IT Service Management Tool (ServiceNow):

DAS OIT offers ServiceNow, a cloud-based IT Service Management Tool that provides internal and external support through an automated service desk work-flow based application which provides flexibility and ease-of-use. The IT Service Management Tool provides workflows aligning with Information Technology Infrastructure Library (ITIL) processes such as incident management, request fulfillment, problem management, change management and service catalog. These processes allow customers to manage related fields, approvals, escalations, notifications, and reporting needs. Customers have the option of provisioning the entire suite of service features or selecting those features best suited for their needs.

The following modules are currently in use on the enterprise platform:

- IT Service Management
- IT Operations Management
- IT Business Management
- Governance, Risk & Compliance
- Security Operations
- Intelligent Applications

ServiceNow Product Catalog

The Product Catalog contains:

- The applications currently in use of the State of Ohio ServiceNow Application across agencies
- The product wheel of the platform footprint
- Applications in use by agencies
- Product descriptions by Platform family, then Application within Family for current functionality
- Product descriptions by Platform family, then Application within the Family for services not deployed

4.3.10. Automated Ticketing:

DAS OIT offers Watson Automated Ticketing that integrates with ServiceNow for agencies interested in having incidents and requests in their UNASSIGNED queue that comes through email assigned to the proper resolver queue. This service will route these incidents to the appropriated queue based on historical data and optionally provide other use cases as well. Watson is a cognitive automation platform that leverages machine learning, natural language processing, deep learning, semantic ontologies, pattern recognition, etc.

Watson is used for automating manual parts of the support processes using Artificial Intelligence algorithms. It automates processes to provide more efficient operation with higher quality results compared to manual performance.

4.3.11. Ohio Benefits:

Health and Human Services: Ohio Benefits
Ohio Benefits provides a comprehensive and effective platform for planning, designing, development, deployment, hosting and ongoing maintenance of all State of Ohio Health and Human Services (HHS) Public Assistance Services and Programs.

Ohio Benefits provides superior eligibility services including citizen self-service, efficient workflow management and coordination, an agile and easily manageable rules engine, improved data quality and decision support

capabilities. Ohio Benefits supports improvement in state and county productivity, capability and accessibility of benefits to Ohioans through a robust enterprise system.

The Ohio Benefits platform provides four distinct technology domains:

- **Common Enterprise Portal** – User Interface and User Experience Management, Access Control, Collaboration, Communications and Document Search capability
- **Enterprise Information Exchange** – Discovery Services (Application and Data Integration, Master Data Management (MDM) Master Person Index and Record Locator Service), Business Process Management, Consent Management, Master Provider Index and Security Management
- **Analytics and Business Intelligence** – Integration and delivery of analytics through alerts, notifications & reports.
- **Integrated Eligibility** – A common Enterprise Application framework and Rules Engine to determine eligibility and benefits for Ohio Public Benefit Programs.

Privacy and security are the foundational blocks of the platform which is compliant with all State and federal standards.

4.3.12. Ohio Business Gateway (OBG):

The Ohio Business Gateway (OBG) offers Ohio's businesses a time and money saving online filing and payment system that simplifies business' relationships with government agencies.

Ohio businesses can use OBG to access various services and electronically submit transactions and payments with many state agencies. OBG Electronic Filing also partners with local governments to enable businesses to file and pay selected Ohio municipal income taxes.

OBG Electronic Filing routes data and payment information directly to program administrators at the agencies so that they may continue to manage the overall account relationship.

Businesses must be registered with an agency before using OBG Electronic Filing. Selected agency registrations are available through OBG Electronic Filing. Information about other registrations may be obtained by visiting the 'Starting a Business' section of the Ohio Business Gateway (http://business.ohio.gov/). If a registration is not offered on OBG Electronic Filing, the administering agency will provide information on how to obtain the registration necessary to begin using OBG Electronic Filing services. For Municipal Income Tax Electronic Filing, businesses must first register directly with municipalities before using OBG.

4.3.13. Ohio Administrative Knowledge System (OAKS):

The Ohio Administrative Knowledge System (OAKS) is the State's Enterprise Resource Planning (ERP) system which provides central administrative business services such as Financial Management, Human Capital Management, Content Management, Talent Management, Enterprise Learning Management and Customer Relationship Management.

Core system capabilities include:

Content Management (myohio.gov)

- Centralized Communications to State Employees and State Contractors
- OAKS alerts, job aids and news
- Statewide News
- Password Reset for Active Directory

Customer Relationship Management (CRM)

- Contact / Call Center Management Enterprise Business Intelligence
- Key Financial and Human Resources Data, Trends and Analysis
- Cognos driven reporting

Ohio Recruit

- 24x7 Recruiting, Reporting and Analytics
- Applicant Tracking and Compliance

Financial Management (FIN)

- Accounts Payable
- Accounts Receivable
- Asset Management
- Billing
- eSourcing
- Financial Reporting
- General Ledger

- Targeted Business Intelligence
- Tableau Analytics and Visualization

Ohio Learn

- Training Curriculum Development
- Training Content Delivery
- Training Status Tracking and Reporting
- **NEW**: Ability to extend Training Content to External Learners

- Planning and Budgeting
- Procurement
- Travel & Expense

Human Capital Management (HCM)

- Benefits Administration
- eBenefits
- ePerformance
- Kronos
- Payroll
- Position Management
- Time and Labor
- Workforce Administration

4.3.14. Enterprise Geocoding:

OAKS Enterprise Geocoding is the process of determining associated geographic coordinates from other geographic data, such as street addresses or zip codes. With these geographic coordinates, the features can be displayed and analyzed in a Geographic Information Systems (GIS), or the coordinates can be embedded into media such as digital photographs via geotagging.

OAKS Enterprise Geocoding combine address standardization, geocoding, and spatial analysis into a single service. Individual addresses can be processed in real time for on-line applications or large numbers of addresses can be processed in batch mode. The quality of each address is improved by standardizing it to meet stringent U.S. Postal Service standards.

Leveraging address location information developed and maintained by local government, the OAKS Enterprise Geocoding uses a multi-tiered geocoding process incorporating data multiple entities to provide state agencies with the most accurate location information available.

4.3.15. Geographic Information Systems (GIS) Hosting:

GIS Hosting delivers dynamic maps, spatial content, and spatial analysis via the Internet. User agencies can integrate enterprise-level Geographic Information Systems (GIS) with map capabilities and spatial content into new or existing websites and applications. GIS enhances decision support, integrating data from a variety of sources to be analyzed spatially with the results presented in the form of a map.

DAS OIT offers three types of hosted GIS services:

- Geodata Hosting provides a platform for customer agencies to deliver online spatial data and content to end users or applications. Online spatial data can be consumed by desktop GIS applications and web-based applications.
- Geoprocessing provides access to server-side geoprocessing tools that allow users to publish analytical models for use within desktop applications by remote users or embedded within Internet Mapping applications.
- GIS Map Application Hosting provides a platform for customer agencies to deliver web-based mapping content to end users.

GIS Hosting can be combined with the Enterprise Geocoding to create a comprehensive web application to locate and display events, customers or agency assets on a map in a browser.

Please explain how the State's Enterprise Application Services will be incorporated into the proposed solution. If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

4.4. Hosted Services

4.4.1. Enterprise SharePoint:

The Enterprise SharePoint Service supports both an on premises and cloud environment. Enterprise SharePoint service provides Site Administration, Technical Services/Support for SharePoint and third-party tools (e.g., Nintex) as well as Strategy, Adoption, Operations and Strategic Management within both the Tenant and Farm level for SharePoint related services. Key Services Included: Site Administration and Technical Services:

Basic Services include:

- Site Collection Creation;
- How to's from Site Collection Admin/users;
- Research Apps and make available to Tenant/Farm;
- Consult on SharePoint Online and On Premises needs with Agencies;
- Review & Approve 3rd party tool integration;
- Incident/Problem Resolution;
- Work to eradicate issues in SharePoint Online;
- Routine maintenance;
- Site to Site Migrations;

Additional Services Available:

- Customized Search;
- Site Branding & Design;
- Migrating content from one environment to SharePoint (e.g., FileShare to OneDrive or SharePoint);
- Rights Management & Data Protection; • Retention Management;
- Azure integration;
- Customized Applications and Workflows;
- Content types, managed metadata, site structure and navigation;

Strategy, Operations and Management – Key Services include:

- Program Management
- SOW and contract creation and processing • Contract Management
- Adoption Service Template & Education • Lunch 'n Learns
- Yearly Reporting
- Community Center Intranet Site Management;

Services performed for On Premises environment only:

- Configuration Management;
- Code Management;
- Patching and Software updates;
- Farm Backup and Restore;
- Refreshing Content Across Development and Staging environments;
- Physical Architecture Changes;

4.4.2. Database Support:

Database Support provides technical assistance for database implementation and usage. Services utilized by customers may include any or all of the following service offerings: installation, upgrade and management of database software, database administration tools and packaged application database products, backup/recovery procedure implementation, monitoring, tuning and troubleshooting.

Please explain how the State's Hosted Services will be incorporated into the proposed solution. If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

4.5. IT Security Services

4.5.1. Secure Sockets Layer Digital Certificate Provisioning:

Secure Sockets Layer (SSL) Digital Certificate Provisioning service provides Secure Sockets Layer Certificate service across multiple enterprise service offerings. SSL certificates are used to provide communication security to various web sites and communications protocols over the internet (ex. Web Servers, Network Devices, Application Servers, Internet Information Server (IIS), Apache, F5 devices and Exchange servers). SSL Digital Certificate Provisioning supports the delegation of administration and reporting processes for each designated customer agency while leveraging a common portal.

In addition, please review the Security Supplement (Supplement S - State Information Security and Privacy Requirements and State Data Handling Requirements).

Please explain how the State's IT Security Services will be incorporated into the proposed solution. If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

4.6. Messaging Services

4.6.1. Microsoft License Administration (Office 365):

The Office 365 service provides customers the ability to use email, Office 365 ProPlus, instant messaging, online meetings and web conferencing, and file storage all from the Cloud, allowing the customer to access services virtually anytime and from anywhere and includes email archiving and eDiscovery services.

The Office 365 service provides licensing and support for email, Office 365 ProPlus (Outlook, Word, Excel, PowerPoint, Publisher, Skype for Business and OneNote), SharePoint, and OneDrive for Business. Please note that the Office Suite may require agency deployment or agency/end user installation as well as patch management and distribution.

- Email in the Microsoft Cloud
- Office 365 ProPlus
- Skype for Business
- SharePoint Online
- OneDrive for Business

Please explain how the State's Messaging Services will be incorporated into the proposed solution. If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

4.7. Network Services

Offeror's solutions must work within the State's LAN / WAN infrastructure.

4.7.1. Ohio One Network:

The State of Ohio's One Network is a unified solution that brings together design, engineering, operations, service delivery, security, mobility, management, and network infrastructure to target and solve key government challenges by focusing on processes, procedures, consistency and accountability across all aspects of state, city and local government.

Ohio One Network can deliver an enterprise network access experience for their customers regardless of location or device and deliver a consistent, reliable network access method.

4.7.2. Secure Authentication:

The DAS OIT Secure Authentication service provides a managed two-factor user authentication solution to protect an agency's resource. The authentication function requires the user to identify themselves with two unique factors, something they know and something they have, before they are granted access. Whether local or remote, this service ensures that only authorized individuals are permitted access to a customer's environment.

4.7.3. Wireless as a Service:

Wireless as a Service is the IT Enterprise Wireless hosted network which allows customers to connect laptops and devices to their data via a wireless interface. This service is an all-inclusive enterprise level wireless LAN solution that offers guest, employee, voice and location based services with 24/7 target availability.

Coverage is three tiered:

- Broad coverage – small number of Users with low throughput, i.e. public hot spot, warehouse.
- General data use – most common, general computing with robust data performance.
- High capacity use (Voice) – maximum capacity, high bandwidth Users, i.e. location and tracking service.

Please explain how the State's Network Services will be incorporated into the proposed solution. If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

4.8. Telephony Services

4.8.1. Voice Services – VoIP

The State of Ohio hosted cloud VoIP service, also known as NGTS (Next Generation Telephony Service) provides core telephony, voice mail, e911, collaboration, video, audio, conferencing and auto attendant functions. Optional services include automatic call distributor (ACD), interactive voice response (IVR), multi-channel contact center solutions and session initiation protocol (SIP) trunking among a variety of other features. The service was the first business class phone system to offer closed captioning for the hearing impaired, and also includes features for those with vision and mobility impairments. The following voice services are offered in addition to the State's hosted VoIP service:

4.8.2. Toll-Free Services:

A service provided to incur telephone charges for incoming calls to an 8xx number.

4.8.3. Automatic Caller Navigation and Contact Center Services (ACD/Contact) Centers:

Contact Center Enterprise allows callers to fill in CRM forms with information prior to an agent responding. With IVR and Advanced Data Collection, callers will spend less time in Call Queues. However, during high demand times, callers can be put on Virtual Hold allowing callers to receive a call back when agents become available. Call recording with screen capture allows the User to monitor, record, store, and QA calls, helping insure a consistent service experience.

Service also includes multi-channel communications including chat, text, SMS and email to afford those trying to contact the State the ability to contact the State in a variety of ways.

4.8.4. Call Recording Services:

Call Recording Services for new VoIP profiles or modifying existing profiles.

4.8.5. Conferencing

This service offers a conferencing service via telephone lines. It provides voice conferencing capabilities within the network and participants can also join in from outside the network.

4.8.6. Fax2Mail:

Fax2Mail is a "hosted" fax solution that allows organizations to seamlessly integrate inbound and outbound fax with their existing desktop email and back-office environments. Fax2Mail is completely "cloud-based" (SaaS), providing an easy to implement, easy to manage solution requiring no expenditures on hardware or software. Fax2Mail solves all faxing requirements, including inbound and out-bound fax, both at the computer desktop and from/to back-office systems, ERP applications, and electronic workflows.

4.8.7. Session Initiation Protocol (SIP) Call Paths:

Session Initiation Protocol Call Paths is used to allocate bandwidth. SIP Call paths:

- Provide existing telephony infrastructure with NGTS services.
- Extends infrastructure into the NGTS cloud.
- Leverages existing investment.
- Bridges the gap.
- All of the United States are Local Calls.
- Share video and collaboration.
- Leverage Toll Free offering.
- Centralized trunk savings.

4.8.8. Site Survivability:

Provides reliable communications via multi-feature redundancy for centralized call processing.

4.8.9. VoIP related Professional Services and Training:

Training services can be requested for VoIP telephone Users.
Professional services are also available for planning and migration of large contact centers, and for integration of contact centers with cloud services including Salesforce.

Please explain how the State's Telephony Services will be incorporated into the proposed solution. If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed variances must be noted in Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements. The language within the supplement shall not be modified.

Appendix A – Request for Variance to State IT Policy, Standard or Service Requirements

If an offeror needs to request a variance from a State IT Policy, Standard or Service requirement outlined in this supplement, please provide a rationale and an overview for each request in the table below.

Section Reference	IT Policy, Standard or Service Requirement	Rationale for Proposed Variance from Requirement	Proposed Variance Overview
Example: **Section 4.3 Enterprise Application Services - Enterprise eSignature Service**	**Example**: The offeror shall use the State's eSignature solution.	**Example:** An eSignature solution is already integrated into the proposed solution. Using the State's service would result in increased cost due to integration complexities, as well as additional testing and resource needs. It would also result in longer deliverable timeframe.	**Example:** The Offeror's eSignature solution provides the same capabilities as the State's required solution. The Offeror's solution includes a workflow component and an eSignature User interface.

Supplement S

State Information Security and Privacy Requirements

State Data Handling Requirements

Revision History:

Date:	Description of Change:	Version
10/01/2019	Updated the State Information Security and Privacy Requirements as well as the State Data Handling Requirements to align with current practices.	1.0

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Ohio | Department of Administrative Services
Office of Information Security and Privacy
Main Number: 614-644-9391
30 E Broad Street, 19th Floor
Columbus, Ohio 43215
infosec.ohio.gov

State Information Security, Privacy and Data Handling Requirements Instructions

When providing a response to this Supplement, please follow the instructions below and frame your response as it relates to your proposed solution e.g., cloud (Software as a Service, Platform as a Service, or Infrastructure as a Service), on-premises, or hybrid.

1. **After each specific requirement the offeror must provide a response on how the requirement will be met or indicate if it is not applicable and why.**

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement shall not be modified.

2. **In the event there is a security or privacy requirement outlined in this supplement that needs to be met by a compensating control, please identify it in Appendix A – Compensating Controls to Security and Privacy Requirements. Please be sure to provide a rationale for the change.**

Reference	Current Language	Contractor's Proposed Change	Rationale of Proposed Change
Example: **Supplement 2 - Page 11**	**Example**: Provide vulnerability management services for the Contractor's internal secure network connection, including supporting remediation for identified vulnerabilities as agreed. As a minimum, the Contractor must provide vulnerability scan results to the State **monthly.**	**Example:** Provide vulnerability management services for the Contractor's internal secure network connection, including supporting remediation for identified vulnerabilities as agreed. As a minimum, the Contractor must provide vulnerability scan results to the State **weekly**.	Per company policy vulnerability report are only provided to customers on a quarterly basis.

3. **Upon completion, please submit the security supplement responses with the proposal documentation.**

Overview and Scope

This supplement shall apply to the Contracts for all work, services, locations (e.g., cloud (Software as a Service, Platform as a Service, or Infrastructure as a Service), on-premises, or hybrid) along with the computing elements that the Contractor will perform, provide, occupy, or utilize in conjunction with the delivery of work to the State and any access to State resources in conjunction with the delivery of work.

The selected Contractor will accept the security and privacy requirements outlined in this supplement in their entirety as they apply to the services being provided to the State. The Contractor will be responsible for maintaining information security in environments under the Contractor's management and in accordance with State IT security policies and standards.

This scope shall specifically apply to:

- Major and minor projects, upgrades, updates, fixes, patches, and other software and systems inclusive of all State elements or elements under the Contractor's responsibility utilized by the State.
- Any systems development, integration, operations, and maintenance activities performed by the Contractor.
- Any authorized change orders, change requests, statements of work, extensions, or amendments to this contract.
- Contractor locations, equipment, and personnel that access State systems, networks or data directly or indirectly.
- Any Contractor personnel or sub-contracted personnel that have access to State confidential, personal, financial, infrastructure details or sensitive data.

The terms in this supplement are in addition to the Contract terms and conditions. In the event of a conflict for whatever reason, the highest standard contained in this contract shall prevail.

Please note that any proposed compensating controls to the security and privacy requirements outlined in this supplement are required to be identified in Appendix A – Compensating Controls to Security and Privacy Requirements. Contractors are asked not to make any changes to the language contained within this supplement.

State Requirements Applying to All Solutions

This section describes the responsibilities for both the selected Contractor and the State of Ohio as it pertains to State information security and privacy standards and requirements for all proposed solutions whether cloud, on-premises, or hybrid based. The Contractor will comply with State of Ohio IT security and privacy policies and standards as they apply to the services being provided to the State. A list of IT policy and standard links is provided in the State IT Policy and Standard Requirements and State IT Service Requirements supplement.

1. State Information Security and Privacy Standards and Requirements

The Contractor is responsible for maintaining the security of information in accordance with State security policies and standards. If the State is providing the network layer, the Contractor must be responsible for maintaining the security of the information in environment elements that are accessed, utilized, developed, or managed. In either scenario, the Contractor must implement information security policies, standards, and capabilities as set forth in statements of work and adhere to State policies and use procedures in a manner that does not diminish established State capabilities and standards.

1.1. The Offeror's Responsibilities

The offeror's responsibilities with respect to security services include the following, where applicable:

1.1.1. Support State IT security policies and standards, which includes the development, maintenance, updates, and implementation of security procedures with the State's review and approval, including physical access strategies and standards, User ID approval procedures, and a security incident action plan.

1.1.2. Support the implementation and compliance monitoring as per State IT security policies and standards.

1.1.3. If the Contractor identifies a potential issue with maintaining an "as provided" State infrastructure element in accordance with a more stringent State level security policy, the Contractor shall identify and communicate the nature of the issue to the State, and, if possible, outline potential remedies for consideration by the State.

1.1.4. Support intrusion detection and prevention, including prompt State notification of such events and reporting, monitoring, and assessing security events.

1.1.5. Provide vulnerability management services for the Contractor's internal secure network connection, including supporting remediation for identified vulnerabilities as agreed. At a minimum, the Contractor shall provide vulnerability scan results to the State monthly.

1.1.6. Develop, maintain, update, and implement security procedures, with State review and approval, including physical access strategies and standards, ID approval procedures and a security incident response plan.

1.1.7. Manage and administer access to the systems, networks, system software, systems files, State data, and end users if applicable.

1.1.8. Install and maintain current versions of system software security, assign and reset passwords per established procedures, provide the State access to create User IDs, suspend and delete inactive User IDs, research system security problems, maintain network access authority, assist in processing State security requests, perform security reviews to confirm that adequate security procedures are in place on an ongoing basis, provide incident investigation support (jointly with the State), and provide environment and server security support and technical advice.

1.1.9. Develop, implement, and maintain a set of automated and manual processes to ensure that data access rules are not compromised.

1.1.10. Perform physical security functions (e.g., identification badge controls and alarm responses) at the facilities under the Contractor's control.

1.2 The State's Responsibilities

The State will:

1.2.1. Develop, maintain, and update the State IT security policies, including applicable State information risk policies, standards, and procedures.

1.2.2. Provide the Contractor with contact information for security and program personnel for incident reporting purposes.

1.2.3. Provide a State resource to serve as a single point of contact, with responsibility for account security audits.

1.2.4. Support intrusion detection, prevention, and vulnerability scanning pursuant to State IT security policies.

1.2.5. Conduct a Security and Data Protection Audit, if deemed necessary, as part of the testing process.

1.2.6. Provide audit findings material for the services based upon the security policies, standards and practices in effect as of the effective date and any subsequent updates.

1.2.7. Assist the Contractor in performing a baseline inventory of User IDs for the systems for which the Contractor has security responsibility.

1.2.8. Authorize user IDs and passwords for State personnel for the system's software, software tools and network infrastructure systems and devices under Contractor management.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement shall not be modified.

1.3. Periodic Security and Privacy Audits

The State will be responsible for conducting periodic security and privacy audits and will generally utilize members of the Office of Information Security and Privacy, the Office of Budget and Management – Office of Internal Audit, and the Auditor of State, depending on the focus area of the audit. Should an audit issue or finding be discovered, the following resolution path shall apply:

If a security or privacy issue exists in any of the IT resources furnished to the Contractor by the State (e.g., code, systems, computer hardware and software), the State will have responsibility to address or resolve the issue. The State may elect to work with the Contractor, under mutually agreeable terms for resolution services or the State may elect to address the issue independent of the Contractor. The Contractor is responsible for resolving any security or privacy issues that exist in any of the IT resources they provide to the State.

For in-scope environments and services, all new systems implemented or deployed by the Contractor must comply with State security and privacy policies and standards.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

1.3.1. State Penetration and Controls Testing

The State may, at any time in its sole discretion, elect to perform a Security and Data Protection Audit. This includes a thorough review of Contractor controls, security/privacy functions and procedures, data storage and encryption methods, backup/restoration processes, as well as security penetration testing and validation. The State may utilize a third-party Contractor to perform such activities to demonstrate that all security, privacy, and encryption requirements are met.

State acceptance testing will not proceed until the Contractor cures, according to the State's written satisfaction, all findings, gaps, errors or omissions pertaining to the audit. Such testing will be scheduled with the Contractor at a mutually agreed upon time.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

1.3.2. System Security Plan

A completed System Security Plan must be provided by the Contractor to the State and the primary point of contact from the Office of Information Security and Privacy no later than the end of the project development phase of the System Development Life Cycle (SDLC). The plan must be updated annually or when major changes occur within the solution. The templates referenced below are the required format for submitting security plans to the State.

Ohio Security Plan Template.docx

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

1.3.3. Risk Assessment

A Risk Assessment report completed within the past 12 months must be provided to the State and the primary point of contact from the Office of Information Security and Privacy no later than the project development phase of the System Development Life Cycle (SDLC). A new risk assessment must be conducted every two years, or as a result of significant changes to infrastructure, a system or application environment, or following a significant security incident.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

1.4. Security and Data Protection

All solutions must classify data per State of Ohio IT-13 Data Classification policy and per the sensitivity and criticality, must operate at the appropriate baseline (low, moderate, high) as defined in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-53, “Security and Privacy Controls for Federal Information Systems and Organizations” (current, published version), be consistent with Federal Information Security Management Act (“FISMA 2014”) requirements, and offer a customizable and extendable capability based on open-standards APIs that enable integration with third party applications. The solution must provide the State’s systems administrators with 24x7 visibility into the services through a real-time web-based “dashboard” capability that enables them to monitor, in real or near real time, the services’ performance against the established service level agreements and promised operational parameters.

If the solution is cloud based, the Contractor must obtain an annual audit that meets the American Institute of Certified Public Accountants (AICPA) Statements on Standards for Attestation Engagements (“SSAE”) No. 16,

Service Organization Control 1 Type 2 and Service Organization Control 2 Type 2. The audit must cover all operations pertaining to the Services covered by this Agreement. The audit will be at the sole expense of the Contractor and the results must be provided to the State within 30 days of its completion each year.

At no cost to the State, the Contractor must immediately remedy any issues, material weaknesses, or other items identified in each audit as they pertain to the Services.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

1.5. Data

1.5.1. "State Data" includes all data and information created by, created for, or related to the activities of the State and any information from, to, or related to all persons that conduct business or personal activities with the State, including, but not limited to Sensitive Data.

1.5.2. "Sensitive Data" is any type of data that presents a high or moderate degree of risk if released or disclosed without authorization. Sensitive Data includes but not limited to:

1.5.2.1. Certain types of personally identifiable information (PII) that is also sensitive, such as medical information, social security numbers, and financial account numbers.

1.5.2.2. Federal Tax Information (FTI) under IRS Special Publication 1075,

1.5.2.3. Protected Health Information (PHI) under the Health Insurance Portability and Accountability Act (HIPAA)

1.5.2.4. Criminal Justice Information (CJI) under Federal Bureau of Investigation's Criminal Justice Information Services (CJIS) Security Policy.

1.5.2.5. The data may also be other types of information not associated with an individual such as security and infrastructure records, trade secrets, and business bank account information.

1.6. Protection and Handling the State's Data

To protect State Data as described in this contract, the Contractor must use due diligence to ensure computer and telecommunications systems and services involved in storing, using, or transmitting State Data are secure and to protect State Data from unauthorized disclosure, modification, use or destruction.

To accomplish this, the Contractor must adhere to the following requirements regarding State Data:

1.6.1. Maintain in confidence State Data it may obtain, maintain, process, or otherwise receive from or through the State in the course of the contract.

1.6.2. Use and permit its employees, officers, agents, and subcontractors to use any State Data received from the State solely for those purposes expressly contemplated by the contract.

1.6.3. Not sell, rent, lease, disclose, or permit its employees, officers, agents, and sub-contractors to sell, rent, lease, or disclose, any such State Data to any third party, except as permitted under this contract or required by applicable law, regulation, or court order.

1.6.4. Take all commercially reasonable steps to (a) protect the confidentiality of State Data received from the State and (b) establish and maintain physical, technical, and administrative safeguards to prevent unauthorized access by third parties to State Data received by the Contractor from the State.

1.6.5. Apply appropriate risk management techniques to balance the need for security measures against the sensitivity of the State Data.

1.6.6. Ensure that its internal security policies, plans, and procedures address the basic security elements of confidentiality, integrity, and availability of State Data.

1.6.7. Align with existing State Data security policies, standards and procedures designed to ensure the following:

1.6.7.1. Security and confidentiality of State Data

1.6.7.2. Protection against anticipated threats or hazards to the security or integrity of State Data

1.6.7.3. Protection against the unauthorized access to, disclosure of, or use of State Data

1.6.8. Suggest and develop modifications to existing data security policies and procedures or draft new data security policies and procedures when gaps are identified.

1.6.9. Maintain appropriate access control and authorization policies, plans, and procedures to protect system assets and other information resources associated with State Data.

1.6.10. Give access to State Data only to those individual employees, officers, agents, and sub-contractors who reasonably require access to such information in connection with the performance of Contractor's obligations under this contract.

1.6.11. Maintain appropriate identification and authentication processes for information systems and services associated with State Data.

1.6.12. Any Sensitive Data at rest, transmitted over a network, or taken off-site via portable/removable media must be encrypted pursuant to the State's data encryption standard, Ohio IT Standard ITS-SEC-01, "Data Encryption and Cryptography," and Ohio Administrative Policy IT-14, "Data Encryption and Securing State Data."

1.6.13. Any data encryption requirement identified in this supplement means encryption that complies with National Institute of Standards and Technology's Federal Information Processing Standard 140-2 as demonstrated by a valid FIPS certificate number.

1.6.14. Maintain plans and policies that include methods to protect against security and integrity threats and vulnerabilities, as well as detect and respond to those threats and vulnerabilities.

1.6.15. Implement and manage security audit logging on information systems, including computers and network devices.

1.6.16. Cooperate with any attempt by the State to monitor Contractor's compliance with the foregoing obligations as reasonably requested by the State. The State will be responsible for all costs incurred by the Contractor for compliance with this provision of this subsection.

1.6.17 Upon request by the State, promptly destroy or return to the State, in a format designated by the State, all State Data received from or through the State.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

1.7. Contractor Access to State Network Systems and Data

The Contractor must maintain a robust boundary security capability that incorporates generally recognized system hardening techniques. This includes determining which ports and services are required to support access to systems that hold State Data, limiting access to only these ports, and disabling all others.

To do this, the Contractor must:

1.7.1 Use assets and techniques such as properly configured firewalls, a demilitarized zone for handling public traffic, host-to-host management, Internet protocol specification for source and destination, strong authentication, encryption, packet filtering, activity logging, and implementation of system security fixes and patches as they become available.

1.7.2. Use multifactor authentication to limit access to systems that contain Sensitive Data, such as Personally Identifiable Information.

1.7.3. Assume all State Data is both confidential and critical for State operations. The Contractor's security policies, plans, and procedures for the handling, storage, backup, access, and, if appropriate, destruction of State Data must be commensurate to this level of sensitivity unless the State instructs the Contractor otherwise in writing.

1.7.4. Employ appropriate intrusion and attack prevention and detection capabilities. Those capabilities must track unauthorized access and attempts to access State Data, as well as attacks on the Contractor's infrastructure associated with the State Data. Further, the Contractor must monitor and appropriately

address information from its system tools used to prevent and detect unauthorized access to and attacks on the infrastructure associated with the State Data.

1.7.5. Use appropriate measures to ensure that State Data is secure before transferring control of any systems or media on which State data is stored. The method of securing the State Data must be in alignment with the required data classification and risk assessment outcomes, and may include secure overwriting, destruction, or encryption of the State data before transfer of control in alignment with NIST SP 800-88. The transfer of any such system or media must be reasonably necessary for the performance of the Contractor's obligations under this contract.

1.7.6. Have a business continuity plan in place that the Contractor tests and updates no less than annually. The plan must address procedures for responses to emergencies and other business interruptions. Part of the plan must address backing up and storing data at a location sufficiently remote from the facilities at which the Contractor maintains State Data in case of loss of State Data at the primary site. The Contractor's backup solution must include plans to recover from an intentional deletion attempt by a remote attacker exploiting compromised administrator credentials.

The plan also must address the rapid restoration, relocation, or replacement of resources associated with the State Data in the case of a disaster or other business interruption. The Contractor's business continuity plan must address short- and long-term restoration, relocation, or replacement of resources that will ensure the smooth continuation of operations related to the Sensitive Data. Such resources may include, among others, communications, supplies, transportation, space, power and environmental controls, documentation, people, data, software, and hardware. The Contractor also must provide for reviewing, testing, and adjusting the plan on an annual basis.

1.7.7. Not allow State Data to be loaded onto portable computing devices or portable storage components or media unless necessary to perform its obligations under this contract. If necessary, for such performance, the Contractor may permit State Data to be loaded onto portable computing devices or portable storage components or media only if adequate security measures are in place to ensure the integrity and security of State Data. Those measures must include a policy on physical security and appropriate encryption for such devices to minimize the risk of theft and unauthorized access as well as a prohibition against viewing sensitive or confidential data in public or common areas.

1.7.8. Ensure that portable computing devices have anti-virus software, personal firewalls, and system password protection. In addition, State Data must be encrypted when stored on any portable computing or storage device or media or when transmitted across any data network.

1.7.9. Maintain an accurate inventory of all such devices and the individuals to whom they are assigned.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

1.8. State Network Access (VPN)

Any remote access to State systems and networks, Contractor or otherwise, must employ secure data transmission protocols, including transport layer security (TLS) and public key authentication, signing and/or encryption. In addition, any remote access solution must use Secure Multipurpose Internet Mail Extensions (S/MIME) to provide encryption and non-repudiation services through digital certificates and the provided public key infrastructure (PKI). Multifactor authentication must be employed for users with privileged network access by State provided solutions.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

1.9. Portable Devices and Media

The Contractor must have reporting requirements for lost or stolen portable computing devices authorized for use with State Data and must report any loss or theft of such devices to the State in writing as defined in Section 3 Contractor Responsibilities Related to Reporting of Concerns, Issues and Security/Privacy Issues. The Contractor must have a written policy that defines procedures for how the Contractor must detect, evaluate, and respond to adverse events that may indicate an incident or an attempt to attack or access State Data or the infrastructure associated with State Data.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

2. State and Federal Data Privacy Requirements

All systems and services must be designed and must function according to Fair Information Practice Principles (FIPPS), which are transparency, individual participation, purpose specification, data minimization, use limitation, data quality and integrity, security, accountability, and auditing.

To the extent that personally identifiable information (PII) in a system is “protected health information” under the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule, the FIPPS principles must be implemented in alignment with the HIPAA Privacy Rule. To the extent that there is PII in a system that is not “protected health information” under HIPAA, the FIPPS principles must still be implemented and, when applicable, aligned to other laws or regulations.

2.1 Contractor Requirements

The Contractor specifically agrees to comply with state and federal confidentiality and information disclosure laws, rules and regulations applicable to the work associated with this Contract including but not limited to:

2.1.1. United States Code 42 USC 1320d through 1320d-8 (HIPAA).

2.1.2. Code of Federal Regulations for Public Health and Public Welfare: 42 CFR 431.300, 431.302, 431.305, 431.306, 435.945, 45 CFR164.502 (e) and 164.504 (e).

2.1.3. Ohio Revised Code (ORC) 1347.01, 1347.04 through 1347.99, 2305.24, 2305.251, 3701.243, 3701.028, 4123.27, 5101.26, 5101.27, 5160.39, 5168.13, and 5165.88.

2.1.4. Corresponding Ohio Administrative Code Rules and Updates.

2.1.5. Systems and services must support and comply with the State’s security operational support model, which is aligned to NIST SP 800-53 (current, published version).

2.1.6. IRS Publication 1075, Tax Information Security Guidelines for federal, state, and local agencies.

2.1.7. Criminal Justice Information Systems Policy.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

2.2. Federal Tax Information (FTI)

All computer systems receiving, processing, storing, or transmitting Federal Tax Information (FTI) must meet the requirements defined in IRS Publication 1075.

2.2.1. IRS 1075 Performance Requirements:

In the performance of this contract, the contractor agrees to comply with and assume responsibility for compliance by his or her employees with the following requirements:

2.2.1.1. All work involving FTI will be done under the supervision of the Contractor or the Contractor's employees.

2.2.1.2. The contractor and the contractor's employees with access to or who use FTI must meet the background check requirements defined in IRS Publication 1075.

2.2.1.3. Any federal tax return or return information made available in any format shall be used only for the purposes of performing this contract. Information contained in such material will be treated as confidential and will not be divulged or made known in any manner to any person except as may be necessary in the performance of this contract. Disclosure to anyone other than an officer or employee of the Contractor is prohibited.

2.2.1.4. All federal tax returns and return information will be accounted for upon receipt and properly stored before, during, and after processing. In addition, all related output will be given the same level of protection as required for the source material.

2.2.1.5. The Contractor certifies that the IRS data processed during the performance of this contract will be completely purged from all data storage components of its computer facility, and no output will be retained by the Contractor after the work is completed. If immediate purging of all data storage components is not possible, the Contractor certifies that any IRS data remaining in any storage component will be safeguarded to prevent unauthorized disclosure.

2.2.1.6. Any spoilage or any intermediate hard copy printout that may result during the processing of IRS data will be given to the State or its designee. When this is not possible, the Contractor will be responsible for the destruction of the spoilage or any intermediate hard copy printouts and will provide the State or its designee with a Statement containing the date of destruction, description of material destroyed, and the method used.

2.2.1.7. All computer systems receiving, processing, storing or transmitting FTI must meet the requirements defined in the IRS Publication 1075. To meet functional and assurance requirements, the security features of the environment must provide for the managerial, operations, and technical IRS 1075 controls. All security features must be available and activated to protect against unauthorized use of and access to Federal Tax Information.

2.2.1.8 No work involving Federal Tax Information furnished under this contract will be subcontracted without prior written approval of the IRS.

2.2.1.9. The Contractor will maintain a list of employees authorized access. Such list will be provided to the agency and, upon request, to the IRS reviewing office.

The agency will have the right to void the Contract if Contractor fails to provide the safeguards described above.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

2.2.2. IRS 1075 Criminal/Civil Sanctions

2.2.2.1. Each officer or employee of any person to whom returns or return information is or may be disclosed will be notified in writing by such person that returns or return information disclosed to such officer or employee can be used only for a purpose and to the extent authorized herein, and that further disclosure of any such returns or return information for a purpose or to an extent unauthorized herein constitutes a felony punishable upon conviction by a fine of as much as $5,000 or imprisonment for as long as 5 years, or both, together with the costs of prosecution. Such person shall also notify each such officer and employee that any such unauthorized further disclosure of returns or return information may also result in an award of civil damages against the officer or employee in an amount not less than $1,000 with respect to each instance of unauthorized disclosure. These penalties are prescribed by IRCs 7213 and 7431 and set forth at 26 CFR 301.6103(n)-1.

2.2.2.2. Each officer or employee of any person to whom returns or return information is or may be disclosed shall be notified in writing by such person that any return or return information made available in any format shall be used only for the purpose of carrying out the provisions of this contract. Information contained in such material shall be treated as confidential and shall not be divulged or made known in any manner to any person except as may be necessary in the performance of the contract. Inspection by or disclosure to anyone without an official need-to-know constitutes a criminal misdemeanor punishable upon conviction by a fine of as much as $1,000 or imprisonment for as long as 1 year, or both, together with the costs of prosecution. Such person shall also notify each such officer and employee that any such unauthorized inspection or disclosure of the officer or employee (United States for Federal employees) in an amount equal to the sum of the greater of $1,000 for each act of unauthorized inspection or disclosure with respect to which such defendant is found liable or the sum of the actual damages sustained by the plaintiff as a result of such unauthorized inspection or disclosure plus in the case of a willful inspection or disclosure which is the result of gross negligence, punitive damages, plus the costs of the action. These penalties are prescribed by IRC 7213A and 7431.

2.2.2.3. Additionally, it is incumbent upon the Contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a(i)(1), which is made applicable to Contractors by 5 U.S.C. 552a(m)(1), provides that any officer or employee of a Contractor, who by virtue of his/her employment or official position, has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

2.2.3. Inspection

The IRS and the Agency, with 24 hour notice, shall have the right to send its inspectors into the offices and plants of the Contractor for inspection of the facilities and operations performing any work under this contract for compliance with requirements defined in IRS Publication 1075. The IRS' right of inspection shall include the use of manual, and/or automated scanning tools to perform compliance and vulnerability assessment of information technology (IT) assets that access, store, process or transmit FTI. On the basis of such inspection, corrective actions may be required in cases where the Contractor is found to be noncompliant with contract safeguards.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

2.3. Disclosure

Disclosure to Third Parties. This Contract must not be deemed to prohibit disclosures in the following cases:

2.3.1. Required by applicable law, regulation, court order or subpoena; provided that, if the Contractor or any of its representatives are ordered or requested to disclose any information provided by the State, whether Sensitive Data or otherwise, pursuant to court or administrative order, subpoena, summons, or other legal process or otherwise believes that disclosure is required by any law, ordinance, rule or regulation, Contractor must notify the State within 24 hours in order that the State may have the opportunity to seek a protective order or take other appropriate action. Contractor must also cooperate in the State's efforts to obtain a protective order or other reasonable assurance that confidential treatment will be accorded the information provided by the State. If, in the absence of a protective order, Contractor is compelled as a matter of law to disclose the information provided by the State, Contractor may disclose to the party compelling disclosure only the part of such information as is required by law to be disclosed (in which case, prior to such disclosure, Contractor must advise and consult with the State and its counsel as to the scope of such disclosure and the nature of wording of such disclosure) and Contractor must use commercially reasonable efforts to obtain confidential treatment for the information:

2.3.1.1. To State auditors or regulators.

2.3.1.2. To service providers and agents of either party as permitted by law, provided that such service providers and agents are subject to binding confidentiality obligations.

2.3.1.3. To the professional advisors of either party, provided that such advisors are obligated to maintain the confidentiality of the information they receive.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

2.4. Background Investigations of Contractor Personnel

Contractor agrees that (1) the State of Ohio will conduct background investigations on Contractor personnel who will perform Sensitive Services (as defined below), and (2) no ineligible personnel will perform Sensitive Services under this contract. The term “ineligible personnel” means any person who (a) has been convicted at any time of any criminal offense involving dishonesty, a breach of trust, money laundering, or who has entered into a pre-trial diversion or similar program in connection with a prosecution for such offense, (b) is named by the Office of Foreign Asset Control (OFAC) as a Specially Designated National, or (c) has been convicted of a felony.

“Sensitive Services” means those services that (i) require access to customer, consumer, or State employee information, (ii) relate to the State’s computer networks, information systems, databases or secure facilities under circumstances that would permit modifications to such systems, or (iii) involve unsupervised access to secure facilities.

Contractors who will have access to Federal Tax Information (FTI) or Criminal Justice Information (CJI) must complete a background investigation that is favorably adjudicated, prior to being permitted to access the information. In addition, existing Contractors with access to FTI or CJI that have not completed a background investigation within the last 5 years must complete a background investigation that is favorably adjudicated, prior to being permitted to access the information.

FTI or criminal justice background investigations will include:

2.4.1. FBI Fingerprinting (FD-258)

2.4.2. Local law enforcement agencies where the employee has lived, worked and/or attended school within the last five years

2.4.3. Citizenship/residency eligibility to legally work in the United States

2.4.4. New employees must complete USCIS Form I-9, which must be processed through the Federal E-Verify system

2.4.5. FTI training, with a 45 day wait period

In the event that the Contractor does not comply with the terms of this section, the State may, in its sole and absolute discretion, terminate this Contract immediately without further liability.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

3. Contractor Responsibilities Related to Reporting of Concerns, Issues, and Security/Privacy Issues

3.1. General

If, over the course of the Contract a security or privacy issue arises, whether detected by the State, a State auditor, or the Contractor, that was not existing within an in-scope environment or service prior to the commencement of any contracted service associated with this Contract, the Contractor must:

3.1.1. Notify the State of the issue or acknowledge receipt of the issue within two (2) hours.

3.1.2. Within forty-eight (48) hours from the initial detection or communication of the issue from the State, present a potential exposure or issue assessment document to the State account representative and the State Chief Information Security Officer with a high-level assessment as to resolution actions and a plan.

3.1.3. Within four (4) calendar days, and upon direction from the State, implement, to the extent commercially reasonable, measures to minimize the State's exposure to the security or privacy issue until such time as the issue is resolved.

3.1.4. Upon approval from the State, implement a permanent repair to the identified issue at the Contractor's cost.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

3.2. Actual or Attempted Access or Disclosure

If the Contractor determines that there is any actual, attempted or suspected theft of, accidental disclosure of, loss of, or inability to account for any Sensitive Data by the Contractor or any of its Subcontractors (collectively "Disclosure") and/or any unauthorized intrusions into Contractor's or any of its Subcontractor's facilities or secure systems (collectively "Intrusion"), Contractor must immediately:

3.2.1. Notify the State within two (2) hours of the Contractor becoming aware of the unauthorized disclosure or intrusion.

3.2.2. Investigate and determine if an intrusion and/or disclosure has occurred.

3.2.3. Fully cooperate with the State in estimating the effect of the disclosure or intrusion and fully cooperate to mitigate the consequences of the disclosure or intrusion.

3.2.4. Specify corrective action to be taken.

3.2.5. Take corrective action to prevent further disclosure and/or intrusion.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

3.3. Unapproved Disclosures and Intrusions: Contractor Responsibilities

The following are the responsibility of the Contractor to provide at its own cost:

3.3.1. The Contractor must, as soon as is practical, make a report to the State including details of the disclosure and/or intrusion and the corrective action the Contractor has taken to prevent further disclosure and/or intrusion. The Contractor must, in the case of a disclosure, cooperate fully with the State to notify the affected persons as to the facts and circumstances of the disclosure of the Sensitive Data. Additionally, the Contractor must cooperate fully with all government regulatory agencies and/or law enforcement agencies that have jurisdiction to investigate a disclosure and/or any known or suspected criminal activity.

3.3.2. If, over the course of delivering services to the State under this statement of work for in-scope environments, the Contractor becomes aware of an issue, or a potential issue that was not detected by security and privacy teams, the Contractor must notify the State within two (2) hours. This notification must not minimize the more stringent service level contracts pertaining to security scans and breaches contained herein, which due to the nature of an active breach must take precedence over this notification. The State may elect to work with the Contractor under mutually agreeable terms for those specific resolution services at that time or elect to address the issue independent of the Contractor.

3.3.3. If the Contractor identifies a potential issue with maintaining an “as provided” State infrastructure element in accordance with a more stringent State level security policy, the Contractor must identify and communicate the nature of the issue to the State, and, if possible, outline potential remedies.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

3.4. Security Incident Reporting and Indemnification Requirements

3.4.1. The Contractor must report any security incident of which it becomes aware. For the purposes of this document, "Security Incident" means the attempted or successful unauthorized access, use, disclosure, modification, or destruction of information or interference with system operations in an information system. It does not mean unsuccessful log-on attempts, denial of service attacks, unsuccessful network attacks such as pings, probes of firewalls, port scans, or any combination of those, as long as there is no unauthorized access, acquisition, use, or disclosure of Sensitive Data as a result.

3.4.2. In the case of an actual security incident that may have compromised Sensitive Data, the Contractor must notify the State in writing within two (2) hours of the Contractor becoming aware of the breach. The Contractor is required to provide the best available information from the investigation.

3.4.3. In the case of a suspected incident, the Contractor must notify the State in writing within twenty-four (24) hours of the Contractor becoming aware of the suspected incident. The Contractor is required to provide the best available information from the investigation.

3.4.4. The Contractor must fully cooperate with the State to mitigate the consequences of an incident/suspected incident at the Contractor's own Cost. This includes any use or disclosure of the Sensitive Data that is inconsistent with the terms of this Contract and of which the Contractor becomes aware, including but not limited to, any discovery of a use or disclosure that is not consistent with this contract by an employee, agent, or Subcontractor of the Contractor.

3.4.5. The Contractor must give the State full access to the details of the breach/suspected breach and assist the State in making any notifications to potentially affected people and organizations that the State deems are necessary or appropriate at the Contractor's own cost.

3.4.6. The Contractor must document and provide incident reports for all such incidents/suspected incidents to the State. The Contractor must provide updates to incident reports until the investigation is complete at the Contractor's own cost. At a minimum, the incident/suspected incident reports will include:

3.4.6.1. Data elements involved, the extent of the Data involved in the incident, and the identification of affected individuals, if applicable.

3.4.6.2. A description of the unauthorized persons known or reasonably believed to have improperly used or disclosed State Data, or to have been responsible for the incident.

3.4.6.3. A description of where the State Data is believed to have been improperly transmitted, sent, or utilized, if applicable.

3.4.6.4. A description of the probable causes of the incident.

3.4.6.5. A description of the proposed plan for preventing similar future incidents, including ongoing risk remediation plan approval.

3.4.6.6. Whether the Contractor believes any federal or state laws requiring notifications to individuals are triggered.

3.4.7. In addition to any other liability under this contract related to the Contractor's improper disclosure of State Data, and regardless of any limitation on liability of any kind in this Contract, the Contractor will be responsible for acquiring one year's identity theft protection service on behalf of any individual or entity

whose Sensitive Data is compromised while it is in the Contractor's possession. This service will be provided at Contractor's own cost. Such identity theft protection must provide coverage from all three major credit reporting agencies and provide immediate notice through phone or email of attempts to access the individual's credit history through those services.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

4. Security Review Services

As part of a regular Security Review process, the Contractor will include the following reporting and services to the State:

4.1. Hardware and Software Assets

The Contractor will support the State in defining and producing specific reports for both hardware and software assets. At a minimum this includes:

4.1.1. Deviations from the hardware baseline.

4.1.2. Inventory of information types by hardware device.

4.1.3. Software inventory compared against licenses (State purchased).

4.1.4. Software versions and then scans of versions against patches distributed and applied.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

4.2. Security Standards by Device and Access Type

The Contractor must:

4.2.1. Document security standards by device type and execute regular scans against these standards to produce exception reports.

4.2.2. Document and implement a process for any required remediation.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

4.3. Boundary Defenses

The Contractor must:

4.3.1. Work with the State to support the denial of communications to/from known malicious IP addresses.

4.3.2. Ensure that the system network architecture separates internal systems from DMZ and extranet systems.

4.3.3. Require the use of two-factor authentication for remote login.

4.3.4. Support the State's monitoring and management of devices remotely logging into the internal network.

4.3.5. Support the State in the configuration of firewall session tracking mechanisms for addresses that access the solution.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

4.4. Audit Log Reviews

The Contractor must:

4.4.1. Work with the State to review and validate audit log settings for hardware and software.

4.4.2. Ensure that all systems and environments have adequate space to store logs.

4.4.3. Work with the State to devise and implement profiles of common events from given systems to reduce false positives and rapidly identify active access.

4.4.4. Provide requirements to the State to configure operating systems to log access control events.

4.4.5. Design and execute bi-weekly reports to identify anomalies in system logs.

4.4.6. Ensure logs are written to write-only devices for all servers or a dedicated server managed by another group.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

4.5. Application Software Security

The Contractor must:

4.5.1. Perform configuration review of operating system, application, and database settings.

4.5.2. Ensure software development personnel receive training in writing secure code.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A – Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

4.6. System Administrator Access

The Contractor must:

4.6.1. Inventory all administrative passwords (application, database, and operating system level).

4.6.2. Implement policies to change default passwords in accordance with State policies, following any transfer or termination of personnel (State, existing Materials and Supplies Vendor, or Contractor).

4.6.3. Configure administrative accounts to require regular password changes.

4.6.4. Ensure user and service level accounts have cryptographically strong passwords.

4.6.5. Store passwords in a hashed or encrypted format.

4.6.6. Ensure administrative accounts are used only for administrative activities.

4.6.7. Implement focused auditing of administrative privileged functions.

4.6.8. Configure systems to log entry and alert when administrative accounts are modified.

4.6.9. Segregate administrator accounts based on defined roles.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

4.7. Account Access Privileges

The Contractor must, in alignment with policy requirements:

4.7.1. Review and disable accounts not associated with a business process.

4.7.2. Create a daily report that includes locked out accounts, disabled accounts, etc.

4.7.3. Implement a process for revoking system access.

4.7.4. Automatically log off users after a standard period of inactivity.

4.7.5. Monitor account usage to determine dormant accounts.

4.7.6. Monitor access attempts to deactivated accounts through audit logging.

4.7.7. Profile typical account usage and implement or maintain profiles to ensure that security profiles are implemented correctly and consistently.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

4.8. Additional Controls and Responsibilities

The Contractor must meet with the State no less frequently than annually to:

4.8.1. Review, update and conduct security training for personnel, based on roles.

4.8.2. Review the adequacy of physical and environmental controls.

4.8.3. Verify the encryption of Sensitive Data in transit.

4.8.4. Review access controls based on established roles and access profiles.

4.8.5. Update and review system administration documentation.

4.8.6. Update and review system maintenance policies.

4.8.7. Update and review system and integrity policies.

4.8.9. Review and implement updates to the System security plan.

4.8.10 Update risk assessment policies and procedures.

4.8.11 Update and implement incident response procedures.

Please explain how these requirements will be met within the context of the proposed solution (e.g., Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), On-Premises or Hybrid). If this section, or portions of this section, are not applicable, please explain and note as N/A. Please note that any proposed compensating controls and/or requirement modifications must be noted in Appendix A - Compensating Controls to Security and Privacy Requirements. The language within the supplement will not be modified.

Appendix A – Compensating Controls to Security and Privacy Supplement

In the event that there is a security or privacy requirement outlined in this supplement that needs to be met by a compensating control, please identify it below and provide a proposed language change as well as a rationale for the change.

Reference	Current Language	Contractor's Proposed Change	Rationale of Proposed Change
Example: **Supplement 2 - Page 11**	**Example**: Provide vulnerability management services for the Contractor's internal secure network connection, including supporting remediation for identified vulnerabilities as agreed. As a minimum, the Contractor must provide vulnerability scan results to the State **monthly.**	**Example:** Provide vulnerability management services for the Contractor's internal secure network connection, including supporting remediation for identified vulnerabilities as agreed. As a minimum, the Contractor must provide vulnerability scan results to the State **weekly**.	Per company policy vulnerability report are only provided to customers on a quarterly basis.