

Supplement 3:

State IT Policy, Standard and Service Requirements

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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 hot site 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)
- Google:** Google Cloud Platform (GCP)
- IBM:** IBM Cloud

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
- Integration with OH|ID
- Real-Time Analytics
- Aggregate Applications
- Customizable Features

- ADA-Compliant
- Content Management
- 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

Ohio Recruit

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

Financial Management (FIN)

- Accounts Payable

Customer Relationship Management (CRM)

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

- Accounts Receivable
- Asset Management
- Billing
- eSourcing
- Financial Reporting
- General Ledger
- 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
<p>Example:</p> <p>Section 4.3 Enterprise Application Services - Enterprise eSignature Service</p>	<p>Example: The offeror shall use the State’s eSignature solution.</p>	<p>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.</p>	<p>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.</p>