Table of Contents – CalSAWS Infrastructure Requirements

[SOW Task Area 1: Transition-In Requirements (28 Requirements) 2](#_Toc107421322)

[SOW Task Area 2: Management Requirements (30 Requirements) 7](#_Toc107421323)

[SOW Task Area 3: Technical Infrastructure Support Requirements (50 Requirements) 11](#_Toc107421324)

[SOW Task Area 4: Innovation and Application/Architecture Evolution Support Requirements (4 Requirements) 20](#_Toc107421325)

[SOW Task Area 5: Production Operations Requirements (52 Requirements) 21](#_Toc107421326)

[SOW Task Area 6: Technology Recovery Requirements (8 Requirements) 27](#_Toc107421327)

[SOW Task Area 7: Security Requirements (64 Requirements) 28](#_Toc107421328)

[SOW Task Area 8: Transition-Out Requirements (36 Requirements) 37](#_Toc107421329)

# SOW Task Area 1: Transition-In Requirements (28 Requirements)

| **Sub Task: 1.1 Transition-In Planning (4 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will develop, deliver, maintain, and execute an Infrastructure Transition-In Master Plan (ITIMP), in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, that serves as the Master Transition-In document by which the other transition documents are referred and traceable.  **Deliverables: Infrastructure Transition-In Master Plan (ITIMP)** |
|  | The Contractor will complete transition and assume responsibility for all CalSAWS Services and functions included in this Agreement within six (6) months of the Agreement Effective Date. |
|  | The Contractor will perform a gap analysis, working in conjunction with the Consortium, between the following existing documents and the Services and functions contained in this Agreement and industry best practices to identify changes (additions and deletions) and enhancements to the following documents:   1. M&O Services Plan 2. M&O Services Plan Operational Working Documents (OWD)   The changes and improvements to the documents will be identified through Deliverable Expectation Documents (DEDs) in accordance with the CalSAWS Enterprise PCD. |
|  | The Contractor will develop and deliver updated plans and documents based on the approved DEDs as identified in the Transition-In Work Plan:   1. Infrastructure Services Plan (based on the M&O Services Plan) 2. Infrastructure Services OWDs (based on the M&O Services Plan OWDs)   **Deliverables: Infrastructure Services Plan and Operational Working Documents** |

| **Subtask: 1.2 Transition-In Work Schedule (3 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will develop, deliver, maintain, and execute an  Infrastructure Transition-In Work Schedule, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, in accordance with the Infrastructure Services Plan.  **Deliverable:** **Infrastructure Transition-In Work Schedule** |
|  | The Contractor will maintain and update the Infrastructure Transition-In Work Schedule through the completion of Transition-In tasks and Deliverables, in accordance with the CalSAWS Enterprise PCD. |
|  | The Contractor will continue to submit the updated Transition-In Work Schedule to the Consortium until all Transition-In activities are completed and approved. |

| **Subtask: 1.3 Transition-In Meetings and Reporting (8 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor is responsible for scheduling, tracking, documenting, recording and sharing agendas and minutes for any and all meetings planned and conducted as part of the transition of Services under this Agreement, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable. |
|  | The Contractor will organize and facilitate at a minimum, the following meetings with the Consortium to report on the progress of the Transition-In effort:   1. Plan, prepare and lead the weekly Transition-In Work Plan Meeting to review the status, activities and details of the Transition-In Work Plan with the Consortium. 2. Plan, prepare and lead the Monthly Transition-In Management Plan Meeting. |
|  | The Contractor will prepare and present a written report at the Transition-In Work Plan Meeting that contains direct outputs from the Transition-In Work Plan. Materials provided must be easy to understand, and include:   1. Tasks completed from the prior week 2. Tasks due for the coming week 3. Areas in the work plan which require attention (behind schedule) 4. Critical Path analysis 5. Suggested changes to maintain the schedule timelines 6. Schedule Issues 7. Schedule Risks 8. Other areas requiring discussion |
|  | The Contractor will create and maintain a Transition-In Dashboard. |
|  | The Contractor will include the Transition Dashboard as a part of the transition meeting reports. The Contractor will maintain the Transition Dashboard as a separate file for easy access and updates by both Contractor and Consortium staff. |
|  | The Contractor will prepare and present a written report at the Transition-In Management Meeting in a PowerPoint presentation format. The materials provided must be easy to understand, and include:   1. Transition Progress Update Summary 2. Transition-In Work Schedule with variances 3. Transition Dashboard including: 4. Overall status of Transition Components 5. Status by Gates (Plan, Execute, Verify, Cutover, Initial Operations, Final Review) 6. Transition Component Timeliness – On Schedule, Behind < 15 Days, Behind > 15 Days 7. Transition Work Schedule Completion Chart – Represents the work that has been done versus the planned transition work forecast 8. Total Transition Components that have reached any one (1) gate 9. Overall Transition Area Status 10. Top three (3) risks, issues and milestones 11. Changes 12. Issues 13. Risks 14. Communication activities 15. QA status and results: 16. Migration Plan reviews – Checklists required and completed 17. Test and Validation reviews – Checklists required and completed 18. Findings |
|  | Prior to completing the Transition-In period, the Contractor will conduct and facilitate one or more Transition-In Final Review meetings for executive level audiences to show that Transition-In activities are complete and provide information that demonstrates all transition components are transitioned, scheduled activities are complete, and the Contractor is now responsible for all Infrastructure support specified in this Agreement.  Note: The Transition-In Final Review meetings will be conducted at or near the end of the Transition-In period. The Consortium must approve completion of Transition-In. |
|  | The Contractor will present information at the Transition-In Final Review Meeting(s) in a PowerPoint presentation format which must be easy to understand, and includes:   1. Final Dashboard 2. Final Schedule 3. Issues Pertaining to Ongoing Infrastructure activities 4. Lessons Learned 5. Request to Close Transition |

| **Subtask: 1.4 Transition-In Service and Function Migration (3 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will provide leadership in working with the Consortium and the incumbent Contractor to integrate the incumbent Contractor's Closeout Plan and Closeout Work Schedule with the Contractor's Infrastructure Management Service and Function Migration Plan. |
|  | The Contractor will participate in the transfer of Data and files including e-mails, historical transmission files, historical system logs, Documentation, tools, and any other CalSAWS infrastructure related components that would be mandatory or beneficial to the continuance of the CalSAWS System. |
|  | The Contractor will work with the incumbent Contractor to transfer the existing Service Desk number(s) to the Contractor. |

| **Subtask: 1.5 Transition-In Training and Knowledge Transfer (2 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will specify the methods to be used for knowledge transfer and internal training activities; examples include:   1. Documentation Reviews – Review of CalSAWS Documentation relevant to the responsibilities to be assumed by the Contractor’s Staff. 2. Q&A Sessions – Meetings to ask the incumbent Contractor clarifying questions on the Documentation to validate the understanding of CalSAWS processes and procedures. 3. Walkthroughs – Discussions or meetings between the Contractor and incumbent Contractor to step through operational processes, procedures, scripts, workflow, Hardware and Software configuration. 4. Training – Learning that takes place to prepare the Contractor's Staff to implement activities, processes, and procedures needed for a given service or function identified in the Contractor's ITIMP. 5. Demonstrations – Show that the Contractor’s Staff can successfully demonstrate capability to implement activities, processes, and procedures needed to provide a given service or function identified in the Contractor's Infrastructure TIMP. |
|  | The Contractor will confirm Consortium staff are familiar with all of the Contractor’s CalSAWS Services and any of the new processes and tools used by the Contractor upon transition from the incumbent Contractor. |

| **Subtask: 1.6 Transition-In Readiness Reviews (5 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will conduct a series of Infrastructure Transition-In Readiness Reviews with the Consortium, and other CalSAWS Contractors as applicable, for each Service or Function identified as part of the Service and Function Migration Plans and provide evidence that they are ready to assume operational control and responsibility for fulfilling the specified requirements and have coordinated cutover tasks and timing with the incumbent Contractor. Infrastructure Transition-In Readiness Reviews apply to each of the following transition areas:   1. Management as identified in SOW Task Area 2: Management Requirements. 2. Technical Infrastructure Support as identified in SOW Task Area 3: Technical Infrastructure Support Requirements. 3. Innovation and Application/Architecture Evolution as identified in SOW Task Area 4: Innovation and Application/Architecture Evolution Support Requirements. 4. Production Operations as identified in SOW Task Area 5: Production Operations Requirements. 5. Technology Recovery as identified in SOW Task Area 6: Technology Recovery Requirements. 6. Security as identified in SOW Task Area 7: Security Requirements. |
|  | The Contractor will provide Infrastructure Transition-In Readiness Reviews, as identified in the ITIMP, that include:   1. Incumbent Contractor's Closeout Checklist 2. Status of Transition Component Migration Activities and Tasks 3. Training and/or Knowledge Transfer 4. Contractor's Test or Validation Results 5. Proposed Cutover Activities and Date 6. Contractor's Confirmation of Readiness 7. Consortium Go/No Go Decision |
|  | The Contractor will show during the Infrastructure Transition-In Readiness Reviews that they have identified and coordinated cutover tasks and timing with the incumbent Contractor. |
|  | The Contractor will confirm that the incumbent Contractor Project Closeout Plan turnover processes and procedures conform to the ITIMP. |
|  | Upon implementing cutover for a transition component, the Contractor will confirm for the Consortium that Infrastructure Transition-In is complete and the Contractor has assumed full responsibility for providing and managing the service, function, or other transition item. |

| **Subtask: 1.7 Transition-In Test and Validation (3 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will develop, deliver, maintain and execute an Infrastructure Transition-In Test and Validation Plan, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, that defines the test and validation activities for each of the following Service and Function Areas:   1. Management as identified in SOW Task Area 2: Management Requirements. 2. Technical Infrastructure Support as identified in SOW Task Area 3: Technical Infrastructure Support Requirements. 3. Innovation and Application/Architecture Evolution as identified in SOW Task Area 4: Innovation and Application/Architecture Evolution Support Requirements. 4. Production Operations as identified in SOW Task Area 5: Production Operations Requirements. 5. Technology Recovery as identified in SOW Task Area 6: Technology Recovery Requirements. 6. Security as identified in SOW Task Area 7: Security Requirements.   **Deliverable: Infrastructure Transition-In Test and Validation Plan** |
|  | The Contractor will manage updates and changes to each approved Infrastructure Transition-In Test and Validation Plan as needed. |
|  | The Contractor will conduct walkthroughs for Consortium staff during testing and validation, which will include:   1. Demonstration of areas where Task Area performance is acceptable. 2. Demonstration of areas of unacceptable Task Area performance, problems, and issues. 3. Identification of where the problem occurred and an explanation of the differences between expected and actual results. 4. Summary analysis of the problem and the corrective action process and results for each problem or issue. |

# SOW Task Area 2: Management Requirements (30 Requirements)

| **Sub Task 2.1 Project Management** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will provide Project and technical management for all of the activities defined in this Agreement and detailed in the Infrastructure Project Control Document and the Infrastructure Services Plan, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, including:   1. Planning, controlling and reporting on the work. 2. Leading the Infrastructure (including transition) activities. |
|  | The Contractor will be an active participant and collaborate with the Consortium and other CalSAWS Contractors to plan, develop and participate in developing and operationalizing the Delivery Integration Office, including:   1. Participating in the creation and support of the Delivery Integration Office framework to create the governance structure and processes necessary to oversee and manage in an integrated multi-Contractor environment. 2. Incorporating delivery integration principles and best practices. 3. Working in cooperation and coordination with the Consortium and other CalSAWS Contractors to facilitate the administration, maintenance and improvement of this model. |
|  | The Contractor will perform Project management activities in accordance with the CalSAWS Enterprise Project Control Document (PCD), including:   1. Status Reporting 2. Communication Management 3. Contract Management 4. Deficiency Management 5. Deliverable Management 6. Quality Management 7. Risk and Issue Management 8. Staff Management |
|  | The Contractor will adopt, deliver, maintain and execute an Infrastructure Project Control Document that includes the activities performed by Contractor Staff, in accordance and coherence with the CalSAWS Enterprise PCD.  **Deliverable: Infrastructure Project Control Document** |
|  | The Contractor will maintain and execute the Infrastructure Services Plan  Note: The initial delivery of the Infrastructure Services Plan is included in Subtask 1.1 Transition-In Planning. |
|  | The Contractor will maintain and execute the Infrastructure Services Operational Working Documents (OWDs) that provide the detailed procedures for the activities and processes contained in the CalSAWS Infrastructure Services Plan.  Note: The initial delivery of the Infrastructure Services OWDs is included in Subtask 1.1 Transition-In Planning. |
|  | The Contractor will develop, deliver, maintain, and execute an Infrastructure Work Schedule that includes the activities performed by Contractor Staff, in accordance with the and Infrastructure PCD and Infrastructure Services Plan.  **Deliverable: Infrastructure Work Schedule** |
|  | The Contractor will work with the Consortium, and other CalSAWS Contractors as applicable, to integrate the Infrastructure Work Schedule (including updates) into the Maintenance and Operations Integrated Work Plan. |
|  | The Contractor will develop, deliver, and maintain an Infrastructure Organization Chart and Contact List that includes all Contractor Staff providing services under this Agreement, including:  1. A graphical representation of the Contractor’s organization at summary and detailed levels (with details down to each individual), which also depicts Contractor Key Staff with their Consortium staff counterparts.  A Contact List that specifies the name, role, physical location, email address and telephone number for all Contractor Staff. The Contractor will provide updated versions on a monthly basis to reflect changes. |
|  | The Contractor will provide Data, and supporting back-up detail, related to this Agreement, as requested by the Consortium. |
|  | The Contractor will provide billing forecasts on a monthly basis, as determined by the Consortium, using the CalSAWS Monthly Projections template, indicating the invoicing and billing schedule for this Agreement by month and State and federal fiscal years. |
|  | The Contractor will participate in standing management and committee meetings, in addition to meetings included in the CalSAWS Enterprise PCD, as directed by the Consortium, including the Joint Powers Authority Board of Directors, Project Steering Committee and Weekly Management meetings. |
|  | The Contractor is responsible for scheduling, tracking, documenting, recording, and sharing agendas and minutes for any and all meetings planned and conducted as part of the overall Project management Services under this Agreement. |
|  | The Contractor will provide all information requested by the Consortium in response to audit requests and reviews in the timeframe and format prescribed by the Consortium. |
|  | The Contractor will participate in audit activities, such as SOC 1, SOC 2 Type 2, NIST, and Financial, as required by the Consortium. |
|  | The Contractor will provide copies of specified, available work products/artifacts upon the request of and in the timeframe specified by the Consortium. |
|  | The Contractor will utilize the tools documented as “Mandatory” for the functions specified in the Attachment G1 – CalSAWS Software Inventory. |
|  | The Contractor may propose, for the Consortium’s consideration, additional or alternate tools for those tools not designated as “Mandatory” in the Attachment G1 – CalSAWS Software Inventory. Any additional or alternate tool purchase/use is subject to Consortium review and approval. |
|  | The Contractor will make recommendations, on an on-going basis, for improvements to the CalSAWS processes and tools to enhance service delivery and/or optimize costs; implementation of changes is subject to Consortium review and approval. |
|  | The Contractor will supplement existing Contractor Staff on an event-driven basis as needed, including providing short-term or specialized subject matter expertise. |
|  | The Contractor will develop and maintain a Technology Infrastructure Refresh Plan for CalSAWS Managed Hardware, CalSAWS Managed Software, and Cloud Services required to support the CalSAWS System, including:   1. Determination of Hardware and Software requirements, specifications, maintenance and support for the CalSAWS System. 2. Analysis of Hardware and Software technologies available in the market that support/meet the needs for the CalSAWS System. 3. Price, Capacity Planning and capacity forecasts for the current and upcoming State and Federal fiscal years. 4. Support the following refresh standards:    * 1. PC/Laptop – 3 years      2. Non-Production Server – 5 years      3. Network Equipment – 4 years      4. Network Switches – 5 years      5. Video Conferencing Equipment – 5 years      6. Uninterruptible Power Supply (UPS) Devices – 5 years   **Deliverable: Technology Infrastructure Refresh Plan** |
|  | The Contractor will review the Technology Infrastructure Refresh Plan with the Consortium monthly, or as requested by the Consortium. |
|  | The Contractor will use the Consortium’s Cloud cost monitoring tools to control and report costs for all of the Cloud-based activities defined in this Agreement. |
|  | The Contractor will establish cost controls and recommend cost saving and optimization strategies on a semi-annual basis (at a minimum), including Cloud expenditures, for Consortium consideration. |
|  | The Contractor will participate in and support Change Management activities led by the Consortium or other CalSAWS Contractors, as directed by the Consortium. |
|  | The Contractor will be an active participant and collaborate with the Consortium and other CalSAWS Contractors to plan, develop, facilitate, participate, and host the Consortium’s Cultural Transformation Initiatives. Examples of the Project’s Cultural Transformation Initiatives are the Cultural Ambassador Initiative, Inclusion, Diversity, Equity, Advancement (IDEA), Mentor/Mentee Buddy Program, Table Talk Sessions, Feedback Friday, and the CalSAWS Connect Newsletter. |
|  | The Contractor will provide and use a structured approach for estimating costs for potential system technology changes, proofs of concepts and System Change Requests (SCR). The solution must include supporting price details including factors such as complexity, level of effort, resource types, named key Staff and required Hardware and Software. The solution must also support input of component prices from multiple vendor sources. |
|  | The Contractor will on a monthly basis, track and report the actual hours of each SCR and the cumulative hours of all SCRs in the format specified by the Consortium. |
|  | The Contractor will, at the request of the Consortium, provide recommendations for continuous process improvement and innovation in reporting and dashboard technologies and designs. |
|  | The Contractor will maintain and enhance the CalSAWS Infrastructure in accordance with the applicable Centers for Medicare & Medicaid Services (CMS) Eligibility and Enrollment Requirements and Conditions & Standards of Enhanced Funding. |

# SOW Task Area 3: Technical Infrastructure Support Requirements (50 Requirements)

| **Subtask: 3.1 Project Support (13 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will perform Project Support activities, in cooperation and coordination with Consortium and other CalSAWS Contractors as applicable, consistent with the Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will conduct roll-on support Services for Project Office on-site and remote Users, which includes:   1. Equipment preparation, including:    1. Laptop imaging with current Software and Hardware peripherals.    2. Installation of workstations monitors and docking stations in their workspace or office for Project Office on-site Users.    3. Installation of non-standard Software and Hardware as identified on their roll-on form. 2. New User support, including:    1. Logon verification.    2. Office 365 access setup and verification.    3. Remote connectivity as required.    4. Remote access Software user setup (e.g., AppStream and/or Zscaler) as required.    5. Other access as required for their duties.    6. Printer set-up.    7. CalSAWS Equipment Check-in/Check-out form completion. |
|  | The Contractor will conduct roll-on support Services for Managed Counties on-site and remote Users, which includes:   1. Equipment preparation, including:    1. Laptop imaging with current Software and Hardware peripherals.    2. Installation of workstations monitors and docking stations in their workspace or office for Managed Counties on-site Users.    3. Installation of non-standard Software and Hardware as identified on their roll-on form, upon request. 2. New User support, including:    1. Remote connectivity as required, on request.    2. Remote access Software user setup (e.g., AppStream and/or Zscaler) as required, on request.    3. Other access as required for their duties, on request. |
|  | The Contractor will install updated workstation images to Managed Workstations.  Note: The M&E Contractor will be responsible for building and maintaining workstation images. |
|  | The Contractor will configure and maintain Cloud WorkSpaces and AppStream fleets, images, access control, auto-scaling, applications, etc., in order to provide User remote access for various use cases. This configuration will be in accordance with the CalSAWS Access Control Policy, the CalSAWS Identity and Authentication Policy, and any other applicable policies. |
|  | The Contractor will conduct roll-off support Services for Project Office on-site and remote Users, which include at a minimum, the following activities as applicable:   1. Removal of all access required by the roll-off date specified in the roll-off notification including:    1. Application System/Server/VPN access    2. Email account 2. Blocking account sign-in. 3. Removal of email contacts. 4. Removal of Software licenses. 5. Equipment retrieval, including providing pre-paid return shipping containers as required:    1. Laptops    2. Monitors    3. Docking stations    4. Other computer accessories 6. Equipment Check-in/Check-out form completion. 7. Laptop drive wipe and reuse preparation. 8. Placement of equipment in storage. |
|  | The Contractor will conduct asset decommissioning, including:   1. Identifying assets that should be decommissioned. 2. Coordinating the facilitation of the decision by the Consortium. 3. Sanitizing the asset in accordance with CalSAWS Data Sanitization Policy. |
|  | The Contractor will perform joint Office 365 management, including:   * Office 365 Suite including Outlook, Teams, SharePoint (internal Project only) and the SharePoint web portal (internal and external users) which stores Project Documentation. * Providing Tier 1, Tier 2, and Tier 3, if necessary, to support via the Service Desk. * Capacity license planning. * Performance monitoring. * Maintaining Security standards. * Security and Integration Management. * Supporting the Consortium as requested.   Examples:   * Creating secure folders within the SharePoint for specific users to access as requested from Consortium. * Guest account user support for the web portal, * Password resets. * User setup. * Active Directory Security role/group setup and creation. * Support and maintain password reset tool for users. * Active Directory Groups and Security roles. * Email Distribution group management * Security Group/Access management * Third-party plugin support for Azure and Office 365   Example:   * Virto Calendar, Could Management Gateway for SCCM * Azure Support * Microsoft Software Center Management (SCCM)   Note: The Consortium will be responsible for administering the Data stored within the Project SharePoint site and web portal. The Consortium will be responsible for administering Consortium accounts and access. |
|  | The Contractor will provide secure internet and support for the internet network equipment for the Project Office. The internet access must meet the following minimum standard:   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | MPLS Circuit | MSx Router | High Speed Internet Circuit 1 | High Speed Internet Circuit 2 | | Sacramento Area Project Site | 50M MPLS | MSR 400 | AT&T 200x200 | Consolidated 200x200 | | Los Angeles Area Project Site | NA | MSR 400 | Frontier 200x200 Mbps | Spectrum 200x200 Mbps | |
|  | The Contractor will provide support for videoconferencing equipment (including server) located at the Project Office, including:   1. Connectivity support and network setup. 2. Installing Software updates and patches. 3. Procuring and installing additional or replacement equipment (see Subtask 3.3). |
|  | The Contractor will support the lease/purchase of copy machines, and provide maintenance and support for copy machines located in the Project Office, including:   1. Supplying consumables (e.g., toner, paper). 2. Performing preventative maintenance. |
|  | The Contractor will provide direct phone and email support for Project Office users related to Contractor-managed Hardware, Software and infrastructure issues. |
|  | The Contractor will, upon the Consortium’s identification of an IT scenario that calls for collaboration with the Consortium’s IT Support Team, interact and assist the Consortium in resolving the issue. |

| **Subtask: 3.2 Hardware and Software Support (16 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will perform Hardware and Software Support activities, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, consistent with the Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will manage the maintenance contracts for the Commercially Available Software included in the Attachment G1– CalSAWS Software Inventory and renew them as needed. |
|  | The Contractor will upgrade all Managed Software included in the Attachment G1 – CalSAWS Software Inventory to be at most one version level lower than the latest available version from its manufacturer/author unless otherwise directed by the Consortium. |
|  | The Contractor will, working in conjunction with other CalSAWS Contractors as applicable, advise the Consortium of the impact of any Software upgrades to the operations of the CalSAWS System and/or interface partners ninety (90) calendar Days prior to upgrading the Software. |
|  | The Contractor will provide Services required for upgrading and applying patches to the Managed Software included in the Attachment G1 – CalSAWS Software Inventory including:   * Impact analysis * Planning * Testing * Implementation * Validation |
|  | The Contractor will notify the Consortium if there is no commercially available maintenance support for any CalSAWS Managed Commercially Available Software included in the Attachment G1 – CalSAWS Software Inventory, within fifteen (15) calendar Days of an announcement by the software provider of discontinuation of support. |
|  | Through structured quality assurance and testing processes, the Contractor will certify software upgrades and security patches for any CalSAWS Managed Software included in the Attachment G1 – CalSAWS Software Inventory. |
|  | The Contractor will adopt, enhance, maintain, and implement changes to custom-developed CalSAWS supporting Software (e.g., tools), upon Consortium approval, for the custom-developed Software included in the Attachment G1 – CalSAWS Software Inventory. |
|  | The Contractor will adopt, maintain, and enhance configurations and integrations to Software as a Service (SaaS) products included in the Attachment G1 – CalSAWS Software Inventory. |
|  | The Contractor will install all cables, adapters, and connectors necessary for interconnection and proper operation of all CalSAWS Managed Hardware included in the Attachment G2 – CalSAWS Hardware Inventory. |
|  | The Contractor will perform field service calls and provide remote Hardware maintenance Services as necessary to maintain the operational status and meet Service Level Agreements stated in the Attachment A12 – Infrastructure Service Level Agreements for Managed Hardware included in the Attachment G2 – CalSAWS Hardware Inventory. |
|  | The Contractor will plan and maintain an inventory of spare equipment and parts in locations throughout the State, including the Project Office, sufficient to meet the Service Level Agreements in the Attachment A12 – Service Level Agreements. The Contractor will review the inventory list quarterly with the Consortium. |
|  | The Contractor will perform regular maintenance tasks and upgrades for ServiceNow (the service desk system), including:   * 1. Monitoring Production and non-Production infrastructure.   2. Monitoring the Service Desk application.   3. Maintaining and enhancing centralized CalSAWS Service Desk call and workflows.   4. Maintaining and enhancing configurations for ServiceNow components.   5. Maintaining and enhancing customizations for ServiceNow.   6. Maintaining configurations of the Configuration Management Database (CMDB).   7. Supporting integrations with third-party applications, including:   8. County Help Desk   9. Project Office Change Management Tool   10. SSO Authentication Tool |
|  | The Contractor will perform regular maintenance tasks and upgrades for the central contact center system, including:   * 1. Installing and configuring Software updates and patches.   2. Monitoring Production and non-Production infrastructure. |
|  | The Contractor will provide central support to the Counties for Managed Lobby Management devices, including Document Upload Kiosks (“DUKs/Kiosks”), Facilitated Access Control Tablets (“FACTs”), and Lobby Receipt Printers; and manage and administer the accompanying third-party manufacturer Hardware and Software. Production operations support for CalSAWS Managed Lobby Management devices includes:   * 1. Installing and configuring Software updates and patches.   2. Monitoring Production devices, including servers, applications, and webservices.   3. Troubleshooting problems and incidents with the Lobby client and server infrastructure.   4. Providing network support for the devices. |
|  | The Contractor will manage Production operations and provide support for the Electronic Signature solution for capturing and tracking applicant electronic signatures for verifying intent to apply for benefits. Production operations related to the Electronic Signature solution includes management of SIP lines, toll-free minutes, and long-distance minutes for usage of the Interactive Voice Response (IVR) system.  The Electronic Signature solution includes the following:   * Text Message * IVR * Email * Telephonic   Telephonic has both a CalSAWS application and storage component as well as an integrated component with the CalSAWS Contact Center. |

| **Subtask: 3.3 Purchasing (6 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will perform Purchasing activities, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, consistent with the Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will purchase Hardware and Commercially Available Software for the Consortium, including accompanying third-party manufacturer support agreements required for the CalSAWS System, through the execution of Consortium-approved orders. |
|  | The Contractor will retain title to CalSAWS Managed Hardware and CalSAWS Managed Commercially Available Software procured on behalf of the Consortium until the end of this Agreement, or until the asset is decommissioned, whichever occurs first, at which time the Contractor will transfer the title to the Consortium or confirm secure disposal of the equipment. |
|  | The Contractor will purchase Commercially Available Software for the Counties, including accompanying third-party manufacturer support agreements required for the CalSAWS System, through the execution of County Purchase orders. |
|  | The Contractor will transfer title to Managed Hardware and Managed Commercially Available Software procured on behalf of the Counties upon receipt of payment. |
|  | The Contractor will implement a purchasing methodology and associated practices that result in competitive pricing for Hardware and Software purchases; the purchasing methodology and practices will be documented in the Infrastructure Service Plan and associated OWDs. |

| **Subtask: 3.4 Asset Management (13 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will perform Asset Management activities, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, consistent with the Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will provide asset management Services for Managed Hardware and Managed Software included in the Attachment G2 – CalSAWS Hardware Inventory, the Attachment G1 – CalSAWS Software Inventory and the Attachment G3 – WAN Specifications from procurement through decommissioning of the asset utilizing ServiceNow. |
|  | The Contractor will perform software license administration (including monitoring compliance with software licenses) for Managed Software included in the Attachment G1– CalSAWS Software Inventory utilizing ServiceNow. |
|  | The Contractor will notify the Consortium in writing if Software license limits are close to being reached. |
|  | The Contractor will monitor website, SSL and any additional certification expirations and notify the Consortium no less than sixty (60) calendar Days prior to expiration. |
|  | The Contractor will renew all certificates that are required for Managed Software included in the Attachment G1 – CalSAWS Software Inventory. |
|  | The Contractor will adopt, enhance, maintain, and deliver the Managed Hardware and Software Inventory – Infrastructure Agreement Monthly Update included in the Attachment G2 – CalSAWS Hardware Inventory and the Attachment G1 – CalSAWS Software Inventory.  **Deliverable: Infrastructure Managed Hardware and Software Inventory – Infrastructure Agreement Monthly Update** |
|  | The Contractor will verify received equipment against orders and affix asset control tags. |
|  | The Contractor will make the asset tag number a searchable field in ServiceNow. |
|  | The Contractor will track installation, moves, additions, decommissions and changes of CalSAWS Managed Hardware and update ServiceNow on an ongoing basis. |
|  | The Contractor will answer questions and reconcile discrepancies identified as a result of a review of asset inventory reports. |
|  | The Contractor will support annual inventory audits by providing reports detailing the current status and location of Managed Hardware and Managed Software, including current WAN specifications. |
|  | The Contractor will develop, document and maintain a lost/stolen and borrowed equipment asset process. |

| **Subtask: 3.5 Documentation Maintenance (2 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will adopt, enhance, maintain, and deliver the Documentation required by the Consortium, in cooperation and coordination with the Consortium and other CalSAWS Contractor as applicable, including:   1. Infrastructure Technical Design Document 2. Infrastructure Network Design Plan 3. Infrastructure Technical Asset Configuration Report for the Development, Test Staging, Performance and Production Environments   **Deliverables:**   * **Infrastructure Technical Design Document** * **Infrastructure Network Design Plan** * **Infrastructure Technical Asset Configuration Report for the Development, Test, Staging, Performance and Production Environments** |
|  | The Contractor will develop, deliver, and maintain detailed technical integration design Documentation required for integration partners, including applicable support materials for integration partners and external-facing users. |

# SOW Task Area 4: Innovation and Application/Architecture Evolution Support Requirements (4 Requirements)

| **Subtask: 4.1 Innovation Support (1 Requirement)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will support the Consortium, and other CalSAWS Contractors as applicable, in the evaluation of emerging technologies into the CalSAWS platform. Specifically, the Contractor will:   1. Attend Innovation-related planning and evaluation meetings. 2. Identify technical infrastructure impacts of innovation proposals. 3. Provide support for an additional four (4) Cloud environments per year for Proofs of Concepts, as requested by the Consortium. 4. Develop and provide detailed task descriptions, resource requirements, estimated hours and price information as requested by the Consortium, as part of the Technical Change Management process. |

## 

| **Subtask: 4.2 Application/Architecture Evolution Support (3 Requirement)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will support the Consortium, and other CalSAWS Contractors as applicable, in the evaluation of technologies and approaches, to optimize the CalSAWS platform. Specifically, the Contractor will:   1. Attend Application and Architecture Evolution-related planning and evaluation meetings. 2. Develop recommendations for the continued evolution of the CalSAWS architecture. 3. Identify technical infrastructure impacts of architecture evolution proposals. 4. Develop and provide detailed task descriptions, resource requirements, estimated hours and price information as requested by the Consortium, as part of the Technical Change Management process. |
|  | The Contractor will create and deliver an approach to building an automation, artificial intelligence and machine learning infrastructure including data storage and scalability; proper storage capacity and reliability; networking and data needs; and anticipating security threats and reacting real time.  **Deliverable: Approach to Automation, Artificial Intelligence and Machine Learning** |
|  | The Contractor will maintain and enhance the architecture as defined by approved SCR(s), in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable. |

# SOW Task Area 5: Production Operations Requirements (52 Requirements)

| **Subtask: 5.1 Network Operations (11 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will maintain the existing network and perform Network Operations activities, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, consistent with the Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will provide administration of the network, which is comprised of telecommunications Services and co-location facilities, required for the CalSAWS System. Co-location facilities or “exchanges” provide a dedicated network connection between the CalSAWS network and the CalSAWS Production and non-Production environments hosted in the Cloud. |
|  | The Contractor will manage the telecommunications circuits that provide connectivity between:   1. The network and the exchanges to connect to the Cloud. 2. The Project Office sites and the CalSAWS network. 3. The CalSAWS County sites (e.g., point of presence locations and managed sites) and the network. |
|  | The Contractor will manage the connections between the exchanges and:   1. The CalSAWS Production and non-Production environments. 2. Each of the County sites. 3. The Project Office. 4. CalSAWS interface partners and the Central Print locations. 5. Wireless and LAN connectivity inside the Project Office. |
|  | The Contractor will provide administration of the Wide Area Network (WAN), which is comprised of telecommunications services and co-location facilities, required for the CalSAWS System as detailed in the Attachment G3 – Wide Area Network Specifications. |
|  | The Contractor will perform network monitoring, on a 24 hours a Day/7 Days a week/365 Days a year basis, of CalSAWS network components and telecommunications circuits used to enable communication to the CalSAWS System, including:   1. CalSAWS Managed WAN and LAN devices in the Project Office. 2. Cloud hosting facility. 3. POP and CalSAWS Managed locations. |
|  | The Contractor will perform monitoring of the remote connectivity solution, on a 24 hours a Day/7Days a week/365 Days a year basis and initiate communications to:   1. Alert and assign the appropriate personnel to respond a service outage or degradation. 2. Contact appropriate personnel for events that do not trigger automated notifications but might require investigation. |
|  | The Contractor will adopt, enhance, and maintain the automated monitoring and alerting solution. |
|  | The Contractor will respond to automated monitoring and alert notifications, including phone calls and text messages, on a 24 hours a Day/7 Days a week/365 Days a year basis. |
|  | The Contractor will be responsible for analyzing any potential impacts to the network and all associated components due to modifications and/or enhancements to the CalSAWS System, Software, and interfaces. |
|  | The Contractor will coordinate and communicate the network management activities with the Consortium, other CalSAWS Contractors, Counties, interface partners, and third-party vendors (e.g., telecommunications providers), as applicable. |
|  | The Contractor will make recommendations, on an on-going basis, for improvements to the network to enhance reliability, security, performance and optimize costs; implementation of changes is subject to Consortium review and approval. |

| **Subtask: 5.2 CalSAWS System Operations (4 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will perform CalSAWS System Operations activities, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, consistent with the Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will perform CalSAWS System environment support for all CalSAWS Production and non-Production environments, including:   1. Working with the Consortium to provision new environments. 2. Performing system and application backup and recovery. 3. Applying Software and Operating System patches, including creation and maintenance of scripts. 4. Scheduling and coordinating system downtime with all CalSAWS Contractors. 5. Creating, maintaining, and providing a CalSAWS System Availability Calendar that specifies planned system downtime. 6. Adopting and maintaining the CalSAWS Wiki page (<https://wiki.calsaws.net/wiki/Homepage>), including the Environment Links. |
|  | The Contractor will support the Consortium in managing the integrated environments in accordance with the CalSAWS Integrated Environments Management Plan standards and the associated OWDs. |
|  | The Contractor will make recommendations, on an ongoing basis, for improvements to the CalSAWS System operations to enhance reliability, security, performance and optimize costs; implementation of changes is subject to Consortium review and approval. |

| **Subtask: 5.3 Service Desk (21 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will perform Service Desk activities, in cooperation and coordination with the Consortium other CalSAWS Contractors as applicable, consistent with the Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will provide Service Desk staffing and support needed to meet Service Level Agreements stated in the Attachment A12 – Infrastructure Service Level Agreements. |
|  | The Contractor will use the existing CalSAWS ServiceNow instance for all Service Desk support functions. |
|  | The Contractor will provide the Service Desk infrastructure (e.g., call routing, equipment) as a service to the Consortium, with the exception of ServiceNow. (ServiceNow support will be performed by the Contractor as part of Task Area 3: Technical Infrastructure Support.) |
|  | The Contractor will provide Tier 1 and Tier 2 Service Desk Services for the CalSAWS Users, including the CalSAWS BenefitsCal online services portal. |
|  | The Contractor will provide Tier 3 Service Desk Services related to the CalSAWS infrastructure responsibilities. (Tier 3 Service Desk Services for the CalSAWS applications will be provided by other CalSAWS Contractors.) |
|  | The Contractor will work with other CalSAWS Contractors that provide Tier 3 Service Desk Services for their Contracted responsibilities in order to resolve identified incidents and/or problems. |
|  | The Contractor will provide Tier 1 and Tier 2 Phone and Voicemail Support which includes answering the initial call regarding a problem with the CalSAWS System or responding to voice messages left by callers not able to get through to a Service Desk resource. |
|  | The Contractor will provide Tier 1 and Tier 2 Email Support which includes responding to emails regarding a problem with the CalSAWS System. |
|  | The Contractor will staff the Service Desk Mondays through Saturdays 7:00 a.m. – 6:00 p.m. Pacific Standard Time, except for Consortium Holidays and scheduled System downtime. CalSAWS Holidays are documented in the M&O Services Plan. |
|  | The Contractor Service Desk Staff will be located in the United States. (The Consortium will not provide facilities for Contractor Service Desk Staff.) |
|  | The Contractor will intake, prioritize, manage and resolve, and provide appropriate communication on status to impacted stakeholders for all network issues, which includes Hardware and Software for all firewalls, web application firewalls (WAF), Intrusion Prevention Systems (IPS)/Intrusion Detection Systems (IDS), Security Information and Event Management (SIEM) Systems, switches, routers, wireless LAN controllers, WAP, Print Servers, LTS racks/air conditioner blowers, UPS battery backups (including replacements) and all relevant network infrastructure equipment. |
|  | The Contractor will intake, prioritize, manage, resolve, and provide appropriate communication on status to impacted stakeholders for Contractor-supported Hardware, Software, and infrastructure issues, including:   1. Reimaging of laptops. 2. Hardware and Software installation and updates, access (e.g., password resets), maintenance, and support. 3. Wi-Fi and remote access issues. 4. Printer mapping. 5. Laptop lockout resets (Bitlocker).   Note: The Infrastructure Contractor is not responsible for providing HW/SW to the CalSAWS POP counites. POP Counties provide HW/SW for their users. |
|  | The Contractor will record and manage Tier 1 and Tier 2 support issues submitted via phone, email, ServiceNow Chat function, or in person using ServiceNow. |
|  | The Contractor will provide toll-free telephone connectivity to the Service Desk for the CalSAWS Users. |
|  | The Contractor will maintain and enhance knowledge repositories utilized by Service Desk Staff. |
|  | The Contractor will be responsible to correct all incidents within the scope of Contractor responsibility, within the timeframes specified in the Attachment A12 – Infrastructure Service Level Agreements. An incident will not be considered to be corrected until the Contractor receives validation from the Consortium that the incident is resolved to the satisfaction of the Consortium (confirmation from the individual that first reported the problem or an appropriate designee). |
|  | The Contractor will monitor and report on all incidents and problems recorded in ServiceNow until closure, regardless of the party assigned to the resolve the incident/problem. |
|  | The Contractor will create and deliver a CalSAWS Infrastructure Root Cause Analysis (RCA) for problems, as directed by the Consortium, which will include:   1. The identification and key event descriptions explaining the incident. 2. Information necessary to distinguish between root cause and causal factors. 3. The steps required for repair and remediation. |
|  | The Contractor will make recommendations, on an on-going basis, for improvements to the CalSAWS Service Desk to enhance service delivery and optimize costs; implementation of changes is subject to Consortium review and approval. |
|  | The Contractor will coordinate, as necessary, with Local County Tier 1 Help Desks through the Tier 1 Service Desk. |

| **Subtask: 5.4 Production Operations Support Services (5 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will perform Configuration Management activities for Contractor Configuration Items, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, consistent with the CalSAWS Infrastructure Services Plan and the associated OWDs.  Contractor Configuration Item Types include:   1. Plans, Processes and Standards 2. Requirements 3. Tool Based Documentation 4. Technical Work Products |
|  | The Contractor will perform Capacity Management activities, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, consistent with the Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will report and address all infrastructure capacity issues that impact CalSAWS System performance requirements. |
|  | The Contractor will perform Technical Change Management activities as it applies to the deployment of CalSAWS technical changes including infrastructure, network, and Could configurations in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, consistent with the CalSAWS Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will incorporate Infrastructure as Code (IaC) into their processes to provision and manage Could resources (approved methods are Cloud Formation and Terraform for writing template files that are both human readable and machine consumable. |

| **Subtask: 5.5 Performance Monitoring and Alerting (10 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will perform Performance Monitoring and Alerting activities, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, consistent with the CalSAWS Infrastructure Services Plan and the associated OWDs. |
|  | The Contractor will monitor availability and performance to verify CalSAWS infrastructure Services are meeting service levels and performance requirements detailed in the Attachment A12 – Infrastructure Service Level Agreements. |
|  | The Contractor will develop and deliver a Infrastructure Monthly Operations Report based on the CalSAWS Monthly Operations Report template provided in the Procurement Library, incorporating changes to the report structure as approved by the Consortium.  **Deliverable: Infrastructure Monthly Operations Report** |
|  | The Contractor will investigate, verify, record, and report infrastructure nonperformance or unscheduled downtime, in accordance with the service levels and performance requirements defined in the Attachment A12 – Infrastructure Service Level Agreements. |
|  | The Contractor will be responsible for tuning and optimizing the performance of the CalSAWS infrastructure Services within the scope of Contractor’s responsibility. |
|  | The Contractor will conduct periodic and on-request performance tests, analyze issues and take corrective actions to optimize CalSAWS System performance. |
|  | The Contractor will make available to the Consortium all Data gathered related to resource utilization, network bandwidth consumption, Data storage usage and all other factors and resources that impact CalSAWS System performance. |
|  | The Contractor will be responsible for strategic and tactical planning of Data circuits, access security, port management, and network device configuration to meet service levels and performance requirements defined in the Attachment A12 – Infrastructure Service Level Agreements. |
|  | The Contractor will develop, deliver and maintain a system performance dashboard that provides real-time Data on the health of the CalSAWS System, including at a minimum, reporting on all metrics in the Attachment 12 – Infrastructure Service Level Agreements. |
|  | The Contractor will develop and maintain the system performance using a Commercial-off-the-Shelf product or Open-Source product, with the Consortium’s preference being the use of Open Source. |

# SOW Task Area 6: Technology Recovery Requirements (8 Requirements)

| **Unique ID** | **Requirement** |
| --- | --- |
|  | The Contractor will develop, deliver and maintain the Infrastructure Technology Recovery Plan, which includes an Infrastructure Technology Recovery Test Plan with the Infrastructure Recovery Test results, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable.  **Deliverable: Infrastructure Technology Recovery Plan** |
|  | The Contractor will execute the Infrastructure Technology Recovery Plan activities as applicable upon declaration of a disaster or emergency by the Consortium. |
|  | The Contractor will support the CalSAWS Cloud Services provider, as necessary, to re-establish the CalSAWS System in the event the primary Cloud Region or Zone becomes unavailable, consistent with the CalSAWS Infrastructure Technology Recovery Plan, including:   1. Validating the backup Cloud region. 2. Coordinating and assisting other CalSAWS Contractors in restoring CalSAWS Services and application components. |
|  | The Contractor will provide replacement CalSAWS Hardware, Software and installation support at alternate site(s), including workstations, network, and telecommunication equipment, if a site(s) is no longer accessible due to a disaster or emergency, based on Consortium and/or County approval of equipment order(s). |
|  | The Contractor will adopt and maintain automatic fail over to a Backup Cloud Exchange Site in the event that connectivity to the Primary Exchange Site is lost. The Backup Cloud Exchange site must be at a physically different location. |
|  | The Contractor will meet the performance and response time requirements, including Recovery Point Objective(s) and Recovery Time Objective(s), specified in the Attachment A12 – Infrastructure Service Level Agreements. |
|  | The Contractor will prepare a detailed Infrastructure Technology Recovery Post Event Report after every declared disaster or emergency. |
|  | The Contractor will perform a Infrastructure Technology Recovery Test on a semi-annual basis, in conjunction with the Consortium and other CalSAWS Contractors, as applicable. |

# SOW Task Area 7: Security Requirements (64 Requirements)

| **Subtask: 7.1 Risk Management (7 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will perform Security activities, in cooperation and coordination with the CalSAWS Consortium and other CalSAWS Contractors as applicable, consistent with the System Security Plan and the associated OWDs. |
|  | The Contractor will follow the CalSAWS policies and standards for all systems and work performed. This includes compliance with CalSAWS Privacy Security Agreements, applicable legal, statutory, and regulatory compliance obligations. |
|  | The Contractor will adopt, enhance, maintain, deliver and execute an Infrastructure System Security Plan, including security policies and procedures, and make these documents readily available for regular review with the Consortium and third-party reviewers.  **Deliverable: Infrastructure System Security Plan** |
|  | The Contractor will review the System Security Plan and security policies annually, and as a result of CalSAWS System changes, update as necessary, to confirm its continuing alignment with the security strategy, effectiveness, accuracy, relevance, and applicability to CalSAWS Privacy Security Agreements, legal, statutory, or regulatory compliance obligations. |
|  | The Contractor will demonstrate an understanding of the Consortium enterprise-wide security risk framework and must participate in Consortium managed security risk processes. |
|  | The Contractor will provide a formal disciplinary or sanction policy for employees or Subcontractor Staff who have violated security policies and procedures. Employees and Subcontractors shall be made aware of what action might be taken in the event of a violation, and disciplinary measures must be stated in the policies and procedures. The Contractor will provide signed acknowledgement statements from its employees and Subcontractor Staff and maintain these acknowledgements throughout the term of the Agreement, including for any new employees or Subcontractors that are onboarded. |
|  | All Contractor and Subcontractor employees and Staff are required to complete CalSAWS Privacy Security Awareness Training, per the CalSAWS Security Awareness and Training Policy. Newly hired Contractors and Subcontractors must complete these trainings, and all Contractors and Subcontractors will complete the training annually thereafter. |

| **Subtask: 7.2 Change Control and Configuration Management (5 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will adhere to existing CalSAWS policies and procedures supporting business processes and implemented technical measures. |
|  | The Contractor will confirm that security requirements are followed and updated as needed for new acquisition or Data changes (new Data) for physical or virtual applications, infrastructure network, and systems components, or changes to operations and/or data center facilities that have been pre-authorized. |
|  | The Contractor will confirm delegated business partners, such as interface partners, adhere to the same security policies and procedures for change management, release, and testing as internal developers within the CalSAWS program. |
|  | The Contractor will follow CalSAWS defined change control and security testing processes for testing and release management that focus on system availability, confidentiality, and integrity of systems and services. |
|  | The Contractor will establish and document procedures, in the System Security Plan and/or associated OWDs, for maintaining system security and managing security-related risks when applying changes to all CalSAWS systems and services. All changes must directly correspond to a System Change Request authorization by the Consortium prior to deployment. |

| **Subtask: 7.3 Virtualization Security (8 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor is responsible for protection, retention, and lifecycle management of audit logs, adhering to CalSAWS Privacy Security Agreements and applicable legal, statutory or compliance obligations and providing unique User access accountability to detect potentially suspicious network behaviors and/or file integrity anomalies, and to support forensic investigative capabilities in the event of a security breach. |
|  | The Contractor will maintain all CalSAWS security system components while confirming they are configured to restrict and monitor traffic between trusted and untrusted connections. These configurations will be reviewed regularly by the Contractor and supported by a documented justification for use of all allowed services, protocols, ports, and by compensating controls. |
|  | The Contractor will harden operating systems to provide only necessary ports, protocols, and services to meet CalSAWS business needs, and will implement supporting technical controls for antivirus, file integrity monitoring, and logging as part of the Contractor baseline operating build standard or template. |
|  | The Contractor will separate environments utilizing Production Data and non-Production Data to prevent unauthorized access or changes to information assets. Separation of the environments may include: stateful inspection firewalls, domain/realm authentication sources, and clear segregation of duties for personnel accessing these environments as part of their job duties. |
|  | The Contractor will design, develop, deploy, and configure Contractor-owned or managed (physical and virtual) applications, infrastructure system and network components such that CalSAWS environments are segmented from any other environments or users. |
|  | The Contractor will establish and document procedures supporting CalSAWS business processes and technical measures implemented to protect wireless network environments, including the following:   1. Perimeter firewalls implemented and configured to restrict unauthorized traffic. 2. Security settings enabled with strong encryption for authentication and transmission, replacing vendor default settings (e.g., encryption keys, passwords, and SNMP community strings). 3. User access to wireless network devices restricted to authorized personnel. |
|  | The Contractor will prepare network architecture diagrams which clearly define and identify high-risk environments and Data flows that may have legal compliance impacts. |
|  | Technical measures must be implemented and must apply defense-in-depth techniques (e.g., deep packet analysis, traffic throttling, and black-holing) for detection and timely response to network-based attacks associated with anomalous ingress or egress traffic patterns (e.g., MAC spoofing and ARP poisoning attacks) and/or distributed denial-of-service (DDoS) attacks. |

| **Subtask: 7.4 Threat and Vulnerability Management (4 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will establish procedures supporting business processes and implement technical measures to prevent the execution of malware on Managed Hardware (i.e., issued workstations, laptops, and mobile devices) and IT infrastructure network and systems components. |
|  | The Contractor will confirm procedures are established and supporting processes and technical measures implemented for timely detection of vulnerabilities within CalSAWS-owned or managed applications, infrastructure network and system components (e.g., network vulnerability assessment, penetration testing) to confirm the efficiency of implemented security controls. A risk-based model for prioritizing remediation of identified vulnerabilities must be used. Changes must be managed through the CalSAWS Change Management process for all Contractor-supplied patches, configuration changes, or changes to the CalSAWS Software. Upon request, the Contractor will inform the Consortium of policies and procedures. The Contractor will notify the Consortium of any weaknesses upon identification. |
|  | The Contractor will conduct the following security activities:   1. General Infrastructure security scanning, monitoring and alerting 2. IDS/IPS scanning, monitoring and alerting 3. IT Security and Compliance scanning, monitoring and alerting 4. Cloud Provider security scanning, monitoring and alerting (at every network and subnet layer) 5. Server security scanning, monitoring and alerting 6. Anti-Virus and Malware scanning, monitoring and alerting 7. Network Whitelist scanning, monitoring and alerting 8. VPN scanning, monitoring and alerting 9. Identify and Access Management of (IAM) scanning, monitoring and alerting of all CalSAWS environments, including Multi-Factor authentication (MFA) 10. Email SPAM detection and deletion |
|  | The Contractor will perform penetration testing through an external third-party Contractor approved by the Consortium.  **Deliverable: Penetration Test Report** |

| **Subtask: 7.5 Security Incident Management (2 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will establish procedures, and implement supporting business processes and technical measures, to triage security-related events and provide timely and thorough incident management, as per established CalSAWS Privacy Security Agreements and policies and procedures. |
|  | The Contractor will establish and implement mechanisms to monitor and quantify the types, volumes, and costs of information security incidents. |

| **Subtask: 7.6 Data Security and Information Lifecycle Management (5 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will adhere to CalSAWS Privacy Security Agreements for electronic Data interchange and Data that traverses public and or private networks. |
|  | The Contractor will confirm Data is appropriately classified and protected from fraudulent activity, unauthorized disclosure, or modification to prevent a privacy security breach, contract dispute, or compromised Data. |
|  | The Contractor will implement the necessary controls so that CalSAWS Production Data is not replicated or used in non-Production environments. Any use of CalSAWS Production Data in non-Production environments requires explicit, documented approval from the CalSAWS Chief Information Security Officer. |
|  | The Contractor will comply with CalSAWS legal and regulatory requirements for de-identification of sensitive Data when Production Data is being masked for non-Production environments. |
|  | The Contractor will adhere to CalSAWS policy and procedures for the secure disposal and complete removal of Data from all storage media, confirming Data is not recoverable by any computer forensic means. |

| **Subtask: 7.7 Identity and Access Management (9 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will confirm access to, and use of, audit tools that interact with the CalSAWS system and shall be appropriately segregated with access restricted to prevent inappropriate disclosure and tampering of log Data. |
|  | The Contractor will adhere to CalSAWS identity and access management policies. |
|  | The Contractor will confirm access to the CalSAWS developed applications, program, or object source code, or any other form of intellectual property (IP) and use of proprietary software will be appropriately restricted following the rule of least privilege based on job function in accordance with established CalSAWS User access policies and procedures. |
|  | The Contractor will establish and document procedures, in the System Security Plan and/or associated OWDs, for permissible storage and access of identities used for authentication to confirm identities are only accessible based on rules of least privilege and replication limitation only to users explicitly defined as business necessary. |
|  | The Contractor will provision User access (e.g., employees, Contractors, Subcontractors, Consortium Staff, County staff, customers, and interface partners) to Data and CalSAWS-owned or managed (physical and virtual) applications. Infrastructure systems, and network components must be authorized, or enabled, by the Consortium prior to access being granted and appropriately restricted in accordance with established CalSAWS policies and procedures. Upon request, the Contractor will provide this User access information to the Consortium. |
|  | The Contractor will authorize and revalidate Users for entitlement appropriateness quarterly (in accordance with the CalSAWS Access Control Policy), to demonstrate the rule of least privilege based on job function. |
|  | The Contractor will de-provision (revoke or modify) User access to Data and CalSAWS-owned or managed (physical and virtual) applications, infrastructure systems, and network components, and notify the Consortium in a timely manner. User access revocation must be implemented in accordance with established CalSAWS policies and procedures and based on a User's change in status (e.g., termination of employment or other business relationship, job change, or transfer). Upon request, the Contractor will provide a report of these changes to the Consortium. |
|  | The Contractor will implement controls to restrict User account credentials, confirming appropriate identity, entitlement, and access management in accordance with established CalSAWS policies and procedures:   1. Account credential lifecycle management from initiation through revocation. 2. Account credential and/or identity store minimization or re-use when feasible. 3. Adherence to CalSAWS FedRAMP acceptable and/or regulatory compliant authentication, authorization, and accounting (AAA) rules (e.g., strong/multi-factor, expirable, non-shared authentication secrets). |
|  | The Contractor will restrict utility programs capable of potentially overriding system, object, network, virtual machine, and application controls. |

| **Subtask: 7.8 Interoperability and Portability (2 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will use secure (e.g., non-clear text and authenticated) FedRAMP standardized network protocols for the import and export of Data and to manage the service and must provide a document to the Consortium detailing the relevant interoperability and portability standards that are involved. |
|  | The Contractor will use an industry-recognized virtualization platform and standard virtualization formats following FedRAMP and the most current NIST standards and regulations to help confirm interoperability and must have documented custom changes made to any hypervisor in use and all solution-specific virtualization hooks available for Consortium review. |

| **Subtask: 7.9 Application and Interface Security (2 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will implement identified CalSAWS Privacy Security Agreement requirements, contractual, and regulatory requirements prior to granting access to Data, assets, and information systems. |
|  | The Contractor will adhere to all CalSAWS policies and procedures in support of Data security to include confidentiality, integrity, and availability across multiple system interfaces, geographic locations to prevent improper disclosure, alteration, or destruction. |

| **Subtask: 7.10 Datacenter Security (6 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will maintain a complete inventory of business assets, classifying them, according to CalSAWS policies, in terms of business criticality, service-level expectations, and operational continuity requirements as well as documenting their assigned ownership. |
|  | The Contractor will employ physical security perimeters (e.g., guards, electronic surveillance, physical authentication mechanisms, reception desks), at Contractor facilities where work under this Agreement is performed, to safeguard sensitive Data and information systems. |
|  | The Contractor will obtain authorization from the Consortium prior to relocation or transfer of Hardware, Software, or Data containing CalSAWS Data to any offsite premises or alternative Cloud infrastructure. |
|  | The Contractor will adhere to CalSAWS policies and procedures for the secure disposal of equipment. This includes wiping solution and destruction process that renders recovery of information impossible. The erasure must consist of a full overwrite of the drive to confirm that the erased drive is securely stored until it can be destroyed. |
|  | The Contractor will document procedures, in the System Security Plan and/or associated OWDs, that support business processes implemented, for maintaining a safe and secure working environment in offices, rooms, facilities, and secure areas storing CalSAWS sensitive information at Contractor facilities where work under this Agreement is performed. |
|  | The Contractor will confirm ingress and egress to secure areas are constrained and monitored by physical access control mechanisms to confirm that only authorized personnel are allowed access at Contractor facilities where work under this Agreement is performed. Ingress and egress points such as service areas and other points where unauthorized personnel may enter the premises shall be monitored, controlled and, if possible, isolated from Data storage and processing facilities to prevent unauthorized Data corruption, compromise, and loss. |

| **Subtask: 7.11 Encryption & Key Management (5 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor managed keys must have identifiable owners (binding keys to identities) and key management policies must be established and implemented. |
|  | The Contractor will establish and document procedures, in the System Security Plan, for the management of cryptographic keys in the service's cryptosystem (e.g., lifecycle management from key generation to revocation and replacement, public key infrastructure, cryptographic protocol design and algorithms used, access controls in place for secure key generation, and exchange and storage including segregation of keys used for encrypted Data or sessions). Upon request, the Contractor will inform the Consortium of changes within the cryptosystem. |
|  | The Contractor will develop and document procedures, in the System Security Plan, and implement supporting business processes and technical measures, for the use of encryption protocols for protection of sensitive Data in storage (e.g., file servers, databases, and end-user workstations), Data in use (memory), and Data in transmission (e.g., system interfaces, over public networks, and electronic messaging) in accordance with CalSAWS applicable legal, statutory, and regulatory compliance obligations. |
|  | The Contractor will implement platform and Data-appropriate encryption (e.g., AES-256) in open/validated formats and standard algorithms. |
|  | The Contractor will separate key management and key usage duties. |

| **Subtask: 7.12 Human Resources (9 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will return all Consortium-owned assets within an established period upon termination of Contractor or Subcontractor personnel. |
|  | The Contractor will confirm roles and responsibilities for performing employment termination or change in employment procedures are assigned, documented, and communicated. |
|  | The Contractor will confirm, pursuant to local laws, regulations, and contractual constraints, all employment candidates, Subcontractors, and third parties are subject to background verification in accordance with this Agreement. |
|  | The Contractor will enforce employment agreements that incorporate provisions for adherence to established CalSAWS Privacy Security Agreements and policies and which must be signed by newly hired or on-boarded workforce personnel (e.g., full or part-time employee, Subcontractor or contingent Staff) prior to granting workforce personnel with user access to CalSAWS facilities, resources, and assets. |
|  | The Contractor will document, in the System Security Plan, roles and responsibilities of the Consortium, Contractor and its Subcontractors, other CalSAWS Contractors, interface partners, State of California partners and other third-party users as they relate to information assets and security. |
|  | The Contractor will confirm CalSAWS acceptable use policies and procedures for supporting business processes and technical measures implemented are reviewed and adhered to by the Consortium, the Contractor and its Subcontractors, other CalSAWS Contractors, interface partners, State of California partners and other third-party users. |
|  | The Contractor will confirm all Contractor and Subcontractor personnel are made aware of their roles and responsibilities for:   1. Maintaining awareness and compliance with established policies and procedures and applicable CalSAWS Privacy Security Agreements, legal, statutory, or regulatory compliance obligations. 2. Maintaining a safe and secure working environment |
|  | The Contractor will inform Contractor and Subcontractor personnel of their responsibilities and will consent and/or contractually agree to report all information security events per the Consortium Incident Response Policy. |
|  | The Contractor will follow CalSAWS policies and procedures that require unattended workspaces utilized by Contractor and Subcontractor personnel providing Services under this Agreement to not have openly visible (e.g., on a desktop) sensitive documents and that user computing sessions are disabled after an established period of inactivity. |

# SOW Task Area 8: Transition-Out Requirements (36 Requirements)

| **Subtask: 8.1 Transition-Out Planning (26 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | Transition-Out activities will begin twelve (12) months prior to the end of the Term and will conclude at the end of this Agreement. |
|  | If the Consortium exercises its option to extend the Agreement Term, the extension will result in a delay of all Transition-Out activities for a commensurate period of time. The Consortium will work closely with the Contractor during this process and must approve all updates to the Contractor’s Transition-Out approach and plans. |
|  | Transition-Out activities of the Contractor will overlap with the Transition-In activities of the successor Contractor. |
|  | The Contractor will provide any turnover assistance services necessary to enable the Consortium to effectively close out this Agreement and move the work to a successor Contractor or to perform the work itself. |
|  | At the onset of the Transition-Out activities, the Contractor will notify the Consortium which individuals have been identified to serve on a Transition-Out Management Team and the start/stop timeframes they will serve. |
|  | The Transition-Out Management Team will oversee the activities, completion, and implementation of all Transition-Out tasks specified in this Agreement and the Transition-Out Master Plan, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable. |
|  | The Contractor will align the Infrastructure Transition-Out Plan to the Transition-In Vendor’s Transition-In Master Plan (TIMP). The Infrastructure Transition-Out Plan must address all the planned activities in the Infrastructure TIMP and effectively provide the Transition-In Vendor with all required support to effectively execute the Infrastructure TIMP and complete Transition-In.  **Deliverable: Infrastructure Transition-Out Master Plan** |
|  | The Contractor will manage updates and changes to the Infrastructure Transition-Out Master Plan Transition-Out Plan (as needed) throughout the Transition-Out period. |
|  | The Contractor will reach concurrence with both the Transition-In Contractor and Consortium as to when and how the Transition-In Contractor will assume design, development, and implementation responsibilities of new SCR releases, including releases that are not design-complete at the start of transition. |
|  | The Contractor will plan, coordinate, and execute the Transition-Out activities of this Agreement with the Transition-In activities of the successor Contractor or the Consortium. |
|  | The Contractor will maintain Staff throughout the Transition-Out period to satisfy and maintain compliance with all performance standards and requirements of this Agreement. |
|  | The Contractor will maintain the necessary subject matter experts to conduct the core activities through the entire 12-month transition to support the Transition-In Contractor including:   1. Knowledge Transfer 2. Service and Function Migration 3. Transition Test and Validation 4. Transition Readiness and Cutover |
|  | The Contractor will develop, deliver, and maintain a log of all problems, issues, and action items, including responsible parties, due dates and actions taken for Transition-Out tasks. |
|  | The Contractor will reach concurrence with both the Transition-In Contractor and the Consortium and define a plan for closeout of all existing Infrastructure defects and deliver fixes to remediate recurring fixes. All fixes must be delivered by the last release delivered by the Transition-Out Contractor. |
|  | At the onset of the Transition-Out period, the Contractor will include Transition-Out weekly status reporting in accordance with the Infrastructure PCD. |
|  | Throughout the Transition-Out period, the Contractor’s activities will include:   1. Implementing role and responsibility changes for the Infrastructure support from the Contractor and the successor Contractor. These changes may occur throughout the course of the Transition-Out period. 2. Supporting the installation of additional network connectivity to Consortium or successor Contractor facilities as necessary to accomplish the Transition-Out. 3. Making CalSAWS System and network configuration changes necessary to accomplish the Transition-Out. 4. Permitting network traffic to transit between the Contractor facilities and the Consortium or successor Contractor facilities as necessary to accomplish the Transition-Out. |
|  | The Transition-Out period will conclude upon Consortium Acceptance of the Final Closeout Report and Transition-Out Review. |
|  | The Contractor will cooperate with and assist the Consortium and the successor Contractor(s) in end of Agreement changeover planning, preparation, testing, and transfer of CalSAWS Services and CalSAWS Data (as needed) to the successor Contractor or the Consortium. |
|  | The Contractor will provide all CalSAWS Data files in accordance with the approved Infrastructure Transition-Out Plan. |
|  | The Contractor will work with the Consortium and the successor Contractor to define the format and layout of CalSAWS Data files to be transferred to the successor Contractor and/or the Consortium. |
|  | The Contractor will manage the transfer of ownership, or return of, all equipment owned by the Consortium or purchased by the Contractor on behalf of the Consortium (see Subtask 3.3 Purchasing). |
|  | The Contractor will provide all Transition-Out media or transmissions in a secure and encrypted format. |
|  | The Contractor will provide the Transition-Out media in a readable and acceptable industry standard format approved by the Consortium. |
|  | The Contractor will implement knowledge transfer consistent with the Infrastructure Transition-Out Plan, which will include providing Documentation, conducting formal training or walkthroughs/demonstrations of operational processes and procedures, Q&A sessions, and job shadowing. |
|  | The Contractor will participate in Transition Readiness Reviews and provide information on the actions taken to prepare the successor Contractor or the Consortium to assume responsibility for Infrastructure support including Services, functions, or other items identified in the Transition-Out Plan. |
|  | The Contractor will transfer the Service Desk number(s) to the successor Contractor. |

| **Subtask: 8.2 Transition-Out Work Schedule (2 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will develop, deliver, maintain, and execute a Infrastructure Transition-Out Work Schedule, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable, in accordance with the Infrastructure Transition Out Plan.  **Deliverable: Infrastructure Transition-Out Work Schedule** |
|  | The Contractor will maintain and update the Infrastructure Transition-Out Work Schedule through the completion of Transition-Out in accordance with the schedule management process in the CalSAWS Enterprise PCD. |

| **Subtask: 8.3 Transition-Out Training and Knowledge Transfer (5 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will conduct knowledge transfer and training activities as identified in the Transition-Out Master Plan and the Transition-Out Work Schedule, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable. |
|  | The Contractor will update all Documentation and Deliverables identified in the Infrastructure Transition-Out Documentation and Deliverables Assessment prior to beginning Transition-Out Training and Knowledge Transfer. |
|  | The Contractor will provide training materials to be used in the walkthroughs, demonstrations, and systems training for prior written Acceptance by the Consortium. |
|  | The Contractor will provide formal training sessions for the successor Contractor and/or Consortium staff. The training will be centralized around hands-on training, as determined by the Consortium. |
|  | Prior to the start of Transition-Out Training, the Contractor will provide for Consortium approval the following:   1. A schedule of planned training sessions, including length of sessions and locations. 2. Number of Contractor Staff and/or Consortium staff to be trained per area. 3. Training methodology (include description of training material handouts and media format of this material). |

| **Subtask: 8.4 Project Closeout (3 Requirements)** | |
| --- | --- |
| **Unique ID** | **Requirement** |
|  | The Contractor will develop, deliver and execute an Infrastructure Agreement Closeout Plan, in cooperation and coordination with the Consortium and other CalSAWS Contractors as applicable.  **Deliverable: Infrastructure Agreement Closeout Plan** |
|  | The Contractor will certify and provide evidence that all Agreement terms and conditions have been fulfilled, including:   1. The resolution of all documented Contractor-responsible CalSAWS System and Deliverable deficiencies associated with the present and any prior Deliverables in accordance with the Agreement terms. 2. The successful completion of all tasks and Deliverables for this milestone as specified in the Agreement Closeout Plan. 3. The successful completion of all other contractual obligations that were identified in the Agreement Closeout Plan. |
|  | The Contractor will prepare and deliver an Infrastructure Final Project Closeout Report.  **Deliverable: Infrastructure Final Project Closeout Report** |