

EXHIBIT A – INFRASTRUCTURE STATEMENT OF WORK

The Infrastructure Statement of Work (SOW) defines the Infrastructure Services required to maintain and operate the CalSAWS Infrastructure. The Infrastructure Contractor will provide Services as contained in this SOW for the duration of the Agreement.

1.1.1 Consortium Responsibilities

The Consortium will provide Contract management and oversight for this Agreement. It will perform the following responsibilities.

Table 1 - Consortium Infrastructure Responsibilities

M&O SERVICES ROLES AND RESPONSIBILITIES	
CALSAWS CONSORTIUM	
TASK 1 – TRANSITION-IN	<ul style="list-style-type: none"> ▪ Provide a Transition-In Manager ▪ Participate in and support Transition-In meetings ▪ Provide Consortium Staff to participate in knowledge transfer and internal training activities ▪ Participate in Readiness Reviews ▪ Participate in Testing and Validation activities and walkthroughs ▪ Provide timely review and approval of Contractor Work products and Deliverables
TASK 2 – PROJECT MANAGEMENT	<ul style="list-style-type: none"> ▪ Maintain M&O Project standards, policies and procedures ▪ Maintain the CalSAWS PCD ▪ Develop and maintain the CalSAWS Master Work Plan ▪ Oversee Contractor Agreements and performance requirement commitments ▪ Provide facilities for Contractor personnel ▪ Provide timely review and approval of Contractor Work products and Deliverables ▪ Provide Consortium Staff to work with the Contractor ▪ Provide access to Project information including technical, program and policy documentation ▪ Work with Contractors to research and resolve deviations and perform issue escalation and resolution ▪ Participate and support corrective action planning and execution activities ▪ Oversee CalSAWS and Consortium business coordination ▪ Manage expectations and communications for the JPA Board of Directors, Project Steering Committee, and other stakeholders for the CalSAWS Project ▪ Manage planning of Project funding

M&O SERVICES ROLES AND RESPONSIBILITIES	
CALSAWS CONSORTIUM	
TASK 3 - TECHNICAL INFRASTRUCTURE SUPPORT	<ul style="list-style-type: none"> ▪ Provide a Technical/Operations Manager ▪ Participate in and support Technical Infrastructure meetings ▪ Provide Consortium Executive Director approval for new/change/removal of software purchases ▪ Participate in the Change Advisory Board (CAB) process
TASK 4 - INNOVATION AND APPLICATION/ARCHITECTURE EVOLUTION SUPPORT	<ul style="list-style-type: none"> ▪ Participate in and support Innovation-related planning and Architecture Evolution meetings ▪ Provide Consortium Staff to participate in Cloud Proofs of Concepts environment support assessments ▪ Provide timely review and approval of Contractor Work products and Deliverables
TASK 5 - PRODUCTION OPERATIONS	<ul style="list-style-type: none"> ▪ Participate in and support Production Operations meetings ▪ Validate batch run results and exceptions ▪ Validate interface inbound and outbound files and exceptions ▪ Assist in the management of escalated Severity 1 defects and the notification of the necessary parties ▪ Provide oversight of the research, resolution, and end-User management of escalated batch issues, such as batch job failure or exceptions ▪ Monitor escalated issues to confirm timely resolution ▪ Review service level reports ▪ Manage communication and coordination of any impacts on the Consortium and stakeholders
TASK 6 - TECHNOLOGY RECOVERY	<ul style="list-style-type: none"> ▪ Participate in and support Technical Recovery meetings ▪ Participate in Contractor's retrospective of Technical Recovery execution and results
TASK 7 - SECURITY	<ul style="list-style-type: none"> ▪ Establish security policies and standards for the Contractor ▪ Assist with the research, resolution, and escalation of security breaches as necessary ▪ Report security incidents to external entities as necessary
TASK 8 - TRANSITION-OUT	<ul style="list-style-type: none"> ▪ Provide a Transition-Out Manager ▪ Participate in and support Transition-Out meetings ▪ Provide Consortium Staff to participate in knowledge transfer and internal training activities ▪ Participate in Readiness Reviews ▪ Participate in Testing and Validation activities and walkthroughs ▪ Review and approve Deliverables

1.1.2 Infrastructure Contractor Responsibilities

The Infrastructure Contractor responsibilities include the following general items:

- Perform the Services required under this Agreement in a manner that will not disrupt the CalSAWS operations.
- Deliver the Services specified in this SOW and included in **Exhibit B – Requirements Matrix**.
- Produce and deliver the Contract Deliverables specified in **Attachment 1 – Infrastructure Deliverable Inventory**.
- Apply CalSAWS standardized business processes and leverage mandatory tools as contained in RFP **Attachment G1- Software Inventory** to manage Project activities and satisfy infrastructure reporting requirements.
- Comply with all applicable Consortium policies and procedures.
- Supply Contractor personnel with all hardware and CalSAWS Software needed to perform their duties in accordance with the Agreement.
- Supply secure internet and network access to the CalSAWS project tools and environments.
- Coordinate and collaborate with the Consortium and other CalSAWS contractors in application and infrastructure activities and associated issue and risk management activities.

1.1.3 Infrastructure Contractor Staffing

1.1.3.1 Project Location and Core Hours

The Contractor's Staff will be dedicated to the Project unless otherwise described within the Contractor's approach and approved by the CalSAWS Executive Director. Project work hours are Monday, 12:00 P.M. Pacific Standard Time (PST) through Friday, 12:00 P.M., PST. Project meetings should be limited to this period.

During the Infrastructure Transition-In period 75% of Work performed by Key Staff must be conducted at an approved Project site as defined in this Agreement unless alternate arrangements are approved in writing by the Executive Director. Consortium Key Staff counterparts will also conform to this model.

In all cases, during the Infrastructure Transition-In period and afterwards, the Contractor must provide at least one Key Staff person on-site on Monday mornings, 8:00 A.M. through 12:00 P.M. and Friday afternoons, 12:00 P.M. through 5:00 P.M.

After the successful completion of the Transition-In period, Key Staff and other Staff may be required to work on-site per Consortium direction. The Consortium assumes up to 25% of Key Staff will work full-time on-site. The Consortium's long-term expectation is to support a remote Staff model.

In the event of one or more Project site relocations, the Contractor will support the transition(s) without interruption of services.

1.1.3.2 Staff Responsibilities

The Contractor is responsible for providing all Staff necessary to fulfill the Services and requirements defined in the RFP and this SOW. Any increase to the Agreement price for additional staff will only be allowed pursuant to the Consortium Change Order process.

The Contractor is responsible for employing an approach for Staff management that facilitates a productive working relationship with Consortium Staff, County Staff, other Consortium contractor Staff, and State Staff/Project Sponsors. The Contractor's Staff will proactively coordinate and work collaboratively with the Consortium.

The Contractor is responsible for ensuring all Contractor Staff clearly understand both initial and ongoing roles and responsibilities, how the team and assignments relate to the Project and the overall CalSAWS status and plans. The Consortium operates in a multi-contractor environment. Different Contractors have responsibilities for different aspects of CalSAWS. It is the Consortium's expectation that all Contractor Staff work together cooperatively and collaboratively to achieve the best interests of the Consortium.

All proposed Contractor Staff must have good oral and written communication skills. One aspect of good oral communication skills includes the ability to communicate with diverse groups of users and to convey information technology terms and concepts to non-technical audiences.

All Contractor Staff must prepare for and actively participate in designated Project meetings and represent the best interests of the Consortium, identify and escalate issues as appropriate, and contribute to required status reports.

To facilitate Project progress, it is important to the Consortium that the Infrastructure Contractor minimizes Staff turnover to the extent possible, particularly for Key Staff as detailed below.

1.1.3.3 Contractor Staff Changes

For any expected Infrastructure Key Staff changes, the Contractor will provide a 30-calendar Day notice to the Executive Director regarding the change and plans for transition. The Infrastructure Contractor will provide the Consortium at least two resumes with proof of experience that meets or exceeds the mandatory qualifications and two references for any recommended replacement Key Staff. The Consortium reserves the right to require face-to-face or phone interviews of all proposed replacement Key Staff. The Consortium reserves the right to accept or reject any proposed Key Staff.

For any unexpected Key Staff changes, the Contractor will provide the Consortium Executive Director a written notification within three business days of knowledge and required Key Staff action. Within seven (7) calendar days of providing such written notice, the Contractor will provide the Consortium Executive Director with plans for transition. All provisions in the preceding paragraph apply to unexpected Key Staff changes

1.1.3.4 Staff Performance

The Contractor Staff will possess the skills and experience necessary to fulfil the responsibilities of this RFP. The Contractor will be responsible for identifying and correcting performance issues for its entire Staff (i.e., employees and Subcontractors). Should the Consortium discover performance problems with any Contractor Staff, the Executive Director will notify the appropriate Project Manager as soon as is reasonably possible. If the Executive Director requests removal of any Infrastructure Staff person, the Contractor will immediately remove such Staff from the Project.

1.1.3.5 Approval of Staff

During the Agreement term, the Consortium reserves the right to approve or disapprove the Contractor's Staff, including, but not limited to, any Subcontractor Staff assigned to this Agreement, or to approve or disapprove any proposed changes in Staff or Staffing levels. The Consortium may request the Contractor to remove Contractor employees or Subcontractors from work on the Project for the following circumstances: not possessing the appropriate skill sets for the position, being incompetent, careless, insubordinate, unsuitable, or otherwise unacceptable, or whose continued engagement on the Project is deemed not in the best interest of the Consortium. Such request will be based solely on nondiscriminatory reasons and the Contractor will have the right to request the withdrawal of any such request upon the Contractor demonstrating that the Consortium concern is unfounded. Upon request of the Executive Director or designee, the Contractor will provide the Consortium with the required documentation (e.g., resume with proof of experience that meets or exceeds the mandatory qualifications) of any member of its Staff or a Subcontractor's Staff assigned to or proposed to be assigned to any aspect of the performance of this Agreement.

1.1.3.6 Infrastructure Key Staff

This Section defines the Infrastructure Key Staff Mandatory Qualification (MQ) requirements for the Contractor's leadership team that will work alongside the Consortium's leadership team for the duration of the Agreement, except for the Infrastructure Transition Manager. Key Staff must work onsite during the six-month Infrastructure Transition-in period. The Infrastructure Transition Manager Position will be time-limited for the duration of the Transition-In period.

Infrastructure Key Staff include the following:

1. Infrastructure Project Manager
2. Infrastructure Project Management Office (PMO) Lead
3. Infrastructure Delivery Integration Manager
4. Infrastructure Transition Manager
5. Infrastructure Operations Manager
6. Infrastructure Security Manager
7. Infrastructure Operations Service Desk Lead

8. Infrastructure AWS Manager

Infrastructure Key Staff role descriptions and MQs follow.

Please note: Many of the MQs reference experience required in a large and complex IT health and human services or health care system. For purposes of this SOW, the following definition is provided.

Large and Complex IT System Definition: An IT system that meets all the following criteria. 1) A solution that integrates at least two applications, at least one of which is a COTS. 2) A solution that interfaces with at least five external systems, at least one (1) of which is real-time. 3) A solution that is accessed by at least one thousand (1,000) users at multiple locations. 4) A solution that has a contract value of at least ten million (\$10,000,000) dollars 5) A solution that includes multi-tiered processing, including a customer or User facing front-end optimized for multiple User interface platforms.

1.1.3.6.1 Infrastructure Project Manager

The Infrastructure Project Manager is responsible for providing day-to-day management of Contractor resources and activities, including overall performance and Agreement compliance. The Infrastructure Project Manager will act as the primary interface with the Executive Director and Consortium Management Team. The Infrastructure Project Manager will confirm that Contractor resources possess the appropriate skills and experience necessary to fulfil the responsibilities of the Agreement and are available throughout the life of the Agreement. The duties and responsibilities of the Infrastructure Project Manager include:

- Responsible for the execution and overall management of the Agreement and the Contractor's Team.
- Proactively collaborate and coordinate with other CalSAWS contractors.
- Possess signature authority to commit the Contractor to CalSAWS Contracts, Amendments and Change Notices with the Consortium.
- Communicate and report on Project matters on an ongoing basis.
- Ensure the Consortium receives timely responses specified for applicable requirements and SLAs.
- Provide executive level reporting and communications to Consortium Management, the Executive Director, Joint Powers Authority (JPA) Board of Directors, Project Steering Committee, State program sponsors and other stakeholders.
- Prepare special reports and presentations related to the Project.
- Work cooperatively with the Consortium PMO to resolve escalated issues including, but not limited to, contractual requirements, risk mitigation, CalSAWS enhancements, and any other issue that requires executive management attention.

- Identify and bring forward technology options and innovation recommendations that will provide the highest value to the Consortium and county business operations.

Table 2 – Infrastructure Project Manager Mandatory Qualifications

INFRASTRUCTURE PROJECT MANAGER MANDATORY QUALIFICATIONS	
Req#	Mandatory Qualification
I-S1	A minimum of three (3) years of experience within the past ten (10) years on a large and complex IT system that is in production.
I-S2	A minimum of five (5) years of experience as a Project Manager or Project Director within the past ten (10) years being directly responsible for activities in the following Project Management knowledge areas: scope, time, cost, human resource, risk, quality, integration and communication.
I-S3	A minimum of five (5) years of experience within the past ten (10) years, supervising teams of 25 people or greater on Projects that involved large and complex IT systems.
I-S4	A minimum of five (5) years of experience within the past ten (10) years building and maintaining strong working relationships with clients and key internal and external stakeholders; conveying relevant information to an executive-level audience, ensuring client is aware of progress/service status; and building credibility and fostering business-partnering relationships.
I-S5	Possess and maintain a valid Project Management Institute (PMI) Project Management Professional (PMP) certification throughout the term of this Agreement.

1.1.3.6.2 Infrastructure Project Management Office Lead

The Infrastructure PMO Lead is responsible for the administration of the Project Management Office support and overall reporting efforts for the Infrastructure Contractor. The Infrastructure PMO Lead responsibilities will include the following:

- Work closely with the Infrastructure Project Manager and provide PMO support in the execution of the Infrastructure Contractor's Agreement responsibilities.
- Adhere to the Consortium's PCD and other Consortium required processes and procedures.
- Manage and monitor the Infrastructure Work Plan developed by the Infrastructure Project Scheduler that will be incorporated into the Consortium's Master Work Plan.
- Ensure the Infrastructure Contractor's Team's understanding of and adherence to Work Plan activities, Deliverable responsibilities and Project processes and procedures.

- Lead and support the development and delivery of all Infrastructure Deliverables and Work products, ensuring they are of the highest quality and are delivered in accordance with the approved Infrastructure Work Plan.
- Provide financial reporting regarding planned and actual expenditures monthly using agreed upon formats
- Establish and manage Infrastructure related issue resolution and risk mitigation strategies.

Table 3 – Infrastructure PMO Lead Mandatory Qualifications

INFRASTRUCTURE PMO MANDATORY QUALIFICATIONS	
Req#	Mandatory Qualification
I-S6	A minimum of three (3) years of experience within the past five (5) years leading a PMO in a corporate systems integration organization, Federal, State, County, or Consortium organization.
I-S7	A minimum of three (3) years of experience directly responsible for supporting activities in the following Project Management knowledge areas: scope, time, cost, human resource, risk, quality, integration and communication.
I-S8	Possess and maintain a valid Project Management Institute (PMI) Project Management Professional (PMP) certification throughout the term of this Agreement.

1.1.3.6.3 Infrastructure Delivery Integration Manager

The Infrastructure Delivery Integration Manager will be an active member and participant of the Delivery Integration Office. The manager is responsible to jointly lead and actively engage with the Consortium and other CalSAWS contractors to facilitate the administration of the Delivery Integration Model, and to enable overall coordination and effective integration between and across CalSAWS contractors. This Manager will work closely with the CalSAWS Chief Deputy Director and CalSAWS PMO who will oversee the Delivery Integration Office and processes. The duties and responsibilities of the Infrastructure Delivery Integration Manager include:

- Participate with the Integration Delivery Office in the creation and execution of plans and processes to govern multiple contractors working collectively in the CalSAWS environment.
- Monitor effectiveness of contractor interactions.
- Monitor and clarify lines of delineation between and among contractors.
- Serve as the first entity to resolve disputes between or among contractors.
- Proactively collaborate and coordinate with other CalSAWS contractors.
- Provide coordination services to confirm the various CalSAWS contractor team are aligned with Project goals, schedules, and strategic initiatives.

- Coordinate the timing and entry/exit criteria associated with design, build, test and delivery across contractors when multiple parties are required to implement a change or add a capability.
- Will provide input to the development of the CalSAWS Master Work Plan and identify and resolve any conflicting Tasks, priorities and resources.
- Provide input to discussions to determine SCR priorities with consideration of committee decisions.
- Provide input to testing efforts.
- Serve as the first point of contact to resolve disputes between and/or among contractors.
- Provide reports and metrics regarding the effectiveness and timeliness of contractor interactions.
- Communicate and report on Project matters on an ongoing basis.

Table 4 – Infrastructure Delivery Integration Manager Mandatory Qualifications

INFRASTRUCTURE DELIVERY INTEGRATION MANAGER MANDATORY QUALIFICATIONS	
Req#	Mandatory Qualification
I-S9	A minimum of two (2) years of experience coordinating multidisciplinary teams over various functional and technical areas in a leadership capacity on Projects that involved large and complex IT systems.
I-S10	A minimum of two (2) years of experience coordinating integration services on a Project similar in size and scale to the CalSAWS.
I-S11	At least two (2) years of Full-Time Equivalent (FTE) experience utilizing traditional and iterative solution delivery methodologies.
I-S12	A minimum of five (5) years of experience within the past ten (10) years building and maintaining strong working relationships with clients and key internal and external stakeholders; conveying relevant information to an executive-level audience, ensuring client is aware of progress/service status; and building credibility and fostering business-partnering relationships.

1.1.3.6.4 Infrastructure Transition Manager

The Infrastructure Transition Manager's role will span the Transition-In period. This position is responsible to plan, coordinate and successfully complete the transition of all infrastructure responsibilities and functions from the existing contractor to the new Infrastructure Contractor. Duties and responsibilities of the Infrastructure Transition Manager include:

- Manage all CalSAWS Infrastructure Transition-In activities and deliver a successful transition.
- Develop, maintain, and deliver a CalSAWS Infrastructure Transition-In Plan (ITIP).

- Work collaboratively with the incumbent contractor(s) to accomplish a smooth transition of all Infrastructure components of CalSAWS.
- Work closely with the M&E Transition Manager to plan, manage and execute transition activities to support alignment across transition teams.
- Minimize impact to CalSAWS end users and county business operations during transition.
- Assist Consortium, Counties, Project Sponsors, and Program Partners in understanding transition-in activities, timelines and impacts to other Consortium initiatives, CalSAWS releases and Tasks.
- Identify and communicate with internal and external stakeholders on transition activities as needed.
- Work with the Infrastructure Project Manager in closing out Transition activities.

Table 5 – Infrastructure Transition Manager Mandatory Qualifications

INFRASTRUCTURE TRANSITION MANAGER MANDATORY QUALIFICATIONS	
Req #	Mandatory Qualification
I-S13	A minimum of 18 months of experience within the past ten (10) years, performing operational transition activities on Projects involving large and complex IT systems.
I-S14	Experience within the past ten (10) years, managing the successful transition of large and complex IT systems from one (1) company or contract to another on at least two (2) separate Projects. The Transition Manager's experience will have been for a minimum duration of three (3) months for each Project.

1.1.3.6.5 Infrastructure Operations Manager

The Infrastructure Operations Manager is responsible for demand/capacity management, and for monitoring overall CalSAWS System performance to meet service level targets. The duties and responsibilities of the Infrastructure Operations Manager include:

- Manage the day-to-day activities of the Contractor Operations Staff.
- Manage all ongoing CalSAWS infrastructure operations including, but not limited to, planning, reporting, performance monitoring, and Capacity Planning/sizing.
- Manage and maintain all CalSAWS environments and design, implement and monitor event management, monitor performance metrics for continuous improvement opportunities, and proactive problem management.
- Operate CalSAWS in compliance with SLAs.
- Work with the Consortium to resolve all CalSAWS issues related to ongoing CalSAWS operations and outages.
- Work with the Consortium to meet the timely request and implementation for infrastructure (CalSAWS Hardware/CalSAWS Software) upgrades.

- Collaborate with the M&E Technical Manager and Application Manager to provide seamless service delivery, including continuity of infrastructure technology Services including the wide area network.
- Develop and delivery operations Deliverables on time.

Table 6 – Infrastructure Operations Manager Mandatory Qualifications

INFRASTRUCTURE OPERATIONS MANAGER MANDATORY QUALIFICATIONS	
Req#	Mandatory Qualification
I-S15	A minimum of three (3) years of experience as an Operations Manager within the past (10) years directly responsible for management of operations for a large and complex IT system in a cloud environment, preferably AWS.
I-S16	A minimum of five (5) years of experience within the past ten (10) years supervising teams of 15 people or greater on Projects that involved large and complex IT systems.
I-S17	A minimum of five (5) years of experience within the past ten (10) years, ensuring the continuity of IT operations services, including both local and wide area networks and cloud-based services on Projects involving large and complex IT systems.
I-S18	A minimum of one (1) year of experience within the past ten (10) years, on a large and complex IT System using Information Technology Infrastructure Library (ITIL) standards and framework.

1.1.3.6.6 Infrastructure Security Manager

The Infrastructure Security Manager serves as the focal point for cybersecurity solutions, privacy and protection of digital information, and security compliance related activities and responsibilities for the CalSAWS infrastructure. This position will work closely with the Consortium’s Security Team. The duties and responsibilities of the Infrastructure Security Manager include:

- Plan, implement, manage, monitor, and upgrade security solutions to defend against hacking, malware, ransomware, and other threats to Data, CalSAWS and networks.
- Maintain, enforce and document infrastructure security policies and procedures that align with current industry standards and Privacy and Security Agreements (PSAs) among CalSAWS, California State agencies, and other CalSAWS contractors.
- Serve as a resource regarding matters of information security and reports status of ongoing information security activities to CalSAWS Executive Director or designee(s).
- Support the development/adoption and enforcement of Information Security policies, procedures and standards.
- Coordinate with the Consortium and other CalSAWS contractors in responding to information security Data calls, audit requests, and reporting.

- Work with the Consortium to implement, monitor, and maintain appropriate security measures, best practices, controls, and mechanisms to guard against unauthorized access to electronically stored and/or transmitted Data and protect against reasonably anticipated threats and hazards.
- Perform ongoing security monitoring of Systems.
- Identify and mitigate all security weaknesses, threats, and vulnerabilities in all operational entities including Operations and Network Management.
- Conduct penetration testing, exercises, analyses and simulation on security incidents and response capabilities to determine effectiveness; document results.
- Implement and enforce policies and procedures, which include standards for incident handling (FTI, PHI, etc.)
- Respond to security breaches.
- Provide root cause analysis and remediation of security issues.

Table 7 – Infrastructure Security Manager Mandatory Qualifications

INFRASTRUCTURE SECURITY MANAGER MANDATORY QUALIFICATIONS	
Req#	Mandatory Qualification
I-S19	A minimum of three (3) years of experience as a Security Lead directly responsible for collaborating with application development teams, technical architects, and security policy experts to define and/or implement an integrated framework of solution security architecture.
I-S20	A minimum of three (3) years of lead experience within the past ten (10) years developing, implementing, improving and monitoring industry standard Security strategies, solutions, and processes on Projects involving large and complex IT systems and/or AWS cloud environment.
I-S21	A minimum of three (3) years of experience within the past ten (10) years applying Information Security principles, methods, and techniques in the development of Project security Deliverables on Projects involving large and complex IT systems.
I-S22	A minimum of three (3) years of experience assessing system data sensitivity using security categorizations (e.g., FIPS Publication 199) to identify appropriate security controls to protect Personally Identifiable Information (PII), Protected Health Information (PHI) and/or Federal Tax Information (FTI) data.
I-S23	A minimum of three (3) years of experience with systems that comply with National Institute of Standards and Technology (NIST) 800-53 moderate baseline.
I-S24	Hold and maintain for the duration of the contract an (ISC)2® Certified Information Systems Security Professional (CISSP) certification, or ISACA Certified Information Security Manager (CISM).

1.1.3.6.7 Infrastructure Operations Service Desk Lead

The Infrastructure Operations Service Desk Lead is responsible for the day-to-day management of the Tier 1 and 2 Service Desk. The duties and responsibilities of the Infrastructure Operations Service Desk Lead include:

- Lead the day-to-day activities of the Contractor Service Desk Staff.
- Manage Tier 1 and 2 incidents that occur in non-production and Production environments.
- Coordinate with other CalSAWS contractors regarding escalation of incidents to Tier 3.
- Oversee requests, incidents and problems reported to the Service Desk.
- Manage and coordinate urgent and complicated support issues. Act as escalation point for all requests and incidents.
- Mature phone/ticket escalation processes to improve free flowing escalation and information within the organization.
- Monitor and manage phone queue (participating in escalated calls as needed).
- Thoroughly document, consistently audit, and regularly improve processes used by the service desk.
- Collect feedback to determine patterns and issues such that they can be resolved, or FAQs can be provided to customer to ease in troubleshooting
- Train, coach and mentor Service Desk Specialists (Tiers 1 and 2) including career development.
- Provide data and reporting of KPIs and trends.

Table 8 – Infrastructure Operations Service Desk Lead Mandatory Qualifications

INFRASTRUCTURE OPERATIONS SERVICE DESK LEAD MANDATORY QUALIFICATIONS	
Req#	Mandatory Qualification
I-S25	A minimum of two (2) years of lead experience within the past five (5) years working in a service desk/help desk.
I-S26	A minimum of two (2) years of experience within the past five (5) years working in a help desk environment serving over 2,500 end users.
I-S27	A minimum of two (2) years of experience within the past five (5) years with the ServiceNow platform and tools.
I-S28	Hold and maintain for the duration of the contract an ITIL certification.

1.1.3.6.8 AWS Manager

The duties and responsibilities of the AWS Manager include:

- Plan and implement cloud computing strategies and solutions, including Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and Software-as-a-Service (SaaS).
- Build and manage the configuration of Production and non-production environments in the cloud ecosystem.
- Monitor, scale, and optimize cloud resources, including computing power, database storage, and content delivery Services, to meet growing business needs.
- Prepare estimates and budgets for cloud Services.
- Prepare and maintain account and service classification level forecasts and budgets for cloud expenditures
- Prepare estimates for change requests and releases, incorporating them into forecasts and budgets
- Implement and maintain cost performance metrics, reports, and associated resource tagging.
- Monitor cloud Services, security and networks to maintain high availability and responsiveness.
- Provide overall leadership and engineering expertise related to development, implementation, and management of the cloud infrastructure to support 24/7 operations.
- Support the root cause analysis of performance issues, connectivity issues, unplanned downtime, and security breaches.

Table 9 – AWS Manager Mandatory Qualifications

AWS MANAGER MANDATORY QUALIFICATIONS	
Req#	Mandatory Qualification
I-S29	A minimum of three (3) years of experience managing and maintaining cloud-computing on a large complex information technology (IT) system.
I-S30	A minimum of three (3) years of experience as an AWS Solutions Architect.
I-S31	A minimum of two (2) years of experience in application integration within an AWS cloud hosted application.
I-S32	Experience in migrating at least one (1) Web application(s) (e.g., Oracle) from an on-premises environment to the AWS cloud.

AWS MANAGER MANDATORY QUALIFICATIONS

I-S33	Hold and maintain for the duration of the contract a cloud specific certification that includes secure cloud architecture concepts, such as Certified Cloud Security Professional (CCSP), AWS solutions architect, or AWS security specialization.
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1.1.4 Infrastructure Requirements

The Contractor will perform the Services and produce the Deliverables specified in the Infrastructure Requirements contained in **Exhibit B – Requirements Matrix**, and **Attachment 1 – Infrastructure Deliverable Inventory**. A brief description of each task area is provided below.

1.1.4.1 Task 1 – Infrastructure Management

The Contractor will manage all Contractor Work performed under this Agreement, including Project management, Work Plan management, technical management, performance management, CalSAWS environment setup and maintenance, contract management, budget management, Deliverable and Staff management. The Contractor will comply with the CalSAWS PCD processes and procedures and will adhere to the Consortium's operating policies and procedures.

The Contractor will execute Services in accordance with the approved CalSAWS Infrastructure Services Plan and the associated Operational Working Documents (OWDs) that provide the detailed procedures for the activities and processes contained in the Infrastructure Services Plan. The Infrastructure Services Plan will incorporate activities related to infrastructure management and support of the CalSAWS system, GA/GR Automated Service Correspondence Module, OCAT, and the Imaging SaaS as applicable based on the Contractor's requirements for each system/subsystem.

The Contractor will work, coordinate and collaborate with the Consortium and Consortium contractors in accomplishing the Work defined in the Agreement.

1.1.4.2 Task 2 – Infrastructure Transition-In

The Contractor has the overall responsibility for providing an orderly transition (takeover) that is transparent and minimizes disruption of service to all users of CalSAWS. Infrastructure Transition-in will occur in a six-month timeframe beginning with contract award.

The 6-month Infrastructure Transition-in Period will be used to verify volumes, metrics and other key information to confirm and refine the selected Contractor's Statement of Work, Requirements, hardware, software and telecom inventories and purchase/maintenance timing.

Based on the results of the Transition-In Period, changes to the Infrastructure Agreement may be made, as appropriate, to update the Statement of Work, Requirements, inventories and Price Schedules.

During this period the incumbent contractor and the successor Contractor will coexist on the CalSAWS M&O Project. Successful transition results in the successor Contractor establishing a post transition operational baseline and assuming responsibility for providing Infrastructure support as required under the Agreement.

Transition-In major activities include:

- Transition-In Planning and Reporting: The development and execution of the Infrastructure Transition-In Management Plan (ITIMP) and Transition-In Work Plan. The ITIMP will be the governing document for the management and execution of the CalSAWS Infrastructure Transition-In phase, and the Transition-In Work Plan details the schedule for Transition-In activities.
- Transition-In Service and Function Migration: Identify, prepare, and implement Transition-In activities that allow for a smooth transition of responsibility for Services, functions, and other transition components from the incumbent Contractor to the successor Contractor.

1.1.4.3 Task 3 – Technical Infrastructure Support Services

The Contractor will perform a range of activities in delivering Technical Infrastructure Support, including:

- Providing roll-on/roll off support to Project Office Staff, performing SharePoint web portal management, administration of Project Office servers and print server management, and providing video conferencing equipment and support at the Consortium Project Office sites.
- Managing Infrastructure-related maintenance contracts and applying patches and upgrades for CalSAWS Managed Commercially Available Software, and installing, maintaining and monitoring CalSAWS Managed Hardware located in the Project Offices and Consortium Member Counties (including field service calls and remote maintenance).
- Processing orders from the Consortium and Consortium Member Counties for Hardware and Commercially Available Software, including Imaging Software-as-a-Service (SaaS) and maintenance, as requested.
- Performing asset management activities for CalSAWS Managed Hardware and Commercially Available Software.
- Maintaining and enhancing existing CalSAWS technical infrastructure Documentation.

1.1.4.4 Task 4 – Innovation and Application/Architecture Evolution Support

The Contractor will lead Infrastructure Innovation Initiatives and perform ongoing activities; the CalSAWS M&E Contractor will lead the M&E Innovation initiatives. The Contractor will also support the Consortium and the CalSAWS M&E Contractor in the evaluation of M&E Innovation initiatives, emerging technologies and approaches to optimize the CalSAWS platform and Application/Architecture Evolution activities.

1.1.4.5 Task 5 – Infrastructure Production Operations

The Contractor will perform a range of on-going operational activities, including:

- Maintaining and administering the existing network, including managing network CalSAWS Hardware and CalSAWS Software, providing 24 hours, 7 days a week and 365 days per year monitoring and managing the Electronic Signature Solution.
- Performing environment support for CalSAWS hosted in the AWS.
- Providing Tier 1 and Tier 2 Service Desk Services for CalSAWS Users, including BenefitsCal, GA/GR Automated Service Correspondence Module, OCAT, and the Imaging SaaS via phone, voicemail, and email support.
- Performing Configuration Management, Capacity Planning, Technology Replacement Management, Technical Change Management activities related to the CalSAWS infrastructure.
- Monitoring CalSAWS availability and performance to verify and report performance and availability compliance with SLAs.
- Application maintenance and enhancement services for the Contact Center solution, identity and access management solution and the GA/GR Automated Service Correspondence Module in accordance with the CalSAWS SCR process.

1.1.4.6 Task 6 – Technical Recovery

The Contractor will develop and oversee the execution of the CalSAWS Technology Recovery Plan, including supporting the AWS provider as necessary to re-establish CalSAWS AWS environments, processing CalSAWS Hardware and CalSAWS Software orders from the Consortium and Consortium Member Counties, and performing annual Technology Recovery tests.

1.1.4.7 Task 7 – Infrastructure Security

The Contractor will perform a full range of security related activities (administrative, technical, and physical) to protect the CalSAWS infrastructure assets and Data from loss, misuse, unauthorized access, disclosure, alteration, destruction, and will adhere to the Consortium's security policies and procedures.

1.1.4.8 Task 8 – Transition-Out

Transition-Out involves identifying and implementing all the activities required to roll off the Project by transitioning out and turning over all control and responsibility for Infrastructure support and Consortium owned resources, Documentation, and knowledge to a successor Contractor or the Consortium.

Transition-Out major activities include:

- Transition-Out Planning: The development and execution of a Transition-Out Master Plan and Transition-Out Work Plan that identifies what items and components must be transitioned, the approach to be utilized for transitioning,

how knowledge transfer will be conducted, and the schedule for Transition-Out activities.

- Transition-Out Training and Knowledge Transfer: The development and execution of Training and Knowledge Transfer activities as identified in the Transition-Out Master Plan. All training materials will be based on the complete and current Documentation required under the Agreement.
- Project Closeout: The development and execution of the CalSAWS Infrastructure Agreement Closeout Plan to provide evidence that all Agreement terms and conditions have been fulfilled.

1.1.5 Infrastructure Deliverables

1.1.5.1 Deliverable Process

The Contractor will perform Deliverable Management activities in accordance with the Consortium's PCD. The process defines the use of a Deliverable Expectation Document (DED) when creating new Deliverables; and submission, review and approval process for new or updates to existing Deliverables. The PCD also defines the acceptance and rejection processes and the roles of the Consortium and Contractor.

Attachment 1 – Infrastructure Deliverable Inventory contains the inventory of Infrastructure Deliverables required by this Agreement.

ATTACHMENT 1 – INFRASTRUCTURE DELIVERABLE INVENTORY

Table 10 – Infrastructure Deliverable Inventory

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
I-D01	Infrastructure Transition-In Master Plan (ITIMP)	<p>The ITIMP will include:</p> <p>Approach</p> <ol style="list-style-type: none"> 1. A description of the overall transition approach and process to be used to transition and assume responsibility for all Services, functions all components identified in the Agreement. 2. Planned transition activities and Tasks that includes the planning, implementing, executing, tracking, and reporting of the overall transition effort as well as for each transition component. 3. Definition Roles and responsibilities for completing transition Tasks and activities including the Infrastructure Contractor, the CalSAWS M&E Contractor, the Consortium, the California Department of Technology, the Counties, and other CalSAWS contractors as applicable. 4. A description of how the Contractor will collaborate with the incumbent Contractor(s): <ol style="list-style-type: none"> a. Plan for and carry out transition activities as well as what the Contractor requires of the incumbent Contractor(s) regarding knowledge transfer, Data/information, and support for mitigating risk. b. Procedures the Contractor will use to work with the incumbent Contractor to transfer control of 	New	As needed when changes occur	Contract Start + 10 Business Days	I-1.1-01

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<p>all CalSAWS environments as identified in the incumbent Contractor's Closeout Plan.</p> <p>c. Procedures the Contractor will use to work with the incumbent Contractor to transfer all hardware and software license maintenance agreements as identified in the incumbent Contractor's Closeout Plan.</p> <p>5. How Readiness Reviews will be planned and coordinated with the Consortium and in coordination with the incumbent Contractor's Transition-Out Plan, to demonstrate readiness, provide evidence and confirmation that the Contractor is prepared to accept responsibility, and obtain Consortium approval to do so with an effective date.</p> <p>6. Entry and Exit Criteria for the beginning and completion of transition phases, including use of Readiness and Checklists, criteria and metrics.</p> <p>7. A plan of the timing, audience, media and message for communication events.</p> <p>8. The identification and approach for the Quality Assurance that will be used to confirm that Transition-In activities are being accomplished.</p> <p>9. Identification of risks and issues tied to the transition and planned mitigation measures/issues resolution.</p> <p>10. Definition of contingency plans to troubleshoot high risk transition activities.</p> <p>11. A Transition-In Milestone Schedule Summary from the Transition-In Work Schedule, including</p>				

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<p>Identification of cutover activities and the target cutover dates.</p> <p>Production Operations Services and Functions</p> <ol style="list-style-type: none"> 1. Definition of how each service or function, being performed by the incumbent Contractor, will be operationalized and cutover to the Contractor. 2. Identification of the activities and Tasks that must be accomplished to allow for a successful transition of operational control of a service or function, such as preparatory actions being taken to establish and prepare facilities, obtain service Contracts, establish capabilities, prepare for testing/validation, and those actions taken after successful testing/validation, needed to implement cutover. 3. Identification of what technical assistance the Contractor will require from the incumbent Contractor (e.g., number of hours, position expertise). <p>Security Services and Functions</p> <ol style="list-style-type: none"> 1. Definition of how each service or function, being performed by the incumbent Contractor, will be operationalized and cutover to the Contractor. 2. Identification of the activities and Tasks that must be accomplished to allow for a successful transition of operational control of a service or function, such as preparatory actions being taken to establish and prepare facilities, obtain service Contracts, establish capabilities, prepare for 				

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<p>testing/validation, and those actions taken after successful testing/validation, needed to implement cutover.</p> <p>3. Identification of what technical assistance the Contractor will require from the incumbent Contractor (e.g., number of hours, position expertise).</p> <p>Technology Recovery Services and Functions</p> <p>1. Definition of how each service or function, being performed by the incumbent Contractor, will be operationalized and cutover to the Contractor.</p> <p>2. Identification of the activities and Tasks that must be accomplished to allow for a successful transition of operational control of a service or function, such as preparatory actions being taken to establish and prepare facilities, obtain service Contracts, establish capabilities, prepare for testing/validation, and those actions taken after successful testing/validation, needed to implement cutover.</p> <p>3. Identification of what technical assistance the Contractor will require from the incumbent Contractor (e.g., number of hours, position expertise).</p> <p>Transition-In Training and Knowledge Transfer</p> <p>1. Identification of training and knowledge transfer expectations during planning, and for the transition period.</p>				

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<ol style="list-style-type: none"> 2. The knowledge transfer activities that Contractor Staff will require from the incumbent Contractor to prepare for the assumption of Services. 3. Training that the Contractor conducts internally to prepare their Staff to implement activities, processes, and procedures needed to provide support for a given service or function identified in the Contractor's ITIMP. 4. Training of Consortium Staff regarding the Contractor's transition approach, processes, activities, and tools for managing the transition effort and reporting status. 5. Training of Consortium Staff regarding changes to Services/functions and to service delivery means. 6. Knowledge transfer and internal training exercises that will be conducted to equip and verify the Contractor's Staff can implement the activities, processes, and procedures needed to provide support for each given service or function identified in the Contractor's ITIMP. 7. How training and knowledge transfer activities will occur (e.g., materials, courses, Question & Answer (Q&A) session preparation, dates, times, participants) to familiarize the Consortium Staff with all the Contractor's operations, processes and tools. 				
I-D02	Infrastructure Services Plan and	The Infrastructure Services Plan and Operational Working Documents will serve as the master plan for	New (using	As needed when changes occur	Month 4 -1 st Business Day	I-1.1-04

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
	Operational Working Documents	the Services being delivered under the Agreement, and will include: <ol style="list-style-type: none"> 1. Project Management Support 2. Technical Infrastructure Support <ol style="list-style-type: none"> a. Project Support Plan b. Hardware and Software Support Plan c. Asset Management Plan d. Documentation Maintenance Plan 3. Innovation and Application/Architecture Evolution Support Approach 4. Productions Operations <ol style="list-style-type: none"> a. Network Operations Plan b. CalSAWS System Operations Plan c. Service Desk Plan d. Configuration Management Plan e. Capacity Management Plan f. Technical Management Plan g. Performance Monitoring and Alerting Plan h. BenefitsCal Technical Help Desk Plan 	existing as base)			
I-D03	Infrastructure Transition-In Work Schedule	The Infrastructure Transition-In Work Schedule will be developed in MS Project and will include: <ol style="list-style-type: none"> 1. All Transition-In activities and Tasks which are expected to be completed by Contractor, Consortium, Counties, and incumbent Contractor Staff to meet the estimated Transition-In 	New	As needed when changes occur	Contract Start + 10 Business Days	I-1.2-01

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<p>schedule required by the TIMP to allow for successful cutover.</p> <ol style="list-style-type: none"> 2. Start and completion dates for all Tasks. 3. Predecessor and successor dependencies for Tasks without subtasks, and predecessor and successor dependencies for subtasks. 4. Resource assignments for Tasks without subtasks, and resource assignments for subtasks. Resource assignments will include appropriate Contractor, Consortium, County and incumbent Contractor resource assignments and estimated hours. 5. Estimated hours and durations for Tasks without subtasks, and estimated hours and durations for subtasks. 				
I-D04	Infrastructure Transition-In Test and Validation Plan	<p>The Infrastructure Transition-In Test and Validation Plan will contain a separate section for each Service and Function Area.</p> <ol style="list-style-type: none"> 1. The approach to plan, develop and implement area-specific Transition Test and Validation Plans which guides the Contractor, the Consortium, and the incumbent Contractor of what transition component (functions or Services) requires testing or validation on completing specific test activities. 2. Description of how to determine what transition components require formal testing versus validation. 	New	As needed when changes occur	Month 2 - 1 st Business Day	I-1.7-01

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<ol style="list-style-type: none"> 3. Identification and documentation of the approach and methods to be used to validate such as checklists or demonstrations. 4. A test and validation Work schedule to schedule, monitor, and report the progress of all test and validation activities. 				
I-D05	Infrastructure Project Control Document	<p>The Infrastructure Project Control Document (PCD) will align with and support the CalSAWS Enterprise Project Control Document and will include:</p> <ol style="list-style-type: none"> 1. Introduction <ol style="list-style-type: none"> a. Document Terms and Definitions 2. Document Purpose <ol style="list-style-type: none"> a. Scope b. Triggers for Change c. Executing Change 3. Roles and Responsibilities 4. Key Staff 5. Project Work Plan <ol style="list-style-type: none"> a. Roles and Responsibilities b. Schedule Management Process c. Schedule Analysis and Reporting d. Cost Estimating Methodology 6. Project Management Plans (PMP Appendices): <ol style="list-style-type: none"> a. Communications Management Plan b. Contract Management Plan c. Deficiency Management Plan 	Existing	In accordance with PCD Change Control	Month 3 - 1 st Business Day	I-2.1-04

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<ul style="list-style-type: none"> d. Quality Management Plan e. Risk and Issue Management Plan f. Staff Management Plan 7. Project Action Items and Decision Management Tracking 8. Project Status Reporting 9. Operational Working Documents 				
I-D06	Infrastructure Work Schedule	The Infrastructure Work Schedule will be developed and updated in MS Project in accordance with the Infrastructure PCD and the Infrastructure Services Plan and will include Tasks, Subtasks, planned durations, budgets, resources assignments, and schedule reports. Guidelines. Work Schedule updates will include posting actual hours worked by Contractor Staff.	Existing	Monthly	Month 3 - 1 st Business Day	I-2.1-07
I-D07	Technology Infrastructure Refresh Plan	<p>The CalSAWS Technology Infrastructure Refresh Plan will include:</p> <ul style="list-style-type: none"> 1. Determination of Hardware and Software requirements/Specifications/support for CalSAWS. 2. Analysis of Hardware and Software technologies available in the market with the needs for CalSAWS. 3. Cost and capacity forecasts for the current and upcoming budget years. 	New	Annually	Month 4 - 1 st Business Day	I-2.1-21
I-D08	Infrastructure Hardware and Software Inventory –	The CalSAWS Hardware and Software Inventory – Infrastructure Agreement Monthly Update will be developed using the Attachment G2 – CalSAWS	Existing	Monthly	Month 5 - 1 st Business Day	I-3.4-07

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
	Infrastructure Agreement Monthly Update	Hardware Inventory, the Attachment G1 – CalSAWS Software Inventory and Attachment G3-WAN Specifications.				
I-D09	Infrastructure Technical Design Document	The Deliverable format and content will be based on the existing document, incorporating changes as approved by the Consortium.	Existing	As needed when changes occur	Month 5 - 1 st Business Day	I-3.5-01
I-D10	Infrastructure Network Design Plan	The Deliverable format and content will be based on the existing document, incorporating changes as approved by the Consortium.	Existing	As needed when changes occur	Month 5 - 1 st Business Day	I-3.5-01
I-D11	Infrastructure Technical Asset Configuration Report for the Development Test, Staging, Performance and Production Environments	The Deliverable format and content will be based on the existing document, incorporating changes as approved by the Consortium.	Existing	As needed when changes occur	Month 6 - 1 st Business Day	I-3.5-01
I-D12	Infrastructure Approach to Automation, Artificial Intelligence and Machine Learning	<p>The Approach to Automation, Artificial Intelligence and Machine Learning will include:</p> <ol style="list-style-type: none"> 1. Approach to building an automation, artificial intelligence and machine learning infrastructure considering data storage, specifically the ability to scale storage as the volume of data grows. 2. Establishing the proper storage capacity and reliability. 3. Approach to networking infrastructure with high-bandwidth, high-efficiency and low-latency. 	New	Annually	Month 14 - 1 st Business Day	I-4.2-02

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<ol style="list-style-type: none"> 4. Sufficient computing capabilities and resources; and optimized hardware. 5. Anticipating network demands or security threats and reacting in real time. 				
I-D13	Infrastructure Monthly Operations Report	The Infrastructure Monthly Operations Report will be developed using the CalSAWS Monthly Operations Report Sample.	New	Monthly	Transition-In Completion + 1 Calendar month _ 30 th Business Day	I-5.5-03
I-D14	Infrastructure Technology Recovery Plan	<p>The Infrastructure Technology Recovery Plan will include:</p> <ol style="list-style-type: none"> 1. Roles and responsibilities of the Contractor, Consortium, Counties, and other CalSAWS contractors as applicable, for technology recovery Services applicable to the Contractor's scope of Services. 2. Recovery Strategy – A description of the portions of the plan that will be implemented based on type and various levels of incident severity, for example, minor interruption of service, total service failure or loss of facility. 3. Backup – Backup and retention schedules and procedures. 4. Technology Recovery Procedures – Operational procedures that will allow recovery to be achieved in a timely and orderly way. 5. AWS Cloud Services – A description of AWS hosting Services that will be provided during recovery. 	New	As needed when changes occur	Month 5 - 1 st Business Day	I-6.1-01

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<ol style="list-style-type: none"> 6. Testing – A description of the semi-annual technology recovery test(s) planning and execution methodology. 7. Contact List(s) 8. An Infrastructure Technology Recovery Test Plan, including: <ol style="list-style-type: none"> a. Test Overview and Scope. b. Roles and responsibilities of the Contractor, Consortium, and other CalSAWS Contractors as applicable. c. Test Objectives. d. Test Requirements. e. Test Activities and Schedule. f. Test Reporting Metrics to be collected. 9. Results of the Infrastructure Technology Recovery Test, including: <ol style="list-style-type: none"> a. Summary of Test. b. Assessment and recommendations for improvements to existing technology recovery Documentation. c. Results of performance against SLAs and recovery timeframes. 				
I-D15	Infrastructure System Security Plan	The Infrastructure System Security Plan will be completed by providing responses to each of the NIST 800-53 controls contained in the CalSAWS System Security Plan template (from the NIST 800-53 moderate baseline).	New	As needed when changes occur	Month 12 - 1 st Business Day	I-7.1-03

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
I-D16	Penetration Test Report	<p>The Penetration Test Report provides a detailed and comprehensive analysis of CalSAWS' vulnerabilities and will detail how to mitigate those and will include:</p> <ol style="list-style-type: none"> 1. Sign Off and Report Details <ol style="list-style-type: none"> a. Document Management b. Security Assessment Information c. Scope Summary 2. Introduction <ol style="list-style-type: none"> a. Penetration Test Overview b. Risk Summary c. Risk Scoring 3. Scope <ol style="list-style-type: none"> a. Assumptions & Limitations b. Accounts/Credentials c. Standard Test Cases 4. Security Posture Analysis <ol style="list-style-type: none"> a. Areas of Risk b. Threat Posture Statistics 5. Detailed Findings and Remediation Guidance <ol style="list-style-type: none"> a. High Risk Findings and Vulnerabilities b. Medium Risk Findings and Vulnerabilities c. Low Risk Findings and Vulnerabilities d. Informational Findings 6. User Story (if applicable) 7. Testing Methodology 	New	Annually	Month 6 - 1 st Business Day	I.7.4-04

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		8. DREAD Scoring Criteria 9. CVSS Scoring Criteria 10. Standard Test Cases				
I-D17	Infrastructure Transition-Out Master Plan	The Infrastructure Transition-Out Master Plan will include: <ol style="list-style-type: none"> 1. A detailed Infrastructure Transition-Out Work Schedule reflecting all Tasks and Deliverables to be completed. 2. Narrative describing each task and Deliverable. 3. Contractor, Consortium Staff, and successor Contractor roles and responsibilities. 4. Narrative describing how the Contractor will plan, organize, communicate, implement, monitor, and report the status of all Transition-Out activities. 5. Provisions for supporting transition and cutover of Services and functions to a successor Contractor or the Consortium. 6. A Transition-Out Knowledge Transfer and Training Plan detailing the approaches and methodologies the Contractor will employ to transfer knowledge to Consortium Staff and/or a prospective successor Contractor. <ol style="list-style-type: none"> a. Schedule of planned knowledge transfer sessions and demonstrations. b. Number of Staff to be included in knowledge transfer sessions per topic area. 	New	As needed when changes occur	As specified in the Infrastructure PCD and Work Schedule	I-8.1-07

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<ul style="list-style-type: none"> c. Knowledge transfer topics with knowledge transfer objective descriptions and summaries for each topic. d. Length and location of each knowledge transfer session. 7. Narrative of applicable lessons learned from the Transition-In activities. 8. A Transition-Out Documentation and Deliverables Assessment. <ul style="list-style-type: none"> a. The results of a complete and comprehensive review and evaluation of all Infrastructure Documentation to identify Documentation that requires updates or revisions, including the following: <ul style="list-style-type: none"> I. All Contractor Deliverables. II. All policies and procedures related to the provision of Services under this Agreement. III. A current detailed asset inventory, including start and end dates of all, warranties, software licenses, service Contracts and current location information including site, rack, server, and network connection point. This includes any other Documentation that would facilitate successor Contractors' understanding of overall standards, network bandwidth needs, hardware Capacity, software 				

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<p>needs, and network topology to maintain and operate the current CalSAWS.</p> <p>b. The archiving, central storing, and file location listing of all Documentation included in the inventory and assessment.</p>				
I-D18	Infrastructure Transition-Out Work Schedule	<p>The Infrastructure Transition-Out Work Schedule will be developed in MS Project and will include:</p> <ol style="list-style-type: none"> 1. All Transition-Out activities and Tasks which are expected to be completed by Contractor, Consortium, County, and incumbent Contractor Staff to meet the estimated Transition-In schedule required by the TIMP to allow for successful cutover to the Agreement. 2. Start and completion dates for all Tasks. 3. Predecessor and successor dependencies for Tasks without subtasks, and predecessor and successor dependencies for subtasks. 4. Resource assignments for Tasks without subtasks, and resource assignments for subtasks. Resource assignments will include appropriate Contractor, Consortium, County and incumbent Contractor resource assignments and estimated hours. 5. Estimated hours and durations for Tasks without subtasks, and estimated hours and durations for subtasks. 	New	As needed when changes occur	As specified in the Infrastructure Transition-Out Work Schedule	I-8.2-01
I-D19	Infrastructure Agreement Closeout Plan	<p>The Infrastructure Agreement Closeout Plan will include:</p> <ol style="list-style-type: none"> 1. The overall strategy for closing out the Agreement. 	New	As needed when changes occur	As specified in the Infrastructure PCD and	I-8.4-01

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		<ol style="list-style-type: none"> 2. The overall strategy and approach to complete other schedule-related Tasks (related to closeout) identified in any of the other Work Plans developed by the Contractor under this Agreement. 3. A list of Deficiency items from the Consortium's Deficiency & Issue tracking systems that will be updated by the Contractor as condition for completion for Agreement closeout. 4. A list of outstanding action items or Tasks from meeting minutes or other Management tracking systems. 5. A list of outstanding actions for the Consortium to resolve for the Contractor to complete the Agreement closeout. 6. A list of all outstanding Tasks and Work required per the approved CalSAWS Infrastructure Work Schedule. 7. A timeline (schedule) for completing Agreement Closeout activities. 8. Any other items deemed relevant to the clarification of expectations for Contractor closeout. 			Work Schedule Work Schedule	
I-D20	Infrastructure Final Project Closeout Report	<p>The Infrastructure Final Project Closeout Report will include:</p> <ol style="list-style-type: none"> 1. Executive Summary: Scope, Schedule, Budget: Plan vs. Actuals 	New	One time submission	As specified in the Infrastructure Transition-Out Work Schedule	I-8.4-03

DEL. ID	INFRASTRUCTURE DELIVERABLE NAME	INFRASTRUCTURE DELIVERABLE DESCRIPTION	NEW OR EXISTING	SUBMISSION FREQUENCY	DATE OF FIRST SUBMISSION	REQ. ID
		2. Summaries by SOW Task Area: Management, Technical Infrastructure Support, Innovations and Application / Architecture Evolution Support, Production Operations, Technical Recovery Support, and Security 3. Key Best Practices and Lessons Learned 4. Administrative Closure 5. Agreement Closure				

ATTACHMENT 2 – INFRASTRUCTURE SERVICE LEVEL AGREEMENTS

Table 11 - Infrastructure Daily Prime Business Hours Availability

Infrastructure Performance Requirement #1 – Daily Prime Business Hours Availability	
PERFORMANCE REQUIREMENT	CalSAWS inclusive of the Identity and Access Management Solution, GA/GR Automated Service Correspondence Module, and OCAT shall be available ninety-nine percent (99%) of the time during Prime Business Hours, as defined in the Agreement, each Day.
LIQUIDATED DAMAGES	\$20,000.00 Per Day for the CalSAWS System \$1,000.00 Per Day for the GA/GR Automated Service Correspondence Module \$1,000.00 Per Day for the OCAT System
PERFORMANCE MEASURES	The percentage of availability shall be determined in accordance with the following formula: <ul style="list-style-type: none"> ▪ Availability % = 100 X [(A – B) / A] ▪ A = the measurement period which is Prime Business Hours for a day expressed in minutes ▪ B = the number of the minutes in the measurement period that the CalSAWS is not available.

Table 12 - Infrastructure Monthly Prime Business Hours Availability, Non-Production Environment

Infrastructure Performance Requirement #2 - Monthly Prime Business Hours Availability, Non-Production Environments	
PERFORMANCE REQUIREMENT	<ul style="list-style-type: none"> ▪ All non-production environments, specifically System Test and UAT, shall be available ninety-nine percent (99%) of the time during each calendar month. ▪ Any planned downtime for System Test and UAT would require approval from the Technical and Operations Director (or designee). ▪ Change Requests for non-production Services outside the Project Hours will receive appropriate notice and be scheduled at appropriate times based on the impact of the change and the impact of delaying the change.
LIQUIDATED DAMAGES	\$20,000.00 Per Day
PERFORMANCE MEASURES	The percentage of availability shall be determined in accordance with the following formula: <ul style="list-style-type: none"> ▪ Availability % = 100 X [(A– B) / A]

Infrastructure Performance Requirement #2 - Monthly Prime Business Hours Availability, Non-Production Environments

	<ul style="list-style-type: none"> ▪ A = the measurement period which is Project Hours for each day in the calendar month expressed in minutes ▪ B = the number of the minutes in the measurement period that any non-production environment was not available (these are unduplicated minutes, if two [2] non-production environments were not available for the same five [5] minutes, then that time period would count as five [5] minutes).
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Table 13 - Infrastructure Monthly Off-Prime Business Hours Availability

Infrastructure Performance Requirement #3 - Monthly Off Prime Business Hours Availability

PERFORMANCE REQUIREMENT	CalSAWS shall be available ninety-nine percent (99%) of the time during daily Off Prime Business Hours, as defined in the Agreement, calculated daily and reported monthly.
LIQUIDATED DAMAGES	\$1,000.00 Per Day
PERFORMANCE MEASURES	<p>The percentage of availability shall be determined in accordance with the following formula:</p> <ul style="list-style-type: none"> ▪ $Availability \% = 100 \times ([A - B] / A)$ ▪ A = the measurement period which is Off Prime Business Hours for each Day in the calendar month expressed in minutes ▪ B = the number of the minutes in the measurement period that the CalSAWS Production environment, is not available (e.g., simulation or e-Learning functions may be supported from an environment other than Production).

Table 14 - Infrastructure Local Repair Services

Infrastructure Performance Requirement #4 – Local Repair Services

PERFORMANCE REQUIREMENT	<p>Response Time for problems that require Contractor support personnel to dispatch to a County Site and shall adhere to the following standards.</p> <p><u>Initial Contact Time</u></p> <ul style="list-style-type: none"> ▪ Less than or equal to 1 hour from ticket entry ▪ Less than or equal to 1 hour for voice mail correspondence ▪ Less than or equal to 1 hour for email correspondence ▪ Less than or equal to 2 minutes for phone calls <p><u>Dispatch Time</u></p>
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Infrastructure Performance Requirement #4 – Local Repair Services	
	<ul style="list-style-type: none"> ▪ Less than or equal to 2 hours for Urgent Priority Tickets and High Priority Tickets ▪ Less than or equal to 8 hours for Medium Priority Tickets and Low Priority Tickets <p><u>Diagnosis Time</u></p> <ul style="list-style-type: none"> ▪ Less than or equal to 1 hour for Urgent Priority Tickets ▪ Less than or equal to 2 hours for and High Priority Tickets ▪ Less than or equal to 4 hours for Medium Priority Tickets and Low Priority Tickets <p><u>Repair Time</u></p> <ul style="list-style-type: none"> ▪ Less than or equal to 2 hours for Urgent Priority Tickets ▪ Less than or equal to 4 hours for High Priority Tickets ▪ Less than or equal to 8 hours for Medium Priority Tickets and Low Priority Tickets with spare equipment available ▪ Less than or equal to the close of the 2nd Consortium Business Day for Medium Priority Tickets and Low Priority Tickets without spare equipment available <p>For tickets received outside of Service Desk Business Hours, (Initial Contact Time, Dispatch Time, Diagnosis Time, and Repair Time) time will be calculated assuming the ticket was created at 7:00 am the next CalSAWS Service Desk Business Day, including Saturdays.</p>
LIQUIDATED DAMAGES	\$10,000.00 Monthly
PERFORMANCE MEASURES	<p><u>Dispatch Time</u></p> <ul style="list-style-type: none"> ▪ 99% of Urgent Priority Tickets and High Priority Tickets must be dispatched within performance requirements. <p><u>Diagnosis Time</u></p> <ul style="list-style-type: none"> ▪ 99% of Urgent Priority Tickets and High Priority Tickets must be diagnosed within performance requirements. <p><u>Repair Time</u></p> <ul style="list-style-type: none"> ▪ 99% of Urgent Priority Tickets and High Priority Tickets must be repaired within performance requirements.

Table 15 – Infrastructure Daily Prime Business Hours Availability of CalSAWS Training Environment

Infrastructure Performance Requirement #5 Daily Prime Business Hours Availability of CalSAWS Training Environments	
PERFORMANCE REQUIREMENT	The CalSAWS training environments shall be available ninety-five percent (95%) of the time during Prime Business Hours, as defined in the Agreement, each Day.

Infrastructure Performance Requirement #5 Daily Prime Business Hours Availability of CalSAWS Training Environments

LIQUIDATED DAMAGES	\$20,000.00 Per Day
PERFORMANCE MEASURES	<p>The percentage of availability shall be determined in accordance with the following formula:</p> <ul style="list-style-type: none"> ▪ Availability % = 100 X ([A- B] / A) ▪ A = the measurement period which is Daily Prime Business Hours for each Day expressed in minutes ▪ B= the number of the minutes in the measurement period that any CalSAWS training environment was not available

Table 16 - Infrastructure Monthly Deficiency Notification Response Time

Infrastructure Performance Requirement #6 - Monthly Deficiency Notification Response Time

PERFORMANCE REQUIREMENT	The Contractor shall, within one (1) hour of discovery, notify the Consortium Executive Director and other Consortium Staff of any Non-Cosmetic High Priority Deficiency that may have an adverse effect on the operation or performance of CalSAWS, ninety-nine-point five percent (99.5%) of the time each calendar month.
LIQUIDATED DAMAGES	\$1,000.00 Per Month
PERFORMANCE MEASURES	<p>The Monthly Deficiency Notification Response Time percentage shall be determined in accordance with the following formula:</p> <ul style="list-style-type: none"> ▪ Monthly Deficiency Notification Response Time % = 100 X ([A – B] / A) ▪ A = the number of Non-Cosmetic High Priority Deficiencies discovered in the calendar month ▪ B = the number of Non-Cosmetic High Priority Deficiencies discovered in the calendar month where the notification to Consortium Executive Director exceeded one (1) hour.
REPORTING	At the sole discretion of the Consortium Executive Director, a written report on the Non-Cosmetic High Priority Deficiency, and a corrective action plan may be required to be provided by the Contractor to the Consortium within two (2) working days.

Table 17 - Infrastructure Monthly Service Desk Diagnosis Time, Tiers 1 and 2

Infrastructure Performance Requirement #7 – Monthly Service Desk Diagnosis Time Tiers 1 and 2																	
PERFORMANCE REQUIREMENT	<p>Monthly Service Desk Diagnosis Time for Tiers 1 and 2 CalSAWS, GA/GR Automated Service Correspondence Module, OCAT, and Imaging SaaS related incidents, shall be less than or equal to the time periods defined below for each category and level of urgency, ninety-eight percent (98%) of the time each calendar month:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>URGENCY</th> <th>SYSTEM-WIDE</th> <th>COUNTY</th> <th>INDIVIDUAL</th> </tr> </thead> <tbody> <tr> <td>High</td> <td>Priority 1 8 hours</td> <td>Priority 1 8 hours</td> <td>Priority 2 30 hours</td> </tr> <tr> <td>Medium</td> <td>Priority 2 30 Hours</td> <td>Priority 2 30 Hours</td> <td>Priority 3 60 Hours</td> </tr> <tr> <td>Low</td> <td>Priority 3 60 Hours</td> <td>Priority 3 60 Hours</td> <td>Priority 3 60 Hours</td> </tr> </tbody> </table>	URGENCY	SYSTEM-WIDE	COUNTY	INDIVIDUAL	High	Priority 1 8 hours	Priority 1 8 hours	Priority 2 30 hours	Medium	Priority 2 30 Hours	Priority 2 30 Hours	Priority 3 60 Hours	Low	Priority 3 60 Hours	Priority 3 60 Hours	Priority 3 60 Hours
URGENCY	SYSTEM-WIDE	COUNTY	INDIVIDUAL														
High	Priority 1 8 hours	Priority 1 8 hours	Priority 2 30 hours														
Medium	Priority 2 30 Hours	Priority 2 30 Hours	Priority 3 60 Hours														
Low	Priority 3 60 Hours	Priority 3 60 Hours	Priority 3 60 Hours														
LIQUIDATED DAMAGES	\$10,000.00 Per Month																
PERFORMANCE MEASURES	<p>Contractor will diagnose helpdesk tickets during Service Desk Business Hours. For tickets received outside of Service Desk Business Hours, time (Diagnosis Time) will be calculated assuming the ticket was created at 8:00 am the same CalSAWS Business Day, excluding Saturdays, for tickets logged between 6:00 am – 8:00 am.</p> <p>If the ticket was received between 5:00 pm – 9:00 pm, time will be calculated assuming the ticket was created at 8:00 am the next CalSAWS Business Day, excluding Saturdays.</p>																

Table 18 - Infrastructure Daily Prime Business Hours Standard Report

Infrastructure Performance Requirement #8 Daily Prime Business Hours Standard Report Response Time	
PERFORMANCE REQUIREMENT	CalSAWS shall have a response time for ninety-eight percent (98%) of standard report transactions of ten (10) seconds or less during Daily Prime Business Hours, as defined in the Agreement, each Day.
LIQUIDATED DAMAGES	\$1,000.00 Per Day
PERFORMANCE MEASURES	<p>The response time percentage shall be determined by transactional methodology.</p> <ul style="list-style-type: none"> ▪ The Transaction Response Time percentage shall be determined in accordance with the following formula: Transaction Response Time % = 100 X ([A – B] / A) ▪ A = the number of transactions ▪ B = the number of transactions that exceeded ten (10) seconds.

Table 19 - Infrastructure Disaster Recovery Response Time

Infrastructure Performance Requirement #9 Disaster Recovery Response Time	
PERFORMANCE REQUIREMENT	In the event a disaster is declared in the primary cloud Services region, a failover of CalSAWS will be completed within 24 hours to the pre-defined alternate region.
LIQUIDATED DAMAGES	\$10,000.00 Per Incident
PERFORMANCE MEASURES	24-hour time period begins with CalSAWS Executive Director declaring a disaster.

Table 20 - Infrastructure Failure to Complete Access Control Audits

Infrastructure Performance Requirement #10 Failure to Complete Access Control Audits	
PERFORMANCE REQUIREMENT	Contractor shall complete access control audits in each calendar quarter, in accordance with the CalSAWS Access Control Policy.
LIQUIDATED DAMAGES	\$10,000.00
PERFORMANCE MEASURES	<p>Penalty assessed for each failure to complete within the quarter.</p> <ul style="list-style-type: none"> ▪ Per occurrence of failure penalty ▪ Reporting quarterly by the 15th of the following month.

Table 21 - Infrastructure Security Information and Event Management System Uptime

Infrastructure Performance Requirement #11 Security Information and Event Management System Uptime	
PERFORMANCE REQUIREMENT	Contractor shall maintain 99% uptime availability for real time audit processing and alerting in the Security Information Event Management System (SIEM) as stated in the CalSAWS Audit and Accountability Policy.
LIQUIDATED DAMAGES PER DAY	\$30,000.00 Per Day
PERFORMANCE MEASURES	<p>The percentage of availability shall be determined in accordance with the following formula:</p> <ul style="list-style-type: none"> ▪ Availability % = 100 X ([A – B] / A) ▪ A = minutes the measurement period ▪ B = the number of the minutes in the measurement period that the SIEM is not available.

Table 22 - Infrastructure Scheduled Asset Inventory Audits

Infrastructure Performance Requirement #12 Scheduled Asset Inventory Audits	
PERFORMANCE REQUIREMENT	<p>Contractor shall complete quarterly asset inventory audit report by the 15th of the following month. Assets are listed below.</p> <ul style="list-style-type: none"> ▪ IT Hardware- physical media (digital assets and backups) and physical IT equipment (bring your own devices (BYODs), servers, desktops, laptops, tablets, smartphones) ▪ Digital Assets – assets executable software (source code), virtual/virtualized IT equipment, digital information content assets (documents, graphics, media, dictionaries, databases) ▪ Cloud Resources ▪ IT Asset Licenses- all the document regarding the ownership and right of use for all owned physical and non-physical assets) ▪ Contractual Commitments- capacity reservations, discount agreements, and advanced purchases
LIQUIDATED DAMAGES	\$10,000.00
PERFORMANCE MEASURES	<p>The number of failures to complete scheduled asset inventory audit report.</p> <ul style="list-style-type: none"> ▪ Penalty per failure to complete audit report in any quarter. ▪ Reported quarterly on the 15th of the following month.

Table 23 - Infrastructure Completion of Root Cause Analyses

Infrastructure Performance Requirement #13 Completion of Root Cause Analyses	
PERFORMANCE REQUIREMENT	Contractor shall complete root cause analyses within 14 calendar days of the incident creation date of a critical operation incident resulting in System operational impact.
LIQUIDATED DAMAGES	\$10,000.00 per Incident
PERFORMANCE MEASURES	<p>The percentage of root cause analyses provided within 14 calendar days of the incident creation date of a critical operation incident resulting in System operational impact.</p> <ul style="list-style-type: none"> Percentage of RCAs within 14 calendar days = RCAs within 14 days / Total RCAs completed

Table 24 - Infrastructure Privileged Access Audits

Infrastructure Performance Requirement #14 Privileged Access Audit	
PERFORMANCE REQUIREMENT	Contractor shall complete quarterly privileged access audits for all privileged access to the System as stated in the CalSAWS Privileged Access Policy.
LIQUIDATED DAMAGES	\$10,000.00
PERFORMANCE MEASURES	<p>The number of failures to complete scheduled privileged access audit within a quarter.</p> <ul style="list-style-type: none"> ▪ Per instance of failure to complete a quarterly privileged access audit. ▪ Reported quarterly on the 15th of the following month.

Table 25 - Infrastructure Security Vulnerability Scans

Infrastructure Performance Requirement #15 Security Vulnerability Scans	
PERFORMANCE REQUIREMENT	Contractor shall complete security vulnerability scans of at least (99%) ninety-nine percent of System components (including hardware, software, database and network) at least monthly.
LIQUIDATED DAMAGES	\$20,000.00 Monthly
PERFORMANCE MEASURES	<p>The percentage of applicable System components for which vulnerability scans were completed at least monthly.</p> <ul style="list-style-type: none"> ▪ Percentage of Systems scanned = System components scanned / total System components * 100 ▪ Reported provided by the 5th calendar Day of the following monthly.

Table 26 - Infrastructure Security Incident Notification

Infrastructure Performance Requirement #16 Security Incident Notification	
PERFORMANCE REQUIREMENT	<p>Contractor shall notify Consortium Chief Information Security Officer and other Consortium-specified persons within one (1) hour following the identification of any potential or actual security incident, including any breach, any attack, or the introduction of any Disabling Device, related to CalSAWS.</p> <p>Contractor shall take corrective action within two (2) hours following the identification of each potential or actual security incident.</p> <p>For each and every occasion that Contractor fails to meet this Performance Requirement, as determined by Consortium Executive Director, Contractor shall pay Consortium Liquidated Damages.</p>

Infrastructure Performance Requirement #16 Security Incident Notification	
LIQUIDATED DAMAGES	\$30,000.00 Per Incident
PERFORMANCE MEASURES	LDs will take effect for any notification of the potential or actual security incident that is reported after one hour of identification.

Table 27 - Infrastructure Security Incident Reporting

Infrastructure Performance Requirement #17 Security Incident Reporting	
PERFORMANCE REQUIREMENT	<ul style="list-style-type: none"> ▪ Contractor shall provide a written report and assessment regarding all actions taken concerning each identified security incident, including any breach, any attack, or the introduction of any Disabling Device, the current status, and any potential impact(s) to Consortium of the security incident. Each security incident shall be categorized according to criticality as either minor or major. ▪ For a minor security incident, which causes limited loss of confidentiality, integrity, protection, and/or availability of CalSAWS to organizational operations, organizational assets, or individuals and which does not result in a failure of Contractor to comply with CalSAWS Security Policy, this report and assessment shall be provided within twelve (12) hours following the identification of the minor security incident. ▪ For a major security incident, which causes serious or catastrophic loss of confidentiality, integrity, protection, and/or availability of CalSAWS to organizational operations, organizational assets, or individuals and which may result in a failure of Contractor to comply with the CalSAWS Security Policy, this report and assessment shall be provided within two (2) hours following the identification of the major security incident. ▪ Consortium Executive Director, in his sole discretion, may require Contractor to update this report and assessment on an hourly or daily basis depending on criticality, status, and possible impact to Consortium. For each and every occasion that Contractor fails to meet this Performance Requirement, as determined by the Consortium Executive Director, Contractor shall pay Consortium Liquidated Damages as documented below for each hour and each fraction of an hour that this report and assessment is late.
LIQUIDATED DAMAGES	\$10,000.00 Per Incident Per Hour
PERFORMANCE MEASURES	<ul style="list-style-type: none"> ▪ LDs will take effect if the written report and assessment for a minor security incident is not delivered within twelve (12) hours following the identification of the minor security incident.

Infrastructure Performance Requirement #17 Security Incident Reporting

	<ul style="list-style-type: none"> LDs will take effect if the written report and assessment for a major security incident is not delivered within two (2) hours following the identification of the minor security incident.
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Table 28 - Infrastructure Security Incident Negligence

Infrastructure Performance Requirement #18 Security Incident Negligence

PERFORMANCE REQUIREMENT	If due to a security incident, including any breach, any attack, or the introduction of any Disabling Device, CalSAWS is unable to operate safely and Consortium Executive Director determines that such inoperability was caused by any active or passive negligence, recklessness, or intentional wrongful acts of Contractor, Contractor shall pay to Consortium Liquidated Damages as documented below.
LIQUIDATED DAMAGES	\$30,000.00 Per Hour
PERFORMANCE MEASURES	Hourly calculations begin from onset of the security incident.