

I. Section 4 – Understanding and Approach to Infrastructure Services

4.3 Infrastructure Understanding and Approach to Hardware and Software Management (4C)

RFP # 5.2.3.3 (RFP Table # 33)

A transparent, optimized, compliant, and responsive hardware and software management solution and approach are vital to delivering the services that CalSAWS constituents rely on. We have gained extensive experience by partnering with you and managing the current environment. This includes our understanding and experience managing CalSAWS' hardware and software assets with a special focus on minimizing the risk of disruption due to security threats, misconfigurations, or hardware failures. That knowledge gives us the insight needed to continually improve and deliver value to CalSAWS. The following guiding principles underscore our understanding:

Strengthen operational security: Timely updates to the system reduces the risk of security vulnerabilities or other defects of older hardware and software versions, including N-1 version currency and patching. Operational security is enhanced, and threats are resolved quickly with frequent vulnerability and policy compliance scans and automated reporting.

Increase operating efficiency: By optimizing the IT portfolio with more effective tools and methods, the Consortium gains a 360-degree view of their hardware and software investments, increasing the overall operating efficiency.

Ongoing cost optimization: Eliminating unnecessary software utilization, optimizing/consolidating software licenses, and upgrading hardware when required leads to substantial cost savings.

Timely software upgrades: Timely upgrades are an essential part of software management and are a critical means for avoiding impacts to system functionality. During these upgrades, using a comprehensive testing approach with automation will quickly identify issues—reducing the time and cost of change and improving operational quality.

Strategic Planning and Vision Alignment: Our strategic planning and vision alignment considers the entire infrastructure assessment of the Project and County workstreams. Software and hardware used for CalSAWS and its ancillary applications is reviewed to identify opportunities for improvement, replacement, and innovation based on different factors that we will collectively discuss with the DIO, Consortium, Counties, M&E Contractor, and all other contractors who contribute to our diverse project team. It is our goal to **create a clear understanding of upcoming changes with all stakeholders and develop a high-level cost budget and timeline while integrating with the Implementation Advance Planning Document Update (IAPDU) process.**

Table 4-1 describes several overarching themes—Acceleration Essentials—of our Hardware and Software Management approach for CalSAWS.



Your Success Accelerated

Our 360°-value approach for hardware and software management results in technical solutions that are modern, low-risk, cost effective, and easier to maintain.

- Optimized and Integrated Hardware and Software Asset Management Solution
- Continuous Security Strengthening
- An Audit Ready Environment
- Deep Understanding of the Ecosystem
- A Network of Existing Vendor Relationships
- Proven Maintenance Expertise
- Continuous Improvement

| What We Bring | What You Get |
|---|--|
| Optimized asset management using ServiceNow's HAM and SAM modules | Better Cost Management: Insights on hardware and software spend, managing hardware end of life timeline and harvesting unused licenses, thereby eliminating over-buying |
| Full-transparency and compliance using real-time data | Improved Compliance and an Audit Ready Environment: Improved compliance with regulations and policies, and protection from software provider audit surprises |
| Rapid updates and repairs using proactive diagnosis | Service Disruptions Kept to an Absolute Minimum: Reduced risk of disruptions by proactively managing the asset lifecycle and replacing failed/failing components rapidly |
| Asset Pricing Advantage using Accenture's dedicated Proquire team | Client Value Realized: Access to already established vendor relationships using our Proquire team to drive optimization in solutioning and best terms while keeping existing vendor relationship agreements |
| Optimized staffing approach for our proposed Field & Desktop Services team | Low Risk Strategy: Strategically aligned resources considering scope of work that reduces risk, meets all SLAs, and optimizes costs |

Table 4-1. The Features (What We Bring) and Benefits (What You Get) of our approach deliver efficiencies and optimize cost.

4.3.1 Software Maintenance Services

Item # I-UA7

Describe your approach for providing CalSAWS Software maintenance services, including CalSAWS Software upgrades and patches, and ensuring appropriate security measures are continually addressed.

Describe how Infrastructure staff will be allocated and/or shared to support Hardware/Software Maintenance as well as with Operations and Innovation/Innovation Support.

4.3.1.1 Approach to Software Maintenance Services

The Consortium and Accenture have a long history of working collaboratively in support of your goals and objectives. The extent of our relationship, insights into your systems, and our **direct experience in maintaining and upgrading the CalSAWS software** gives us a unique understanding into your vision and helps us customize and evolve our solution in ways other contractors cannot. In this section, we describe our overall combined approach to providing CalSAWS Software Maintenance.

Key Success Factors

- Effectively manage (inventory, track, and correct) all software on the network
- Incorporate upgrade/patch, vulnerability, security, and asset management capabilities, improving quality and speed
- Use a transformation timeline that minimizes disruption and introduces innovation

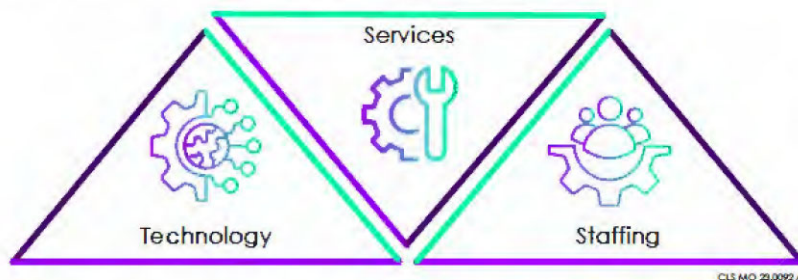


Figure 4-1. Software Maintenance Services approach.

Our overall integrated approach features new technology, the full spectrum of software maintenance services, and an updated staff allocation approach, shown in Figure 4-1 and is strategically aligned to be similar with our Hardware Maintenance Services approach described in the following section.

Technology

Only through a comprehensive Hardware Asset Management/Software Asset Management (HAM/SAM) function can organizations such as the Consortium fully address compliance, optimize spending, and integrate HAM/SAM into day-to-day IT operations. We analyzed the technology we use today for software maintenance services and believe the biggest impact we can make is to improve the asset management database and the configuration management database (CMDB)—which is in-process and will be implemented prior to the start of this contract—with **a real-time and authoritative HAM/SAM platform, based on ServiceNow**. The proposed model addresses the full set of HAM/SAM process areas and roles, from discovery and reconciliation to advanced forecasting using industry leading best practices.



Jeremy Grecian, Infrastructure Operations Manager, will oversee the effort to collaborate with the Consortium and existing Infrastructure Operations team to develop and implement the HAM/SAM.



Our team will also include highly experienced experts to bring the best combination of our experience from CalSAWS and other projects. We are also assigning a **dedicated Asset and Cost Management Lead** who will focus primarily on monitoring and analyzing assets to identify opportunities for optimization and report findings to be shared with the Consortium for further consideration, because we understand that asset utilization and associated costs are a priority topic for you.

Using the new HAM/SAM platform—powered by your existing investment in ServiceNow—Accenture will work with the Consortium to implement a multi-level software maintenance support model that incorporates the core of the services, shown in Table 4-2.

| Software Asset Management (SAM) | Hardware Asset Management (HAM) |
|--|--|
| <ul style="list-style-type: none"> • License Optimization: Use data and analytics to improve license models • License Demand Management: Forecast demand based on consumption, initiatives, and lifecycle strategy • Comprehensive Audit: Plan and manage ongoing compliance with software owners • Usage Reconciliation and Metering: Track license consumption against contractual terms and utilization • Contract Reconciliation: Track active contracts governing usage to calculate consumption per Terms and Conditions • License Tracking and Introduction: Track new purchases and renewals to confirm accuracy of available licenses • Entitlement Assignment and Harvest: Track requests, manage approvals, and harvest unused software • Discovery and Reconciliation: Identify licensed software from sources of record, reconcile and normalize data into commercial terms | <ul style="list-style-type: none"> • Discovery, Data Capture, and Storage: Discover all hardware components of inventory on infrastructure, capture details and store them in asset repository • Asset Tracking: Identify and track change in the location of assets, increase or decrease the number of assets, track assignment status and user information • Asset Lifecycle Management: Capture asset lifecycle data from requisitioning, purchase, and assignment to end of life and decommissioning • Reporting and Alerting: Generate asset inventory reporting and receive alerts on asset warranty and lease expiration |

Table 4-2. We will enhance current software maintenance through a new HAM/SAM platform.

To reduce risk, increase transparency/compliance, and provide cost avoidance, the platform uses the following capabilities to centrally collect, store, and display hardware and software information:

- **Automated discovery scans and CMDB verifications:** Evolving the current ServiceNow CMDB will allow for automated population of configuration items using discovery scans and creation/updates to the identification and reconciliation rules for assets to maintain authoritative configuration items and flag variances for action.
- **Hardware and CMDB interrelationships: Align CMDB and hardware asset processes and asset - CI mapping to verify clear data governance.**
- **Hardware and software management configuration:** Purchased hardware assets and license/support quantities currently stored in a spreadsheet will be migrated to the HAM/SAM platform allowing for real-time and transparent utilization reporting. License administration confirms that compliance is maintained, unused licenses are harvested, over-purchasing can be avoided, and ensuring all assets are managed through end-of-life activities. Additionally, hardware purchases and support contracts **will be integrated into the growth forecasting process as part of IAPDU budgeting to prevent surprises and to make strategic spending based on actual need and usage data.**
- **Hardware and software interrelationships:** Using the information discovered and imported into the platform, a relationship is created from the **hardware asset** to the software installation to map where the software resides, as well as information regarding its publisher and version/patch levels. This enables a more accurate, complete, real-time understanding of the relations and dependencies between hardware and software.
- **Reports for stakeholders:** We will work with the Consortium to develop the necessary reports of all software versions/patch levels to confirm you are ready for audits, and hardware models and counts by lifecycle stage to confirm you are prepared to adjust to changes to your IT strategy. This enables both better preparedness and improved oversight for system compliance.
- **Procurement and lifecycle management:** Purchases, support renewals, and end of life and end of support will be tracked in the HAM/SAM platform to confirm constant support coverage and standards are proactively managed prior to the equipment or software becoming unavailable for purchase or support and are replaced before patches are no longer being produced by the manufacturer.
- **Compliance management:** Our HAM/SAM approach using ServiceNow will help execute the HAM and SAM lifecycle management processes, and using the reporting and artifacts automatically generated through those processes will help CalSAWS stay compliant with all relevant regulations, such as SOX, HIPAA, and PCI DSS.
- **Automated lifecycle management workflows:** ServiceNow HAM/SAM platform will enable automated lifecycle management workflows to confirm our software and hardware assets are properly being managed. For instance, workflows could easily be created to alert our Field & Desktop Services team when assets are nearing the end of their lifecycle or about to expire.



Our approach to software and hardware maintenance for CalSAWS is comprehensive and covers the full spectrum of services while keeping HAM/SAM at the core powered by ServiceNow.

Software
Licenses

8.4M

The CalSAWS Accenture team currently manages over **8.4 million software licenses** and

Hardware
Devices

13,000

13,000 managed infrastructure hardware devices successfully for CalSAWS Project staff and the CalSAWS Counties.

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In addition to our HAM/SAM implementation in ServiceNow, Table 4-3 provides an overview of some of the other key tools and technologies used to support effective software maintenance services.

| Tool | Features and benefits |
|----------------------------|---|
| ServiceNow ITAM—SAM Pro | <ul style="list-style-type: none"> • Full lifecycle visibility of install based software inventory and SaaS entitlements • Optimize license usage of owned software – i.e., buy only what you need • Proactively manage software compliance to address risks across aging or over/underutilized assets |
| ServiceNow ITAM—HAM Pro | <ul style="list-style-type: none"> • Comprehensive management of hardware assets (from acquisition through disposal) • Control inventory across stockrooms and have visibility of assets assigned to users and office or work from home locations • Simplified asset management processes with standard prescriptive workflow • Reduce the cost of purchasing, manage assets and improved efficiencies with prescriptive workflow |
| AWS Trusted Advisor | <ul style="list-style-type: none"> • Inspects environment and recommends when opportunities exist to optimize • Cost savings, performance improvement and close security gaps |
| Qualys | <ul style="list-style-type: none"> • Scans application endpoints and physical devices to discover potential vulnerabilities • Provides real-time alerts for issues relating to system security to quickly resolve threats |

Table 4-3. Our approach includes best practice tools that provide a robust solution for your needs.

Services Approach: Software Maintenance

An end-to-end approach to Software Maintenance needs to consider the entire lifecycle of software. The SAM is driven by our integrated approach, powered by ServiceNow, to support our people in managing and making decisions, including software selection, procurement, compliance, and cost management, reflected in Figure 4-2.

After software is deployed, upgrades and patches are part of an ongoing maintenance process to verify stability and performance and confirm the latest features are available. As software moves through the process, security is continually embedded into our day-to-day decisions sitting at the forefront of our approach.

- We will also make it a priority to involve the **DIO, M&E Contractor, Consortium, Counties, FinOps, Tech Committee**, and all relevant teams in our decision-making process regarding software. Open communication and collaboration drive transparency and will help make our conversations more productive at our weekly FinOps meeting.



Figure 4-2. Software Maintenance Services

Software Asset Management

Throughout our 20+ year partnership, we have evolved the processes to maintain and update the software components of CalSAWS. Significant progress has been made over the last two years with modernizing the Software Asset Management methodology and addressing previous deficiencies. Our unique understanding of your software ecosystem and current pain points positions us to establish a comprehensive maintenance strategy to **confirm stability and minimize business disruption**. No other contractor brings Accenture's combination of CalSAWS knowledge, technology

vendor capabilities, and proven maintenance service expertise. As your current infrastructure partner, we:

- Are responsible for managing 8.4M licenses across 146 software packages and 165 County site locations.
- Continue to enhance monitoring and automation capabilities including automated alerting to help reduce reaction time during incidents and allow for proactive notifications.
- Leveraged our strategic partnerships with ServiceNow, Microsoft, Atlassian, and other vendors to quickly acquire, evaluate, deploy, and validate patch and upgrade status for compliance.
- Currently work with the Consortium to populate the ServiceNow CMDB to be the authoritative source for configuration items.



Optimized asset
management

We will continue to improve on those processes and collaborate with you on the innovations that will take CalSAWS to the next level. Together we will prioritize opportunities that position you to drive desired outcomes, modernize the system through automation, and infuse the Consortium with innovative results that can better serve workers and Californians today and in the future.

Software Selection

We consider several factors when selecting new software, including understanding the business need, total cost, licensing models, software maturity, FedRAMP compliance for as-a-service products, the fit within the CalSAWS ecosystem, and the support model provided by the vendor. We will collaborate with our cloud partner, AWS, the M&E Contractor, procurement team, and other impacted teams to confirm we are taking into consideration these factors and feedback from all perspectives.

We will start this analysis early and engage the Consortium business and architecture teams and other vendors to make sure all factors are considered that are unique to the business need, and how our teams will evolve to consider emerging technology solutions. Our Innovation Lead and AWS Manager are included in the decision-making process to help identify and evaluate emerging technologies and get input to confirm we are making software selections that will support innovation.

Software Procurement and Lifecycle Management

Software procurement and full lifecycle management are vital factors to our overall software maintenance approach, which includes the key components reflected in Table 4-4.

| Activities | Description |
|--|--|
| Procurement We look for the best price | Our Accenture Proquire team assists in our relationship with our software ecosystem partners such as Atlassian, Oracle, Delphix, Splunk, etc. to give us competitive pricing and a devoted team to negotiate favorable procurement and/or contractual terms such as best pricing and variable payment options. Our process keeps you in control of the procurement workflow and allows you to use our global ecosystem position. Procurements can be complex, and we will leverage our relationships to get a better understanding of options and make calculated decisions to drive optimization and reduce risk for CalSAWS. |
| Lifecycle Management Keeps software up-to-date, operational, and optimized | Version management: Track versions and patch levels using trend analysis and reporting Configuration management: Track and display mappings of the software installations and interrelationships of the HW/SW for troubleshooting, compliance, and purchasing projections. For effective visibility of configurations, we will develop key dashboards and report deliverables such as: |



Optimized asset
management

| Activities | Description |
|---------------------------|---|
| | <ul style="list-style-type: none"> Software Asset Analytics dashboard (license summary, compliance summary, true up costs, and removal summary) Normalization and Content Service (normalization trend charts) Software Publisher Analytics Software Asset Management: Overview, Optimization, Compliance Analysis. |
| End-of-life management | Track when sales/support will end for a given component to procure a replacement product. This will prevent situations where security and other needed updates are unavailable. End-of-life management will be integrated into the forecasting and IAPDU process , resulting in sufficient time to budget for changes. More strategically, we will continue to work with AWS to find opportunities for cloud native services to replace traditional solutions. |
| Taking proactive measures | |

Table 4-4. Key components of our software procurement and lifecycle management approach.

Software Cost Management

Forecasting: Given our understanding of the CalSAWS environment and subject matter expertise, we will analyze historical data to identify trends and patterns to forecast future activities. With this information we will proactively engage the software vendors when utilization is nearing thresholds to jumpstart negotiations around extensions to avoid over utilization fees. We will also build all known planned activities into our forecasting to **avoid disruption** to the Central Project Office and Counties. A critical component in our approach to accurate forecasting is to analyze changes being implemented by the M&E Contractor. For example, if an SCR introduces high-volume forms/notices, we will work with the M&E Contractor to understand the change(s), estimate the increased volumes, and determine if that requires working with Adobe to increase our license threshold(s).

Throughout the forecasting process, we will communicate early and often with the Consortium Technical, PMO, and Finance teams to verify that any budgetary changes are made timely.

Cost Optimization: While managing software for thousands of end-users, there are several factors that contribute to a successful optimization strategy. With a disciplined approach and collaboration with the Consortium and other stakeholders, we will continue to optimize software costs throughout the life of the contract. Table 4-5 describes the services that impact our cost optimization strategy.

| Factor | Description |
|--|--|
| Rightsizing Reducing cost | Rightsizing, or provisioning the correct number of resources, is our goal. By keeping a close eye on resource utilization, we can scale software to find the best value without compromising security and performance. |
| Harvesting | Ensuring that hardware and software that are not being used are returned to the stockroom to be reused for other personnel or retired based on the end of life for the asset. |
| License/cost management | We will reconcile the available licenses versus consumed quantities for an audit of consumption patterns and metering usage, harvesting, and over-purchasing prevention, track support renewals and certificates for compliance and to prevent surprises/disruptions. |
| Cloud spend | As CalSAWS is modernized to use the microservices-based application architecture, we can better use the full benefits of AWS. Some features include "pay-as-you-go" pricing, resource tagging, integrating the cost explorer, AWS budgets, and other AWS tools into our software maintenance approach. We will continue to use existing tools, such as AWS Trusted Advisor and CloudCheckr, to optimize cloud spend. Our Cost Optimization strategy detailed in System Performance Section 4.2.2.1 provides more detail on our cloud spend process. |

| Factor | Description |
|--------|--|
| | We will use the ServiceNow Cloud Insights to analyze the full range of costs associated with cloud assets so you can identify and act on opportunities to save money and improve operations. We will continue to work with AWS and our internal AWS specialists to find the best services and tools to enhance those services. |

Table 4-5. We will work with you to optimize software costs throughout the life of the contract.

Upgrade/Patch and Vulnerability Management

Accenture will continue to keep software current at both the N-1 major version currency and with patches to minimize vulnerabilities. This will be done timely and with more transparency and collaboration using the following steps:

- **Identification:** Proactively acquire and evaluate patches by product vendors daily, identifying and installing automated pushes when available. We will continue to use Qualys, our vulnerability scanning tool, to run scans, adjusting frequency as required.
- **Change and release management:** Create and use a Change Request (CR) process to track all updates from inception through successful deployment, providing the Consortium and other stakeholders full visibility (from the CR, SAM reports, and the vulnerability scanning reports). We will collaborate with the Consortium and other stakeholders to determine the potential impact and dependencies of the change. Some upgrades will require significantly more testing and may depend on additional changes from other stakeholders (such as database and application server upgrades which will require an SCR for coordination with the M&E contractor). For all upgrades and patches that are completed, we will proactively communicate to all affected Project staff and County end users.
- **Test and deploy:** Leverage a field-tested, automated approach to regression test upgrades/patches in controlled environments and pilot groups where necessary. Once these tests have been executed, we will discuss the timing and risks with stakeholders and reach consensus on proceeding with the upgrade/patch deployment in production to a wider audience.
- **Monitor and report:** Once the upgrade/patch has been deployed, we will continue to monitor the system and work with the Consortium to introduce improvements, such as automated patch remediation. Stakeholders will be able to confirm the SAM and vulnerability management system reflects the correct version/patch level. Patch reporting capabilities will also be enhanced for health/compliance and error categories.



What Our Clients Say...

Accenture provides high-quality services and is responsive to issues.

— Julie Conwell,
CalSAWS Region 2 Regional Manager

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Rapid updates
and repairs

Software Security Management

We understand that security is much more complicated than it was when we first started working with you over 20 years ago. Due to the constantly evolving security landscape, we have made significant changes over the years to build security into all aspects of our solutions and operations. As your Infrastructure Contractor, we will continue to build on that progress. We will leverage Accenture processes, industry toolsets, and lessons learned in the security marketplace to bring rapid visibility and identify where security issues are found within the IT enterprise. For instance, Accenture Security approach has threat intelligence feeds that will be leveraged via Splunk to proactively review the environment for indicators of compromise. Through active communication and reporting, we will work with the Consortium to prioritize issues, perform fixes, and log risks for remediation. Future potential problems are proactively identified, enabling steps to be taken to prevent them from occurring or



accenture
Innovation

recurring. We have described our approach to vulnerability scanning and endpoint detection and response (EDR) below. Please see Section 4.2 Infrastructure Understanding and Approach to System Performance (4B) for other aspects of our security solution.

- **Vulnerability scanning:** Continue weekly vulnerability and policy compliance scans to identify where issues need to be resolved or security needs to be enhanced. To reduce overall time and effort on false/positive resolutions, we will use both automation (RPA/bots and reporting) and a team of security professionals to streamline the overall process. We will continue to use Qualys, the same core scanning tool familiar to the Consortium, and leverage built-in capabilities of CloudCheckr to verify compliance and secure configuration.
- **Endpoint detection and response (EDR):** We currently have an in-process project to implement an EDR solution, which will be completed before the start of this contract. We will continue to build on that solution, delivering superior, multilayer protections to provide orchestrated responses that will address threats quickly.

Staffing Approach: How We Allocate our People

Our approach for allocating staff to Hardware and Software Maintenance, Operations and Innovation/Innovation Support is focused on compliance and performance at all times, optimizing and continually evolving the architecture, and innovating throughout the term of the contract. The following core guiding principles underscore this approach and provide the necessary support to keep CalSAWS reliable, secure, and current:

- Staff use their **skills and strengths** and are put in a position to succeed and given growth opportunities within their assignments to develop their skills.
- Allocation must maximize our ability to **meet and/or exceed each and all applicable SLAs**.
- Allocation must be **managed proactively and continuously improved** based on regular feedback.

With a large pool of highly skilled, experienced resources, we have the capacity to flex our team during peak times by cross-training staff for hardware and software maintenance, operations, and innovation.

Staff Allocation by Service Area

Table 4-6 identifies how staff will be allocated to the sub functional areas under Operations. We have included a percentage of time staff will dedicate to minor software upgrades. Staff allocation is based on the following approach:

- **Minor software upgrades:** A percentage of time for existing staff assigned to each of the operational towers is allocated for planning and implementing minor upgrades.
- **Major software upgrades:** Major software upgrades for any of the operational towers are planned for by each team. Once the cost for the major upgrade has been determined, this will go through the IAPDU to secure the funding and implementation will be handled through the SCR process.

| Maintenance: Sub Functional Area | Year 1 | % of time allocated to Minor Upgrades |
|---|--------|---------------------------------------|
| Technical Infrastructure – Field & Desktop services | 17 FTE | 35% |
| Technical Infrastructure – SharePoint, O365, Active Directory, AWS workspaces | 14 FTE | 5% |
| Security | 44 FTE | 5% |
| Network Management | 10 FTE | 5% |
| Development/Test Environment Support | 2 FTE | 10% |

Table 4-6. Staff allocation for software upgrades.

In addition to the staff performing hardware and software maintenance within each of the towers, we also have separate dedicated teams that provide services related to hardware and software asset management which support all of our Operations towers. Table 4-7 provides a breakdown of the staffing for the related services. [REDACTED]

| Functional Area | Sub Functional Area | Year 1 |
|--|--|--------|
| Hardware and Software Asset Management | Hardware Asset Tracking and Management | 1 FTE |
| | Software Asset Management | 3 FTE |
| | FinOps | 2 FTE |
| | Procurement | 2 FTE |

Table 4-7. Staff allocation for hardware and software asset management.

Staff contributions towards innovation may include identifying and evaluating emerging technologies for their respective areas under the Operations tower, or determining whether there is a new licensing model for an existing software that CalSAWS should consider for better pricing if they are part of the Procurement, FinOps, or Hardware/Software Asset Management team or whether it can benefit CalSAWS and/or the Counties.

As shown in Table 4-8, staff will work collaboratively with our dedicated CalSAWS Infrastructure Innovation team to bring ideas forward that will go through our innovation program for CalSAWS. [REDACTED]

| |
|------------|
| [REDACTED] |
|------------|

Table 4-8. Staff allocation for innovation.

Software Maintenance Transformation Timeline

To enhance the software maintenance services for CalSAWS, we combine rapid-delivery capabilities, leading technology, thought leadership, and industry and functional skills to facilitate the implementation of the new ServiceNow HAM/SAM platform. Our proposed timeline, shown in Figure 4-3, incorporates the Consortium's requirements and considers our lessons learned delivering software maintenance for complex integrated eligibility programs of similar scale. The proposed implementation timeline for the transformation activities is based on getting the needed participation from both the Consortium and the new M&E contractor for dependent activities.

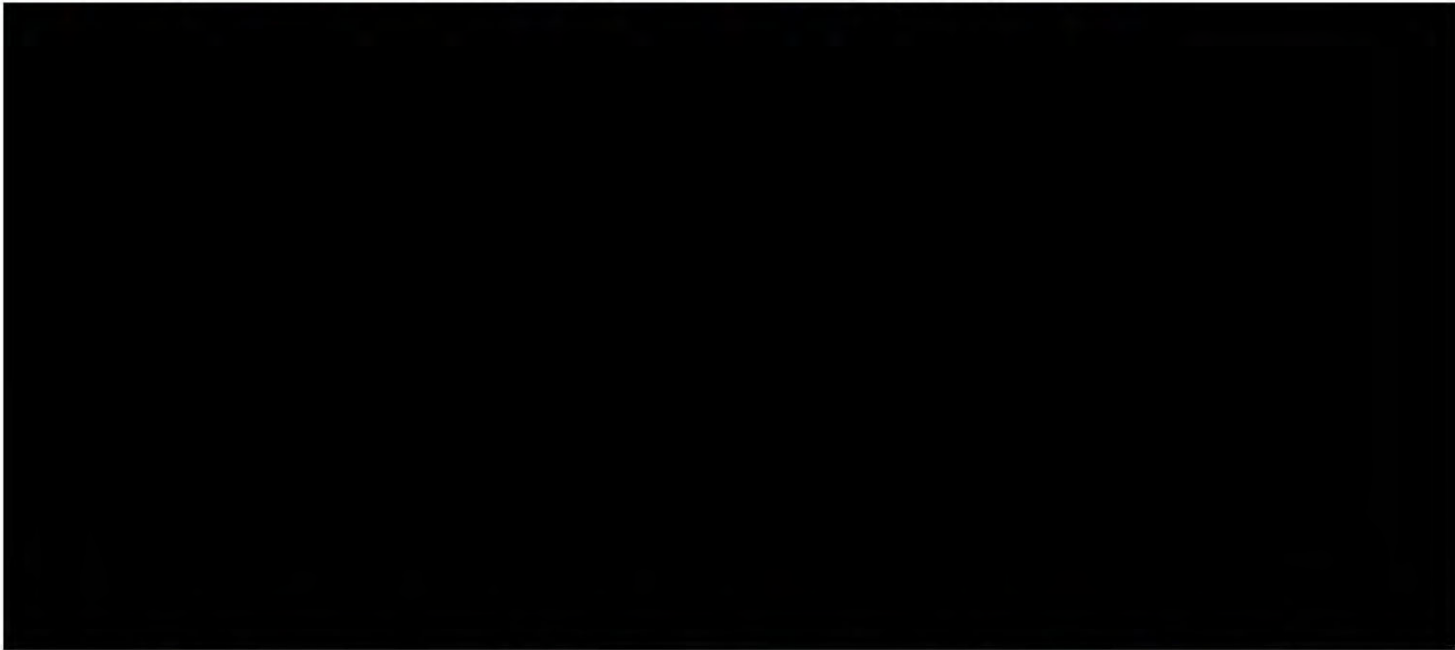


Figure 4-3. Our approach uses a hybrid-agile methodology to deliver value while minimizing risk.

As a critical step, we will work with the Consortium to effectively train resources, stabilize, and continuously improve the solution. On Day 1, we will share a draft of the HAM/SAM Transformation Guide with the Consortium. We will deliver the required deliverables including the Infrastructure Hardware and Software Inventory Monthly Update, Technology Infrastructure Refresh Plan, the Infrastructure Services Plan and Operational Working Documents. Please refer to Section 4.3.2.1 Approach to Central and Remote Hardware Maintenance for our approach to technology refresh.

Continuous Improvement



We believe innovation and automation are key drivers for continuous improvement at CalSAWS. As part of our project-wide Continuous Improvement Program (CIP), we will evaluate and implement ongoing improvements to our Software Asset Management methodology. The program will run on a quarterly cycle and will be led by Sean Swift, our CIP Manager, who will work closely with Jeremy Grecian, our Infrastructure Operations Manager. During our quarterly assessments, we will review and work with the Consortium to develop an action plan for the following areas:

- Rapidity and quality/success of the patching response
- The N-1 compliance and approved exception rate for software upgrades
- Planned/unplanned environments and hardware and licensing costs
- Cost optimization recommendations based on licenses usage and AWS cloud spend
- Accessibility and accuracy of hardware and software asset information
- IAPDU process alignment for major version upgrades
- Staff allocation in meeting and exceeding SLAs, including overall user experience for stakeholders

Based on the recommendations from the quarterly assessment, we will continue to implement automations to improve our overall hardware and software management process. Automations could include but are not limited to tasks related to building and testing upgrades and patches, including operational responses to issues.

4.3.1.2 Results Delivered

Optimized Asset Management at Accenture

Our Approach in Action:

To improve the line-of-sight of our assets, Accenture created a single solution to optimize the asset management capability on the ServiceNow platform. Our solution centered around rationalizing processes, data, and establishing core integrations to reduce disruptions to our workforce.

To do this, we rationalized data and implemented system controls to drive standardization and data integrity across asset information.

Results Delivered:

- Migrated an initial 800,000 assets (projected to reach 4 million) from disparate tools to the ServiceNow platform, developed time saving reconciliation reports to increase overall controls, improve the efficiency of software updates/repairs and eliminate or avoid future software audits
- Implemented a consolidated CM environment - managing 99% of devices on two CM instances (Instance 1: 716,000 workstations, Instance 2: 15,000 servers).
- Improved ability to accurately forecast stock refresh.





Enhanced Software Asset Management at Department of Veteran Affairs

Our Approach in Action:

We implemented ServiceNow for the VA asset management capabilities, including creating a system of record for Software Asset Management (SAM), improving software tracking and process accountability for Software Install Requests, Purchases, Reclamation, and key improvements for auditing Software License Usage. We consolidated 384 contract licenses and 1,092 total software models into the tool from disparate data sources—and are currently in the process of dispositioning. We created 22 Reports covering Software Installs, Requests, Models, and Purchases/Procurement by request and task.

Results Delivered:

- Enabled additional control for software requests, improved visibility and compliance.
- Uncovered several software licenses and usage that were not being properly tracked before, allowing the agency to act and comply with regulations.
- Improved tracking by creating 16 workflows, 29 SLAs, 70 notifications, and 17 reports
- Identified \$1.5M in savings by Software Asset Management across just two software products
- Hardware Asset Management with 9,000 hardware requests (5,000+ consumables; 4,000+ bar code)
- Software Asset Management with over 2,000 software installs requested; 300+ software purchase orders requested.

4.3.1.3 How We Exceed the Requirement

Our approach for managing the software maintenance scope of work will exceed the requirements as we detail in Table 4-9.

| Going over and above | Benefit |
|--|--|
| Bring a working draft of HAM/SAM Transformation Guide on Day One | Quicker Value Realization: We start on Day 1 like no other contractor to collaborate with the Consortium on transformation opportunities. We do not have to ramp up or go through a "norming and storming" process to enable faster transformation of the existing software maintenance processes |
| Formal continuous improvement process focused on new improvements and innovations every three months | Increase Infrastructure and Operations Maturity Over Time: Our focus on continuous improvement and enterprise-wide collaboration increases the overall sophistication and maturity of the CalSAWS infrastructure and operations |
| Audit defense (contractor licensing compliance/ government mandated audits) To proactively monitor, identify, and address application license deficits | Improve Quality and Avoid Financial Risk: Automatically generate required artifacts for auditors, reducing the effort and improving the quality and transparency of the audit responses |
| We work with AWS to find opportunities for cloud native services to replace traditional software. We also work with the M&E contractor to find ways to replace code with no-code or low-code services | Operational Efficiency and Cost Optimization: Removes cost, complexity of management, and risk associated with upgrades from traditional software and the CalSAWS system |

Table 4-9. Our approach results in added benefits exceeding the Consortium's desired outcomes.

4.3.2 Central and Remote Hardware Maintenance Services

Item # I-UA8

Describe your approach for providing central and remote CalSAWS Hardware maintenance services for the Project Offices and CalSAWS Managed Hardware located in the Counties.

Describe your depot location(s), where and how equipment will be staged for deployment, and which staff will be deployed, along with the manner of deployment, to support Central Project Office support and remote County support.

Describe your approach for technology refresh efforts and incident/issue support.

4.3.2.1 Approach to Central and Remote Hardware Maintenance

Key Success Factors

- An approach that accounts for unique needs of different counties
- Proactive preventative maintenance strategy
- Drive transformation and deliver consistent business outcomes

For CalSAWS to deliver its vital services, the Consortium needs a trusted contractor who can provide reliable hardware maintenance and repair services, delivered by a team of highly responsive hardware professionals. For the last two decades, we have consistently met your standards around areas such as diagnosis time, response time, availability, and repair time, even as volumes have increased.

As we assessed the existing solution, we determined there were significant opportunities to gain further efficiencies and be more cost-

effective for the benefit of the Consortium and Counties. This prompted us to transition both field services and County remote maintenance responsibilities from our existing teaming partner to Accenture.

In this section, we describe our overall combined approach to providing CalSAWS Hardware Maintenance, including CalSAWS Hardware preventative maintenance, technology refreshes, and how appropriate security measures are continually addressed.

Our overall integrated approach, shown in Figure 4-4 features new technology, the full spectrum of hardware maintenance services, and a strategically updated staffing and support model approach to best serve the Central Project Office and Counties.

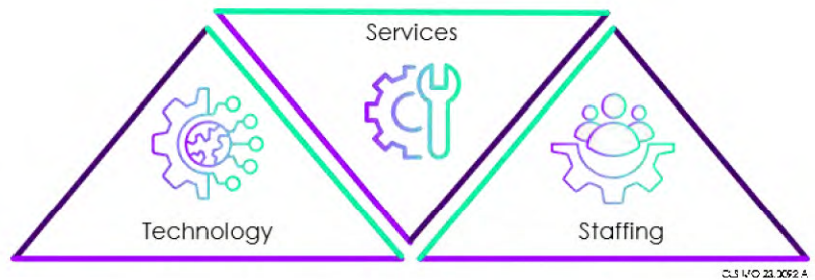


Figure 4-4. Hardware Maintenance Services approach

Technology

As described in Section 4.3.1. Software Maintenance Services, our approach implements a new HAM/SAM platform with industry leading best practices to enhance the current hardware maintenance capabilities. Using the new **HAM/SAM platform—powered by ServiceNow**—we will work with the Consortium to implement a multi-level hardware maintenance support model that incorporates the core services. Using the new HAM/SAM platform, hardware versions, configuration items, and any interrelationships will be effectively tracked and deployed with better visibility on asset location and movement. Table 4-10 provides an overview of the key tools and technologies used to support effective hardware maintenance services. This is not a comprehensive list of the many tools we will continue to use to manage the infrastructure.

| Tool | Features and benefits |
|--|--|
| ServiceNow ITAM—HAM Pro | <ul style="list-style-type: none"> • Comprehensive management of hardware assets (from acquisition through disposal) • Complete control of inventory across stockrooms and work from home locations • Simplified asset management processes with prescriptive workflow • Reduce the cost of purchasing and managing assets • Improve efficiencies with prescriptive workflow |
| Microsoft System Center Configuration Manager (MSCCS) | <ul style="list-style-type: none"> • Management, deployment, and security of Windows PCs and servers • Simplifies administration and establishes/maintains consistency • Allows remote troubleshooting of Windows PCs and Servers, reduces the time to fix problems by often alleviating the need to physically travel to the device for resolution |
| SolarWinds | <ul style="list-style-type: none"> • Enterprise system management software used to determine and resolve failures before users notice/report them |
| Dynatrace | <ul style="list-style-type: none"> • Performs Application Performance Monitoring (APM) • Monitors key applications, processes, and network components for abnormalities. • Currently used for system availability and diagnostic purposes such as Java Virtual Machine monitoring and profiling, thread tracing, and error-handling alerts. |
| MyWizard | <ul style="list-style-type: none"> • Provides effective event correlation so that alerts from SolarWinds are reduced to the actual source problem, reducing alert fatigue and speeds troubleshooting/resolution • Provides a one-stop, self-service marketplace to provision on-demand infrastructure, tools, cartridges, and AI-infused assets to automate DevSecOps across technologies and platforms • Accelerates a comprehensive automation transformation journey |
| Qualys | <ul style="list-style-type: none"> • Vulnerability management process and highlights critical patches needed • Automated reporting reduces turnaround time to apply the patches |



Table 4-10. Our solution includes tools that provide efficient management of hardware assets.

Services Approach: Hardware Maintenance

Our approach to Hardware Maintenance goes hand-in-hand with Software Maintenance, as shown in Figure 4-5. Our HAM/SAM approach powered by ServiceNow remains at the core.

We will manage assets based on your hardware replacement strategy and complete regular upgrades as part of our ongoing hardware maintenance process to keep County users equipped with reliable and efficient equipment. As hardware moves through the maintenance process, cost, performance, and security drive our approach on how we select and maintain our hardware, as well as the physical security of where and how our hardware is stored.

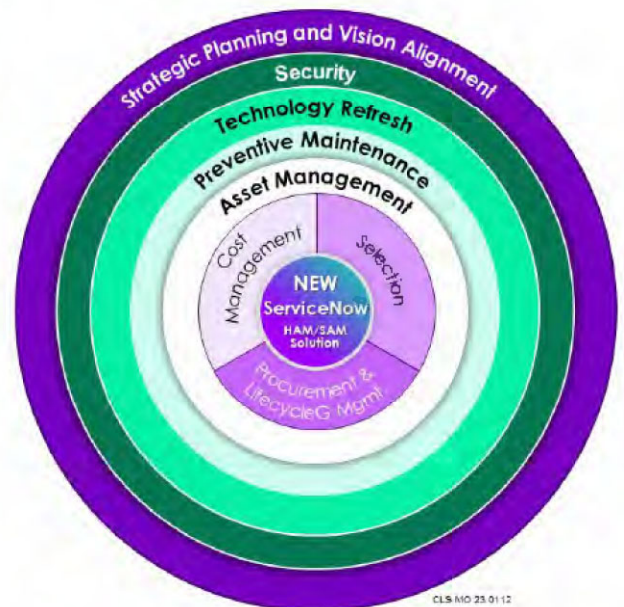


Figure 4-5. Software Maintenance Services

Hardware Asset Management

There are many critical physical hardware components in the Cloud Exchanges, County PoP locations, Project Offices, and Managed County locations. As shown in Figure 4-6, while the Cloud Exchanges and County PoP locations contain mostly standardized networking gear, the Managed County locations have a variety of hardware including PCs, servers, phones, UPSs, and managed lobby management devices (such as DUKs/Kiosks, FACTs). With **over 13,000 hardware devices** across our Managed and PoP County locations and remote Project staff, a comprehensive Hardware Asset Management Approach is vital to the ongoing success of CalSAWS.

Hardware Selection

Similar to software selection, hardware selection also considers business needs, ease of use, cost, and choosing a reputable and reliable vendor that provides great support. Considering the type of hardware that is required to support Central Project Office and Counties such as desktops, laptops, printers, network routers, and kiosks, our hardware selection process is a collaborative effort that confirms we are considering the **needs of the end-users** and how our Central Project Office and Counties will evolve to consider emerging technology solutions.

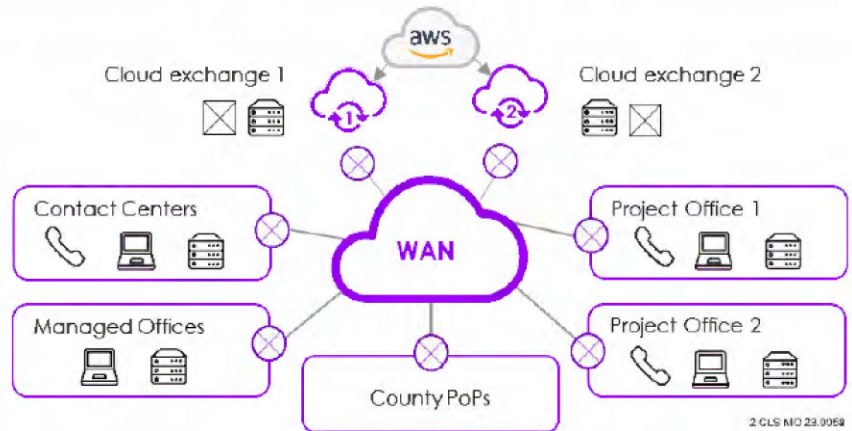


Figure 4-6. There is critical hardware in many locations.

Hardware Procurement and Lifecycle Management

Hardware procurement and full lifecycle management are vital factors to our overall hardware maintenance strategy, especially when managing upwards of 13,000 different hardware devices for the Project Office and Counties. Our solution considers the IAPDU cycle and includes the following key components:

Procurement: Our [REDACTED] assists in our relationship with our hardware ecosystem partners (i.e., HP, Cisco, etc.) to give us competitive pricing and a devoted team to negotiate favorable procurement and/or contractual terms such as best pricing and variable payment options. Our process keeps you in control of the procurement workflow and allows you to use our global ecosystem position. Procurements can be complex, and we will leverage our relationships to get a better understanding of options and make calculated decisions to drive optimization and reduce risk for CalSAWS.

Lifecycle Management: Once hardware is procured, we follow the processes detailed in Table 4-11 to keep hardware up-to-date, operational, and viable.

| Activities | Description |
|--|--|
| Receiving, asset tagging, inventory, staging, and deployment/testing | Equipment is received into one of our secure stockrooms and is physically tagged and entered into the Asset Management database (AMD/CDMB). It is then prepared for deployment with necessary base configuration/assembly for any automated configurations. It is connected to the network or any necessary peripherals and is tested and verified to be working as part of deployment. Using our HAM platform and processes creates a streamlined approach . |

| Activities | Description |
|---|--|
| Configuration management | Track and display mappings of the inventory and interrelationships of the hardware/software for troubleshooting, compliance, and purchasing projections. For effective document management of hardware/software configurations, we will develop key deliverables such as the Infrastructure Technical Design Document, Infrastructure Network Design Plan, and Infrastructure Technical Asset Configuration Report for the Development, Test, Staging, Performance, and Production environments. |
| Maintain, refresh, retire, and disposal | Maintain assets by managing the end-of-life dates for each of your product models through refresh or break-fix processes. This includes replacing/upgrading workstations that are about to hit their end-of-life date or are having functionality issues and retiring the assets by working with disposal vendors for proper and secure disposal. |
| Data migrations/cleansing and disposal for upgrades and replacements | Data is migrated and the old devices are cleansed for security/PII reasons and disposed according to documented/required procedures. Our approach to end-of-life management for hardware mitigates risk and addresses any issues that arise. Our approach is currently in progress as we retire hardware assets at the County Offices for VoIP phones, desktops, monitors, and laptops. |

Table 4-11. We follow a streamlined, comprehensive process to maintain the hardware.

Hardware Cost Management

Forecasting starts with having quick access to real-time data about our deployed hardware being used by the Project Office and Counties. Using our HAM Module in ServiceNow, reports can assist us in identifying trends and patterns to forecast for future activities. Our expertise and understanding of the CalSAWS environment allows us to incorporate data elements regarding future planned activities and make informed decisions to avoid disruption to the Central Project Office and Counties.

Cost Optimization: As our hardware assets continue to scale with a growing business, it is important to consider cost optimization strategies that align with the best interests of the Consortium and Counties.

Sequencing equipment replacement is a strategy that best aligns with the Consortium and Counties objectives. Where it makes sense, sequencing replacement and deployment of hardware **helps reduce disruption and downtime to the affected end users**, helps reduce budget impacts, and reduces impact to the team performing the refresh activities as it reduces the need for onboarding new resources that would be required for bulk refreshes.

Harvesting: Ensuring that hardware and software that are not being used are returned to the stockroom to be reused for other personnel or retired based on the end of life/end of sale (EOL/EOS) for the asset.

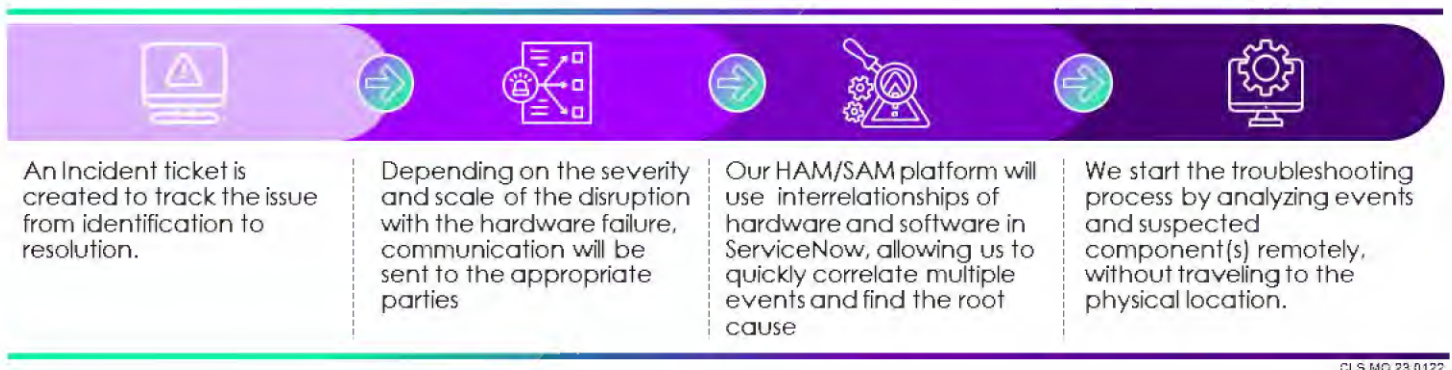
Cloud Spend: Our approach to Hardware Maintenance and Cloud Spend considers the possibilities of utilizing and managing lifecycle of cloud servers to optimize on costs. As the CalSAWS application is modernized to use the microservices-based application architecture, we can better use the full benefits of AWS. Some of these features include “pay-as-you-go” pricing, resource tagging, and integrating the cost explorer, AWS budgets, and other AWS tools into our hardware maintenance approach. We will continue to use existing tools, such as AWS Trusted Advisor and CloudCheckr, to continuously optimize cloud spend. Our Cost Optimization strategy detailed in System Performance Section 4.2.2.1 provides more detail on our cloud spend process.

We will use the ServiceNow Cloud Insights functionality to analyze the full range of costs that are associated with cloud assets so you can identify and act on opportunities to save money and optimize operations. Additionally, we will continue to work with AWS and our internal AWS specialists to find the best services and tools to optimize those services.

Preventative Maintenance/Hardware Break-fix and Verification

Our goal is to identify early warning signs and detect and/or predict hardware issues prior to failure, while resolving problems before any disruptions occur. Using our HAM/SAM platform, we will proactively monitor the network infrastructure using SolarWinds, an enterprise system management software, to meet service level objectives for reliability, availability, and performance, across a diverse set of network devices, protocols, and systems. Additionally, we will proactively monitor and replace components to understand if capacity and lifecycle limits are being approached (such as the UPS systems that prematurely fail if there are frequent blackouts and brownouts). We will also use Accenture's integrated myWizard platform to assist in event correlation to identify root causes to reported issues. Additionally, for problems that need to be reported, we are making it easier and faster through a chatbot, IVR, and self-service portal.

Figure 4-7 describes our approach when a problem with hardware is reported and/or detected.



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Figure 4-7. This approach results in reducing the time-to-resolution.



There are a variety of network and other infrastructure devices besides PCs that we have experience troubleshooting. We have learned to quickly diagnose the difference between a power disruption, a failed router, a faulty WAN line, a failed switch, a cabling/interconnection problem, and a group of PCs with a bad update. This experience allows us to continue to quickly resolve problems affecting multiple workers. We use a variety of vendor specific remote access/control tools for the different distributed hardware/software, including Microsoft System Center Configuration Manager (SCCM) to remotely control the workers' PCs to fully understand the problem and resolve it. At times, it will be necessary to interact with the physical hardware and even replace it (or its components) in order to resolve a problem.

Approach for Technology Refresh Efforts and Incident/Issue support

Describe your approach for technology refresh efforts and incident/issue support.

Technology refreshes are a vital part in verifying our people have technology to support the work that we do for the neediest Californians. A successful technology refresh effort should be proactive, comprehensive, cost-effective, and manage risk well, as detailed in Figure 4-8.

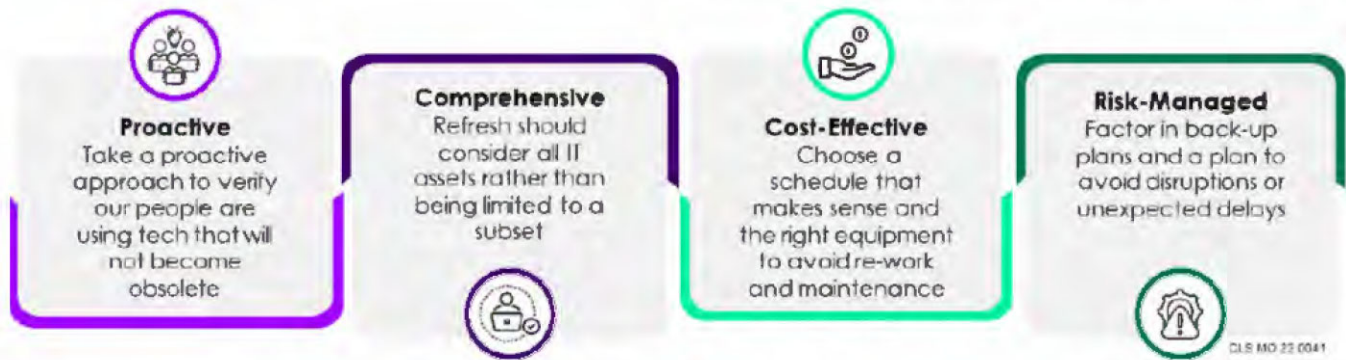


Figure 4-8. We take a proactive approach to technology refresh.

Our Accenture Field & Desktop Services team will use your Hardware Replacement Schedule to refresh and cycle laptops and other equipment. The team will be supported by an integrated Refresh Surge team to supplement key required initiatives like the Year 1 hardware refresh and aligning the EUS/Network/Server/UPS initiative. We recommend streamlining refresh frequencies through rotational basis rather than “big bang” which would incur greater costs due to needing to surge the team to accommodate the spike in workload.

To manage this complexity, we will follow a **Technology Refresh Plan**. The plan will consider new and upcoming technology, cost impacts, and business justification for adding or changing our current process, while considering impact to the Consortium, M&E Contractor, other contractors, Central Project Office, and Counties. It will also be submitted every year to be included as part of the IAPDU process.

Technology Refresh Incident/Issue Support

Often times, technology refreshes are complex and challenging when considering thousands of different devices and the impact it could make on a geographically dispersed organization. To support the incidents and issues that arise during technology refreshes, we will implement the mitigation strategies described in Table 4-12.

| Mitigation Strategy | Description |
|-------------------------------|--|
| Careful Planning | Careful planning is essential for a successful technology refresh. This includes identifying needs, researching all options, and developing a detailed timeline and budget while considering all contractors and end-users impacted by the technology refresh. |
| Thorough Testing | Considering the impact it could have on thousands of users, it is important to test new technologies thoroughly before deploying them. When testing, it is important to verify there is no disruption to the existing process . |
| Mindful Training | Not all our end-users will completely understand or adapt quickly to the new technology. Our remote and field technicians will be trained on the new technology. |
| Proactive Monitoring | It is important to monitor the performance of newly refreshed technology to make sure it is meeting expectations. We will enhance the user experience by opening channels of communication to assist with reporting issues or incidents. |
| Enhanced Communication | It is important to communicate with affected end-users throughout the technology refresh process to keep them informed and address any concerns they may have. |
| Analysis | We will research new technologies and assess against our current refresh plan, this includes recommended IAPDU changes and updates to replace existing items with newer/better ones or adding new assets to improve services. |

Table 4-12. Our Mitigation Strategy for Incident and Issue support during technology refreshes.

Hardware Security Management

A well-rounded Hardware Maintenance approach keeps security at the forefront of all activities. Due to the nature of our work at CalSAWS, it is important to take measures to protect our hardware assets from viruses and malware, keeping our hardware up to date through patch management, and encrypting necessary components to harden our data security. Restricting user access is also a key component of a strong security management approach. We will use Microsoft System Center Configuration Manager (SCCM) to reduce the risk of data breaches and other security incidents.

Support Model: How we Support the Project Office and Counties

Transitioning Field Services from our existing teaming partner to Accenture offers a significant opportunity to introduce **more efficient, cost-effective benefits for the Consortium**. An important part of our approach is how we modify and enhance the current Field Services approach while introducing innovations and enhancements for more efficient and comprehensive support. Our Accenture team already provides Central Project Office Support and understands how to support our resources for the CalSAWS project. Our approach to a combined Field & Desktop Services team for both the Central Project Office and Counties will provide more efficient coverage, maximize staff utilization and productivity, facilitate reduced downtime, and improve first call resolution (FCR).

Depot Locations

We analyzed data such as amount of equipment in each location, ticket volume per location, and failure rate to understand where the highest concentration of County usage is so we can map where our depots need to be. Once locations are identified we can start to consider additional features that are vital to a successful location, such as the ones details in Figure 4-9.



Figure 4-9. We consider these key characteristics to identify ideal depot locations.

We identified the following potential locations for our depots to promote service stability and mitigate risk. We will work with you to finalize locations based on availability upon contract award.

How and Where Equipment Staged for Deployment

We understand how important it is for County users and our project staff to receive repair or replacement service at speed. Our approach to where and how equipment will be staged for

deployment was carefully thought through, taking into consideration the following factors to confirm adequate support to the Central Project Office and Counties.

- A scientific analysis on historical data and failure patterns over a 3-to-5-year timeframe
- Balancing the dispatch timeframe and critical hardware components to meet all SLAs
- Leveraging data analysis on reliability, considering Counties with higher chance of black/brown out
- Equipment necessary for Managed vs. Non-Managed Counties
- Other factors such as cost, impact of inclement weather, and distance

Based on our analysis using the factors listed above, we have a two-pronged approach for staging equipment. First, most of the equipment will be staged within our depots with inventory proportional to the equipment needs in the regions served by each depot. Second, a small portion of the high-turnover inventory, such as workstations, will be staged within the Counties for their staff, and at the project site(s) for project staff. Having ready-to-be-deployed hardware in Counties will save precious time in the repair/replacement process and will significantly improve a County user's ability to return to full productivity. This improvement will matter even more in remote Counties in the case of inclement weather when driving to affected areas with replacement hardware can be problematic. **In addition to the already known 23 secure County storage locations, we will work closely with each of the 58 Counties** to determine the need for on-site spare equipment and store it at the County Office in an agreed secure location to provide great support and meet all SLAs.

Depending on the location and ability to securely store equipment in a location that has network connectivity, the equipment can be remotely configured and kept up to date by our Accenture Tech team and accessible to County users in the event of an equipment failure. Moving forward we will have open conversations with each County Office to continue to **improve redundancies and alternative solutions for failed hardware at County locations**. Figure 4-10 depicts an event in which a County user's desktop fails due to a power outage. With the current solution it could take up to 6 hours to resolve the issue. With our new proposed solution, the County user can continue work almost immediately using a spare laptop that is securely stored onsite while replacement equipment is on the way.

Reported Hardware Failure in a Remote County Office

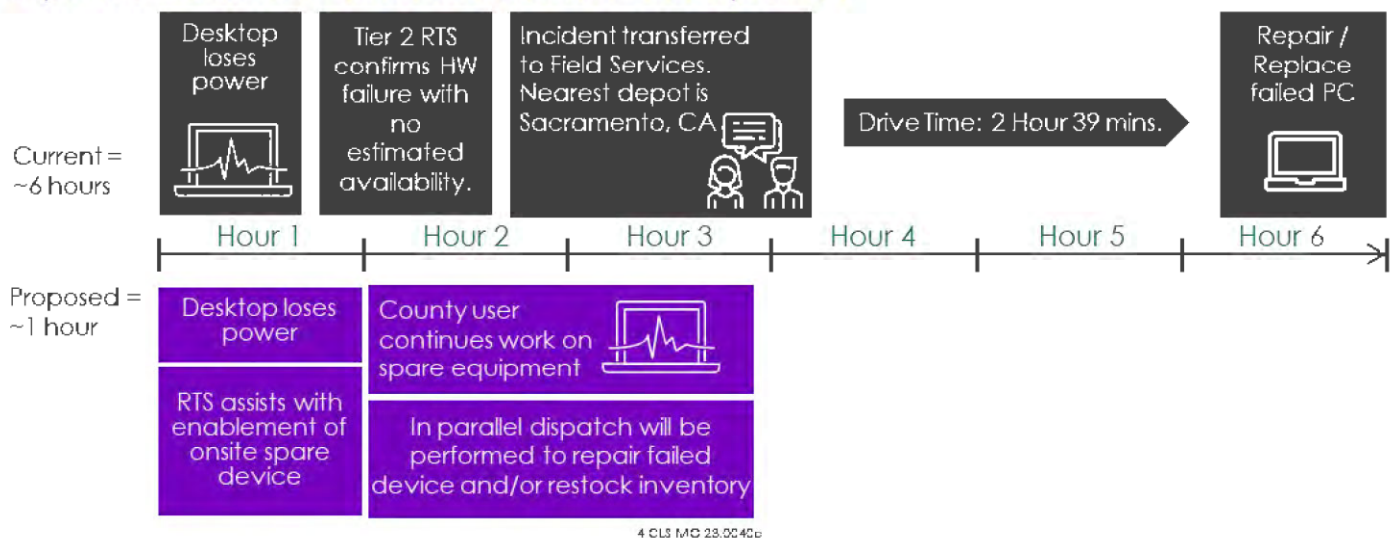


Figure 4-10. Spare equipment in specific County locations helps eliminate work disruption.

Equipment that turns-over infrequently or is needed in large volumes will be stored at the two depot locations. Select equipment will be connected to a secure network at the depot locations with the ability to be configured and refreshed on a regular basis by our Depot Support staff to be ready for use by the Central Project Office and Counties.

Staff Deployment – Field & Desktop Services Team

To execute on our hardware and software maintenance approach, we developed a low risk, cost-conscious strategy of combining the responsibilities of today's Field Services, Remote Maintenance, and Tier 3 Tech Support Maintenance teams into a new Field & Desktop Services team. We carefully considered the following factors when deciding how to appropriately staff the new team.

- **Increased availability, reliability, and stability:** We have worked closely with the Counties over the years to increase availability, reliability, and stability in different areas such as building out circuits, telecom carrier redundancies, and/or network hardware resiliency in many County Office sites to reduce risk. As a result of this work, our current Field Service and Remote Maintenance Support team utilization is projected to decrease to lower than 100-percent prior to the end of our current contract.
- **Planned technology refresh in Year 1:** Our planned technology refresh in Year 1 for Central Project Office and Counties reduces risk of unexpected failures, incidents, and lifecycle management activities as new and improved equipment will be deployed to our end-users.
- **Increased efficiency and productivity:** Combining responsibilities of two teams into one results in increased efficiency and productivity, improved communications and collaboration, greater diversity of skills and perspectives, and better use of best practices serving both Central Office and Counties. This strategy reduces risk by eliminating skill gaps and improving morale as teams have the opportunity to learn from each other.

We have carefully looked at the number of people we need to fully support the workload and we are confident we can support the Counties and **meet all dispatch, diagnose, and repair related SLAs** with our proposed staffing model. Figure 4-11 provides an overview of our proposed staffing strategy for our Remote Tech Support and combined Field & Desktop Services team.

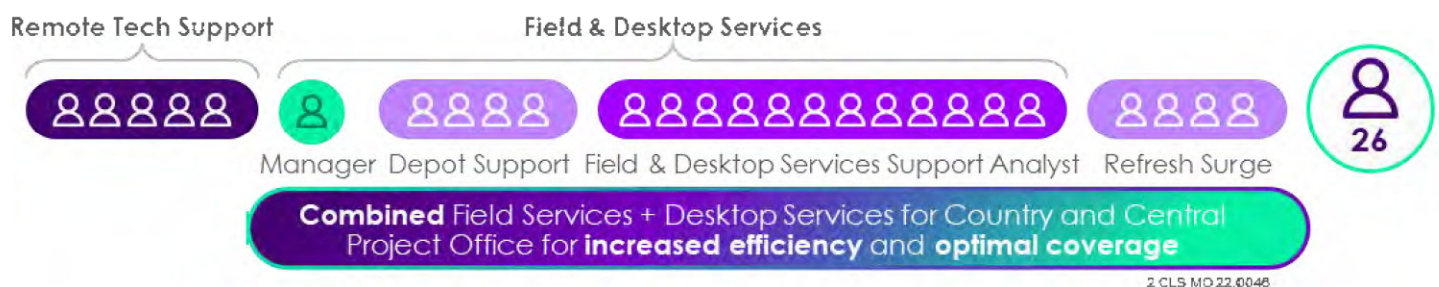


Figure 4-11. Our staffing strategy maximizing resource utilization for more efficient coverage.

The following is a brief description of the high-level responsibilities of each role:

- **Remote Tech Support (RTS):** Five RTS resources will be dedicated and aligned to the Tier 2 Service Desk to provide support for Project Office and Counties. As we build on a combined Field & Desktop Services team, our RTS will be trained by the Field & Desktop Service team to help resolve issues sooner in an effort to **shift left and reduce escalations** to Tier 3. See Service Desk Management Section 4.4.1.3 for more detail on the integration between the Service Desk and Field & Desktop Services teams.
- **Field & Desktop Services Manager:** One manager to oversee and manage all Field & Desktop Services responsibilities inclusive of the Depot Support, Field & Desktop Services Analysts, and the Refresh Surge team. With a combined team, the Field & Desktop Services Manager will confirm better utilization of resources and manage workload to best optimize our workload.

- **Depot Support:** Four total Depot Support staff, with two resources aligned to each depot location. Depot Support staff will manage the assets at the depot locations, actively fix issues, and confirm the equipment is staged and ready for deployment upon request. They will integrate closely with our field resources at the coverage locations to assist in delivering equipment for urgent situations and **provide backup support if needed**, keeping coverage support consistent and reliable to meet our SLAs. Depot support staff will also be trained to support the Central Project Office and remote County support for Tier 3 Tech Support related escalations as needed.
- **Field & Desktop Services Analyst:** 12 total resources, two aligned to the North Project Office, two aligned to the South Project Office, and eight others aligned to eight coverage locations. These resources will all have combined responsibilities to provide on-site support at the Central Project Office locations, on-site field services for the Counties, and Tier 3 Remote Tech Support. The Field & Desktop Services team will help triage, diagnose, provide work arounds to issues, and deliver regular preventative maintenance to hardware deployed to Managed Counties.
- **Refresh Surge Team:** Four resources will be aligned to support the team in Year 1 for increased known and planned technology refresh activities. As we assess capacity and workload of the team during Year 1, the number of resources on the Refresh Surge team will be scaled to appropriate levels to meet business needs.

Strategic Depot Locations

The following are considerations made when putting together our low-risk depot and field resource location strategy illustrated in Figure 4-12.

- **Greater on-site support:** Similar to our strategy today, the North and South Project Offices in Roseville and Norwalk will staff two resources to provide in-person support for Project staff who are on-site. Each resource will be available for on-site deployment for County-related incidents and service requests for neighboring Counties.

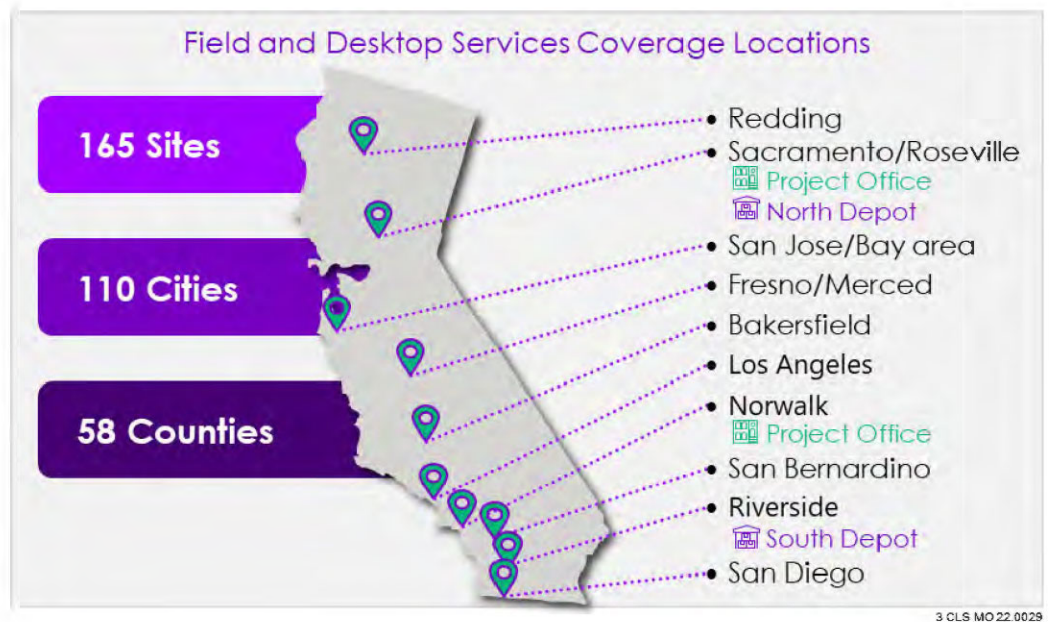


Figure 4-12. Our depot location strategy is designed to meet SLAs.

- **Back-up at the depot:** Each depot is staffed with two resources who will serve as backups to the other and are also available to provide emergency backup to any one of the coverage locations.
- **Strategic coverage locations:** Considering the scope of work we are responsible for, such as the hardware and software management at our Managed Counties and network related hardware and support for all 58 Counties, we have strategically decided on 10 coverage locations (each project site being a coverage location) to confirm we are providing adequate support to meet all SLAs. With this strategic allocation and the cross training for all resources, our approach provides more flexibility by providing **more than two back-ups** to each coverage location.

Figure 4-13 illustrates how our deployment model will keep coverage areas staffed and response times down while reducing risk. In scenario A, coverage support is not impacted in the event of an emergency outage because backup is always available and nearby to fill in when needed. In

scenario B, response time is reduced because the San Diego technician can go directly to the County Office to begin fixing the issue while the depot support staff transports the equipment.

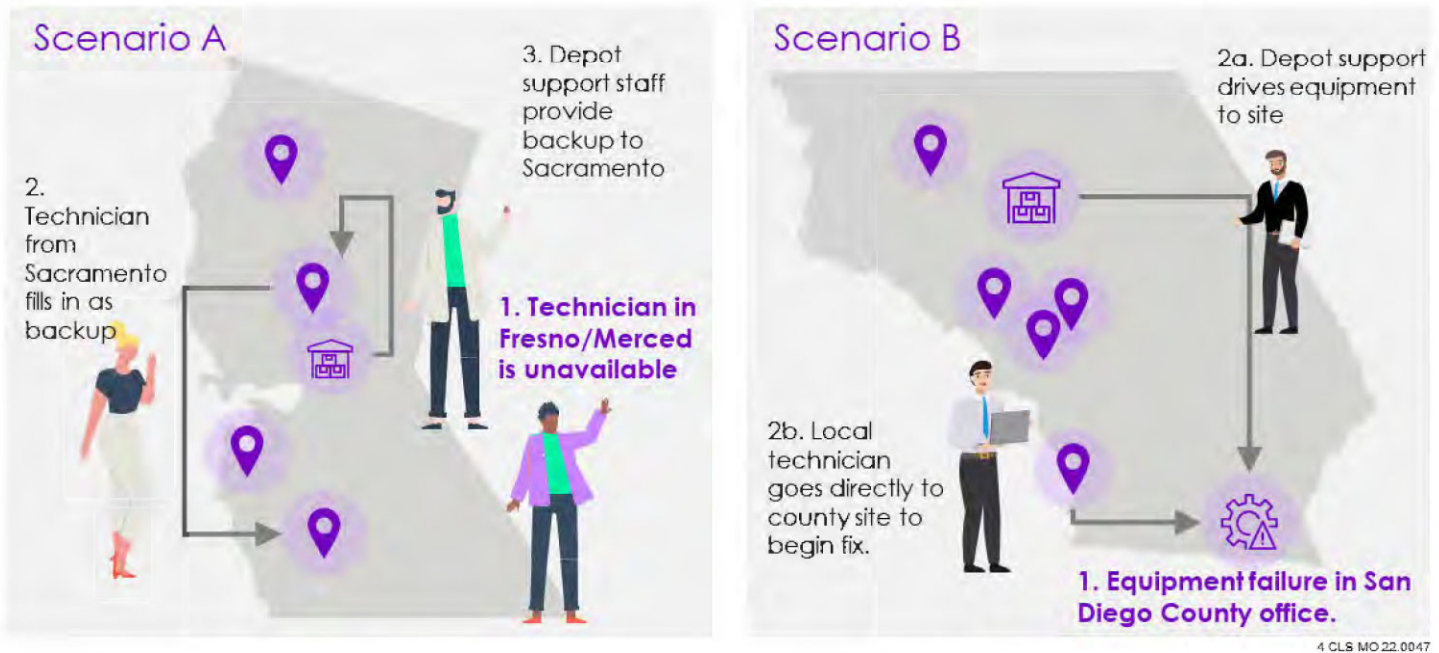


Figure 4-13. Our deployment model keeps coverage areas staffed.

When hardware needs to be interacted with or replaced, we provide three types of solutions based on the location of the hardware:

- **Project Offices:** Located in Norwalk, CA and Roseville, CA with Consortium and Accenture owned hardware and Accenture personnel with immediate physical access to the hardware and spares.
 - **How support will be provided:** Once a problem has been logged in a ticket and RTS has been unable to resolve the incident, the local Accenture technical support team has the ability to physically access the hardware 24/7 without special permission from another entity.
- **PoP locations and Managed hardware locations:** Distributed across the State, requiring coordination with the Counties (and other entities) in order to physically access the hardware.
 - **How support will be provided:** If the issue cannot be resolved remotely, the Accenture Service Desk will create a dispatch ticket and coordinate with the Accenture Field & Desktop Services team and the local site support (County) to gain access to the site and necessary hardware.
- **Cloud Exchanges:** Equinix co-location facilities in Los Angeles, CA and San Jose, CA containing Consortium network equipment, essential physical servers, and highspeed access to AWS, with remote eyes/hands service if necessary.
 - **How support will be provided:** Equinix has dedicated staff for on-site environmental operations at the Cloud Exchange co-locations. In the event an issue cannot be resolved remotely, the Accenture Field & Desktop Services team or our Network Management team will create a dispatch ticket in ServiceNow and create an access request ticket in the vendor Equinix Portal to gain access to the site and necessary hardware.



Regardless of the location, once an issue has been remediated, the proper functioning will be verified before the ticket is closed. If the situation warrants enhanced communications during the disruption, communication is also sent after the issue is remediated.

Benefits of Leveraging our Existing Team

Our team is established, skilled, and most importantly they know your Counties and preferred ways of working. We offer you the consistency of an established team with the flexibility to rotate and handoff tasks as needed to keep CalSAWS running, and your Counties sufficiently supported. Additionally, our Field & Desktop Services team will support and train our dedicated Remote Tech Support team to help cultivate a strong, one team mindset. Cross-training teams in this manner increases efficiency and reduces handoffs by sharing critical knowledge unique to CalSAWS. This results in faster resolution times for escalated incidents and service requests.

Using our existing resources lets us provide better service, more stability, increases response times for escalated incidents and services requests, and helps streamline processes. Figure 4-14 highlights the key benefits our team brings to the program. Our unified team will share the same values and work towards the same goal of one CalSAWS team.

Field Services Knowledge Transfer

New people and new teams require knowledge transfer (KT). Our approach to KT for Field Services is based on our current understanding of how our existing teaming partner operates. Although we have a good understanding of how Field Services operates and how services are provided today, we will be engaging in a three-phase knowledge transfer that is intended to result in a seamless service transfer with no negative impact to user experience while minimizing any risks and disruption to Counties.

Our Field Services team will follow our three-phased KT framework described below:

- **Foundation Learning Phase:** Accenture technician will be paired with a technician counterpart from the current teaming partner in their designated County location. During this phase they will learn the CalSAWS field service operations and technical support activities.
- **Discover/Simulate Phase:** Accenture technician will shadow the day-to-day support activities of their technician counterpart. The shadowing activity would include both technicians going to the County to shadow live issue resolution.
- **Demonstrate Phase:** Accenture technician will perform the work while their technician counterpart shadows. When a support request is received from Service Desk, both technicians would work on the request. The Accenture technician would then go to the Accenture depot to get the relevant equipment (as applicable) then both technicians will go to the County to resolve the issue.

Additionally, we will conduct gated reviews to release the current teaming partner and have Accenture staff step in, take over, and make improvements with innovations. We already have access to operational documents that will facilitate the KT process. These documents capture processes related to SOEs, utilities, VIP service, COTS packages, and more. We will also reverse shadow the current teaming partner to confirm that Accenture staff understands and can replicate their processes where it makes sense. And, as part of our contract, we are going to require the current teaming partner perform KT. Section 4.5 Infrastructure Understanding and Approach to Transition-In (4E) provides further details on our overall KT and ramp-up plan for field services staff during the transition period, including specifics on the timing of equipment transfer from our current teaming partner's depots to Accenture depots.



Figure 4-14. Our team is ready to deliver.

Hardware Maintenance Transformation Timeline

We propose a transformation timeline that incorporates your requirements, transition dependencies, and our experience delivering hardware maintenance for complex integrated eligibility programs. As described in Section 4.3.1.1 Software Maintenance Transformation Timeline, the schedule accounts for the implementation of the new HAM/SAM platform including change management activities and Hypercare support. Additionally, we will share a draft of our HAM/SAM transformation guide with the Consortium on Day 1.

Continuous Improvement

Establishing a future proof solution with a focus on continuous value and evolution is foundational for accelerating business outcomes. As mentioned in Section 4.3.1.1 Technology, we will use the new HAM/SAM platform to provide a clear line of sight into hardware/software maintenance and management, while incorporating innovation for faster, more responsive delivery outcomes.

We will collaborate with the Consortium, Counties, and other stakeholders to conduct quarterly assessments to identify improvement opportunities and take pride in our shared ownership and accountability for continuous improvement. As your current infrastructure partner, we have:

- Transformed WAN connectivity across County sites, improving resiliency, site availability, and application performance
- Implemented SolarWinds to automate configuration backup and tracing configuration drifts. This is also being used to run annual compliance reports for 700+ devices
- Completed a Switch Refresh initiative, requiring hardware replacement across 700+ devices spread across 115 sites, completed in 1.5 years despite COVID-19 restrictions

Our strategy is based on our prior experience and understanding of what works best for the County Offices. We will continue to assess our strategy and work with the Consortium and individual County Offices to adapt our process to fit your needs. We will continue to gather data and react to the support requested and scale our resources to appropriately align with what works best for you.

4.3.2.2 Results Delivered

Comprehensive Hardware Solution for CalSAWS Counties

Our Approach in Action:

In an effort to identify and replace end-of-life and aging hardware and maintain compliance to NIS and CDP guidelines with newer equipment, we collaborated with Consortium counties to perform a switch refresh that replaced 700+ hardware devices across 115 sites during COVID-19. We used templated configurations that allowed for a quicker, more efficient, and lower defect leakage.



Results Delivered:

- Consolidation of different models allowed for use of standardized templates and improved confidence when replicating changes across locations
- NAT capabilities built into the 9000 series devices allowed county sites to retain their individual IP address spaces without having to undergo a massive transformation effort which would have been time and effort intensive
- Improved performance with newer, higher performance devices capable of supporting higher speed and throughput
- Improved security and remote monitoring capabilities through use of SNMP and higher encryption standards
- Paved the way for new automation capabilities such as SD-Access as a future roadmap project



Extensive Hardware Support Solutions at Social Security Administration (SSA)

Our Approach in Action:

To account for agency assets being tracked in an unsupported legacy system, Accenture worked with SSA to expand the use of the ServiceNow Cloud Management Platform to a full Configuration Management Database that accounted for all data center configuration items and Hardware and Software Asset Management. In order to deliver the solution effectively, we worked with SSA to divide the work into manageable pieces.

We began by integrating the CMDB with key data discovery tools to keep the “on network” inventory current, performing service mapping to show interconnectivity between key devices, applications and services, implementing workflows and self-help processes to manage “off network” devices, and using CMDB data as the authoritative source for accurate asset information evaluation and reporting.

Secondly, we used the CMDB as the source of asset information, integrating with budget and procurement tools to connect assets to contracts and funding, automating many current manual ITAM processes, providing self-help options for IT Inventory Managers in our data centers and branch offices. Lastly, we used the CMDB as the source of configuration item/asset information.

Results Delivered:

- Implemented a “HAM/SAM” solution
- Implemented self-help options to reduce help desk traffic such as knowledgebase and chat bots
- Used AI analytics to look for wide-spread incidents, predict problems, and assist with root cause analysis.

4.3.2.3 How We Exceed the Requirement

Our approach for managing the hardware maintenance scope of work will exceed the requirements as we detail in Table 4-13.

| Going Over and Above | Benefit |
|--|--|
| Extend the new HAM/SAM platform to provide additional authoritative, real-time information focused on predictive analytics to reduce the time to resolve hardware failures | Minimizes Service Disruption: Reduces the risk of large-scale disruptions by replacing failed components, which can lead to substantial cost savings |
| Additional access channels (i.e., chatbots, IVR, and self-service portal) for County staff to access assistance when break-fix is needed | Enhanced User Experience: Provides new channel opportunities leveraging tools planned for the Service Desk to resolve issues, enhancing the overall user experience |
| Formal continuous improvement process focused on improvements every three months | Infrastructure and Operations Maturity: Continuous improvement and enterprise-wide collaboration increases the overall sophistication and maturity of the CalSAWS infrastructure and operations |
| Optimized staffing by combining Field & Desktop Services teams | Maximizes Utilization and Reduces Costs: Aligning resources based on scope of work to reduce risk, meet all SLAs, and optimize costs |

Table 4-13. Our approach delivers additional benefits to enhance hardware maintenance.

4.3.3 Challenges, Risks, and Mitigation Strategies

Item # I-UA9

Describe challenges and risks to providing CalSAWS Hardware and CalSAWS Software management for CalSAWS and how you will mitigate the risks.

When it comes to challenges and risks, our motto is “No surprises.” We proactively and transparently identify and manage them, so the Consortium knows about potential issues as soon as we do. By identifying and escalating challenges and risks as they are identified, the Consortium and Accenture

team work together to plan and execute a mitigation strategy to resolve them quickly and accurately. Leveraging a comprehensive Risk Management plan, we provide a systematic approach to identifying, evaluating, and managing risks by understanding potential issues and making informed decisions, minimizing the likelihood that risks become realized as issues.

The following tables present the risk first, then the challenges related to providing CalSAWS Hardware and Software Management, and how we will address the challenges and mitigate the risks. We have based the probability, impact, exposure, level, and category for the risks based on the Appendix F – Risk and Issues Management plan of the CalSAWS PCD.

- **Probability**—five risk probability categories from 10% Highly Unlikely to 70% (and over) Highly Likely
- **Impact**—uses an ordinal scale with values ranging from 1 (lowest) to 5 (substantial) to measure the impact of the risk in four performance areas: cost, schedule, technical, and quality
- **Exposure**—calculated value based on the assigned probability and the impact.
- **Level**—categorized as low, medium, or high based on the risk probability and risk impact value.

For challenges, we did not assign the risk factors described earlier. For risks, when we assigned a probability to the likelihood that the risk would be realized and become an issue, we did this from the perspective of Accenture as the selected Infrastructure Contractor. In practice, we would work with the Consortium and the other contractors to assign values to probability and impact. Also, another contractor would have a different probability, likely higher, of these risks becoming issues.

Risk 1: Service Disruption Due to Unavailability of Hardware

| Probability | Impact | Exposure | Level | Category |
|---|--------|----------|--|--|
| 30% | 3 | 0.9 | Medium | Quality, Cost, Stakeholder, Technological |
| Trigger | | | Customer Impacted | Owner |
| Delays in hardware procurement or replacement due to global supply chain issues | | | County users, Clients, Consortium stakeholders | Accenture Infrastructure Operations Manager/Team |
| Risk Description | | | | |
| Repair/replace SLAs could be missed and cause service disruption due to a lack of equipment or parts in our inventory because of global supply chain issues. | | | | |
| Proactive Mitigation Strategy | | | | |
| Accenture will set up remote "warehouse" locations where equipment can be stored to minimize availability issues. Our hardware asset management platform will track current, forecasted, and spare inventory to verify we have the right amount of hardware in stock. Our experience, combined with our new asset management approach, minimizes disruption risk because we can remotely troubleshoot the required hardware to quickly determine what needs to be dispatched. We also have historical data on rate of repair/replacement for every piece of equipment by location allowing us to stock extra inventory for high-volume equipment. | | | | |

Risk 2: Missed SLAs Due to Transition from Existing Subcontractor

| Probability | Impact | Exposure | Level | Category |
|-------------|--------|-------------------|-------|----------------------------|
| 10% | 5 | 0.5 | Low | Quality, Cost, Stakeholder |
| Trigger | | Customer Impacted | | Owner |

Degraded SLAs during initial months following transition

County users, Clients

Infrastructure Operations team

Risk Description

Without the right knowledge and proficiency gained post-transition from Accenture's current subcontractor (Gainwell), support for hardware outages or issues may be delayed resulting in missed SLAs.

Proactive Mitigation Strategy

To maintain consistent hardware management post-transition, our mitigation strategies include:

- **Alignment to expected ticket volumes:** We tailored our solution to account for expected ticket volumes thereby reducing the risk of missed SLAs.
- **Familiarity:** We will use our **knowledge and experience with the existing processes** and technology to inform our approach to managing local hardware, lowering the risk of delays to service. We **already support** two project sites today and will expand our team without the need for extensive knowledge transfer.
- **Consistent leadership:** Jeremy Grecian, our existing Infrastructure Operations lead, will provide consistent leadership. We will also take advantage of the many **skilled practitioners supporting the project sites today** who will provide their knowledge and expertise to new staff and address any knowledge gaps.
- **Knowledge Transfer:** As part of our contract, we will require Gainwell to perform knowledge transfer.

Risk 3: Delayed Software Upgrades Due to Competing Priorities for the M&E Contractor or Lack of Funding

| Probability | Impact | Exposure | Level | Category |
|--|--|----------|--|--|
| 30% | 3 | 0.9 | Medium | Schedule, Cost, Stakeholder, Technological |
| Trigger | Customer Impacted | | Owner | |
| Missed milestone during a software upgrade | County users, Clients, Consortium stakeholders | | Accenture Infrastructure Operations Manager/Team, M&E Contractor | |

Risk Description

A lack of funding or competing priorities for the M&E Contractor may cause delays in completing required application changes to support upgrades and/or testing. These delays can also increase security risks.

Proactive Mitigation Strategy

To avoid delayed software upgrades, it is critical to forecast, secure appropriate funding, and engage early with the M&E Contractor to plan for upcoming upgrades. Our mitigation strategies include:

- **Forecasting:** We will use our HAM/SAM tool to forecast software upgrades well in advance.
- **Securing funding:** If needed, we will proactively engage the Consortium to secure any required funding as part of the IAPDU process for procuring software to avoid delays in upgrading software.
- **Engaging with the M&E Contractor:** Engage early to allow the M&E contractor to assess changes to determine if their participation is required for application changes or testing, and plan for their involvement.

Risk 4: Increased Software Costs Due to M&E Contractor-driven Changes

| Probability | Impact | Exposure | Level | Category |
|--|-------------------------|----------|--|----------|
| 30% | 2 | 0.6 | Low | Cost |
| Trigger | Customer impacted | | Owner | |
| Software license true-up invoices are received from software vendors | Consortium stakeholders | | Accenture Infrastructure Operations Manager/Team, M&E Contractor | |

Risk Description

Changes made to an application by the M&E Contractor that increase the utilization of certain software products may increase software costs for the Consortium. For example, a dramatic increase in the production of forms or notices could cause the project to exceed the annual allowable Adobe form generation limits.

Proactive Mitigation Strategy

To avoid increased software costs, our mitigation strategies include:

- **Enhance collaboration:** We will work regularly with the M&E Contractor to understand what changes are being planned and assess how those changes might impact AWS or software utilization.
- **Track utilization and forecast:** We will use the HAM/SAM tool to track utilization of software licenses and forecast future use to determine if limits or thresholds will be exceeded.
- **Communicate early:** We will provide early warnings to the Consortium if thresholds appear to be exceeding their limits to allow ample time for budgeting.
- **Meet annually:** We will meet with the M&E Contractor on an annual basis to discuss the IT Strategic Plan to align on the overall M&E roadmap and understand the impacts on hardware and software costs.

Risk 5: Ineffective Change Management

| Probability | Impact | Exposure | Level | Category |
|--|--------|--|-------|--|
| 30% | 2 | 0.6 | Low | Schedule, Cost, Stakeholder, Technological |
| Trigger | | Customer Impacted | | Owner |
| Challenges collaborating with the M&E Contractor | | County users, Clients, Consortium stakeholders | | Accenture Infrastructure Operations Manager/Team, M&E Contractor |

Risk Description

Miscommunications or a lack of focus on change management may result in increased delivery risks like missed due dates, misunderstood requirements, or disruptions in operations.

Proactive Mitigation Strategy

To avoid miscommunications or a lack of focus on change management, our mitigation strategies include:

Enhance communication of software updates: Our planned enhancements for software maintenance will drive technology and process changes for the Consortium, Accenture, and other Contractors and stakeholders. The new centralized authoritative/real-time visibility to software relationships and versions will help mitigate the risk of ineffective change management with better transparency and collaboration for software management. This enhanced communication of software updates will result in few changes for the Consortium and Counties while enhancing the visibility you will have when updates are discussed, decisions made, and real-time information is provided from the SAM.

Collaborate with the M&E Contractor: Software updates will have interdependencies with the CalSAWS code. We will work with the M&E Contractor to collaborate on software updates, timing, and the impact on CalSAWS. We will develop comprehensive plans in the Infrastructure Services Plan and Project Control Document (PCD) that will document expectations and processes for communication between the Infrastructure and M&E Contractors. The Infrastructure Services Plan and PCD are two powerful tools to reduce delivery risk as we transition and continue to manage the hardware and software for CalSAWS.

Accommodate flexible arrangements: Our history and experience managing hardware and software for the Consortium under various contractual arrangements (for C-IV, we facilitated the Consortium's management of the procurement process; for LRS, we took title to both HW and SW and transferred certain SW licenses to the County at the appropriate time) positions us well to accommodate flexible arrangements going forward. We know the complex pricing and licensing risks in this environment better than anyone.

Challenge 1: Delays in Meeting Vulnerability Patching Targets

| Trigger | Customer Impacted |
|---|--|
| Vulnerability patches exceed the agreed upon target as per the approved System Security Plan | County users, Clients, Consortium stakeholders |
| Challenge Description | |
| Delays in meeting patching targets may occur when patches are unavailable from a software vendor, environments have limitations to test patches, or deployment windows are unavailable due to code freezes. | |
| Potential Resolution Strategy | |
| When delays occur because patches are unavailable from a software vendor, Accenture will monitor for the patch release and implement it as quickly as possible when available. When there are environment limitations or code freezes impacting the timing of vulnerability patching, Accenture will collaborate with the Consortium and other CalSAWS contractors to find the next appropriate window to release the patch as soon as possible. If delays occur in patching due to availability from the software vendor or other constraints, our risk mitigation and compensating controls will be mutually established and agreed upon, including the acknowledgement of potential risks. | |

Risks Conclusion

The individual risks we've discussed earlier focus on software and hardware maintenance, including remote support. Each risk is assessed individually, independent of the other risks. We would like you to consider another element in determining the overall Project risk—who is doing the work. Accenture submitted proposals for both the Infrastructure and M&E scope of work. Assuming we are awarded both contracts, the overall risk profile of the entire CalSAWS Project will be lower, and so will the risk score of each individual risk. Why? For the simple reason that one accountable contractor is more efficient, and the Consortium will have "one throat to choke" when it comes to handling risks and issues. This global reduction of risk is only true for Accenture. Any other contractor would be quickly overwhelmed by the prospect of taking over the immense and complex CalSAWS Infrastructure and M&E Application while simultaneously attempting to manage the software licenses and hardware maintenance of a system with which they are unfamiliar. Just imagine how the Consortium's risk level would increase even more if **two** other contractors attempt to complete their transitions in at the same time. Accenture has been your partner for a long time—now that we've nearly completed the statewide rollout of CalSAWS, we're ready to accelerate the momentum into the CalSAWS M&O organization of the future.