Assessor Property Assessment System (APAS) Project

Exhibit C

Post Production 10-Year
Maintenance and Operations (M&O) Support

Statement of Work #2

December 11, 2018

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Definitions

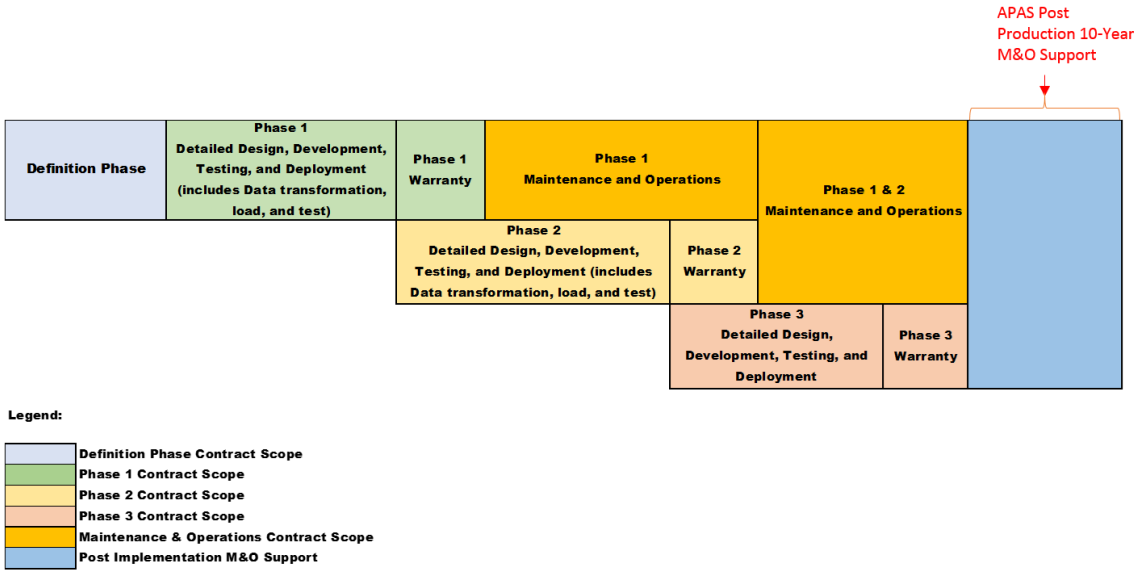
Abbreviation	Meaning
ACRE	Assessor-County Clerk-Recorder & Elections
APAS	Assessor Property Assessment System
LAN	Local Area Network
M&O	Maintenance and Operations
POC	Proof of Concept
QA	Quality Assurance
QC	Quality Control
RCA	Root Cause Analysis
RFP	Request For Proposal
RTM	Requirements Traceability Matrix
SDLC	Software Development Life Cycle
SIT	System Integration Test
SLA	Service Level Agreement
SLR	Service Level Requirements
SMC	County of San Mateo
SOW	Statement of Work
UAT	User Acceptance Testing
UI	User Interface
WAN	Wide Area Network

This Maintenance and Operations Support Statement of Work ("SOW # 2") shall be effective as of the completion of the warranty period for the work identified in Exhibit A (SOW #1). All terms used in SOW# 2 and not otherwise defined herein will have the same meaning as in the Agreement.

1 Project Scope

After the successful completion of the Warranty Services of the last phase of APAS, the Contractor will work with the County to implement the selected Maintenance & Operations (M&O) support model as detailed in Section 3 by the County.

The diagram below depicts the contract scope for M&O support.



The Contractor shall perform the following types of M&O support:

- **Corrective Maintenance** – M&O Support of the APAS includes resolution of Application/system faults, bugs, issues that are not a part of the scope of the original implementation effort. All incidents that occur as part of ongoing operations must be addressed and resolved within a reasonable time frame as per the contractually agreed upon Service Level Requirements (SLR). All incidents that occur during the M&O Support period must be documented and communicated on a regular basis to the County designated operations manager within a reasonable, agreed upon timeframe. The System Incident Report must contain the severity of the incident, a description of the incident, incident resolution status, and the proposed course of action for remedying all open incidents.
- **Adaptive Maintenance -** All adaptive maintenance requests that occur during the M&O Support period must be documented and communicated with the County designated operations manager within a reasonable, agreed upon timeframe, on a regular basis. The Adaptive Maintenance Report must contain the description of the maintenance request, resolution status, and the proposed course of action for remedying all open maintenance requests. All changes and fixes will be implemented based on a mutually agreed upon schedule. All changes will go through all Phases of testing by the Contractor and designated County staff. The test results must be documented and provided to the County for approval before a decision is made to put the new release into Production. All relevant system

documentation will be updated and provided to the County at the conclusion of any System changes.

- **System Enhancements -** All system enhancement requests that occur during the Maintenance and Operations Support period must be documented and communicated with the County designated operations manager within a reasonable, agreed upon timeframe, on a regular basis. The System Enhancements Report must contain the description of the enhancement request, progress, and the test results and outcome of each request. If the County determines that System enhancements are required, it will submit a request for those modifications to the Contractor. If the hourly estimates fall within the yearly enhancement hours as part of the M&O support contract, Contractor shall implement the changes without any additional cost to the County otherwise, the Contractor will analyze the changes and provide a cost estimate for performing those changes to the System. These cost estimates will be negotiated based on rates proposed and agreed to in the rate card provided in Exhibit B3 for M&O support.
- **Preventive Maintenance -** Preventive maintenance activities may involve changes to the system, which will improve its performance and quality, thus making the system more efficient to maintain and enhance. This includes activities such as restructuring of program code (Apex), rationalization of data, performance tuning and implementing more efficient maintenance procedures.

1.1 Upgrades, Patches, and new Releases

When patches, upgrades or new releases are applied to APAS, Contractor must ensure that the customizations to APAS System shall work across upgrades. When Salesforce releases a new version of the application and the platform, these upgrades must be seamless and must maintain backwards compatibility with the API used for integration. All upgrades, patches, and other system maintenance are provided at no additional cost to the County. Each release shall be delivered automatically in a transparent manner and shall not break APAS configurations. Contractor must test and release the scheduled maintenance releases into Production within 90 days from when they are released for testing. For urgent matters, the agreed upon standard bug fix SLA's will apply.

The Contractor will perform revisions and patches, working with the Product Vendor(s) and County on the following schedule:

a. **Major version upgrade** (3 times per year. Per the release schedule of additional software vendors)

b. **Minor version revisions** (per an agreed-to schedule between County and Contractor based on hot fixes and/or desired changes to the solution)

c. **Support Packs / Patches** – Monthly / weekly as needed, on Thursday night during maintenance window

d. **Interface Hosting upgrade - As needed**

Contractor will also provide the below services for upgrades:

1. Perform regression testing on software upgrades to ensure any upgrades will not adversely affect the application. Contractor will document regression test results and provide the results to the County designated operations manager before the County commences testing.
2. Establish criteria and plan for coordinating environment software upgrades.

3. Create work products explaining the related approach, activities, procedures, tools, and templates. These work products include:

    - Configuration migration procedures
    - Object/code migration procedures
    - Methodology for developing and applying software patches and fixes

4. Apply fixes, patches and bundles as needed (except for Major releases), when available from Salesforce or other Third-party product vendor and in consultation and coordination with the County and approval from the County designated operations manager
5. Unless as otherwise agreed to by County on a case-by-case basis, for non-emergency maintenance, County and Contractor shall have a mutually agreed upon test duration to test any maintenance changes prior to Contractor introducing such maintenance changes into production.
6. Prior to the start of the Major or Minor Version Test Period, the Contractor will provide associated Release Notes.
7. At the end of the Test Period, Contractor and County will elect if the maintenance changes will be implemented or not (except for Major Releases from Salesforce that are mandatory).
8. Assist with questions and provide technical assistance regarding Release Notes, new functionality and new application workflows. Contractor will provide documentation on new features.
9. Provide standard training on the Salesforce standard upgrade tools to the support team.
10. Lead the testing process for each interface for upgrades and perform initial regression testing for Salesforce code updates, if and when changes are done.
11. Perform testing of new features introduced in Salesforce upgrades and release notes that are mutually agreed-to between County and Contractor.

Roles and Responsibilities

Topic	Contractor	County
Environment Software Upgrades	Contractor will provide an Environment Software Upgrade Plan	County designated Operations Manager will review and approve

Contractor will provide County with notice of the availability of all Upgrades and Enhancements.

1.2 Open Source Software Upgrades

Contractor will ensure all Open Source Software patches/upgrades are applied, as needed. Contractor will provide the below services for Open Source upgrades:

1. Perform regression testing to ensure all Open Source Software patches/upgrades does not adversely affect the Solution.
2. Provide County the opportunity to test the upgrade.
3. Unless as otherwise agreed to by County on a case-by-case basis, for non-emergency maintenance, Contractor and County shall have a mutually agreed upon test period ("Test Period") to test any Open Source Software patches/upgrades changes prior to Contractor introducing such maintenance changes into production.
4. Provide associated Release Notes for each upgrade.

Contractor and County will decide, at the end of testing period, if the maintenance changes will be implemented.

1.3 Support Services

Contractor will provide resolution for all incidents, technical experts trained and familiar with the APAS production environment, schedule monthly and quarterly defects trend analysis, support for the current version of software vendor products, patches for critical issues will be applied to the final release of a supported version, manage and oversee support for all third-party software/tools supplied by County or Contractor as part of this application, support for the current version of software vendor products, and manage and oversee as part of on-going relationship with Salesforce to ensure services are performed according to contract as part of the Support services.

1.4 Reporting Services

Contractor will develop reports and dashboards per agreed-to scope at pre-agreed frequency that will allow County to view the summary of support incidents handled by the Contractor support team. Examples include, but are not limited to, providing ad hoc analysis reports, statutory/ regulatory reporting, historical trends or list of database entries.

Some example reports are:

1. Incident Status Summary - Reported, resolved, open, work in progress
2. Incident summary by application area
3. Incident response and resolution time charts
4. Incident ageing report
5. System defect resolution reports

1.5 Documentation Maintenance

Contractor will update and maintain documentation as part of every release cycle. Before the change is deployed to production system, update all documentations. In certain cases where a hot-fix might needs to be deployed urgently, the documentation will be updated within 5 business days.

2 Out of Scope

The following will be excluded from the scope of Maintenance and Support services, unless otherwise explicitly identified by County as "additional" scope of services:

- ❑ The APAS system will be hosted on Salesforce Government Cloud. The interface from/to other systems will be hosted in Amazon Cloud. Hosting of the System is out of scope.

- ❑ The proposed solution is hosted on cloud. Security admin service is included as part of service provided by the cloud provider.
- ❑ Storage Management Service is included in the license fee of the cloud provider.
- ❑ Capacity management is included in the license fee of the cloud provider.
- ❑ Disaster Recovery of the APAS system is included in the license fee of the cloud provider.

3 Support Models

Contractor proposed the following M&O support models for County to choose. The roles and responsibilities, hours allocated, location of the resources etc. for each of these support models are detailed below. As of the approval date of this document, the County will be pursuing support model 1 in year 1 through 10 of the 10-year M&O period. However, the County reserves the right to select Support Model 1, 2 and 3 by giving 60 days advance notice to the Contractor.

3.1 Support Model 1

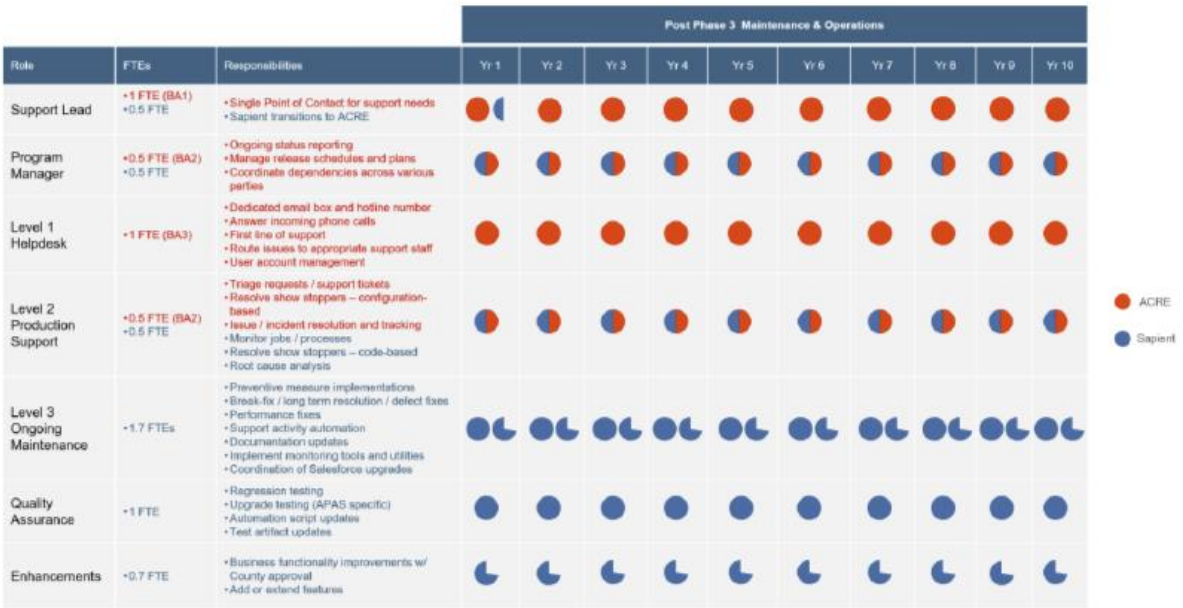
In this support model, Contractor assumes the complete responsibility of the M&O support services.

Dedicated Contractor Support Team (8 hours per business day, 5 business days per week)			
Role	**Description**	**Annual Hours**	**Year 1 Annual Cost**
Level 1 - Helpdesk	• Dedicated email box and hotline number • Answer incoming phone calls to items related to APAS Solution • First line of support • Route issues to appropriate support staff • Monitoring of the batch jobs, scheduler etc. • User account management	1500	$60,000
Level 2 - Production Support	• Triage requests / support tickets • Resolve show stoppers • Issue / incident resolution and tracking • Monitor jobs / processes • Root cause analysis	1900	$76,000
Level 3 - Ongoing Maintenance	• Preventive measure implementations • Break-fix / long term resolution / defect fixes • Performance fixes • Support activity automation • Documentation updates • Implement monitoring tools and utilities • Coordination of Salesforce upgrades	3517	$140,680
Support Lead	• Dedicated onshore resource • Single point-of-contact for any needs	2096	$83,840

	from the County		
Quality Assurance	• Regression testing • Upgrade testing (APAS specific) • Automation script updates • Test artifact updates	2096	$83,840
Enhancements (each year)	• Business functionality improvements with County approval • Add or extend features • Retiring technical debt (if any)	1467	$58,680
Program Manager	• Ongoing status reporting • Manage release schedules and plans • Coordinate dependencies across various parties	2096	$83,840
Application Maintenance & Operations Support Subtotal (After Full Deployment)		**14,672**	**$586,880**

3.2 Support Model 2

This is a hybrid option where County will assume the Level 1 Helpdesk responsibility and simple configuration element of the Salesforce PaaS solution. Below is a visual representation of the support-related roles and responsibilities for both County and Contractor over a ten (10) year period:



Below is more detail on the breakout of responsibilities.

Support Lead:

- ❑ Contractor transitions to County Business Analyst (BA#1) over a six-month period during year 1. County BA#1 becomes 100% responsible in years 2-10. The primary skill sets, and responsibilities include representing the single point of contact for the County's support needs, ensuring all support activities are assigned and completed, confirming that support processes are in place and being leveraged properly, and facilitating communication and collaboration amongst all support team members.

Program Manager:

- ❑ County provides a resource at 50% (BA#2) to oversee responsibilities within Level 1 and Level 2 for the duration of 10 years. The primary skill set require planning, tracking, and management of activities, managing dependencies, assisting with overall governance and overall resource allocation.
- ❑ Contractor provides a resource at 50% to oversee our responsibilities within Level 2, Level 3, Quality Assurance (QA), and Enhancements for the duration of 10 years.

Level 1 – Help Desk Hours:

- ❑ County (BA#3) is 100% responsible in years 1-10. The primary skill set require are answering phone calls, logging tickets, and routing each ticket to the appropriate owner.

Level 2 – Production Support:

- ❑ County (BA#3) and Contractor are each ~50% responsible in years 1-10.
- ❑ The County Salesforce trained resource can triage support tickets and resolve issues that are configuration-based.
- ❑ Contractor will fulfil tasks that require more advanced skills including monitoring of jobs and processes, resolution of issues that require complex configuration or development, and root cause analysis.

Level 3 – Ongoing Maintenance Hours:

- ❑ Contractor will assume 100% responsibility for this function in years 1-10.

Quality Assurance:

- ❑ Contractor will assume 100% responsibility for this function in years 1-10.

Enhancements:

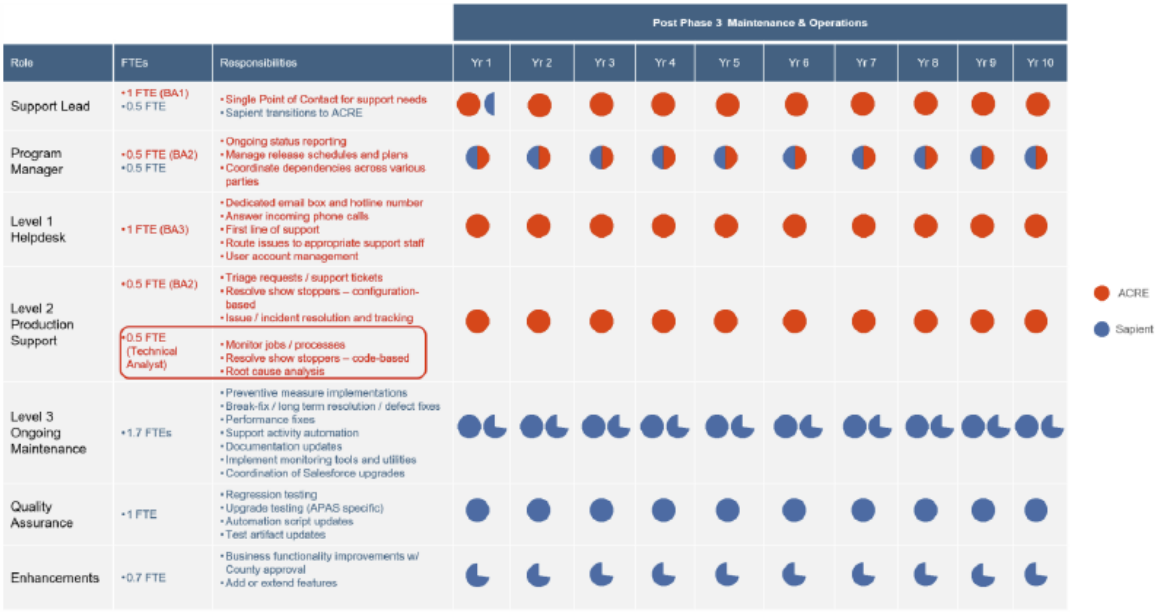
- ❑ Contractor will assume 100% responsibility for this function in years 1-10.

Within the table below, a more detailed list of hours has been included for each role assumed by County and Contractor during each year of support in support model 2. Estimated costs for Contractor are also provided:

Role	Contract Resource Location	County Hrs/Year (1-10)	Contractor Hrs/Year 1	Contractor Hrs/Year (2-10)
Level 1 – Helpdesk Hours	Offshore	1500	0	0
Level 2 – Production Support Hours	Offshore	950	950	950
Level 3 – Ongoing Maintenance Hours	Offshore	0	3517	3517
Support Lead Hours	Onshore	2096	1048	0
Quality Assurance Hours	Offshore	0	2096	2096
Enhancement Hours	Offshore	0	1467	1467
Program Manager Hours	Offshore	1048	1048	1048
Total Annual Hours		**5,594**	**10,126**	**9,078**
Total Annual Cost			**$406,000**	**$364,000**

3.3 Support Model 3

This is a hybrid option where County assumes both Level 1 and Level 2 tasks for years 1 – 10. This requires County to assign a technical analyst with advanced Salesforce and Java development expertise. Below is a visual representation of the support-related roles and responsibilities for both County and Contractor over a ten (10) year period. Option 3 builds upon Support Model 2 and proposes additional responsibilities that can be fulfilled by County as highlighted by the red box in the following visual:



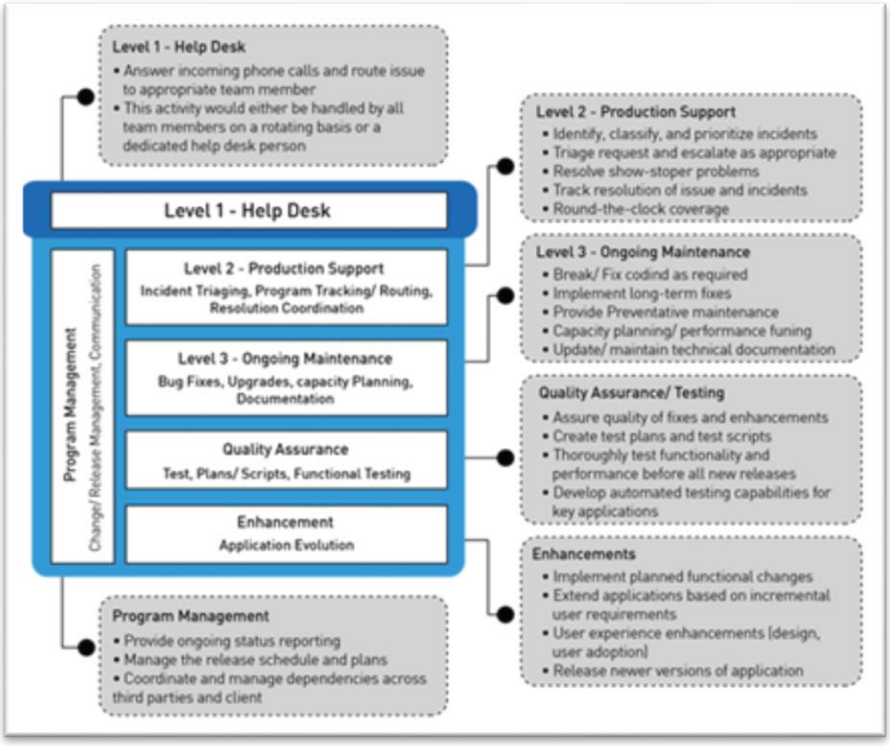
Other than the additional responsibilities highlighted in the red box within the visual above, there are no differences between support model 2 and 3.

Within the table below, a more detailed list of hours has been included for each role assumed by County and Contractor during each year of support in option 3. Estimated costs for Contractor are also provided:

Role	Contract Resource Location	County Hrs/Year (1-10)	Contractor Hrs/Year 1	Contractor Hrs/Year (2-10)
Level 1 – Helpdesk Hours	Offshore	1500	0	0
Level 2 – Production Support Hours	Offshore	1900	0	0
Level 3 – Ongoing Maintenance Hours	Offshore	0	3517	3517
Support Lead Hours	Onshore	2096	1048	0
Quality Assurance Hours	Offshore	0	2096	2096
Enhancement Hours	Offshore	0	1467	1467
Program Manager Hours	Offshore	1048	1048	1048
Total Annual Hours		**6,544**	**9,176**	**8,128**
Total Annual Cost			**$368,000**	**$325,000**

4 M&O Support Framework

The diagram below provides the framework which governs the different support levels with the scope of activities.



Service Levels

Described below are the 3 Levels of Support that are offered in a typical support model, along with the roles & responsibilities of each one of those. Please note that the activities listed in each of the sections are high level and that a Support Scope Matrix will be created and referred to for more refined granular details of the engagement.

Level 1 – Help Desk

In Year 1, County and Contractor will jointly responsible for Level-1 (L1) support that comprises of the Helpdesk (HD) to answer user queries and provide operational support to the users of the system. In Year 2 through 10, County will be responsible for L1 support. County will setup the Help Desk in the form of a mailbox, a hotline number etc. to perform the following activities:

1. User query (phone calls/emails) resolution
2. User Provisioning and account management
3. New user requests
4. Modify access/roles for existing users
5. Reset passwords
6. Terminate user access
7. Logging, routing and escalating incidents to L2/L3 team and follow-ups
8. Communicating and liaising with users raising the incident

Contractor will be responsible for enabling County Helpdesk by providing documentation and system user manuals for resolving common user queries. Contractor will be responsible for answering all technical queries generated by the County's Helpdesk.

Level 2 – Production Support

Contractor will be responsible for providing Level-2 (L2) production support, which includes technical Help Desk that would provide problem resolutions to Incidents. The various activities to be taken care under this level of support would be:

1. Resolving business and technical queries assigned by Level-1 Helpdesk team
2. Performing a root cause analysis of the issues and acting on the remediation steps
3. Communication of remediation steps which are outside scope of L2 support team to business team
4. Problem re-Prioritization based on root cause analysis
5. Proposing alternate solutions for issues with no known solution for business continuity
6. Documentation on known solutions for business users and L1 Helpdesk team
7. Maintenance and update of knowledge articles, standard operating procedures.
8. Handling and managing crisis and major incidents as per the Crisis Management Procedures
9. Escalating product issues to Salesforce or other Third-Party vendor and follow up on solutions
10. Escalating complex issues to L3 Support Team and resolution coordination
11. Handling user requests for ad-hoc activities/process runs on the application [
12. Certification of feature requests (if any) raised by Level-2 Team for Level-3 Team
13. Periodic monitoring of logs & alarms
14. System monitoring of Scheduled jobs and communicating the failure and delays to respective team (auxiliary system owner point of contacts or Level-2 team as applicable)

Topic	Contractor	County
Production Support	1. Contractor will be responsible for managing incident lifecycle including identifying, triaging, classifying, prioritizing, resolving, tracking and reporting 2. Contractor will be responsible for System monitoring of Scheduled jobs and communicating the failure and delays to respective team (auxiliary system owner point of contacts or Levcel-2 team as applicable)	1. County will be responsible for incident logging, documenting details about incident and testing the solutions suggested by Contractor support team. 2. County will be responsible for assigning and escalating business and technical queries to the Contractor

Level 3 – Ongoing Maintenance

Contractor will be responsible for providing Level 3 (L3) support, which includes defect fixes & enhancements and will work in a Software Development Life Cycle (SDLC) approach to plan for the release of the fixes/enhancements. The various activities to be taken care under this level of support would be:

1. Prioritization of Enhancements/change requests
2. Implement fixes, both long & short term
3. Prioritizes releases
4. Provide preventive maintenance
5. Performance tuning
6. Release planning for upgrades, patches, fixes. In addition, perform regression testing to ensure updates, patches and fixes will not adversely affect the application. Contractor will run test scripts and provide test results to County.
7. Quality Management, Training
8. Documentation creation & update of same
9. Coordinating with Salesforce and any third-party/product vendors for technical assistance

Project Management

- Provide a single point of contact for all issues
- Provide ongoing status reporting
- Manage the release schedules and plans
- Coordinate and manage dependencies with County

Enhancements

- Implement planned functional changes
- User experience enhancements (design, user adoption)
- Software package configuration
- Release newer versions of application
- Retiring technical debt (if any)

Quality Assurance and Testing

- Assure quality of fixes and enhancements
- Create test plans and test scripts
- Thoroughly test functionality and performance
- Measuring and monitoring user adoption

5 M&O Support Team

Described below are the 3 Levels of Support that are included in the APAS M&O support model, along with the roles, number of resources, location and hours. The table below provides the support team structure for Year 1 (Support Model 1).

Service Levels	Role	# of Resources	Location	Hours
Level 1	Help Desk	0.75	Offshore	1500
Level 2	Production Support	0.9	Offshore	1900
Level 3	Ongoing Maintenance	1.6	Offshore	3517
All Levels	Support Lead	1	Onshore	2096
All Levels	Quality Assurance	1	Offshore	2096
All Levels	Enhancements	0.75	Offshore	1467
All Levels	Program Management	1	Offshore	2096

The table below provides the support team structure for Year 2-10 of the M&O support period.

Service Levels	Role	# of Resources	Location	Hours
Level 2	Production Support	0.45	Offshore	950
Level 3	Ongoing Maintenance	1.6	Offshore	3517
All Levels	Quality Assurance	1	Offshore	2096
All Levels	Enhancements	0.75	Offshore	1467
All Levels	Program Management	0.5	Offshore	1048

Contractor will provide a dedicated M&O support team to handle County user queries via County ticketing system (ServiceNow) or County's choice of ticketing system/tool.

5.1 Onsite-Offshore Responsibility Matrix

The table below shows the onsite and Offshore responsibilities of the M&O Support team.

Team	Responsibilities
Onsite	1. Answer Incoming Calls and route to appropriate team members 2. Identify, Classify and prioritize incidents 3. Triage request and escalate as appropriate 4. Resolve Show stopper Problems 5. Track Resolution of issues and Incidents 6. Manage the release schedule plans 7. Co-ordinate and manage dependencies across third parties and clients 8. Provide ongoing status Reporting
Offshore	1. Answer Incoming Calls and route to appropriate team members 2. Identify, Classify and prioritize incidents 3. Triage request and escalate as appropriate 4. Resolve Show stopper Problems 5. Track Resolution of issues and Incidents 6. Fix code as needed 7. Implement long term fixes 8. Preventative maintenance 9. Performance tuning 10. Update/Maintain Technical Documentation 11. Assure quality of fixes and enhancements 12. Create test plans and scripts 13. Test functionality before production release 14. Develop test automation 15. Implement planned functional changes 16. User experience enhancements 17. Release newer version of applications 18. Provide ongoing status Reporting 19. Manage the release schedule plans 20. Co-ordinate and manage dependencies

6 Performance of the Services

The Contractor M&O support team must be responsible for incident, problem, release, deployment, and knowledge management. The Support Team will also be responsible for appropriate root cause analysis (RCA) required for the incident, problem management tickets. Support team handles the enhancement requests. The Contractor will assign a Relationship Manager will be assigned for any account management activities, issue escalation, etc. The Support team must have Quality Assurance (QA) team members and they must ensure to run regression test when patches/enhancements are applied to production system.

Severity Levels are defined in Exhibit A-9 (Acceptance Criteria).

6.1 Incident Response SLRs

The table below provides the Incident Response SLRs.

Priority Level	First Response Performance Target (minutes/hours/daily availability)	Resolution Performance Target (hours/business hours)
Priority Level Critical	1 hour, 24x7, weekends and holidays	Actual resolution time will depend on the nature of the case and the resolution. However, the County will be updated on the status of the resolution every 30 minutes or an agreed to time. A resolution may consist of a fix, workaround or other solution in Salesforce's reasonable determination.
Priority Level Urgent	2 hours, 24x7, weekends and holidays	Actual resolution time will depend on the nature of the case and the resolution. However, the County will be updated on the status of the resolution every 30 minutes or an agreed to time. A resolution may consist of a fix, workaround or other solution in Salesforce's reasonable determination.
Priority Level High	4 hours, target response times include local business hours only and exclude weekends and holidays	Actual resolution time will depend on the nature of the case and the resolution. A resolution may consist of a fix, workaround or other solution in Salesforce's reasonable determination.
Priority Level Medium	8 hours, target response times include local business hours	Actual resolution time will depend on the nature of the case and the

Priority Level	First Response Performance Target (minutes/hours/daily availability)	Resolution Performance Target (hours/business hours)
	only and exclude weekends and holidays	resolution. A resolution may consist of a fix, workaround or other solution in Salesforce's reasonable determination.
Priority Level Low	24 hours, target response times include local business hours only and exclude weekends and holidays	Actual resolution time will depend on the nature of the case and the resolution. A resolution may consist of a fix, workaround or other solution in Salesforce's reasonable determination.
Priority Level Routine	24 hours, target response times include local business hours only and exclude weekends and holidays	Actual resolution time will depend on the nature of the case and the resolution. A resolution may consist of a fix, workaround or other solution in Salesforce's reasonable determination.

6.2 Priority Definitions

	IMPACT			
URGENCY	**County-Wide**	**Location**	**Multiple Users**	**Single User**
A full outage of multiple services or all services and/or non-compliance with regulations	Critical	Critical	Urgent	High
An issue completely affecting a service, no workaround available	Critical	Urgent	High	Medium
An issue affecting a service; workaround is available	High	Medium	Medium	Medium
An issue that has no impact to the availability of the affected service; redundancy is available	Medium	Low	Low	Routine

6.3 Contractor Impact to Salesforce Service Level Requirements

Contractor shall ensure that their Services (e.g. configurations, code, and other inputs) to produce and maintain the APAS solution shall not impact the Service Level Requirements received by the County from Salesforce relating to the Salesforce platform. In the event, Contractor's Services are solely responsible for any material impact to the Service Level Requirements of the Salesforce platform, Contractor shall correct or re-perform the non-conforming Service at no additional charge to County.

6.4 System Operations

The table below provides System Operations and Administration SLRs.

System Operations and Administration SLRs		
Task	**Service Measure**	**Performance Target (hours, working days, weeks, months)**
APAS upgrade, enhancement pack or support package installation	Response Time	Scheduled Maintenance updates are released by Salesforce 3 times annually. Additionally, other patches and updates are released periodically throughout the year. Salesforce's scheduled maintenance is automatically applied. For other patches and updates, Contractor will test and release the scheduled maintenance releases into Production within 90 days from when they are released for testing.
	Completion Time	Scheduled Maintenance updates are released by Salesforce 3 times annually. Additionally, other patches and updates are released periodically throughout the year. Salesforce's scheduled maintenance is automatically applied. For other patches and updates, Contractor will test and release the scheduled maintenance releases into Production within 90 days from when they are released for testing. The actual process of deploying the updates and patches will take no longer than 24 hours.
APAS Patches, Service Packs, Hot fixes, Hot Packages, APAS add-ons, Plug-ins or APAS Business Packages import	Response Time	Patches and updates are released periodically throughout the year. Contractor will test and release the scheduled maintenance releases into Production within 90 days from when they are released for testing. For urgent matters, standard bug fix SLA's will apply.
	Completion Time	The actual process of deploying the updates and patches will take no longer than 24 hours.
Incident related Stop/Start	Completion Time	Salesforce is a hosted platform. It allows components/workflows within the system to be activated/de-activated through a dashboard. The time taken for activation
Planned Stop/Start	Completion Time	

System Operations and Administration SLRs		
		or deactivation of service is typically less than a minute

6.5 Backup and Restore

Contractor shall perform Backup and Restore functions during the M&O support term utilizing a tool approved by County. The appropriate frequency and metrics will be developed during within 30 days of the effective date of the M&O support term.

6.6 Disaster Recovery and Business Continuity (DR&BC)

Contractor shall implement the Disaster Recovery and Business Continuity (DR&BC) as per Attachment – 1 (Disaster Recovery and Business Continuity). If there are any changes to the DR&BC plan, the Contractor will update the plan within 30 days of the effective date of the M&O support term.

7 Performance Service Credits

In the event of a failure by the Contractor to meet the performance, the following service credits shall apply. These performance service credits will be based on the Incident Response SLR's defined in Section 6.1 (incident Response SLRs) of this Exhibit.

Any dispute regarding response time performance may be submitted to Dispute Resolution section under the Agreement.

If submitted, no service credits may be assessed until the conclusion of the Dispute Resolution process. For clarity, service credits apply only to issues that a root cause analysis shows are solely attributable to Contractor, unless otherwise agreed by the parties.

Performance Category	Missed SLA Occurrences (monthly)	Service Credit (monthly)
Step 1 – Confirmation	95% of total incidents AND 95% of Priority 1, Priority 2 and Priority 3 incidents	10%
Step 2 – Incident Assignment and Resolution	95% of total incidents AND 95% of Priority 1, Priority 2 and Priority 3 incidents	10%
Step 3 – Long Term Fix	95% of total incidents AND 95% of Priority 1, Priority 2 and Priority 3 incidents	05%

Performance Category Definitions:

Performance Category	Definitions
Step 1 – Response Time	This column represents Contractor's acknowledgement of a problem and the time by which Contractor will begin the information gathering and the trouble shooting processes.

Step 2 – Incident Assignment and Resolution	This column represents the timeframe in which Contractor will work with County and Product Vendor(s) (if any) to address the problems and provide a fix or workaround to restore the System to operate in accordance with the service specifications. The goal is to provide a fix or a workaround for a problem as soon as possible. Contractor shall work on issues continually until a satisfactory problem resolution is reached.
Step 3 – Long Term Fix	This column indicates the time by when Contractor will work with County and Product Vendor(s) (if any) to provide a solution. This may be in the form of a tested application fix, completely new coding, or patch from Salesforce/Other Product Vendor depending on the problem requirements and timetable.

The service credits payable each month shall be capped at twenty-five (25) percent of the monthly fee (Calculated: Annual Fee/12).

A sum representing the service credit shall be credited by Contractor to County as a non-transferable credit (not convertible to cash) that may be applied forward to any additional Work performed under the Implementation Statement of Work or this Maintenance Statement of Work #2 (for clarity, service credits, if any, shall be deducted from/credited against future sums billed by and owed to Contractor).

The service credits set forth in this Section shall be the exclusive remedy of the County for any failure by Contractor to meet its performance obligations. Service credits shall not apply to performance problems that are not solely attributable to Contractor. For clarity, service credits shall not apply to performance problems or defects caused by the County or its personnel, third party delays, or a force majeure event.

8 Governance Process

County and Contractor will jointly develop a governance structure for the 10-Year M&O support within 30 days of effective date of the M&O support term.

9 Escalation Process

If Contractor does not respond within the time frames (performance target), County shall use the escalation procedures as provided in this section. As a first stage, Contractor and County subject matter experts will seek to resolve the issue. If that attempt is unsuccessful, either party may escalate the issue per the table below. The goal of the escalation procedures will be to (i) resolve the specific problem as quickly as possible; and (ii) ensure that future delays in service response times are prevented. At each stage of this process, the individuals occupying the positions listed below, or their functional equivalents, if the titles within the organizations have changed, will confer and attempt to resolve the relevant issues. Each party understands that depending on the circumstances, it may be impossible to reach one or more of the individuals set forth below. These discussions may occur by telephone, email, videoconference or in person. Escalation at each step of this process will occur based on County determination that the existing level of involvement is not satisfactorily resolving the problem.

The parties will exchange mutual peer escalation lists (including Support Lead/Project Manager) as the point persons for issue resolution. This will ensure that the parties have peer to peer subject matter experts to work on issue resolution.

Contractor	County
Assigned M&O Support resource	Assigned M&O Support resource
Support Lead	Designated Operations Manager (M&O Support)
Contractor Relationship Manager	ACRE IT Director

10 Supported Environments

The following functions/activities will be supported within an agreed-to number of environments for the Solution and related integrations.

1. Development (for Developers)
2. Test (for Contractor)
3. Test (for County)
4. Training (for County)
5. Staging – An environment available to County to test new Contractor application releases against their production configuration.
6. Production – The environment used by the County to submit, track and manage live transactions and associated data.

The environments will be refreshed with configuration, code and data on a schedule that is mutually agreed to by County and Contractor. The schedule will ensure that activities including testing and deployment are properly supported and completed successfully.

Refreshes may occur on a quarterly basis or on an as needed basis as mutually agreed to by County and Contractor.

11 Ongoing Training

Contractor will provide training/demo on new features and enhancements to County designated key end-user personnel. Contractor will also provide documentation, configuration guides (if needed) and operating procedures documentation to County's L1 Helpdesk Team to enable them to perform post release maintenance and provide support.

12 Incident Management Tool

The Contractor will use help desk incident management tool (e.g. JIRA) to report, track and resolve all issues submitted to the Contractor for M&O support.

Contractor will participate in regular status meeting with the County's team. Contractor will provide regular status reports on a daily, weekly, monthly and quarterly basis.