## System_Technology Requirements Tab

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|---|---|
| **Level** | Level from 1 - 5 (highest - lowest) associated with System and Technology requirements hierarchy.  Row formatting and shading is associated with these values. In addition, the level is used to determine the item number. The following technology areas has been identified. |
| | 1.1 Usability |
| | 1.2 Audit and Compliance |
| | 1.3 Performance |
| | 1.4 Interface /External Data Files |
| | 1.5 Interoperability |
| | 1.6 Scalability and Extensibility |
| | 1.7 Regulatory and Security |
| | 1.8 Application Administration |
| | 1.9 System Management |
| | 1.10 Mobile/Remote Computing |
| | 1.11 General Requirements |
| **Item #** | A unique numbering scheme is maintained for each requirement for traceability and testing purposes. |
| **Requirements Description** | Technical requirements identified for the project |
| **Detailed Description** | Additional explanation of technical requirements (optional). Some of the scope items are self explanatory and doesn't require more clarity. If the Scope item is not clear, provide more details for clarity. |
| **Priority** | **Must Have**<br><br>These features that must be included before the product can be launched. Think of them as very high priority technical requirements for the APAS project as this is the minimum scope for the product to be useful. |
| | **Should Have**<br><br>These technical requirements are also high-priority requirements, and are every bit as important as the requirements in the must category. However, there might be workarounds that satisfy these requirements or they may not be as time critical. |
| | **Could Have**<br><br>These desirable technical requirements are of lesser priority and are nice to have capabilities in the solution. They really don't affect anything else in the solution one way or the other and will be included if time and resources permit. These will be the first features to be removed from scope if the project's timescales are later at risk. |
| | **Won't Have (But would like in future)**<br><br>These features that have been requested but are explicitly excluded from scope for the planned duration, and may be included in a future phase of development. |
| **Proposer Comments** | Proposers shall indicate their proposed solution(s) ability to fulfill each requirement. Please provide your response in detail in the Proposer comments column. Proposers are to indicate their compliance in the "Proposer Comments" column. Proposer must articulate and provide evidence of how they meet the requirements. |

## Defined Terms / Acronyms

| Defined Term | Acronym (if used) | Description |
|---|---|---|
| Application Programming Interface | API | |
| Application to Application | A2A | |
| Audit Trails and Node Authentication | ATNA | |
| Assessor Property Assessment System | APAS | |
| Business Intelligence | BI | |
| Business Process Execution Language | BPEL | |
| Business Process Modeling Notation | BPMN | |
| Business to Business | B2B | |
| Database Administration | DBA | |
| Database Management System | DBMS | |
| Demilitarized Zone | DMZ | |
| Electronic Data Interchange | EDI | |
| Electronic Data Interchange For Administration, Commerce and Transportation | EDIFACT | |
| Enterprise Service Bus | ESB | |
| eXtensible HyperText Markup Language | XHTML | |
| eXtensible Markup Language | XML | |
| Extensible Style sheet Language Transformations | XSLT | |
| Extract-Transform-Load | ETL | |
| Graphical User Interface | GUI | |
| Hypertext Markup Language | HTML | |
| Hypertext Transfer Protocol | HTTP | |
| Information Technology Infrastructure Library version 3 | ITIL v3 | Reference framework of best practices for IT Operations and Service Management |
| Customer Relationship Management | CRM | |
| Information Technology | IT | |
| Internet Inter-ORB Protocol | IIOP | |
| Internet Protocol Security | IPSec | |
| Java 2 Platform, Enterprise Edition | J2EE | |
| Java Database Connectivity | JDBC | |
| Local Area Network | LAN | |
| Maintenance and Operations | M&O | |
| Message-Oriented Middleware | MOM | |
| Network Time Protocol | NTP | |
| Online Analytical Processing | OLAP | |
| Online Transactional Processing | OLTP | |
| Open Database Connectivity | ODBC | |
| Plain Old XML | POX | |
| Project Management Institute | PMI | |
| Project Management Body of Knowledge | PMBOK | |
| Public Key Infrastructure | PKI | |
| Relational Database Management Solutions | RDBMS | |
| Representational State Transfer Protocol | REST | |
| Role-Based Access Controls | RBAC | |

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|---|---|---|
| Secure Sockets Layer | SSL | |
| Secure/Multipurpose Internet Mail Extensions | S/MIME | |
| Service Level Agreement | SLA | |
| Shared Analytics Infrastructure | SAI | |
| Service Oriented Architecture | SOA | |
| Simple Network Time Protocol | SNTP | |
| Simple Object Access Protocol | SOAP | |
| Software Development Life Phase | SDLC | |
| Structured Query Language | SQL | |
| Transmission Control Protocol (TCP) / Internet Protocol (IP) | TCP/IP | |
| Transport Layer Security | TLS | |
| Triple-DES | 3DES | |
| Universal Description, Discovery and Integration | UDDI | |
| User Acceptance Testing | UAT | |
| Virtual Private Network | VPN | |
| Web Services | WS | |
| Web Services Flow Language | WSFL | |
| Web Services Interoperability | WS-I | |
| Wide Area Network | WAN | |
| XML Process Definition Language | XPDL | |

| Level (1 - 5) | Item # (auto) | Technical Requirements Description |
|---|---|---|
| 1 | 1 | **SYSTEM AND TECHNOLOGY REQUIREMENTS (Template H)** |
| 2 | 1.1 | **Generalized System Behavior Requirements** |
| 3 | 1.1.1 | **Usability** |
| 3 | 1.1.2 | **Audit & Compliance** |
| 3 | 1.1.3 | **Performance** |
| 3 | 1.1.4 | **Interface/External Data Files** |
| 2 | 1.2 | **Technology Requirements** |
| 3 | 1.2.1 | **Interoperability** |
| 3 | 1.2.2 | **Scalability and Extensibility** |
| 3 | 1.2.3 | **Regulatory and Security** |
| 3 | 1.2.4 | **Application Administration** |
| 3 | 1.2.5 | **System Management** |
| 3 | 1.2.6 | **Mobile/Remote Computing** |
| 3 | 1.2.7 | **General Requirements** |

Renumber, Format & Group

# Assessor Property Assessment System (APAS)
# Template H - Technical Specifications Matrix

| Level (1 - 5) | Item # (auto) | Technical Requirements Description | Detailed Description | Priority | Proposer Comments |
|---|---|---|---|---|---|
| 1 | 1 | SYSTEM AND TECHNOLOGY REQUIREMENTS (Template H) | | | |
| 2 | 1.1 | Generalized System Behavior Requirements | | | |
| 3 | 1.1.1 | Usability | | | |
| 4 | 1.1.1.1 | The System shall provide an easy to use and intuitive Graphical User Interface (GUI) that enables the user to quickly navigate to the next logical step in the workflow, or freely navigate (e.g., function keys, etc...) to other parts of the System functionality, without losing any partially complete in-process task information or steps. | | Must Have | With the Salesforce platform, administrators can customize the user interface for the users on a per profile basis. In addition to this, administrators can enable end-users to customize their own user interface in a variety of ways, including which navigation tabs show up, custom list views showing additional data, custom reports, and more. More on Customizing User Interface: https://help.salesforce.com/htviewhelpdoc?id=customize_ui_settings.htm&siteLang=en_US |
| 4 | 1.1.1.2 | The System shall accommodate diverse populations of users including those with disabilities and limited English proficiency as defined in section 504 of the Rehabilitation Act of 1973 | The user population includes business users, technical users and general public | Must Have | Vertiba will work with the project team to accommodate diverse populations of users including those with disabilities and limited English proficiency as defined in section 504 of the Rehabilitation Act of 1973. |
| 4 | 1.1.1.3 | The System shall provide seamless integration to other/secondary systems to minimize the necessity of leaving the core system to accomplish work tasks | | Must Have | With the Salesforce platform, you have the ability to integrate with any system that has access to secured data transported over the internet. Leveraging custom code, developers can transform data into any XML, JSON or custom text-based format for consumption by any system, that can get access to those files. Often times, files will be transferred leveraging a secured file over HTTP or FTP, although there are other ways of transporting data as well. Salesforce can consume data in any XML, JSON or custom text-based format and integrate it into your Salesforce data model for review. Additionally, with the Salesforce Platform, you will have access to the AppExchange which is a vendor-specific application marketplace. This means that all of the applications are associated with salesforce.com, are built natively on Force.com, or have a standard integration with the salesforce.com cloud applications. Vertiba looks forward to working with the team to confirm your detailed requirements and can confirm one way or another the ability to fully meet this requirement upon completion of detailed design activities. More on custom Salesforce integrations: http://www.salesforce.com/platform/services/how-you-integrate/ |
| 4 | 1.1.1.4 | The System shall include, at minimum, the following features and capabilities: a. Drill down and look up functionality to minimize time required for access to more detailed information b. Multi-tasking and multiple window capability, including split screens c. Search capabilities to allow retrieval by name, Account Number, Parcel Number, recorded documents, or others as defined by the County d. Ability to tab and mouse through data fields and screens | | Must Have | With the Salesforce platform, users will be able to search using a powerful search engine across all of the records, fields and data saved in Salesforce. Additionally, Salesforce provides another search/reporting capability called List Views. List views give you quick access to your important records. You can find preconfigured views, such as a list of recently viewed records, for every standard and custom object. Create customized list views to display records that meet your own criteria. For example, you may want to view all records assigned to a specific district or postal code in your municipality. A list view can be configured to return only those records that you want see. Within Salesforce, you can move portions of a console to different areas of a screen to help you work best. Also, with multi-monitor components, a user can pop out primary tabs and drag them across multiple monitors. Within Salesforce, navigating from field to field using the tab key or mouse is native functionality. More on Search: https://help.salesforce.com/apex/HTViewHelpDoc?id=search_how_search_works.htm&language=en_US More on List Views: https://help.salesforce.com/apex/HTViewHelpDoc?id=listviews_parent.htm&language=en_US More on Multi-Monitor Components: https://help.salesforce.com/articleView?id=console2_multi_monitor_component.htm&language=en_US&type=0 |
| 4 | 1.1.1.5 | The System shall support undo and redo, or provide onscreen confirmation/acceptance to the user to confirm a change that is permanent and cannot be "undone" | | Must Have | Undo capabilities are able to be facilitated within a specific field leveraging out of the box capabilities. Undo capabilities for an entire transaction involving many data fields and records would require custom functionality. More detail would be required to confirm full capabilities that could be provided to enable this capability. |
| 4 | 1.1.1.6 | The System shall provide all user instructions in a visible or easily retrievable location, when appropriate, including rollover / tooltip help or context messages (the System shall provide the option to turn off this option in the user preferences profile). | | Must Have | Salesforce help is provided in context to the screens. Additionally Salesforce enables every field to have custom help configured for it. |

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| 4 | 1.1.1.7 | The System shall express its error messages in plain language, precisely indicate the problem, and constructively suggest a solution | | Must Have | With the Salesforce platform, error messages are constructed to direct the user to what needs to be corrected. |
| 4 | 1.1.1.8 | The System shall facilitate data entry including providing existing values and codes via drop-down or pop-up lists boxes and providing for selection via point-and-click selection, hot key selection, and system-based auto-fill as confirmed by a user | | Must Have | The Salesforce platform facilitates the ability for users to enter data to existing values and codes via drop-down or pop-up lists boxes and providing for selection via point-and-click selection, hot key selection, and system-based auto-fill as confirmed by a user |
| 4 | 1.1.1.9 | The System shall provide the ability to make fields visible/invisible depending on parameters, user rights, consent, and access controls | | Must Have | With the Salesforce platform, system administrators have the ability to configure the accessabilty of fields via Profiles, Record Types, and Page Layouts. More information on Salesforce's most recent implementation guide: http://resources.docs.salesforce.com/198/12/en-us/sfdc/pdf/salesforce_mobile_implementation.pdf |
| 4 | 1.1.1.10 | The System shall provide validation checks at the time of each field entry as the default mechanism and identify invalid entries to the user as immediately as possible | | Must Have | With the Salesforce platform, validation rules can be leverated to enforce data integrity as Salesforce users are entering data into Salesforce. Complex business rules can be implemented using validation rules. For example, you may want to enforce a certain email address format. You can leverage the formula functionality in validation rules to enforce that an email address is accurately formatted. You can also use it to dynamically require fields based on the data people are filling out on the form. More on Validation Rules: https://help.salesforce.com/HTViewHelpDoc?id=fields_about_field_validation.htm |
| 4 | 1.1.1.11 | The System shall provide templates for data entry with identified mandatory and optional data fields | | Must Have | With the Saleforce platform, custom templates can be used and created by leveraging different Record Types for the different processes you want to support. Record types let you offer different business processes, picklist values, and page layouts (that allow for required and non-required fields) to different users.<br><br>More on Record Types: https://help.salesforce.com/apex/HTViewHelpDoc?id=customize_recordtype.htm&language=en_US<br><br>More on Page Layouts: https://help.salesforce.com/apex/HTViewHelpDoc?id=customize_layout.htm&language=en_US |
| 4 | 1.1.1.12 | The System shall allow incomplete data sets to be saved as "work-in-progress" for completion of the workflow at a later time | | Must Have | Users of the platform have the abiltiy to save an incomplete record to complete at a later time providing all required fields deemed so by the system administrator have been filled out. |
| 4 | 1.1.1.13 | The System shall highlight and flag required and incomplete data fields | The user should not be allowed to proceed until the required fields are completed | Must Have | With the Salesforce platform, all fields that are required will prevent the user from saving the record, and instruct the user what fields still need to be completed to save the record. |
| 4 | 1.1.1.14 | The System shall include multiple alert levels to allow users to determine urgency and relevancy | | Must Have | The Salesforce platform provides a variety of out of the box configurations to alert users of the urgency and relevance of the data |
| 4 | 1.1.1.15 | The System shall allow configuration of alerts by a user, for a user by a supervisor, and for a user by a System administrator | | Must Have | With the Salesforce platform, your system administrators have the ability to alerts by a user, for a user by a supervisor, and for a user by a System administrator using a combination of profile and role-based security. More on Role-based security: https://help.salesforce.com/HTViewHelpDoc?id=admin_roles.htm&language=en_US More on Profiles: https://help.salesforce.com/HTViewHelpDoc?id=admin_userprofiles.htm |
| 4 | 1.1.1.16 | The System shall allow for the request or entry of data from external devices (e.g. tablets) | Appraisers shall be able to input/access data into/from the system from field or outside of office | Must Have | Salesforce is accessible via the web for anyone that has access to your instance. Both mobile devices as well as fixed devices, assuming the users have login and security access, will be able to log in to Salesforce from any field location assuming they have internet connectivity. |
| 4 | 1.1.1.17 | The System shall indicate to users that the information being viewed is as of certain time and date | | Must Have | System fields in the SalesForce platform such as Last Modified By (indicates the Date/Time of who last modified the record) automatically update when a record is saved. Ensuring the user knows the date and time of when the recrod was last updated. |
| 4 | 1.1.1.18 | The System shall clearly indicate any calculated/derived data and prompt users to confirm and accept or override (where applicable) | | Must Have | We can leverage Salesforce workflow and validation rules to clearly indicate any calculated/derived data and prompt users to confirm and accept or override where applicable. |
| 4 | 1.1.1.19 | The System shall enable workflow alerts and transactional status. The System shall track pending work items in queues and allow grouping by attributes including, but not limited to, Roll Type, Property Type, Urgency, Status, User role, and System defined priority. | | Must Have | With the Salesforce platform, users will be able to track pending work items in queues and allow grouping by attributes with List Views. List views give you quick access to your important records. You can find preconfigured views, such as a list of recently viewed records, for every standard and custom object. Create customized list views to display records that meet your own criteria. For example, you may want to view all records assigned to a specific district or postal code in your municipality. A list view can be configured to return only those records that you want see. More on List Views: https://help.salesforce.com/apex/HTViewHelpDoc?id=listviews_parent.htm&language=en_US |

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| 4 | 1.1.1.20 | The System shall have the capability to push messages/ notification to the intended authorized users without requiring them to specifically inquire for the information | | Must Have | With the Salesforce platform, system administrators have the ability to automate messages (tasks and emails) to authorized users through workflows. Workflows work by establishing a set of business logic that triggers a series of events to occur. For example, you may want to send an email to someone whenever a new Case record is created for their agency or department. This would be accomplished with a workflow.<br><br>The types of actions that can be taken with a workflow include: Creating Tasks, Sending Emails, Updating Field Values, and Sending Outbound Web Service Calls.<br><br>More on Workflows: https://help.salesforce.com/htviewhelpdoc?id=customize_wf.htm&siteLang=en_US |
| 4 | 1.1.1.21 | The System shall maintain a help library with search capabilities | | Should Have | With the Salesforce platform, you will have access to Knowledge. Knowledge allows the system administrator to build a knowledge base and give website visitors, clients, partners, and service agents the ultimate in support. Salesforce Knowledge lets you create and manage your company information and securely share it when and where it is needed.<br><br>For more information regarding Knowledge: https://resources.docs.salesforce.com/206/latest/en-us/sfdc/pdf/salesforce_knowledge_implementation_guide.pdf |
| 4 | 1.1.1.22 | The System shall push or link alerts / notifications to mobile devices as defined by an authorized user | | Should Have | Mobile Push Notifications can be implemented in Salesforce. More can be seen here: https://developer.salesforce.com/docs/atlas.en-us.pushImplGuide.meta/pushImplGuide/pns_overview.htm |
| 4 | 1.1.1.23 | The System shall provide the capability for remote access in compliance with existing County / State / Federal connectivity/security policies | | Must Have | Salesforce is accessible via the web for anyone that has access to your instance. Both mobile devices as well as fixed devices, assuming the users have login and security access, will be able to log in to Salesforce from any field location assuming they have internet connectivity. |
| 4 | 1.1.1.24 | The System shall provide linked access to help functions that contain the appropriate information and search of all help information from every window, based on user profiles via on-line system documentation that is accessible at all times including, but not limited to:<br>a. On-line policy and procedures<br>b. User guides<br>c. System help | | Must Have | Salesforce help is provided in context to the screens. Additionally Salesforce enables every field to have custom help configured for it. |
| 4 | 1.1.1.25 | The System shall allow an authorized user to modify/edit on-line system documentation | | Must Have | Administrators and Delegated Administrators are able to modify/edit on-line system documentation. |
| 4 | 1.1.1.26 | The System shall provide office automation tools available based on user role. Tools include but are not limited to:<br>a. Ticklers<br>b. Alerts / notifications<br>c. Calendaring | | Should Have | With the Salesforce platform, workflow allows you to automate standard internal procedures and processes to save time across your organization. Workflows work by establishing a set of business logic that triggers a series of events to occur. For example, you may want to send an email to someone whenever a new Case record is created for their agency or department. This would be accomplished with a workflow. The types of actions that can be taken with a workflow include: Creating Tasks, Sending Emails, Updating Field Values, and Sending Outbound Web Service Calls. More on Workflows: https://help.salesforce.com/htviewhelpdoc?id=customize_wf.htm&siteLang=en_US |
| 4 | 1.1.1.27 | | | Should Have | |
| 4 | 1.1.1.28 | The System shall support uploading and attaching multiple file types to an Event. File formats include, but is not limited to:<br>a. jpeg/png<br>b. pdf<br>c. doc<br>d. xls<br>e. csv<br>f. fixed length txt file<br>g. html | | Must Have | Salesforce supports uploading and attaching all of these file types. More details can be found here: https://help.salesforce.com/articleView?id=collab_files_overview.htm&type=0 |
| 4 | 1.1.1.29 | System shall have point-of-use access to historical or other relevant information from current screens (i.e.. The ability to access parcel history/comments/uploaded documents from the current roll year information screen) | | Must Have | Salesforce provides the ability to audit your instance of Salesforce. Auditing features don't secure your organization by themselves; they provide information about usage of the system, which can be critical in diagnosing potential or real security issues. Someone in your organization should do regular audits to detect potential abuse. To verify that your system is actually secure, you should perform audits to monitor for unexpected changes or usage trends. Specific information that auditing is enabled for include Record Modification Fields, Login History, Field History Tracking, and Setup Audit Trail. More on Auditing: https://help.salesforce.com/apex/HTViewHelpDoc?id=security_overview_auditing.htm&language=en<br>With the Salesforce platform, users will be able to see all related records within a page layout for a record. Additionally, these related lists can be customized on a per profile basis. More on Related Lists: https://help.salesforce.com/apex/HTViewHelpDoc?id=customizing_related_lists.htm&language=en_US |

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| 4 | 1.1.1.30 | System shall provide notifications and hotlinks or other access to cross-functional parcel/account information from all parcel/account information screens when applicable and available (i.e.. Redemption accounts owing, supplemental bills owing, unsecured bills owing, etc.) | | Must Have | With the Salesforce platform, users will be able to see all related records within a page layout for a record. Additionally, these related lists can be customized on a per profile basis. More on Related Lists: https://help.salesforce.com/apex/HTViewHelpDoc?id=customizing_related_lists.htm&language=en_US |
| 4 | 1.1.1.31 | The system shall provide users with the capability to personalize/change screen views. | Need the capability to retain core fields | Should Have | Page Layouts enable customized views for different user profiles. More on Page Layouts can be found here: https://help.salesforce.com/articleView?id=customize_layout.htm&type=0&language=en_US&release=206.20 |
| 4 | 1.1.1.32 | Ability to define conditional edits (e.g., if field A is used then field B must have a value). | | Must Have | Salesforce validation rules provide the ability to define field-level conditional requirements. More can be found here: https://help.salesforce.com/articleView?id=fields_about_field_validation.htm&type=0&language=en_US&release=206.20 |
| 4 | 1.1.1.33 | The System shall support standard web browser-based Thin-Client Technology that supports centralized software distribution and implementation. This must be available on commonly used browsers including, but not limited to, Chrome, Safari, Firefox, and Microsoft Edge with the ability to provide data over a web browser interface (i.e. HTML over HTTP), and will include the capability to encrypt the data communicated over the network via SSL (HTML over HTTPS). | | Must Have | Salesforce is browser based. More details on supported browsers can be found: https://help.salesforce.com/articleView?id=getstart_browser_overview.htm&type=0&language=en_US&release=206.20 |
| **3** | **1.1.2** | **Audit & Compliance** | | | |
| 4 | 1.1.2.1 | The System shall maintain a record (e.g. audit trail) of all additions, changes and deletions made to data in the System via UI or backend database. In addition, a log of query or view access to certain type of records and/or screens will be maintained for investigative purposes and be readily searchable by user ID or client ID. This must include, but is not limited to: a. The user ID of the person who made the change b. The date and time of the change c. The physical, software/hardware and network location (IP address) of the person while making the change d. The information that was viewed, accessed, or changed e. The outcome of the event f. The data before and after it was changed, and which screens were accessed and used | The ability to capture the audit trail (log) should be configurable so that the administrator can enable/disable this functionality as deemed necessary. | Must Have | Salesforce provides the ability to audit your instance of Salesforce. Auditing features don't secure your organization by themselves; they provide information about usage of the system, which can be critical in diagnosing potential or real security issues. Someone in your organization should do regular audits to detect potential abuse. To verify that your system is actually secure, you should perform audits to monitor for unexpected changes or usage trends.

Specific information that auditing is enabled for include Record Modification Fields, Login History, Field History Tracking, and Setup Audit Trail.

More on Auditing: https://help.salesforce.com/apex/HTViewHelpDoc?id=security_overview_auditing.htm&language=en |
| 4 | 1.1.2.2 | The System shall allow an authorized administrator to set the inclusion or exclusion of auditable events based on organizational policy and operating requirements/limits | | Should Have | Salesforce provides the ability to audit your instance of Salesforce. Auditing features don't secure your organization by themselves; they provide information about usage of the system, which can be critical in diagnosing potential or real security issues. Someone in your organization should do regular audits to detect potential abuse. To verify that your system is actually secure, you should perform audits to monitor for unexpected changes or usage trends. Specific information that auditing is enabled for include Record Modification Fields, Login History, Field History Tracking, and Setup Audit Trail.
More on Auditing: https://help.salesforce.com/apex/HTViewHelpDoc?id=security_overview_auditing.htm&language=en |

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| 4 | 1.1.2.3 | The System shall be able to detect security-relevant events (as defined in NIST 800-53 moderate baseline, rev 4 or latest) that it mediates and generate audit records for them. At a minimum the events will include, but not be limited to:<br>a. Start/stop<br>b. User login/logout<br>c. Session timeout<br>d. Account lockout<br>e. Property/Account/Record created/viewed/updated/deleted<br>f. Scheduling<br>g. Query<br>h. Order<br>i. Node-authentication failure<br>j. Signature created/validated<br>k. Personally Identifiable Information (PII) export<br>l. PII import<br>m. Security administration events<br>n. Backup and restore<br>o. Audit Event Types listed in IRS 1075 | | Must Have | As of November 2017, Salesforce holds 43 Federal ATOs based on the original FedRAMP ATO. All 43 Federal ATOs were granted after rigorous review and serve as an example of the robust Salesforce FedRAMP implementation, process, and operations. Salesforce has received Provisional Authorizations (PA) from Defense Information Systems Agency (DISA) at Impact Level 2 (IL2) and Impact Level 4 (IL4), which is based on DISA's Cloud Computing Security Requirements Guide (SRG).<br><br>With a Cloud-based application platform, agencies minimize internal administration while obtaining optimal organizational agility, speed-to-value, and ease-of-use for a broad range of stakeholders.<br><br>Per conversations during due diligence, IRS pub 1075 compliance is no longer a requirement. |
| 4 | 1.1.2.4 | The System shall provide administrators with the capability to read all audit information from the audit records in multiple ways including but not limited to the following:<br>1) The System shall provide the audit records in a manner suitable for the user to interpret the information. The System shall provide the capability to generate reports based on ranges of System date and time that audit records were collected, User name, event type, workflow status, etc...)<br>2) The System shall be able to export logs into text format in such a manner as to allow correlation based on time (e.g. Coordinated Universal Time [UTC] synchronization) | | Must Have | All Salesforce Event Logs are viewable in browser and accessible via Salesforce's Events API.  More on Event Monitoring can be found here: https://developer.salesforce.com/docs/atlas.en-us.api_rest.meta/api_rest/using_resources_event_log_files.htm |
| 4 | 1.1.2.5 | The System shall provide authorized users the ability to grant read access to the audit records, except those users that have been granted explicit read access | | Must Have | With the Salesforce platform, your system administrators have the ability to grant system access to both internal users as well as external public users using a combination of profile and role-based security. More on Role-based security: https://help.salesforce.com/HTViewHelpDoc?id=admin_roles.htm&language=en_US More on Profiles: https://help.salesforce.com/HTViewHelpDoc?id=admin_userprofiles.htm |
| 4 | 1.1.2.6 | The System shall protect the stored audit records from unauthorized deletion | | Must Have | Field history is not able to be deleted by end users.  It is only deleteable via API.  More on Field History and Audit Trail can be found here: https://developer.salesforce.com/docs/atlas.en-us.206.0.securityImplGuide.meta/securityImplGuide/tracking_field_history.htm |
| 4 | 1.1.2.7 | The System shall prevent modifications to the audit records | | Must Have | Field history is not able to be deleted by end users.  It is only deleteable via API.  More on Field History and Audit Trail can be found here: https://developer.salesforce.com/docs/atlas.en-us.206.0.securityImplGuide.meta/securityImplGuide/tracking_field_history.htm |
| 4 | 1.1.2.8 | The System shall ensure data integrity. The system shall have the ability to maintain data in a predictable and consistently safe state | The application must provide the basic properties of a database transaction - ACID (Atomicity, Consistency, Isolation, and Durability). | Must Have | Salesforce provides this. |
| **3** | **1.1.3** | **Performance** | | | |
| 4 | 1.1.3.1 | The System shall have the ability to support session replication and transparent failover | | Must Have | Salesforce supports this.  More details can be found at http://trust.salesforce.com |
| 4 | 1.1.3.2 | The System shall provide the ability to recover from data loss due to end user error and application error | | Must Have | Salesforce supports this.  More details can be found at http://trust.salesforce.com<br>Additionally, we will be enabling backup and restoration services in our solution leveraging a third party tool called OwnBackup |

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| 4 | 1.1.3.3 | The System shall provide tools for managing an environment that supports both high availability and disaster recovery | | Must Have | Salesforce supports this. More details can be found at http://trust.salesforce.com |
| 4 | 1.1.3.4 | The System shall meet all performance requirements as detailed in the Implementation Service Level Requirements and Application Maintenance and Operations Service Level Requirements (both explicit requirements and those reasonable implied) | The Proposer shall detail their approach to Performance Monitoring and Reporting, as well as any relevant Service Level Agreements and metrics. The approach should include descriptions of performance monitoring, performance reporting, and any monitoring tools to be included in the proposed APAS Solution and services. | Must Have | Salesforce supports this. More details can be found at http://trust.salesforce.com |
| 4 | 1.1.3.5 | The system shall provide the capability to schedule routine jobs or one-time jobs that are resource intensive (e.g., mass updates). | | Must Have | Salesforce supports scheduling batch jobs to update large numbers of records at once. More can be found here: https://developer.salesforce.com/docs/atlas.en-us.apexcode.meta/apexcode/apex_batch_interface.htm |
| 4 | 1.1.3.6 | The system shall provide the capability to tune the system for increasing system performance for transaction screens, processes and/or reports (e.g., index a table, allocate more memory, etc.). | | Must Have | Salesforce supprots custom indexing by customers. Additionally, more complex indexes can be created through Salesforce. More can be found here: https://help.salesforce.com/articleView?id=000006007&language=en_US&type=1 |
| 4 | 1.1.3.7 | The System shall meet the required page/screen response time of 3 seconds or less | The page response time for internal/external users should not exceed 3 seconds. The solution must ensure that performance is not degraded when executing on-line analysis, reporting, or other functions during normal system operations. | Must Have | Salesforce does not provide SLA's, however, average page load times in applications we have built in the past have been <1 second. |
| **3** | **1.1.4** | **Interface/External Data Files** | | | |
| 4 | 1.1.4.1 | The System shall import/export data from/with Assessor's legacy information System: EZ-Access | • For Phase 1 (business personal property) roll closing, APAS requires data from EZ-Access to the APAS solution related to Institutional Exemption, Home owner's exemption, multiple claims and disable veteran's exemption.<br><br>• For Phase 1, prior to the roll close, the business personal property data file is transferred to the EZ Access (real property). | Must Have | "Produce file (full or delta if possible) by extracting EZ-Access data from DB2 AS400 using generic JDBC database connector with underlying IBM AS400 toolbox driver. This assumes connectivity is present between cloud-hosted integration solution and County's network by necessary firewall / network changes. Post file to a FTP/SFTP server using a connector (Spring Integration / JSch)<br><br>Use triggered integration worklfow batch job to fetch file from FTP/SFTP location, read file and write to SalesForce using its web service API wrapped by Spring Batch for greater batch control for chunking, re-try etc<br><br>Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression<br><br>Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI" |
| 4 | 1.1.4.2 | The System shall interface with the County and/or Assessor's Geographic Information System (GIS) | • The County GIS system will pick up the file(s) from the APAS solution system on a nightly basis. The file contains situs information, legal description, current owner information, latest 4 close rolls information, characteristics information and sales history.<br>• Also annually, the legacy system passes a fixed ASCII text file of the latest close roll TRA/account information and the APN/PUC information to the GIS system. | Must Have | Use triggered integration worklfow batch job to generate file using results from SOQL (Salesforce Object Query Language) including relationships as needed.<br><br>Upload file to FTP/SFTP using a connector (Spring Integration / JSch)<br><br>Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression<br><br>Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI |
| 4 | 1.1.4.3 | The System shall import data from the County Recorder / Clerk System including, but not limited to:<br>1. South Tech - Landdocs | • The APAS Solution will link to the Recorder's System to display documents based on the indexed document number.<br>• Currently the legacy AS/400 system pulls data from the Recorder's System on a nightly basis. We get Deed information in a fixed length ASCII text file (3). | Must Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API<br><br>Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression<br><br>Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI |

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| 4 | 1.1.4.4 | The System shall export data to the Controller system (Other County System) | • Controller staff access APAS for property assessment information.<br>• The current Legacy System (EZ Access) pulls data from EZ Access and sends to the Controller:<br>o Roll information is exported bi-annually as a ASCII text file;<br>o Ownership information is exported weekly as a ASCII text file;<br>o Home Owner Exemption information is exported as an Excel file on an annual basis;<br>o Parcel Genealogy Information is exported as a fixed ASCII text file and on an annual basis;<br>o Supplemental Billing is exported monthly and sent as a fixed ASCII text files;<br>o Unsecured billing file is exported five to six times a year and in fixed ASCII text files.<br>• The APAS Solution will import billing number information from the Controller's five times a year and in fixed ASCII text files. | Must Have | Use triggered integration worklfow batch job to generate file using results from SOQL (Salesforce Object Query Language) including relationships as needed.<br><br>Upload file to FTP/SFTP using a connector (Spring Integration / JSch)<br><br>Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression<br><br>Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI |
| 4 | 1.1.4.5 | The System shall interface with Tax Collector system (Other County System) | • Tax Collector staff access APAS for property assessment information and ACRE provide Roll information, Ownership information, Home Owner Exemption information etc. | Must Have | Use triggered integration worklfow batch job to generate file using results from SOQL (Salesforce Object Query Language) including relationships as needed.<br>Upload file to FTP/SFTP using a connector (Spring Integration / JSch)<br>Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression<br>Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI |
| 4 | 1.1.4.6 | The System shall interface with the County Assessor Appeals Board (AAB) System | Currently AAB system and legacy System are not integrated. The proposed system shall have the capability to seamlessly interface with AAB system for appeals related information. | Must Have | The java based open source libraries and frameworks prposed for use within the integration solution have a wide array of capabilities to suit most data and application integration situations. They will be used to establish interface using standard protocols like Web service, File, Database, Messaging etc. This assumes connectivity is present between cloud-hosted integration solution and County's network by necessary firewall / network changes. Also assumes AAB will perform the requisite work to provide a viable interface mechanism. |
| 4 | 1.1.4.7 | The System shall import data from the County building permit system (Accela Automation) | The County of San Mateo Building & Planning Department uses Accela Automation, a land use database, to track their permitting information. | Must Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API. Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression. Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI. |
| 4 | 1.1.4.8 | The System shall interface with the County's existing Enterprise Document Management Systems (e.g., IBM FileNet and SharePoint) for document management, document imaging and image capture, records management and web content management) System | The APAS Solution will display existing documents based on indexed information (e.g Assessor Parcel Number or account number). | Must Have | SharePoint:<br>Salesforce will leverage "Salesforce Files Connect" exchange documents / files from/to SharePoint<br>IBM FileNet:<br>Salesforce will leverage FileNet's SOAP interface to exchange documents / files<br>This assumes connectivity is present between Salesforce and County's network by necessary firewall / network changes |
| 4 | 1.1.4.9 | The System shall interface with the State Administrator Dept. of any subscribed SDR and eSDR services | County gets both SDR/eSDR (property statement) information from CAA server. This data is in an HTML format. | Must Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API. Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression. Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI. |
| 4 | 1.1.4.10 | The System shall capture data from Marshall & Swift (M&S), an external system | ACRE gets Valuation information (based on cost approach) from M&S in a PDF file on regular basis, which will be stored in FileNET. The APAS Solution shall have the ability to capture/store cost-basis data. | Should Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API. Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression. Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI. |

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| 4 | 1.1.4.11 | The system shall import/export with/from the valuation applications and accept data for individual as well as mass update | • For real property, ACRE will be acquiring a valuation system that will have to interface with the APAS solution in order to push-and-pull data between the two systems.<br>• Please note: For business personal property, the valuation process is integrated in the EZ Access system and is part of the functional requirements of the APAS solution. | Must Have | The java based open source libraries and frameworks prposed for use within the integration solution have a wide array of capabilities to suit most data and application integration situations. Depending upon the integration capabilities of future valuation applications an appropriate integration mechanism will be determined.<br>If this integration is via file:<br>It is assumed that file will be accessible from FTP/SFTP location. Use batch processing job to fetch file from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API. Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression. Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI. |
| 4 | 1.1.4.12 | The System shall have the capability to import/export data from/to APAS with the State Board of Equalization (BOE) | • Currently County provides Roll files (fixed length ASCII text file) on an annual basis to an FTP site managed by the county.<br>• Also BOE requests audit information on needed basis.<br>• Also BOE requests Multiple Claim Listing (MCL) information on a secure (password protected) email and we provide home owner/veterans exemption information, Consumer Price Index (CPI) and Tax Rate Area (TRA) information on a quarterly basis in a fixed ASCII file.<br>• ACRE receives Legal Entity Ownership Program (LEOP) data from BOE in an Excel file multiple times in a year. This data will be used to determine the penalty.<br>• ACRE receives Business Personal property valuation information from BOE in a PDF report form.<br>• Also ACRE provide various reports on annually and quarterly either in Excel or fixed ASCII file, depending on the request. | Must Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API.<br>Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression.<br>Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI.<br>Use triggered integration worklfow batch job to generate file using results from SOQL (Salesforce Object Query Language) including relationships as needed.<br>Upload file to FTP/SFTP using a connector (Spring Integration / JSch)<br>Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression<br>Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI<br>Ad-hoc / On-demand data import/export is supported via schedular UI.<br>Excel and PDF file data extraction is achieved using custom connectors that use Apache Tika as the underlying library for both formats.<br>Reports in Excel format can either be produced as CSV or leverage a custom connector that uses Jxls or Apache POI |
| 4 | 1.1.4.13 | The System shall have the capability to capture data from external agencies including, but not limited to:<br>a. Aircraft Blue Book | This is both CD and website. The CD is sent annually to Auditor staff and will be imported into the APAS solution. | | Achieved through Salesforce pages / forms |
| 4 | | b. FAA | County uses the FAA website to look-up ownership information. Currently we look at the data from the website and manually enter the details into the system. | Must Have | Achieved through Salesforce pages / forms |
| 4 | | c. NADA | National Automobile Dealers Association (NADA) - Every year NADA publishes a Valuation guide. ACRE uses (look up) this guide for valuation of Business Personal Property. Currently NADA do not have any web interface or the ability to extract data from NADA website. The APAS Solution shall have the capability to capture data acquired from NADA. | Must Have | Achieved through Salesforce pages / forms |
| 4 | | d. BUC | BUC's USED BOAT PRICE GUIDES, a.k.a. "The BUC Book", have been the used boat pricing "Bible" for the boating industry. Staff uses the BUC website to look-up information, but can also download information into PDF. The APAS Solution shall have the capability to capture data acquired from BUC. | Must Have | Achieved through Salesforce pages / forms |

| 4 | | e. Coast Guard | ACRE gets Business personal property information (boats) from Coast Guard. Website to look-up information. The APAS Solution shall have the capability to capture data acquired from Coast Guard. | Must Have | Achieved through Salesforce pages / forms |
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| 4 | | f. Other publicly available data sources | Some of the available data sources are magazines, newsletters etc. The APAS Solution shall have the capability to capture data acquired from these data sources.. | Must Have | Achieved through Salesforce pages / forms |
| 4 | 1.1.4.14 | ~~The System shall provide the capability to integrate with MS Office products including, but not limited to importing and exporting content, data, and calculations.~~ | There are data calculations currently being executed in MS Access and MS Excel, which will be manually uploaded into the APAS Solution. Note: This item is a duplicate entry. Please refer to Item # 1.1.4.17 | Must Have | |
| 4 | 1.1.4.15 | The System shall have the capability to import/capture data from external agencies including, but not limited to: a. The System shall import data from the Department of Motor Vehicles (DMV) | Currently DMV notify IT that the file is ready to pick up from the DMV FTP site. County receives a monthly update in a fixed length ASCII text file. | | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI |
| 4 | | b. The System shall provide the capability to import USPS data files | ACRE receives USPS data files contains address information in a Fixed ASCII text file multiple times in a year. | Must Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression. Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI. |
| 4 | | c. The System shall provide the capability to import data from city building departments | Currently we are getting electronic permits either in text (.txt) or Excel (.xls) files from 10 cities Building & Planning departments. We need the capability to import these files into the APAS solution. | Must Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI. Refer to 1.1.4.12 for Excel format files |
| 4 | | d. The System shall provide the capability to capture data from IREM | ACRE receives rental information, vacancy information and other details pertaining to real property from IREM site in a CSV file multiple times in a year. The APAS Solution shall have the capability to capture data acquired from IREM and make it available from a query screen for Appraiser review. | Must Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI Query screen - achieved through Salesforce pages / forms |
| 4 | | e. The System shall provide the capability to capture data from KORPAZ | ACRE receives real estate surveys, capitalizations rate and other valuation related information from KORPAZ in a PDF file. We are expecting this information can be available in Excel file in near term. The APAS Solution shall have the capability to capture data acquired from KORPAZ. | Should Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI Refer to 1.1.4.12 for Excel format files |
| 4 | | f. The System shall provide the capability to import data from MarinasZ | ACRE gets Business personal property valuation information (boats) from Marinas in Excel format on an annual basis. | Should Have | Use triggered integration worklfow batch job to fetch file(s) from FTP/SFTP location, read file and write to SalesForce via Salesforce web service API Job run schedule is set up in Obsidian / QuartzDesk scheduler that support poll / event driven as well as cron expression Monitor status of extraction bulk job, as well as data update in Salesforce via the scheduler UI and/or Salesforce monitoring UI. |

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| 4 | | ~~g. The System shall provide the capability to import data from Coast Guard~~ | On a monthly or as needed basis, ACRE gets Business personal property information (boats) from Coast Guard. This information is available on the NOAA Fisheries Website.<br><br>Note: This item is a duplicate entry. Please refer to<br>Item # 1.1.4.13 | Should Have | We will be implementing middleware as part of our project to enable integrating with a variety of systems. |
| 4 | | h.TheSystemshallprovidethecapabilitytoimportdatafromAirports | ACRE gets ownership information and planeinformationinanExcelfileonceayear. | Should Have | Please refer 1.1.4.3 Refer to 1.1.4.12 for Excel format files |
| 4 | | i.TheSystemshallprovidethecapabilitytocapturedatafromMultipleListingServices(MLS) | ACRE gets real estate data related to residential properties in an Excel fileon a daily basis from MLS. The APAS Solution shall have the capability to capture data of property characteristics from MLS. | Must Have | Please refer 1.1.4.3 Refer to 1.1.4.12 for Excel format files |
| 4 | | j.TheSystemshallprovidethecapabilitytocapturedatafromCoStar | ACREgetsrealestatedatarelatedtocommercialpropertiesinanExcelfileonadailybasisfromCoStar.  The APAS Solution shall have thecapabilitytocapturedataacquiredfromCoStar. | Must Have | Please refer 1.1.4.3  Refer to 1.1.4.12 for Excel format files |
| 4 | 1.1.4.16 | TheSystemshallhavethecapabilitytoexportdatatoexternalagenciesincluding,butnotlimitedto:<br>a.TheSystemshallprovidethecapability to export data toPrint/MailingVendor(s) | CurrentlyCountyprovidesPropertyinformationforprinting questionnaires, notices, propertystatementsetc.TheinformationisprovidedviaASCIItextfileorMSAccesstables. | | Please Refer 1.1.4.2 |
| 4 | | b.TheSystemshallprovidethecapability to export data toParcelQuest | Parcel Quest - County ExportAssessment/Sales/characteristicsdataandmapsto Parcel Quest on Daily, Semi-annually, andAnnuallybasis. | Must Have | Please refer 1.1.4.2 |
| 4 | | c.TheSystemshallprovidethecapabilitytoexportdatatoCountyElectionSystem | CurrentlyITprovidessitusandTRAinformationonanad-hocbasistotheElectionDepartment. | Must Have | Please refer 1.1.4.2 |
| 4 | | d.TheSystemshallprovidethecapabilitytoexportdatafilestoPublicWorkssystem | ACREprovidesOwnershipinformation(export)inaFixedASCIItextfileandExcelfiletoPublicWorkstwotimesayear. | Could Have | Please refer 1.1.4.2 |
| 4 | 1.1.4.17 | Thesystemshallhavethecapabilityofinterfacing,importing/capturingdatafromdifferentinternaldatabasewhichincludesconfidentialandopendata | Mostoftheseinternaldatabases/datasourcesareinMSAccessandMSExcel. | Must Have | Please Refer 1.1.4.3 |
| 2 | **1.2** | **Technology Requirements** | | | |
| 3 | **1.2.1** | **Interoperability** | | | |
| 4 | 1.2.1.1 | The System's interfaces (external) will secure and protect (encrypt) the data and the associated infrastructure from a confidentiality, integrity and availability perspective | Majority of the external interfaces are data transfer/dump between County System and external System | Must Have | See Template I Section 1.1.4 for a description of our integration strategy. |
| 4 | 1.2.1.2 | The System's interfaces will be scalable to accommodate changes including but not limited to changes in user population, transaction volume, and throughput. | Use County/ACRE Department approved technology | Should Have | See Template I Section 1.1.4 for a description of our integration strategy. |
| 4 | 1.2.1.3 | The System shall implement within the agreed phases, at a minimum, interfaces (real-time and/or batch) with the applications and data sources listed in the section "Interface"  These interfaces will be architected/designed during the Definition Phase in consultation with the County | | Must Have | See Template I Section 1.1.4 for a description of our integration strategy. |
| 4 | 1.2.1.4 | The System shall perform source to destination file integrity checks for exchange of data and alert appropriate parties with issues | This includes data hashing or checksum or other methods. | Must Have | See Template I Section 1.1.4 for a description of our integration strategy. |

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| 4 | 1.2.1.5 | The System shall provide Real-Time (or near real-time) Integrated Enterprise where common data elements (E.g.: APN, Account Number, Situs Address) and known information are easily shared across organizational units (departments), and adhere to County, State, and Federal security and privacy restrictions | Will define what information can be shared across the enterprise during the Definition phase | Must Have | See Template I Section 1.1.4 for a description of our integration strategy. |
| 4 | 1.2.1.6 | The system shall use Application integration, both internal and external, will go through the ESB. The System shall avoid point-to-point integrations wherever possible. | | Must Have | See Template I Section 1.1.4 for a description of our integration strategy. |
| 4 | 1.2.1.7 | The System shall be able to provide reliability for applications, services or message flows through:<br>- Load balancing<br>- High availability<br>- Fault tolerance<br>- Failover<br>- Execution/Message prioritization<br>Tests for High Availability and Failover must be completed prior to the release to UAT | There should not be a single point of failure<br>The solution will differ based on the delivery model.<br>Evaluate this requirement based on the number of users/concurrent users. | Must Have | See Template I Section 1.1.4 for a description of our integration strategy. |
| 4 | 1.2.1.8 | The System shall have the ability to use standards-based communication protocols, such as TCP/IP, HTTP, HTTP/S, SOAP, REST and SMTP. | | Must Have | See Template I Section 1.1.4 for a description of our integration strategy. |
| 4 | 1.2.1.9 | The System shall have the ability to track a message from its origin to its destination (inside a firewall), inquire on the status of that message and address exceptions (for example, resend the message if a target times out). | | Should Have | Custom event and error handling is a feature that will be provided with the instance of Salesforce that is proposed as part of our solution. With these features, we can re-trigger events that fail and employ custom solutions. |
| 4 | 1.2.1.10 | The System shall be able to update/push to User calendars outside of the System (i.e., Microsoft Outlook, MS Office 365, etc...) | | Should Have | Salesforce's Lightning for Outlook feature enables direct connection and syncing with Microsoft Outlook/365. |
| 4 | 1.2.1.11 | The System shall be able to view/preview interface file imports before running the program to update the database. | | Must Have | There are multiple import and interface methods within Salesforce that allow you to preview file imports before running the program to update the database. |
| 4 | 1.2.1.12 | The System shall be able to view/preview interface file exports. | | Must Have | There are multiple import and interface methods within Salesforce that allow you to preview file imports before running the program to update the database. |
| **3** | **1.2.2** | **Scalability and Extensibility** | | | |
| 4 | 1.2.2.1 | The System shall be scalable and adaptable to meet future growth such that the System can be expanded on demand and be able to retain its performance levels when adding additional users, functions, and data. | | Must Have | The Salesforce service has been designed to provide customers with 100% trusted privacy with the highest levels of performance, reliability, and security. Salesforce has built, and continues to invest in, a comprehensive security infrastructure, including firewalls, intrusion detection systems, and encryption for transmissions over the Internet, which Salesforce monitors and tests on a regular basis. Salesforce built and maintains a multi-tenant application architecture that has been designed to enable the Salesforce service to scale securely, reliably and cost-effectively. The Salesforce multi-tenant application architecture maintains the integrity and separation of customer data while still permitting all customers to use the same application functionality simultaneously. With multi-tenancy, all Salesforce customers run their applications on a common infrastructure. This means that every customer is always on the latest release of Salesforce applications and has access to the latest technology. Multi-tenancy makes it is easier to scale new users and applications. With multi-tenancy, customers don't have to worry about managing infrastructure. |
| 4 | 1.2.2.2 | The System shall provide screens that are re-configurable, providing ability to reposition and rename field labels / data fields, remove or "turn-off" unused fields, maintain data, and allow additional custom-defined fields. | Data entry/Master screens should be consistent and only authorized user can make the changes | Must Have | Page Layouts enable customized views for different user profiles. More on Page Layouts can be found here: https://help.salesforce.com/articleView?id=customize_layout.htm&type=0&language=en_US&release=206.20 |

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| 4 | 1.2.2.3 | The System shall provide the ability to create/modify business rules. | For example, the setting of effective activation dates for applying configured rules, as well as dates/times for rule inactivity | Must Have | With the Salesforce platform, system administrators have the ability to automate messages (tasks and emails) to authorized users through workflows. Workflows work by establishing a set of business logic that triggers a series of events to occur.  For example, you may want to send an email to someone whenever a new Case record is created for their agency or department.  This would be accomplished with a workflow.<br><br>The types of actions that can be taken with a workflow include:  Creating Tasks, Sending Emails, Updating Field Values, and Sending Outbound Web Service Calls.<br><br>More on Workflows:  https://help.salesforce.com/htviewhelpdoc?id=customize_wf.htm&siteLang=en_US |
| 4 | 1.2.2.4 | The System shall alert an authorized user if existing data violates any new/modified business rules. | | Must Have | **See workflows above** |
| 4 | 1.2.2.5 | The System shall have the ability to track and report on the status of each Event (e.g., Sale, CIO, Re-Assessment, Appeal, Roll Change, etc...) throughout the life of the Event | | Must Have | With the Salesforce platform, you will be able to track and report on all fields in the database, status of Events, and any other combination of data tracked in the system.  You can even report on data tracked in external systems using Salesforce's Lightning Data Connect and Salesforce Wave* prodcuts which can pull in data from external related database systems.<br><br>More on Reports:  https://help.salesforce.com/HTViewQuickStarts?id=000113375&language=en_US<br>More on Lightning Data Connect:  https://developer.salesforce.com/page/Lightning_Connect<br>*More on Salesforce Wave Analytics Cloud (Additional Cost):  http://www.salesforce.com/analytics-cloud/overview/ |
| 4 | 1.2.2.6 | For each step in the life of the Event discussed above, the System shall establish and track the status, e.g., in process, missing data, pending, complete, approved, disapproved, etc. and have the ability to report on the status of each Event | The System shall keep the history of changes to each event. | Must Have | With the Salesforce platform, you will be able to track and report on all fields in the database, status of Events, and any other combination of data tracked in the system.  You can even report on data tracked in external systems using Salesforce's Lightning Data Connect and Salesforce Wave* prodcuts which can pull in data from external related database systems. More on Reports: https://help.salesforce.com/HTViewQuickStarts?id=000113375&language=en_US<br>More on Lightning Data Connect:  https://developer.salesforce.com/page/Lightning_Connect<br>*More on Salesforce Wave Analytics Cloud (Additional Cost):  http://www.salesforce.com/analytics-cloud/overview/ |
| 4 | 1.2.2.7 | The System shall provide the capability to expand a data field length based on business need | | Must Have | With the Salesforce platform, your administrator, or anyone given access, will have the ability to add new fields or edit the size of existing fields.  In addition to fields, they will have the ability to add/edit/remove related lists, custom visualforce markup language, feed items, and associated actions.<br><br>More on Page Layouts: https://help.salesforce.com/apex/HTViewHelpDoc?id=customize_layout.htm&language=en_US |
| 4 | 1.2.2.8 | The System shall be designed such that the upgrades to next version or OS is supported | Application portability is very important factor while designing the system. In so far as is possible, application design should limit use of specific versions of external libraries and vendor should make an effort to keep abreast of industry trends with an eye to selecting technologies likely to be supported in the long term, to enhance upgradeability of system libraries/OS in future ( e.g. .Net Framework, Windows Server, Enterprise Library, etc.). | Must Have | Salesforce is browser based.  As such it is independent of OS versions. |
| 4 | 1.2.2.9 | The System shall be designed to ensure that future application upgrade is easy and smooth | | Must Have | With Salesforce you will receive automatic updates in the price of your subscription.  See here for more information on Salesforce upgrade process: https://help.salesforce.com/articleView?id=000176208&type=1 |
| 4 | 1.2.2.10 | The System design shall allow the ability to scale out/scale up as demand rises in the future (from a architecture standpoint)<br>Scale out is the preferred approach. Scale up should only be considered as the option for monolithic workload that cannot be separated or shared between servers | Calculate how well increasing demand is handled using formal stress testing with well-understood metrics. Measure the throughput and resource usage at various loads. Analyze the result to determine whether the system is scalable. | Must Have | Salesforce automatically scales to your needs.  It has the capacity to scale to the largest of teams. The architecture behind the service was designed to handle millions of users. We scale as rapidly as our customers require.  See more detail here: https://help.salesforce.com/articleView?id=faq_scalability.htm&type=0&language=en_US&release=206.20 |
| 3 | 1.2.3 | **Regulatory and Security** | | | |

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| 4 | 1.2.3.1 | The System shall, provide a mechanism to comply with latest security requirements and safeguard requirements of the following State /Federal agencies / entities:<br>a. NIST 800-53 r4, MARS-E and DOD 8500.2<br>b. IRS pub 1075, which points back to NIST 800-53 rev 3<br>c. Federal Information Security Management Act (FISMA) of 2002<br>d. Privacy Act of 1974<br>e. e-Government Act of 2002<br>f. Any applicable California Laws<br>g. Section 508 Compliance for ADA | | Must Have | Salesforce's GovCloud instance will provide the platform for meeting the County's security requirements. Based on our understanding during the due diligence phase, 1075 compliance is no longer a requirement. See here for more detail on GovCloud: https://apps.gov/products/salesforce/.<br><br>Salesforce is committed to providing on-demand enterprise applications accessible to all individuals. This includes users working with assistive technology, such as speech recognition software and screen readers. To help meet our goal of accessible design, Salesforce follows the internationally recognized best practices in Section 508 of the Rehabilitation Act and the Web Content Accessibility Guidelines (WCAG) 2.0 Level AA.<br><br>Salesforce introduced the Lightning User Experience, which brings a re-imagined user interface that is modern, efficient, and highly accessible. The Lightning Experience is engineered with Accessible Rich Internet Application (ARIA) features built in that help assistive technology users have the best possible experience with Salesforce. We provide software releases three times a year, ensuring that our customers can easily take advantage of the accessibility features introduced in each release.<br><br>The Salesforce Lightning Experience Voluntary Product Accessibility Template (http://salesforce.com/company/legal/508_accessibility.jsp) serves as a guide in evaluating conformance to Section 508 of the Rehabilitation Act and WCAG within Salesforce Lightning Experience UI. The accessibility features available within a Salesforce applications are dependent on the application UI configuration and Lightning component usage. For this reason, adherence to accessibility requirements should be evaluated throughout the design and final testing of the Salesforce application and not merely on a specific VPAT.<br><br>The VPATs are encompassing of the features and functions of Salesforce products and provide an explanation of supporting features. If required, Salesforce will make itself available to review the VPAT and features with your organization's Accessibility team to determine the requirements and our ability to ensure accessibility.<br><br>Copies of VPATs are available on the Salesforce website at: https://www.salesforce.com/company/legal/508_accessibility.jsp. As new or additional VPATs become available, they will be posted to the Salesforce website.<br><br>Additional accessibility details can be found at: https://help.salesforce.com/apex/HTViewHelpDoc?id=accessibility_overview.htm&language=en and https://www.lightningdesignsystem.com/accessibility/overview/. |
| 4 | 1.2.3.2 | The System shall comply with all applicable County security policies and adhere to all legal, statutory, and regulatory requirements, as determined by the County leadership | | Must Have | Throughout the definition phase as well as the development phases Sapient will work with the county, leveraging the flexibility of the Salesforce platform, to architect, configure and build a system to meet your applicable requirements where required and as applicable. |
| 4 | 1.2.3.3 | The System shall adhere to the principle of "Fail Safe" to ensure that a system in a failed state does not reveal any sensitive information or leave any access controls open for attacks | | Must Have | Redundant boundary protection devices are employed within the production network to allow for failover capabilities in the event that a device becomes inoperable. If a boundary protection devices fails, devices fail securely. |
| 4 | 1.2.3.4 | The System shall allow for controlled access to citizen-client records. Users will be able to view data within the System at the County-defined levels of access based on user security privileges | | Must Have | Salesforce allows for this. See here more information: https://help.salesforce.com/articleView?id=overview_security.htm&type=0 |
| 4 | 1.2.3.5 | The System shall maintain a level of security that is commensurate with the risk and magnitude of the harm that could result from the loss, misuse, disclosure, or modification of information | | Must Have | Salesforce Organization-Wide Default settings for security, when set to private, ensure that users by default do not have access to records unless they are granted.<br>Additionally, we will be implementing Salesforce Shield platform encryption which ensures that all data is encrypted at rest and only San Mateo will have the keys to decrypt that data. |
| 4 | 1.2.3.6 | The System shall provide a mechanism to limit access to view/update information, based on User role, access rights, member consent, and program rules | | Must Have | With the Salesforce platform, system administrators have the ability to configure the accessabilty of data through a variety of different security features.<br>More information on Salesforce's most recent implementation guide: http://resources.docs.salesforce.com/198/12/en-us/sfdc/pdf/salesforce_mobile_implementation.pdf |
| 4 | 1.2.3.7 | The System shall support security at the object level (e.g. Table, View, Index) | | Must Have | Salesforce's security profiles will be set up to ensure this level of security is applied. See more on security here: https://developer.salesforce.com/page/An_Overview_of_Force.com_Security |
| 4 | 1.2.3.8 | The System shall support security at the row and column level | | Must Have | Salesforce's security profiles will be set up to ensure this level of security is applied. See more on security here: https://developer.salesforce.com/page/An_Overview_of_Force.com_Security |
| 4 | 1.2.3.9 | The System shall support auditing at the object level (i.e. Table, Column) | | Must Have | Salesforce's security profiles will be set up to ensure this level of security is applied. See more on security here: https://developer.salesforce.com/page/An_Overview_of_Force.com_Security |

| 4 | 1.2.3.10 | The System shall provide the ability for concurrent users to simultaneously view the same record, documentation and/or template | | Must Have | Salesforce allows any number of users to view the same record, documentation and/or templates. |
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| 4 | 1.2.3.11 | The System shall provide protection to maintain the integrity of data during concurrent access | | Must Have | Salesforce handles instances where one user edits a record while another person is also editing another record by alerting the user that the record was modified while they were modifying the record, allowing them to copy their work and refresh the record. |
| 4 | 1.2.3.12 | The software used to install and update the System, independent of the mode or method of conveyance, will be certified free of malevolent software ("malware"). The Proposer may self-certify compliance with this standard through procedures that make use of commercial malware scanning software. | | Must Have | Salesforce has many controls in place in regards to security. See here for more information on Salesforce's security: https://trust.salesforce.com/en/security/stay-current-security/ |
| 4 | 1.2.3.13 | The System shall support protection of confidentiality of all Property Owner Information delivered over the Internet or other known open networks via encryption using Advanced Encryption Standard (AES) and an open protocol such as Transport Layer Security (TLS), Secure Sockets Layer (SSL), Internet Protocol Security (IPsec), XML encryptions, or Secure/Multipurpose Internet Mail Extensions(S/MIME) or their successors. | | Must Have | Salesforce supports AES, TLS, SSL, IPsec, XML encryptions S/MIME and many other advanced security mechanisms to ensure your data is secure. |
| 4 | 1.2.3.14 | The System shall, when storing Confidential Information on any device intended to be portable/removable (e.g. Smartphones, portable computers, portable storage devices), support use of a standards based encrypted format using AES or their successors | | Must Have | All Salesforce1 mobile app cached data is encrypted and stored in a secure, persistent data store. https://help.salesforce.com/articleView?id=customize_sf1_offline_view.htm&language=en_US&type=0 |
| 4 | 1.2.3.15 | The System shall, prior to access to any Confidential Information, display a County-approved configurable warning or login banner (e.g. "The System should only be accessed by authorized users"). | | Must Have | This will be set up. |
| 4 | 1.2.3.16 | The System shall not transmit or store any Confidential Information using publically available storage over the Internet or any wireless communication device, unless encrypted in accordance with applicable law as required by policies and procedures established by the County Information Security Officer. | | Must Have | All data will be stored in Salesforce's secure cloud, or in an encrypted data store resident on a device in the event the data is cached on a mobile device app. |
| 4 | 1.2.3.17 | The System shall provide the capability to monitor events on the information system, including detecting attacks and providing identification of unauthorized use of the System, and reporting on inappropriate access to information in the System, based on user defined criteria | | Must Have | Application level event logs are viewable in browser and accessible via Salesforce's Events API. More on Event Monitoring can be found here: https://developer.salesforce.com/docs/atlas.en-us.api_rest.meta/api_rest/using_resources_event_log_files.htm |
| 4 | 1.2.3.18 | The System shall include the same security provisions for the development, system test, acceptance test and training environment as those used in the production environment | | Must Have | All of Saleforces development, test, sandbox environments are hosted in the same cloud, in different nodes, as your production environment. |
| 4 | 1.2.3.19 | The System shall use firewalls and Demilitarized Zones (DMZs) for external access and remote access | | Must Have | The Salesforce service has been designed to provide customers with 100% trusted privacy with the highest levels of performance, reliability, and security. Salesforce has built, and continues to invest in, a comprehensive security infrastructure, including firewalls, intrusion detection systems, and encryption for transmissions over the Internet, which Salesforce monitors and tests on a regular basis. |
| 4 | 1.2.3.20 | **Identity and Access Management** | | | |

| 5 | 1.2.3.20.1 | The System shall support a secured form of user authentication | The System shall integrate with Active Directory | Must Have | Salesforce provides very robust security capabilities.  For a comprehensive view, go here: https://help.salesforce.com/articleView?id=security_overview_infrastructure.htm&language=en_US&type=0 All security capabilities are able to be implemented at an individual user level, or more broadly applied to a group of people.<br><br>More on Security:  https://help.salesforce.com/apex/HTViewHelpDoc?id=overview_security.htm&language=en |
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| 5 | 1.2.3.20.2 | The System shall, upon detection of inactivity of an interactive session, prevent further viewing and access to the System by that session by terminating the session, or by initiating a session lock that remains in effect until the user reestablishes access using appropriate identification and authentication procedures. The inactivity timeout will be configurable. | | Must Have | With the Salesforce platform, session time-out is configurable on a profile basis.  This enables an administrator to adjust how long sessions can last before requiring users to re-login.<br><br>More on Session Timeout:  https://help.salesforce.com/apex/HTViewHelpDoc?id=users_profiles_session.htm&language=en_US |
| 5 | 1.2.3.20.3 | The System shall enforce a limit of (configurable) consecutive invalid access attempts by a user. The System shall protect against further, possibly malicious, user authentication attempts using an appropriate mechanism (e.g. locks the account/node until released by an administrator, locks the account/node for a configurable time period, or delays the next login prompt according to a configurable delay algorithm). | Alternatively, the user can come back after a certain period of time. Will finalize the approach during Definition Phase | Must Have | With the Salesforce platform, there is robust security that allows the system administrator to define the maximum invalid login attempts along with the lockout effective period. More on Password Policies: https://help.salesforce.com/articleView?id=admin_password.htm&type=0 |
| 5 | 1.2.3.20.4 | The System shall provide the capability for Database Administrators to perform their required activities and functions while maintaining data security and access rights that may exclude Database Administrators from viewing the data they are stewarding. | DBA shall have the access to encrypted data with multiple levels of access | Must Have | Salesforce administrators will have access to all data in the system.  Should there be a desire to better control access for certain users, a delegated administrator or custom profile can be be created for that DBA. |
| 5 | 1.2.3.20.5 | The System shall support grouping users by roles, functional departments or other organization to simplify security maintenance | Alternately can be managed by Active Directory during the Definition Phase | Must Have | With the Salesforce platform, your system administrators have the ability to grant system access to both internal users as well as external public users using a combination of profile and role-based security. More on Role-based security: https://help.salesforce.com/HTViewHelpDoc?id=admin_roles.htm&language=en_US More on Profiles: https://help.salesforce.com/HTViewHelpDoc?id=admin_userprofiles.htm |
| 5 | 1.2.3.20.6 | The System shall provide the ability to maintain a directory of all personnel who currently use or access the System | | Must Have | The county can view and manage the users they have granted access to within the county's Salesforce Org (environment). |
| 5 | 1.2.3.20.7 | The System shall provide the ability to carry out scheduled maintenance outside the business hours | e.g.: backup application servers, scheduling maintenance jobs etc. | Must Have | Salesforce's maintenance schedule can be viewed here:  https://help.salesforce.com/articleView?id=000176208&type=1  Admins can maintain any maintenance schedule for their own org changes. |
| 5 | 1.2.3.20.8 | The System shall provide the ability to identify certain information as confidential and only make that accessible by appropriately authorized users | | Must Have | Salesforce security enables adminstrative users to lock down data at the field level. |
| 5 | 1.2.3.20.9 | The System shall be able to associate permissions with a user using one or more of the following access controls: a. Role-Based Access Controls (RBAC; users are grouped by role and access rights assigned to these groups) b. Context-based (role-based with additional access rights assigned or restricted based on the context of the transaction such as workstation-location, emergency-mode, etc.) | | Must Have | Salesforce security enables adminstrative users to lock down system capability leveraging Org-Wide Security defaults, Profiles, Roles, Permission Sets and Public Groups.  These security mechanisms will enable you to lock down any combination of data and access in the system.<br><br>Context-based security may require custom security mechanisms using APEX-sharing rules to be developed, but it is a capability of the system. |

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| 5 | 1.2.3.20.10 | The System shall provide the ability to prevent specified user(s) or groups from accessing confidential information such as Social Security Number (SSN) and other confidential data | | Must Have | Salesforce security enables adminstrative users to lock down data at the field level.  Additionally, confidential informaiton such as SSN's can be masked to ensure that users only see the last 4 digits, or no digits if that's what you prefer. | |
| 5 | 1.2.3.20.11 | The System shall be able to mask confidential information such as SSN | | Must Have | Salesforce security enables adminstrative users to lock down data at the field level.  Additionally, confidential informaiton such as SSN's can be masked to ensure that users only see the last 4 digits, or no digits if that's what you prefer. | |
| 5 | 1.2.3.20.12 | The System shall provide the ability for authorized administrators to assign privileges to users or groups | | Must Have | Salesforce security enables adminstrative users to lock down system capability leveraging Org-Wide Security defaults, Profiles, Roles, Permission Sets and Public Groups.  These security mechanisms will enable you to lock down any combination of data and access in the system. | |
| 5 | 1.2.3.20.13 | The System shall support removal of a user's privileges without deleting the user from the System to ensure history of user's identity and actions | There should not be any transaction history loss from any user | Must Have | Salesforce users cannot be deleted from the system.  They can only be de-activated so as to ensure data integrity on records. | |
| 5 | 1.2.3.20.14 | The System shall provide more-advanced session management abilities including, but not limited to allowing duplicate logins/sessions, remote logout and location-specific session timeouts | | Must Have | Salesforce enables many session features which can be found here:  https://help.salesforce.com/articleView?id=admin_sessions.htm&type=0. Additionally, custom session settings can be created leveraging APEX session capabilities to ensure your session management requirements are met. | |
| 5 | 1.2.3.20.15 | The System shall provide the capability to integrate with existing County Platform authentication and authorization mechanisms - OKTA/AD to support single sign-on | | Must Have | Salesforce supportss SSO integration with Okta:  http://saml-doc.okta.com/SAML_Docs/How-to-Configure-SAML-2.0-in-Salesforce.html | |
| 5 | 1.2.3.20.16 | The System shall provide the capability to create temporary and emergency accounts and terminate access through those accounts automatically after a user defined period of time | AD handles this capability and final decision to be taken during Definition Phase | Must Have | Scheduled processes can be set up to automatically deactivate users after a certain period of time. | |
| 5 | 1.2.3.20.17 | The System shall follow the ACRE defined policy for password management | Review AD policy and finalize during Definition Phase | Must Have | Salesforce password management should be able to follow the ACRE defined policy as it works for enterprises around the world.  We will work with ACRE staff to define password maangement policies. | |
| 5 | 1.2.3.20.18 | The System shall allow for online password reset self service | Review AD policy and finalize during Definition Phase | Must Have | Salesforce allows for online password reset self service. | |
| **4** | **1.2.3.21** | **Security and Controls** | | | | |
| 5 | 1.2.3.21.1 | The Proposer must work closely with authorized ACRE Staff to define the roles necessary to perform all required business functions. | | Must Have | We will work with ACRE staff to define the roles required. | |
| 5 | 1.2.3.21.2 | Upon authorization of the login user name and password, the system must display, for that user name, the date and time of the last access. | | Must Have | date and time of last access is available for all users.  We can create a custom component to surface that information on the home page as required. | |
| 5 | 1.2.3.21.3 | The system must provide tools for the system administrator to  troubleshoot the issues of specific terminals or network addresses in real time | | Must Have | Salesforce provides many debugging and developer tools to SA's. | |
| 5 | 1.2.3.21.4 | The system must provide the authorized user the capability to independently and selectively review the actions of any one or more users, including privileged users, based on individual user identity. | | Must Have | Salesforce field audit log, and event monitoring allow you to see specific audit information by user. | |

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| 5 | 1.2.3.21.5 | The system must provide a real-time capability to monitor and log the occurrence or accumulation of security-relevant events that may indicate an imminent security violation and immediately notify the system administrator when events exceed established thresholds. | | Must Have | • Salesforce is a hosted service and runs on Salesforce cloud-based infrastructure. The Salesforce service is a pure multi-tenant web application. All that is needed by the County is a standard Web browser or mobile device to access the service.  No other hardware or software is required.<br><br>• Salesforce provides network monitoring, security controls and monitoring as part of the subscription service. The County will not have direct access to the Salesforce network.<br><br>• Salesforce's Computer Security Incident Response Team (CSIRT) uses a security event logging and management system to manage the security alerts and logs generated by devices on the Salesforce network. Access to these systems is restricted to authorized personnel and all these systems, as well as the host platforms, are monitored in real-time through a security event monitoring system.<br><br>• To maintain compliance with FedRAMP, Salesforce conducts continuous monitoring. Continuous monitoring includes ongoing technical vulnerability detection and remediation, remediation of open compliance related findings, and at least annual independent assessment of a selection of security controls by a third party assessment organization (3PAO). Upon request, the County can be provided with Salesforce's FedRAMP package, which includes Plan of Action & Milestones (POA&M) and contains vulnerability remediation information. However, Salesforce does not provide its customers ability to conduct scans behind its firewall.<br><br>• Salesforce has comprehensive privacy and security assessments and certifications performed by multiple third parties, including ISO 27001, SSAE 16 SOC 1, SOC 2, SOC 3, PCI-DSS, and FedRAMP. Third party auditors test the effectiveness of Salesforce's security controls as it relates to each of the compliance frameworks mentioned above.<br><br>Enabling Event Monitoring via Salesforce Shield (Additional Licensing Option)<br>• Salesforce provides the complete application event logs to customers on demand. These event logs are based on the customer's Salesforce Org. Customers can mine these logs and generate reports and visualizations as required by their policies.<br>• The County can use event monitoring to discover in numerous ways how the system is being used (Including if an employee is unnecessarily downloading sensitive customer/citizen information, pinpointing the exact time and location of that event.<br>• For more information on transaction security, please see: https://help.salesforce.com/HTViewHelpDoc?id=security_transactions_about.htm and https://releasenotes.docs.salesforce.com/en-us/spring16/release-notes/rn_security_transaction_security.htm |
| 5 | 1.2.3.21.6 | There must be a reporting mechanism that allows security administrator(s) the ability to report the current security access for any individual or group of individuals by role for an on-going (annual) security review or on demand.  A Security Administrator shall be able to select an individual or a group of individuals, by name, role, organizational unit, or privilege to generate such a report. | | Must Have | List Views of users security access are available in the Setup area of Salesforce.  Custom views can be created to filter, and report on security access by user. |
| 5 | 1.2.3.21.7 | The System shall not allow users to edit the same record at the same time.  (Allow other users to view that record) | | Must Have | Since Salesforce is a web application, record-level locking is not best practice.  Salesforce supports a concurrency model inline with the web delivery model that allows concurrent access to the same record. Salesforce services supports a rich data security model to easily control what users have access to records and what type of access they have to support effective collaboration. Under this, we support a last-in-change-wins model. |
| **3** | **1.2.4** | **Application Administration** | | | |
| ` 4 | 1.2.4.1 | The System shall provide data archiving capabilities based on ACRE defined criteria | | Must Have | We are proposing to implement OwnBackup which is configurable to archive data based on business rules that can be defined by ACRE staff. |
| 4 | 1.2.4.2 | The System shall provide the ability to perform archival/incremental backups and system files and the ability to perform open/closed database backups | | Must Have | We are proposing to implement OwnBackup which is configurable to archive data based on business rules that can be defined by ACRE staff. |
| 4 | 1.2.4.3 | The System shall maintain an archival process so that accumulated historical records and log files do not consume large amounts of disk space | | Must Have | We are proposing to implement OwnBackup which is configurable to archive data based on business rules that can be defined by ACRE staff. |
| 4 | 1.2.4.4 | The System shall provide version control capabilities to ensure the integrity of all software releases | | Must Have | Vertiba leverages BitBucket for our code repository and version control.   We also leverage GearSet for deployment purposes. |
| ` 4 | 1.2.4.5 | The System shall provide logging and reporting for accessing all documented errors and exceptions | | Must Have | Salesforce provides debug logging and reporting capabilities natively in the system. |

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| 4 | 1.2.4.6 | The system shall provide the capability for multiple Application and Database administrators to exist, each with different privileges, or with same privileges but on a different scope (users, data, workflows, etc.) | | Must Have | Each Admin user can be assigned to the same profile, or to a seperate customized profile that provides the privileges required or desired for that user. Granular controls can be implemented on a per user basis leveraging permission sets. |
| 4 | 1.2.4.7 | The System shall allow System administrators to create and manage user accounts | E.g.: The System shall allow System administrators to assign status and permissions to user accounts<br>The System shall allow System administrators to create and manage user roles | Must Have | System admins will have the ability to manage and create user accounts. |
| 4 | 1.2.4.8 | The System shall support virtualization for Servers and Virtualized desktop infrastructure (VDI) | Need to evaluate the VDI requirement during Definition Phase | Must Have | This is not applicable to Salesforce SaaS solutions. The Salesforce solution is not hosted on a virtual environment and does not rely on virtualization. An interface within the production instance will allow for the management of, viewing the status of and the age of other related instances (Development, QA, etc.).<br><br>Although not required to access Salesforce, if the county leverages a virtualized desktop infrastructure, as long as the VDI's have access to the internet, they will be able to access Salesforce. |
| 4 | 1.2.4.9 | The System shall allow System administrators to create user groups to manage workflow | | Must Have | System admins will have the ability to manage and create user groups for the purpose of managing workflow. |
| 4 | 1.2.4.10 | The System shall allow System administrators to assign users to particular user groups / units | | Must Have | System admins will have the ability to assign users to user groups and units leveraging role hierarchy. |
| 4 | 1.2.4.11 | The System shall allow System administrators to assign users to particular supervisors | | Must Have | System admins will have the ability to assign users to supervisors leveraging role hierarchy. |
| 4 | 1.2.4.12 | The Proposer will establish an automated maintenance routine that will, at a minimum:<br>a. Backup the user IDs<br>b. Identify expired IDs and related data | | Must Have | We are proposing OwnBackup and will configure it to backup user IDs, expired records, and related data. |
| 4 | 1.2.4.13 | The System shall be able to automate archiving of event/case data, based on County, State, and Federal archiving rules, including, but not limited to:<br>a. Inactive records<br>b. Closed events<br>c. Any other data as authorized by relevant regulation or agency policy | | Must Have | We are proposing OwnBackup and will configure it to archive data of many kinds, including those listed. |
| 4 | 1.2.4.14 | The System shall allow a user to recover archived data based on security access level | | Must Have | We are proposing OwnBackup and will configure it to allow a user to recover archived data based on security access level. |
| 4 | 1.2.4.15 | The System shall have the capability to:<br>1. Provide point-in-time recovery of data to the last completed transaction<br>2. Create on request back-ups of data residing within databases or on files<br>3. Execute system recovery processes according to County rules and decision points<br>4. Be tested during the transition to validate recoverability | | Must Have | This will be provided through our implementation of OwnBackup, a data back and recovery solution for Salesforce. |
| 3 | 1.2.5 | **System Management** | | | |
| 4 | 1.2.5.1 | The System shall have the ability to generate administrative alerts and warnings when statistics indicate an impact or potential limits on System component performance and availability. Specific alerts will be defined by the County and/or any applicable hosting services provider. | | Must Have | Salesforce sends out a variety of alerts automatically. Additionally, workflow and business processes and triggers can be configured/developed to trigger custom events. |

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| 4 | 1.2.5.2 | The system shall alert the users of dependent tasks/activities to be completed before proceeding with the current task. | | Must Have | Salesforce tasks/events and associated reminders is out of the box capability provided by Salesforce. More detail can be seen here: https://help.salesforce.com/articleView?id=activities_reminder_window.htm&type=0 |
| 4 | 1.2.5.3 | The System shall allow for all changes/updates to the distributed components to be administered and completed centrally, and available immediately to all source systems and sites | | Must Have | Salesforce changes/updates will be made for all users within the production system. Change Sets and Deployment capabilities enable rapid deployment of changes/updates from DEV to TEST to PROD environments. |
| 4 | 1.2.5.4 | The Proposer shall provide Service Level Agreement (SLA) monitoring and reporting capabilities. | | Must Have | Salesforce is committed to providing excellent service reliability, and is pleased to offer the County a service level commitment of 99.9% general availability for Salesforce Government Cloud products branded as Force.com, Site.com, Database.com, Communities and Chatter (the "Salesforce Services") and Services available on the Government Cloud branded as Analytics Cloud.  The details of this commitment are described in our SLA form, which is linked here: https://org62.my.salesforce.com/sfc/p/000000000062/a/0M000000Q4wZ/Xn8vWHmfgoTErNZ7l4gBSZ_QPSunDqCQM_T3iaRW9e8 We believe the SLA we are offering meets the spirit and purpose of the County's requirements. |
| 4 | 1.2.5.5 | The System shall provide event management and monitoring functionality according to Information Technology Infrastructure Library version 3 (ITIL v3) or equivalent best practices. The System shall utilize one or more monitoring tool(s) to proactively monitor the performance of key infrastructure components of the proposed System, as well as measure end-to-end transaction response time  The System shall provide Application Performance Monitoring and Management capabilities (i.e. transaction monitoring, synthetic transactions, component root cause analysis (e.g. Application Server Management) | A graphical, admin-only System health page containing near real-time reports (or other) charts displaying key system metrics | Must Have | Salesforce provides performance monitoring capabilities via their https://trust.salesforce.com website. |
| 4 | 1.2.5.6 | The System shall provide transaction tracking and log consolidation capabilities across all tiers of the application | | Must Have | Salesforce event and debug logging is provided across all tiers of their application. |
| **3** | **1.2.6** | **Mobile/Remote Computing** | | | |
| 4 | 1.2.6.1 | The System shall support the capability to capture data/photos and view current data in the field while in offline mode and synchronize when connectivity is available | | Must Have | Sapient is proposing an accelerator mobile inspection app that enables offline data/photo capture and view. The Sapient VIP Mobile Inspection Application is an unmanaged salesforce.com package designed to provide a flexible tool to let field personnel inspect clinical sites and mdeical devices. Key features: -Configurable design allowing easy modifications for different types of assessments. -Ability to work offline -Cross platform (iOS, Android, HTML5) -Capture photos and annotate More can be seen here: http://vip.vertiba.com/asb_ListingDetail?listingId=a6i14000000PCcEAAW] |
| 4 | 1.2.6.2 | The remote users will have Single Sign-on capability for enterprise wide use and across all operating system platforms | | Must Have | With the Salesforce platform, your administrator or development team can configure single sign on to work with your identify provider. Salesforce supports federated authentication, delegated authentication, or authentication providers. SAML, LDAP, OpenID and OAuth are all supported depending on what use case you want to support.  More on Single Sign On: https://help.salesforce.com/apex/HTViewHelpDoc?id=sso_about.htm&language=en_US |

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| 4 | 1.2.6.3 | The System shall support remote device network monitoring capabilities to monitor devices connected to the network, control security and access to services, monitoring bandwidth use, etc. | Need to finalize the approach based on the delivery model | Must Have | • Salesforce is a hosted service and runs on salesforce.com's cloud-based infrastructure. The Salesforce service is a pure multi-tenant web application. All that is needed by the County is a standard Web browser or mobile device to access the service.  No other hardware or software is required.<br><br>• Salesforce provides network monitoring, security controls and monitoring, as well as monitoring bandwidth use as part of the subscription service.<br><br>• Salesforce has comprehensive privacy and security assessments and certifications performed by multiple third parties, including ISO 27001, SSAE 16 SOC 1, SOC 2, SOC 3, PCI-DSS, and FedRAMP. Third party auditors test the effectiveness of Salesforce's security controls as it relates to each of the compliance frameworks mentioned above.<br><br>• To maintain compliance with FedRAMP, Salesforce conducts continuous monitoring. Continuous monitoring includes ongoing technical vulnerability detection and remediation, remediation of open compliance related findings, and at least annual independent assessment of a selection of security controls by a third party assessment organization (3PAO). Upon request, the County can be provided with Salesforce's FedRAMP package, which includes Plan of Action & Milestones (POA&M) and contains vulnerability remediation information. However, Salesforce does not provide its customers ability to conduct scans behind our firewall.<br><br>• The County can, however, scan its code written as part of the solution configuration. The County can scan the Salesforce Apex code that is written as part of the County's solution configuration and implementation, but will not be able to conduct scans behind the Salesforce firewall. Salesforce scans the underlying code we write as part of the PaaS/SaaS.   The County can perform penetration testing of the Salesforce service after completing Salesforce's Security Assessment Agreement.<br><br>• Salesforce provides many out of the box monitoring capabilities from their https://trust.salesforce.com website.  You can integrate existing monitoring capabilities to leverage data provided there. Additionally, there are many pre-built integrations with popular monitoring software platforms, such as Splunk (https://splunkbase.splunk.com/app/1931/) |
| 4 | 1.2.6.4 | The System shall provide the capability for remote access from any compatible device in compliance with existing County / State / Federal connectivity/security policies | | Must Have | Salesforce is accessible via the web, so users can access Salesforce from anywhere they have a browser and internet access if that's what San Mateo desires to enable.<br>Note that we can set up Salesforce to limit access to restricted IP addresses, locations, time of day and other parameters in order to limit who can access your system and from where. |
| 3 | 1.2.7 | **General Requirements** | | | |
| 4 | 1.2.7.1 | The System shall provide the ability to install/upgrade with ease and utilize automated deployment | Application portability is very important factor while designing the system. In so far as is possible, application design should limit use of specific versions of external libraries and vendor should make an effort to keep abreast of industry trends with an eye to selecting technologies likely to be supported in the long term, to enhance upgradeability of system libraries/OS in future ( e.g. .Net Framework, Windows Server, Enterprise Library, etc.). Various components of the system should be easy to install. Appropriate installation guidelines should be documented and provided | Must Have | All applications are portable to different environments within the Salesforce ecosystem, e.g. you can easily deploy an application from one Salesforce org to another leveraging developer tools, managed or unmanaged packages. |
| 4 | 1.2.7.2 | The System shall provide the ability to configure the system parameters with ease | Provide user interfaces to configure the various system parameters | Must Have | With the Salesforce platform, system administrators have the ability to configure security, objects/tables, fields, workflow rules, validation rules, installed app packages, single sign on, record and field level acess and so much more.  The list of configurable features is well beyond anything that could be listed in this response.<br><br>More information on Salesforce's most recent implementation guide:  http://resources.docs.salesforce.com/198/12/en-us/sfdc/pdf/salesforce_mobile_implementation.pdf |
| 4 | 1.2.7.3 | The Proposer shall ensure that industry standard coding styles are used for application/database development and shall be approved by the County before initiating any development | The Proposer shall enforce best practices both in syntax, cosmetics, and use consistent naming conventions | Must Have | All Vertiba code is written leveraging a set of documented best practices our firm has developed following industry best practices.  We also will review that code with you as we iterate through the project. |
| 4 | 1.2.7.4 | The Proposer shall get prior County approval before using any 3rd party controls/solutions | | Must Have | All 3rd party solutions will be presented for county approval before being implemented. |