

## **SECTION VI – PROJECT MANAGEMENT, BUSINESS, AND TECHNICAL REQUIREMENTS**

### **A. INTRODUCTION**

The purpose of this section is to present the Mandatory pass/fail business and technical requirements that must be addressed by the proposed solution as described in Section IV – Proposed System and Business Processes. This section also contains P1-11 requirements that are Mandatory and scorable. See Section V - Administrative Requirements, Section VIII - Proposal Format, and Section II - Rules Governing Competition for other requirements that must be met in order to be considered responsive to this Request for Proposals (RFP).

The California Office of the Secretary of State (SOS) is seeking a Bidder to develop or provide an application to meet the mandatory Help America Vote Act (HAVA) requirements. This is a solution-based procurement. It is important to understand that these requirements are intentionally written at a summary level to facilitate the procurement process. The underlying intent of this process is to focus business requirements on the business need ("what must be done"), not on current methods or constraints ("how it is currently done"). The SOS has identified the resultant performance criteria but the method of delivery or achievement is optional. The SOS recognizes there may be more than one means of meeting the requirements and wants to evaluate alternatives. Requirements for the VoteCal System have been broken out into separate sections for ease of responding to this RFP.

To facilitate the evaluation process and to meet applicable requirements, Bidders must complete the following Exhibits included within this Section and include each in their Final Proposals in accordance with Section VIII – Proposal Format:

- Exhibit VI.1 – Project Management and Plan Requirements Response Matrix
- Exhibit VI.3 - VoteCal Third Party Software Products List
- Exhibit VI.4 - VoteCal Contractor Commercial Proprietary Software Products List
- Exhibit VI.5 - VoteCal One-Time Hardware Products List
- Exhibit VI.6 - VoteCal System Rack Diagram and Description

Bidders must complete information for the business functional and technical requirements by completing Table VI.1– Mandatory VoteCal System Requirements, Functionality Reference, and Requirement Response Form and Table VI.2 – VoteCal Technical Requirements and Response Form in this section and include the completed forms in their Draft and Final Proposals in accordance with Section VIII – Proposal Format.

### **B. PROJECT MANAGEMENT ACTIVITIES AND PLANS**

It is SOS's intent to evaluate the Bidder's past level of effort and performance as well as their capability to execute certain tasks successfully. Tasks include:

- System preparation (project planning, tracking, and control);
- System requirements and gap analysis;
- System design, programming, configuration/modification, integration, and testing;
- Data integration;
- System implementation;

- Training;
- System maintenance and management; and
- System operation, maintenance, and support.

The SOS requires the Bidder to prepare and submit the Bidder's draft Project Management Plan and a number of additional descriptions of approaches to various project activities. SOS requires that Bidders outline these approaches so that SOS can evaluate the Bidder's ability, application of best business practices, and competence in managing a project of this size and complexity. Such information must be submitted along with the Bidder's response to the other Business and Technical Requirements. Bidders must note that when the VoteCal Project is initiated, for each deliverable that is prepared for the project, a Deliverable Expectations Document (DED) will be prepared by the Contractor and approved by the SOS VoteCal Project Director or designee. Refer to Attachment 1– Statement of Work and Attachment 1, Exhibit 3 – Sample Deliverable Expectation Document (DED), for further details on the DED.

In drafting the various plans and discussions to satisfy Project Management requirements, Bidder must clearly identify the proposed role of SOS staff, and consider the following principles:

- SOS will serve as the ultimate authority for elections policy and statute.
- SOS will serve as the primary interface and liaison with counties.
- SOS personnel with elections experience and expertise who are dedicated to the project will likely be limited to those persons already assigned to the project team.

Current and anticipated staff and contracted personnel assigned to the SOS VoteCal Project include: VoteCal Senior Project Manager, three (3) Project Managers, three (3) Elections Program Leads, [three two and one-half \(2.53\)](#) Information Technology Lead [positions](#), Project Assistant, Quality Assurance Manager, Test Manager and Technical Architect. No additional SOS VoteCal staff is anticipated.

In addition to the SOS and contracted personnel listed above, both the Independent Verification and Validation (IV&V) and Independent Project Oversight Consultant (IPOC) contractors will review deliverables. This review process is mandatory for the VoteCal Project and the Bidder should ensure that Project Management plans and the schedule incorporate time, responsibilities and steps for review by the oversight contractors. In addition, SOS has contracted with the IV&V firm to perform independent testing of the delivered applications. Bidders must factor this IV&V testing activity into the Test plan and draft integrated project schedule (IPS) as well as ensure that the draft IPS reflects all of the steps and timelines described for inspection, review and Acceptance of any Deliverable as defined in Attachment 1 – Statement of Work, Section 10 - [Inspection, Acceptance and Rejection of Contractor Deliverables](#).

Requirements P1 through P11 are Mandatory and scorable. The description of each requirement in this section indicates the elements of that requirement that will be evaluated. Failure to address all elements of each requirement will result in a lower score for that response.

**Bidders are reminded that narrative responses to requirements P1 through P11 must be complete and in sufficient detail for the Evaluation Team to evaluate the Bidder's described approach against criteria described for each requirement in this section.**

#### **1. Project Management**

The SOS has prepared a Project Management Plan and numerous subsidiary plans to govern VoteCal project management processes. The SOS is currently reviewing and revising these plans. Current versions are provided in the Bidder's Library. When revisions are approved, the revised versions will be published in the Bidder's Library.

The SOS intends to manage and conduct the VoteCal in accordance with the following industry and State standards, where appropriate to particular tasks and management efforts:

- Project management industry standards (i.e. PMBOK);
- The State Information Management Manual Project Oversight Framework;
- State Information Management Manual (SIMM) Information Technology Project Oversight Framework (ITPOF); and
- Institute of Electrical and Electronics Engineers (IEEE).

In developing responses to Project Management Activities and Plans requirements, Bidders must assume and accommodate the following constraints:

- Unavailability of county elections officials' staff and a freeze on changes to or testing with county systems (including EMS') during the period beginning sixty (60) calendar days prior to and ending thirty (30) calendar days following a statewide or Uniform District Election Law (UDEL) election. (Refer to the document "Future Election Dates" in the Bidder's Library for information on future statewide, UDEL and local elections.)
- No changes may be made to the SOS network during the period beginning seventy-five (75) calendar days prior to and ending thirty-nine (39) calendar days after an election.
- The SOS requires one hundred twenty (120) State calendar days, at a minimum, following approval of the production environment, to set up the required production environment Hardware.
- For interfaces with election management systems, each Election Management System (EMS) vendor will be allowed six (6) calendar months for the design, development, and testing of an interface prior to integration testing with VoteCal. The time period begins when the specification is delivered to the EMS vendors by the SOS and the Contractor.

Requirement P1 The Bidder's Draft Proposal and Final Proposal must provide a draft Project Management Plan (PMP) that, when finalized, will become the controlling document for managing Bidder's work on the VoteCal Project and must include Project activities to be conducted by Bidder staff and subcontractor resources as well as SOS tasks required to support creation of Contract deliverables. The Bidder must use its PMP to define the technical and managerial project functions, processes, activities, tasks, and schedules necessary to satisfy the Project requirements as documented in this RFP. If Bidder is awarded the Contract, the updated PMP shall be submitted as a deliverable for SOS review and approval within thirty (30) calendar days of Contract Award Date, in accordance with Attachment 1, Exhibit 2.E.Deliverable I.1 – Project Management Plan, and will provide the "baseline" for the change control process.

The PMP must describe the Bidder's planned approach to all appropriate and relevant project management processes for the Bidder team's performance of the scope of work as described in Attachment 1 – Statement of Work, except for those plans that are cited as separate Project Management requirements (e.g., P2 – Quality Management Plan). The PMP must include discussion of participation of and interaction with other VoteCal team members (SOS staff and other contractors) in those processes, and discussion of how each process will integrate with SOS's defined project management processes.

The Bidder's approach to risk management, issue management and scope management, and their integration points with corresponding VoteCal plans must also be described. The PMP must also include examples of significant anticipated VoteCal risks and mitigation strategies that demonstrate an understanding of the VoteCal project.

The PMP must also address deliverable definition, review and approval processes (see Attachment 1, Section 10 – Inspection, Acceptance and Rejection of Contractor Deliverables and Attachment 1, Exhibit 3 – Sample Deliverable Expectation Document), as well as definition of criteria and approach for Project Phase entry and exit (see Attachment 1, Exhibit 2 – Tasks and Deliverables, for description of Project Phases).

The PMP must conform to relevant PMBOK standards.

Requirement P2 The Draft Proposal and Final Proposal must describe the Bidder's approach to schedule management in a draft Schedule Management Plan, which includes resource updates, tracking of resource activities, milestone progress and reporting, critical path monitoring, schedule issues, status reporting based on work breakdown structure, and contingency activities. The narrative description of schedule management must describe how the Bidder will integrate the schedule with the VoteCal master integrated schedule, which will be maintained by the VoteCal Project Management Office (PMO), and ensure consistency of content between those schedules as they are tracked and updated. If the Bidder is awarded the Contract, the updated Schedule Management Plan shall be submitted as part of the updated Project Management Plan for SOS review and approval within thirty (30) calendar days of Contract Award Date, as described in Attachment 1, Exhibit 2.E.Deliverable I.1 – Project Management Plan.

Along with narrative description of the schedule management approach, the Bidder's response to this requirement must include a draft integrated project schedule (IPS) that contains the tasks/activities of Bidder, SOS staff and other SOS contractors, county elections officials' staff, and EMS vendors that must occur in order to meet the requirements of this RFP. The IPS must contain a list of planned tasks, milestones, estimated completion dates, resource assignments, and dependencies between tasks. The IPS must also include tasks' dependencies on other VoteCal team members' (staff, other contractors) activities, including but not limited to deliverable planning (Deliverable Expectation Document development and approval and SOS review of submitted deliverables, each as described in Attachment 1 - Statement of Work), and Bidder correction of Deficiencies. The submitted IPS must include a preliminary GANTT chart. The updated IPS shall be submitted for SOS review and approval within ninety (90) calendar days of Contract Award Date and will be updated on a biweekly basis in accordance with Attachment 1, Exhibit 2.E.Deliverable I.2 – Integrated Project Schedule.

Bidder's response to this requirement must conform to PMBOK standards.

NOTE: This is a fixed-price contract and the primary assumption is that there will be no change orders. Change orders will only be considered under the terms identified under Attachment 1, Section 7 - Unanticipated Tasks or for tasks that are the result of State or Federal legislative mandates, or law or regulation changes.

Requirement P3 The Bidder's Draft Proposal and Final Proposal must provide a draft Quality Management Plan, which includes definition of quality standards, policies, and procedures the Bidder will use; approach for quality assurance review of all work products and activities during the project; quality control approach for work products; process for continuous quality improvement; roles and responsibilities

for quality management activities; description of how quality will be monitored and measured; and a summary of proposed criteria for system and deliverable acceptance. The Quality Management Plan must also include discussion of integration with the SOS Quality Plan. If the Bidder is awarded the Contract, the updated Quality Management Plan shall be submitted for SOS review and approval within ninety (90) calendar days of Contract Award Date, in accordance with Attachment 1, Exhibit 2.E.Deliverable I.3 – Quality Management Plan.

The Quality Management Plan must conform to IEEE 730-2002 (Standard for Software Quality Assurance) or, alternatively, an equivalent methodology for which the Bidder describes successful application in previous projects as part of the response.

Requirement P4

The Bidder's Draft Proposal and Final Proposal must describe the Bidder's Software Version Control and System Configuration Management Plan to be employed during the VoteCal Project. The Bidder must include a discussion of the methods and tools that will be used for version control and configuration management along with how new modifications and/or modules will be integrated and implemented when Software upgrades are required during the warranty/maintenance period. If the Bidder is awarded the Contract, an updated Software Version Control and System Configuration Management Plan shall be submitted to SOS for review and approval within ~~thirty-sixty~~ (360) calendar days of Contract Award Date, as described in Attachment 1, Exhibit 2.E., Deliverable I.4 – VoteCal Software Version Control and System Configuration Management Plan.

Bidder's Draft Proposal and Final Proposal must include a summary approach to document management, which addresses how documents will be controlled and how deliverable versions will be tracked, including tools for document management (if appropriate).

The Software Version Control and System Configuration Management approach must conform to standards required by IEEE 828-2005 or, alternatively, an equivalent methodology for which the Bidder describes successful application in previous projects as part of the response.

Requirement P5

The Bidder's Draft Proposal and Final Proposal must include a Requirements Traceability Matrix Plan: a discussion of the content and approach to developing a Requirements Traceability Matrix, and a discussion of how this will be used and updated to track requirements, programming, and test scenarios during all Phases of the VoteCal Project (see Attachment 1, Exhibit 2 – Tasks and Deliverables, for description of Project Phases). All business functional and technical requirements in this RFP must be traceable to the Test Plan (Deliverable III.2 – Test Plan in Attachment 1, Exhibit 2 – Tasks and Deliverables) and if awarded the Contract, the Bidder must provide SOS with a Requirements Traceability Matrix which will provide a link from each test case back to each of the business functional and technical requirements in the RFP for testing purposes (see Attachment 1, Exhibit 2.E.Deliverable II.5 – VoteCal System Detailed Requirements Traceability Matrix). The Plan must include description of intended approach to ensuring forward and backward traceability, including but not limited to traceability between the following:

- Requirements from the RFP and more detailed sources such as the System Requirements Specifications (Attachment 1, Exhibit 2.E.Deliverable II.1 – System Requirements Specifications);

- Requirements in the System Requirements Specifications (Deliverable II.1) to design elements in the Detailed System Design Specifications (Attachment 1, Exhibit 2.E.Deliverable II.3)
- Design elements documented in the Detailed System Design Specifications (Attachment 1, Exhibit 2.E.Deliverable II.3) and Unit Test Cases
- System Requirements Specifications (Attachment 1, Exhibit 2.E.Deliverable II.1) and System Test Cases

If Bidder is awarded the Contract, an updated Requirements Traceability Matrix Plan shall be submitted to SOS for review and approval within ~~thirty-sixty~~ (360) calendar days of Contract Award Date in accordance with Attachment 1, Exhibit 2.E.Deliverable I.6 – Requirements Traceability Matrix Plan.

The Requirements Traceability Matrix Plan must conform to standards required by IEEE 1233-1998 and IEEE 830-1998, or CMMI V 1.2, or, an equivalent methodology for which the Bidder describes successful application in previous projects.

**Requirement P6** The Bidder's Draft Proposal and Final Proposal must include a draft Implementation and Deployment Plan, which describes the Bidder's planned approach for implementation, links to the PMP and includes a discussion of strategy for a pilot testing, data conversion and deployment to SOS business users, county elections officials' staff, and other users.

The Implementation and Deployment Plan must also include a description of how the deployment approach will ensure that the integrity and completeness of the existing Calvoter system and its data, which constitute the statewide official list of registered voters until Phase VI – Deployment and Cutover is complete, are maintained through the end of Phase VI – Deployment and Cutover.

In preparing the Implementation and Deployment Plan, Bidders should assume that deployment of the VoteCal public access website (as described under S24: Public Access Website) will go into production after the VoteCal system is deployed to all counties; Bidders must include description of deployment of the public access website as part of the submitted Implementation and Deployment Plan.

The response to this requirement must include explanation of the best practices or standards on which the approach is based. If the Bidder is awarded the Contract, the updated Plan will be submitted for SOS approval in Phase III – Development (see Attachment 1, Exhibit 2.E.Deliverable III.5 – VoteCal System Implementation and Deployment Plan) and in Phase V – Pilot Deployment and Testing (Attachment 1, Exhibit 2.3.Deliverable V.4 – Revised/Updated System Implementation and Deployment Plan) and also updated at other times during the Project as appropriate.

**Requirement P7** The Bidder's Draft Proposal and Final Proposal must provide a draft Organizational Change Management Plan, which outlines the Bidder's business change communication strategy. The Bidder's approach must address how the project will convey to all users and customers the new methods of doing business, roles and responsibilities, and common issues to be anticipated and mitigation scenarios in a project of this size and complexity. The Plan must also address securing support and buy-in from the county elections officials' staff as well as SOS staff. If Bidder is awarded the Contract, an updated Organizational Change

Management Plan shall be submitted to SOS for review and acceptance (1) within ninety (90) calendar days of Contract Award Date in accordance with Attachment 1, Exhibit 2.E.Deliverable I.5 – VoteCal System Organizational Change Management Plan; and (2) in Phase III – Development in accordance with Attachment 1, Exhibit 2.E.Deliverable III.4 – VoteCal System Organizational Change Management Plan Updated.

The Organizational Change Management Plan shall conform to ISO 9001:2008 or equivalent industry standards.

The Bidder's Library includes an Organizational Change Management Plan that was developed for the VoteCal Project and accepted by SOS. Bidder may adopt any or all concepts from that plan as part of their response to this requirement.

## **2. Training**

### **Requirement P8**

The SOS requires the Bidder to propose training for the SOS Elections Division and IT Division staff as well as county elections officials' staff as part of both the Bidder's Draft and Final Proposal. Bidders must provide a draft Training Plan, which includes outlines course descriptions, prerequisites, training objectives, content, and length of class for these VoteCal user groups. All VoteCal training that the Contractor is required to provide to SOS and county elections officials' staff must be provided at facilities located within the State of California.

The SOS has arranged for several training facilities in the Sacramento area that the Contractor may use free of facility charges to provide VoteCal training. See the "*Information on Potential VoteCal Training Facilities*" link and document located within the "*Documents Specifically Referenced in the RFP*" section of the VoteCal Bidder's Library for facility information regarding each of these (e.g., seating capacity, built in projection screens, etc.). If a Bidder proposes to use one or more of these training facilities, the Bidder's draft Training Plan must identify system requirements for the training room (e.g., minimum configuration of workstations, connectivity requirements, etc.) informed by available facility information published in the Bidder's Library.

The Bidder's proposal must include, as part of the bid amount, any training facility costs associated with the use of any facilities other than the free-of-charge Sacramento-area facilities (described above) that the Bidder proposes using to train SOS or county elections officials' staff.

Independent of the numbers and locations of the training facilities a Bidder proposes to use to meet the VoteCal training requirements, the Bidder' Training Plan must identify system requirements for a fully functional VoteCal Training Environment to support requisite training activities that is separate from the VoteCal Development, Test and Production environments.

The SOS requires the Bidder to provide initial VoteCal training to nineteen (19) SOS elections program staff and ten (10) IT staff assigned to the VoteCal Project. Eight (8) of these SOS staff (a subset of the elections program staff) must be trained in execution of pre-defined reports and user-executed extracts that are defined in this RFP section; of these, three (3) must be trained in creation and saving (or "publishing") of new reports and queries. (See Attachment 1, Exhibit 2.A – Introduction for assumptions concerning types and number of reporting/querying users.)

SOS anticipates that each single SOS training class will not exceed 20 participants. Bidder must specify the approach for training for SOS Elections Division staff, trainers, investigators, and help desk staff as well as training of SOS technical support staff. Note that the SOS help desk and Contractor help desk shall be established and training provided before the pilot counties receive the application. The Contractor must also provide (and the Training Plan reflect) training for the SOS staff that will provide on-going VoteCal training post implementation.

A Bidder's draft Training Plan must describe the method that will be used to transfer VoteCal technical knowledge to SOS IT staff as well as the VoteCal training to be provided these staff.

If the Bidder proposes to provide training for SOS staff at a training facility outside of the Sacramento area, the Bidder must ensure that the bid amount includes costs associated with SOS staff travel to/from the training facility outside of the Sacramento area as well as the costs for SOS staff lodging (if any) required as a consequence of the location of the training facility and the projected duration of the training. Bidders should use the State travel policies as published in the State Administrative Manual (specifically Chapters 715, 720 and 721) and available at <http://sam.dgs.ca.gov/default.htm> to understand the terms and conditions for State staff travel and lodging expense reimbursement in order to estimate the costs of such expenses.

The Contractor must also provide VoteCal orientation and training for county elections officials and their staff. Under separate contracts with SOS, the vendors supporting each of the three (3) EMS' currently used by county elections officials and staff in one or more California counties will modify their respective EMS' to integrate with VoteCal. Because county elections officials' staff will access VoteCal *through* their EMS', the SOS anticipates that the Contractor's VoteCal training for county elections officials and their staff will focus on policy and business process changes and not on EMS system changes or specific VoteCal system usage or functionality. **Note:** EMS vendors will be responsible for providing training to county elections officials' and their staff regarding how to use and interact with their respective EMS' after those systems have been modified to interface with VoteCal.

The State estimates that approximately 650 county elections officials and their staff will require VoteCal training, approximately two-thirds of which represent Elections staff and one-third of which represent IT and administrative staff. If the Bidder proposes to provide training for county elections officials and their staff at facilities geographically remote from their respective counties, the Bidder's bid amount must include costs associated with county elections officials' and their staff travel to/from a training facility geographically remote from their respective counties as well as the costs for county elections officials' and their staff lodging (if any) required as a consequence of the location of the training facility and the projected duration of the training. To assist the Bidder to project and estimate the costs for such travel and lodging expenses for county election officials and their staff, the Bidder should reference the same State travel policies (published in the State Administrative Manual) noted for SOS staff (above) to understand the terms and conditions applicable for reimbursing county election officials' staff for training-related travel and lodging.

Training aids, manuals, quick reference guides and other training materials must be provided in hard copies for all participants as part of the VoteCal solution, and also be delivered to SOS in electronic format.



If Bidder is awarded the Contract, an updated and comprehensive VoteCal System Training Plan shall be submitted to SOS for review and acceptance in Phase II – Design in accordance with Attachment 1, Exhibit 2.E.Deliverable II.9 – VoteCal System Training Plan.

### **3. Testing**

#### **Requirement P9**

The Bidder's Draft Proposal and Final Proposal must include a draft Test Plan that includes a discussion of the proposed test methodology and a sample Test Defect Log. If Bidder is awarded the Contract, a detailed Test Plan and Test Defect Log must be finalized and submitted to SOS with sufficient lead time to achieve SOS Acceptance no later than fifteen (15) State business days prior to the commencement of testing activities in Phase IV – Testing (see Attachment 1, Exhibit 2.E.Deliverable III.2 – VoteCal System Test Plan).

Bidder's Test Plan must include a discussion of all levels of testing that will be performed, including stress testing, performance and load testing, and backup and recovery testing, and the training to be provided for the SOS testing staff.

In addition, the proposed Test Plan must include discussion of approach for testing EMS remediation in preparation for the integration of EMS data that will occur in Phase V – Pilot Deployment and Testing and Phase VI – Deployment and Cutover. If Bidder is awarded the Contract, an updated and detailed description of the approach for testing EMS remediation shall be submitted for SOS review and approval in Phase III – Development. (See Attachment 1, Exhibit 2.E.Deliverable II.3 – Acceptance Test Plan for Certification of EMS System Data Integration and Compliance.)

The Test Plan must include discussion of testing to be conducted during Phase V – Pilot Deployment and Testing (Bidders should assume a total of one million five hundred thousand (1,500,000) voter registration records across the counties that participate in the pilot).

If a Bidder proposes a Commercial off-the-Shelf (COTS) application, a Modified-off-the-Shelf (MOTS) application, or any Contractor Commercial Proprietary Software product, out-of-the-box testing must be included to validate the base product is functioning properly. Negative testing scenarios must be included. Bidder must address all levels of testing to be performed, including stress testing and how they will manage these activities including managing of the test environments.

The Test Plan must include testing for all configured and programmed items, all programs and all Contractor-developed reports, queries and extracts, as well as a complete "end-to-end" test including testing from a county workstation through to VoteCal and on to DMV and back to VoteCal. Testing will include testing of interfaces to the county systems and interfaces to external state entities that share data with VoteCal (for example, see requirements in this section under S10: CDPH Death Records, S11: CDCR Felon Data, S6: DMV Change of Address, S13: NCOA). The Test Plan and the IPS must accommodate the need to correct VoteCal Deficiencies and make changes during and between Phase IV – Testing, Phase V - Pilot Deployment and Testing and Phase VI - Deployment and Cutover. The Test Plan and IPS must provide sufficient methodology and time to perform the end-to-end testing (conducted by the Contractor) after corrections and changes that were identified during user acceptance and other testing have been applied. Such testing will occur before Phase VI - Deployment and Cutover commences and during Phase VI – Deployment and Cutover at times mutually agreed upon by SOS and the Contractor.

While SOS will be responsible for conducting SOS user acceptance testing, the Bidder's Test Plan must address how the Bidder will record issues and Deficiencies identified in SOS user acceptance testing, how those issues and Deficiencies will be resolved, and how the status of addressing and/or resolving these will be monitored. The SOS and the Contractor shall report, resolve, and confirm resolution of test-related Deliverable Deficiencies encountered during testing in accordance with the terms and conditions described in Attachment 1 – Statement of Work, Section 10 - Inspection, Acceptance and Rejection of Contractor Deliverables in order for user acceptance testing to be considered complete and Accepted by SOS.

SOS has also contracted with an IV&V contractor to perform independent testing of the delivered VoteCal system (or components) at times during Contractor's testing as well as during SOS user acceptance testing. In order for the associated testing activity and Deliverable (if any) related to the IV&V contractor's independent testing to be considered completed and Accepted by SOS, Deliverable Deficiencies identified by the IV&V contractor during such testing will be reported and addressed by the Contractor in accordance with the terms and conditions described in Attachment 1 – Statement of Work, Section 10 - Inspection, Acceptance and Rejection of Contractor Deliverables. Bidders must factor into the Contractor's work plan the time and effort required by the Contractor to prepare for and, as necessary, support these IV&V contractor testing activities and to coordinate with the IV&V contractor about such testing and outcomes.

SOS will extend the SOS network to include Multi-Protocol Label Switch (MPLS) nodes (Verizon) to each of the three (3) EMS vendor sites to enable remote access between those environments and SOS' VoteCal environment during the Testing Phase so that integration and preliminary system testing between the remediated EMS' and VoteCal can occur in an EMS vendor Testing environment and not in the counties' production EMS environments. SOS also intends to extend the SOS network to include an MPLS node to the Contractor's site to enable the Contractor remote access to all VoteCal environments to support all phases of the VoteCal project through and including subsequent optional years of Hardware and Software M&O support. The Bidder must ensure that the changes required to the SOS WAN and any Hardware and Software required to provide the EMS vendors and Contractor such remote access are specified in requirements P11, T3.6, and T6.2 and T.6.3 in Table VI.2 – VoteCal Technical Requirements and Response Form within this Exhibit.

Refer to Attachment 1, Exhibit 2 – Tasks and Deliverables, Phase III – Development and Phase IV - Testing for additional information on SOS and Contractor testing-related responsibilities and activities.

#### **4. Data Integration**

**Requirement P10** The Bidder's Draft Proposal and Final Proposal shall provide a draft Data Integration Plan which describes the Bidder's approach, method and roles and responsibilities for:

- Conformance of all county data to VoteCal standards;
- Integration of existing county voter registration data from multiple counties into a single record for each voter (e.g., one record, one voter);

- Integration and standardization of county-specific or EMS-specific data definitions, including but not limited to static values for various codes (e.g., voter registration status codes, cancellation reason codes, etc.)
- The process of testing and validating data integration prior to the start of Phase V- Pilot Deployment and Testing (see Attachment 1, Exhibit 2 – Tasks and Deliverables, descriptions of Phase III – Development and Phase IV – Testing for details about required predecessor-successor relationships between Contractors' and SOS' testing), including the approach for:
  - Addressing and resolving data errors;
  - Conducting the integration process, including a strategy of “cut-over,” “pilot,” or “phased”;
  - Transitioning existing data into the new VoteCal;
  - Maintenance of Calvoter and VoteCal systems in parallel from Phase V – Pilot Deployment and Testing through Phase VI – Deployment and Cutover, and how the integrity of CalVoter as the statewide database containing the official list of all voters will be ensured while integration is occurring; and
  - Detailed transition schedule of activities that clearly defines key milestones, deliverables, tasks, and responsibilities and which are integrated with the PMP.

Refer to RFP Section III – Current Systems and Opportunities and the Bidder's Library for descriptions of the existing databases, Calvoter file structures, county upload file formats, and data volumes.

If Bidder is awarded the Contract, an updated Data Integration Plan shall be submitted as a deliverable for SOS review and acceptance in Phase II – Design of the VoteCal Project. (See Attachment 1, Exhibit 2.E.Deliverable II.8 – VoteCal System Data Integration Plan.)

## 5. **VoteCal Architecture**

**Requirement P11:** Bidders shall provide their proposed VoteCal Architecture, including a detailed description of the technical architecture/infrastructure solution for the VoteCal system, addressing performance, availability, security, scalability, maintainability, accessibility, deployability, and extensibility. The proposed VoteCal Architecture shall include a high-level mapping of the functionality required in the VoteCal RFP onto the proposed Hardware and Software components. The proposed VoteCal Architecture shall also address internal interfaces among the system's components, and the interfaces between the system and its external environment, including users, county EMS systems, the public access website, and external interfaces described in the VoteCal RFP.

Bidders should utilize their knowledge gained during the confidential discussions (see Section II.C.5 – Confidential Discussions for Pre-qualified Bidders) to ensure complete and appropriate responses.

The technical architecture/infrastructure response shall include a narrative discussion of the Hardware, Software, and network elements associated with the Development, Test, Training, Pilot and Production VoteCal environments (additional environments must be proposed as necessary to meet VoteCal requirements and deliverables as specified in this RFP).

The technical architecture/infrastructure response shall describe the structure and behavior of the technology infrastructure of the proposed solution. This discussion must include, and map to, high-level diagrams showing major system components, the application tier(s) and system environments they serve, their interrelationships, dependencies, and resident solution components in order to provide the SOS with a visual, as well as narrative, enterprise-wide representation of the VoteCal environments to be deployed for the period of the project and for ongoing maintenance and support. In addition to specifying the new Hardware and Software included within into the VoteCal solution, the Bidder's description of the proposed VoteCal solution and architecture should also identify any pre-existing SOS Hardware and Software leveraged and integrated within the solution.

The amount and level of detail of documentation plus supporting product literature provided must demonstrate that the architecture(s) will support the development, testing, implementation, and maintenance of the VoteCal system solution, and must provide evidence that the proposed architecture will meet if not exceed all VoteCal business and technical requirements described in this RFP. Such evidence must be either (1) a referenced project, completed within the past four (4) years, in which the Bidder used the described approach; or, (2) if a referenced project is not available as demonstration of the viability of the approach, detailed description of relevant industry standards or best practices.

The Bidder's response to this requirement must address the following factors:

- **Performance:** The degree to and manner in which the proposed architecture meets all performance requirements of the RFP and represents industry-accepted best practices related to ensuring high performance. At minimum the Bidder's response must address these key areas but should not be limited to them:
  - Network capacity;
  - Server memory and processing capacity;
  - Application-processing constraints; and
  - Performance testing and load testing.
- **Availability:** The degree to and manner in which the proposed architecture meets all availability requirements of the RFP and ensures maximum availability in accordance with industry-accepted best practices. At minimum the Bidder's response must address these key areas but should not be limited to them:
  - How and when routine maintenance will be performed;
  - How component failures will be handled;
  - How backup and recovery will be addressed from the start of Phase I – Project Initiation and Planning until the start of Phase V- Pilot Deployment and Testing; and,
  - How backup and restoration, other than from disaster (e.g. flood, fire earthquake, etc.) will be addressed (e.g., consistent with Bidder's response to requirements presented in T.3 – System Availability and Backup/Recovery).
- **Scalability:** The capability of the system to increase its capacity by upgrading system Hardware and Software. The proposed VoteCal Architecture shall

present a scalable solution consistent with industry-accepted best practices, e.g. scaling up and/or scaling out. Scaling up is the process of achieving scalability through the use of more or faster/better Hardware. Scaling out is the process of using many machines to work as one machine.

At a minimum the Bidder's response must address these key areas but should not be limited to them:

- How new Hardware and Software will be added; and
- What reconfiguration would be necessary to utilize new Hardware and Software.
- **Security:** The degree to and manner in which the proposed architecture presents a secure solution which at a minimum meets all security requirements of the RFP. The Bidder's response must address these key areas but should not be limited to them:
  - How authentication will take place;
  - How authorization will take place;
  - How data will be protected--both at rest and in transit;
  - How the system will protect against identity spoofing;
  - How the system will protect data from tampering;
  - How the system will log system and user activity; and
  - How the system will protect against Denial of Service attacks.
- **Maintainability:** The ability of the system to be maintained at an operational level after it is put into production. The Bidder's response must address these key areas but should not be limited to them:
  - Specific expectations of level of effort for maintenance (by Bidder through Phase VII – First Year Operations and Close-out and for up to five (5) additional years if SOS exercises a contract extension option for application and Hardware maintenance, and by SOS thereafter);
  - How the architecture will help contain the level of effort required for maintenance activities for any components added to the VoteCal network and/or SOS infrastructure;
  - How any third party components will be maintained, including routine updates as well as corrections of Deficiencies;
  - The necessary skills for staff who will be maintaining the system;
  - How the Bidder will ensure Software and Hardware currency and availability; and
  - Approach for forward compatibility.
- **Accessibility:** The degree to and manner in which the proposed architecture meets all accessibility requirements of the RFP and supports industry-accepted accessibility standards. At minimum the Bidder's response must address these key areas:
  - Compliance with provisions of California Government Code Section 11135 and United States Rehabilitation Act Section 508; and

- Conformance to Web Content Accessibility Guidelines 2.0, W3C World Wide Web Consortium Recommendation WCAG 2.0 12/2008, Level A and Level AA Success Criteria.
- **Deployability:** Where and how the system will be deployed. At minimum the Bidder's response must address these key areas but should not be limited to them:
  - Mitigation of common deployment risks;
  - Physical locations where systems components will be deployed; and
  - The method of distribution for system components.
- **Extensibility:** The adaptability of the architected system and the degree to which that system can be enhanced in the future. Reducing the average time and cost to make functionality updates in different areas of the architecture is a key component of extensibility. At a minimum the Bidder's response must address these key areas but should not be limited to them:
  - The steps necessary to add new functionality to the system;
  - How improving extensibility will affect the complexity of the system; and
  - How improving extensibility will affect testing and debugging.

The Bidder's response to this requirement must also provide supporting narrative and visual detail, including a list specifying all new Hardware, Third-Party and Contractor Commercial Proprietary Software and middleware components required for the design, development, training, implementation, and production operation of the VoteCal solution and specifying the BTU and electrical load requirements for each new Hardware product that will be included in the VoteCal System operating within the SOS Data Center (see Exhibits VI.3 – VoteCal Third Party Software Products List; VI.4 – VoteCal Contractor Commercial Proprietary Software Products List; and, VI.5 – VoteCal One-Time Hardware Products List).

The response to this requirement must also include visual diagrams and narrative that specify attributes and components included within each of the up to eight (8) racks that the Bidder may propose to support the VoteCal System solution within the SOS Data Center and which must include specifying the net BTU and electrical load requirements for each rack as well as the total BTU and electrical load requirements for the VoteCal System solution operating within the SOS Data Center (inclusive of all required Development, Testing, Training and Production environments). See Exhibit VI.6 - VoteCal System Rack Diagram and Description. **Note:** SOS assumes that the VoteCal System solution operating within the SOS Data Center will require two (2) 30 AMP receptacles per each of up to eight (8) racks. If the Bidder's solution will require the maximum four (4) receptacles per rack, the Bidder should assure that this is specified in P11, T.3.6.4 and in Exhibits VI.5 and VI.6. Bidder's response to this requirement must also reflect all applicable requirements, including those specified in Table VI.2 - VoteCal Technical Requirements and Response Form.

The response to this VoteCal Architecture requirement must specify all enhancements to the existing VoteCal network and/or SOS infrastructure that would be required for the proposed Architecture to meet business and technical requirements of this RFP and the general performance, availability, scalability, security, maintainability, accessibility, deployability and extensibility factors

described above. If Bidder proposes any changes to network Hardware, Software or configuration management components as part of the solution and is awarded the Contract, these changes shall be supplied at Contractor expense, and Contractor must support the additions at its own expense through Phase VII – First Year Operations and Close-out and up to five (5) years thereafter if SOS exercises the five (5) one (1) year contract extension options.

The Contractor's ability to implement and maintain proposed network changes is constrained by the following SOS-prescribed division of roles and responsibilities between the Contractor and SOS: the Contractor will be allowed view access to the network management tools for those components of the network included within the Contractor's VoteCal solution; the Contractor shall specify any changes required to the SOS LAN/WAN; and, SOS will collaborate with the Contractor to implement any requested and approved changes to the SOS LAN/WAN (see requirements T6.2, T6.3 and T6.4 in Table VI.2 - VoteCal Technical Requirements and Response Form for additional information).

The description of the Architecture provided in the response to this requirement must also specify the physical facilities and environment requirements for the SOS Data Center for the operation of the VoteCal System solution hosted in the Data Center, inclusive of Development, Test, Training, and Production environments (e.g., electrical capacity, HVAC, etc.). Bidder's VoteCal solution must operate within the SOS Data Center's existing physical facilities and environment as described in ~~version 2.0 of~~ the document entitled **Secretary of State Infrastructure Overview** (updated ~~May~~ July, 2012) located within the VoteCal Bidder's Library via the SOS Infrastructure Overview (<http://www.sos.ca.gov/elections/votecal/bidders-library/doc-specific-reference-rfp.htm>), and in keeping with the constraints described and providing the information specified in the T3.6 series of requirements within Table VI.2 - VoteCal Technical Requirements and Response Form.

SOS will extend the SOS network to include MPLS nodes (Verizon) to each of the three (3) EMS vendor sites to enable remote access between those environments and the VoteCal Test environment within the SOS Data Center during integration and preliminary system testing activities. SOS will also extend an MPLS node to the Contractor's site to enable Contractor remote access to all VoteCal environments to support all phases of the VoteCal project through and including subsequent optional years of Hardware and Software M&O support (see Attachment 1 – Statement of Work, Section 6.i). The Bidder must ensure that the changes required to the SOS WAN and any Hardware and Software required to provide the EMS vendors and Contractor such remote access are specified in response to this requirement as well as in response to requirements T3.6 (series), T6.2, T6.3 and T6. 4 in Table VI.2 – VoteCal Technical Requirements and Response Form within this Exhibit.

If Bidder is awarded the Contract, a comprehensive and updated Technical Architecture Documentation Deliverable in Phase II – Design of the VoteCal Project shall be submitted (see Attachment 1, Exhibit 2.E.Deliverable II.6 – VoteCal System Technical Architecture Documentation), in accordance with the PMP and the IPS for which the SOS has provided Acceptance.

### C. THE SOS MANAGEMENT ROLE

SOS will provide the following:

1. Full-time VoteCal Project Management Office (PMO) team, including one Senior Project Manager and two Project Managers, responsible for overseeing the project.
2. On-site workstations (including desk, telephone, desktop computer with access to printers, copiers, and the SOS IT staff) at the SOS Sacramento Office with space for up to six (6) Contractor staff. Additional space can be provided during project activities that require Contractor on-site presence that exceeds the number of workstations listed above.
3. SOS will provide Contractor staff access to the SOS voter registration program staff and the SOS IT staff that supports the existing applications as required during implementation. The SOS staff and the PMO team will participate in design sessions, review deliverables, and participate in testing and training as necessary to fulfill their responsibilities of acceptance of the new solution. However, SOS staff will not perform programming, develop Contractor deliverables, or configure the system. These are tasks expected to be performed by the Contractor's implementation team. The SOS will provide the full-time-equivalent (FTE) of up to two IT staff FTEs and three (3) voter registration/election business program FTEs.
4. An IPOC has been retained to support the SOS' VoteCal Senior Project Manager in terms of monitoring SOS and the Contractor's performance, responsibilities, and deliverables. The IPOC may perform the following activities on behalf of SOS:
  - (a) Validation of deliverables and selected Contractor activity and performance in accordance with standards as defined in the approved Deliverable Expectations Document for the specific deliverable, the Contractor's Proposal, Project Plan, schedule, and Contractor's progress report accuracy; and
  - (b) Support Risk Management and Issue Management and reporting on behalf of SOS to the California Technology Agency on timely issue resolution.
5. An IV&V consultant has been retained to support the VoteCal Project Manager in terms of monitoring and validating project activities, including the Software deliverables, requirements traceability, and verifying test results in accordance with the awarded Contract, the PMP, the IPS, and Contractor's progress reports.

#### **D. BUSINESS FUNCTIONAL REQUIREMENTS**

Bidders must propose a solution for the VoteCal System for which functionality is as outlined in this subsection.

All identified requirements are Mandatory requirements and must be addressed in Draft Proposals and Final Proposals. Proposals will be evaluated on the quality of the response and solution for each requirement.

Table VI.1 contains the VoteCal System business functional requirements that SOS requires of a proposed business solution to address the business processes described in Section IV – Proposed System and Business Processes. References to Government Code and California Code of Regulations (CCR) can be found in the Bidder's Library.

The SOS expects Bidders to develop a solution to meet all of the business needs. The Bidder is required to respond to each business requirement listed in this section using Table VI.1 – Mandatory VoteCal System Requirements, Functionality Reference, and Requirement Response Form. Bidders shall not retype the requirements. If there is a discrepancy between the electronic copy and the hardcopy of the stated requirement in the RFP, the RFP master hardcopy takes precedence.

**Bidders are reminded that in order to receive a “Pass” for these requirements, their response to each requirement must be complete and in sufficient detail for the Evaluation Team to understand how each requirement is to be met.**



Bidders shall provide a narrative response for each requirement individually, consisting of, for each requirement:

- The Proposed Solution Description column: containing a detailed description, which includes how the Bidder's proposed solution meets the needs associated with the requirement.
- The Supporting Documentation Reference column: indicate where (Proposal Response volume number and page number or section in the product literature) in the Bidder's proposal volumes additional material can be found that is to be considered in the evaluation of the requirement response.

**Table VI.1 – Mandatory VoteCal System Requirements, Functionality Reference, and Requirement Response Form**

All Bidders must respond to all requirements stated in the following table for the VoteCal System. Failure to respond to or meet one of these business requirements may be deemed a material deviation.

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S1	<b>GENERAL REQUIREMENTS &amp; FEATURES</b>	<b>S1 requirements are general features of the VoteCal System pertaining to data accessibility, functional application administration, extensibility, system access, and transactions between VoteCal and EMS'.</b>	
S1.1	VoteCal must provide authorized users with read-only access to the data for registered voters within other counties, including historic voter activity data, historic voting participation data, historic affidavit images and historic signature images for registrants.		
S1.2	VoteCal must provide authorized county users the ability to update the voter registration data for voters within their county.		
S1.3	VoteCal must prohibit county users from changing data for voters in other counties except to submit a transaction that moves a matched voter from another county into their county.		
S1.4	VoteCal must automatically send electronic notice to each appropriate county whenever a voter record is added or updated through VoteCal's automatic processes.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S1.5	<p>VoteCal must support VoteCal-related county user functions as described in this RFP through interfaces with each election management system (EMS). The EMS interfaces must be interactive and operate on a transactional basis where functions are so identified in the RFP requirements, such as registrant search, voter registration record entry and update, and county determinations on potential matches.</p> <p>Otherwise, the interfaces may be interactive, or batch or both as appropriate to the Bidder's proposed solution.</p>		
S1.6	All authorized county users shall access VoteCal only through their EMS.		
S1.7	VoteCal must provide the capability for authorized SOS administrators to search, query and track electronic notices that have been sent to counties. Search, sort, filter and grouping criteria must include county or jurisdiction, notice type, status (resolved or unresolved) and date or date range for notice.		
S1.8	VoteCal must provide for update and addition of "Smart names."		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S1.9	VoteCal must be able to process voter registration data originating from new sources of voter registration data both internal and external to SOS, with only the addition of a pluggable interface. <b>Note:</b> SOS intends that the California DMV will be one among the potential “new sources” of voter registration data once DMV is able to plan for and implement a method to provide new voter registration data to SOS. Although DMV is an existing source of some voter registration data, it would represent a “new source” from the perspective of submitting new voter registration data.		
S1.10	VoteCal must provide extracts of names and addresses for voters in one or more counties for processing by an external service.		

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S2	VOTER REGISTRATION: Registration Data	<p>S2 requirements list voter registration data elements that must be maintained in VoteCal to comply with HAVA Section 303 requiring that each state implement a “single, uniform, official, centralized, interactive computerized statewide voter registration list.” Data elements described under S2 include data provided by county elections officials’ staff through the EMS as well as data provided by citizens through online registration via the VoteCal public access website.</p> <p>The data elements listed here do not constitute an exhaustive list of required data. SOS expects that during Project Phase II – Design, the Contractor will work with SOS staff, county elections staff and EMS vendors to determine all specific data elements necessary to meet all - VoteCal requirements stated in this RFP. For examples of other data elements, beyond those listed here, see the Calvoter and Calvalidator Data Standards document in the Bidder’s Library.</p>	
S2.1	VoteCal must provide functionality that enables authorized county users to add new registered voters and to update data associated with existing registered voters.		
S2.2	VoteCal must be able to capture, store, and display all historical data on every record, including images.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.2.1	VoteCal must capture and display all data elements required to support the VoteCal functions and requirements defined in this RFP. (Refer to the Calvoter and Calvalidator Data Standards in the Bidder's Library for examples of additional data elements to be captured and stored in VoteCal. Contractor will work with SOS staff, county elections staff and EMS vendors to determine all specific data requirements for VoteCal.)		
S2.3	VoteCal must allow for capture and storage of voter names including the following discrete data fields: <ul style="list-style-type: none"> <li>• First name (full or initial);</li> <li>• Middle name (full name or initial);</li> <li>• Full last name (can include hyphenated last name);</li> <li>• Suffix (Sr., Jr., other generations); and</li> <li>• Previous name(s)</li> </ul>		
S2.4	VoteCal must store a unique identifier (UID) for each registrant in accordance with the rules described in requirements listed under S5: ID Verification.		
S2.4.1	VoteCal must capture and store the EMS voter ID for each voter.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.5	VoteCal must capture and store historic data on voter residence, mailing address and domicile county, including beginning and ending effective dates of those addresses.		
S2.6	<p>VoteCal must provide for capture and storage of the following discrete data fields related to a voter's address:</p> <ul style="list-style-type: none"> <li>• House number;</li> <li>• House fraction number;</li> <li>• House number suffix (alphanumeric);</li> <li>• Two-character pre-directional code (e.g. S., SW) *;</li> <li>• Street name (alphanumeric);</li> <li>• Type (e.g. Street, Road, Lane) *;</li> <li>• Two-character post-directional code *;</li> <li>• Apartment or space number (alphanumeric);</li> <li>• Unit Type *;</li> <li>• City;</li> <li>• Zip *;</li> <li>• Zip plus four* (optional with respect to each voter); and</li> <li>• County.</li> </ul> <p>NOTE: * indicates code must conform to USPS standards</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.7	VoteCal must be able to capture and store an address in a free-form format as a registered voter's official residence (e.g., the voter's address might be "THREE MILES NORTH OF ACME GROCERY STORE, Alturas, CA" or "Mile Marker 29.5, Hwy 85").		
S2.8	VoteCal must provide for capture and storage of multiple mailing addresses for a voter, including permanent mailing addresses, temporary mailing addresses (with beginning and ending effective dates), permanent vote-by-mail addresses, and one-time vote-by-mail addresses. (See Glossary for definitions of these types of mailing addresses.)		
S2.9	VoteCal must determine whether or not a mailing address is within California based on available data in the mailing address.		
S2.10	VoteCal must be able to capture and store a voter's "Mailing" and "Vote-by-Mail" address using the following fields that can be used with mailing Software: <ul style="list-style-type: none"> <li>• Free-form data entry;</li> <li>• Fields long enough to meet US postal, foreign and military mail regulations;</li> <li>• Postal codes; and</li> <li>• Country code.</li> </ul>		



<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.11	VoteCal must provide the ability to capture and store a voter's date of birth. NOTE: Because a voter may have currently effective registrations that predate the requirement to provide date of birth, VoteCal must be capable of handling voters without a date of birth.		
S2.11.1	VoteCal must capture affirmation of citizenship status.		
S2.12	VoteCal must be capable of capturing and storing the following data that is optional for completion of voter registration: <ul style="list-style-type: none"> <li>• Telephone number (up to four different numbers, including type and extension, as separate fields or records);</li> <li>• Gender; and</li> <li>• Email address.</li> </ul>		
S2.13	VoteCal must be capable of capturing and storing voter registration information that is optional on the California affidavit, including: <ul style="list-style-type: none"> <li>• Name prefix;</li> <li>• Whether the voter wishes to exercise the permanent vote by mail option; and</li> <li>• Ethnicity/race</li> </ul> (Refer to Bidder's Library, Calvoter and Calvalidator Data Standards, for current codes for these fields.)		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.14	VoteCal must be capable of capturing and storing the voter's place of birth, both as free-form text and as user-defined codes. (Refer to Bidder's Library, Calvoter and Calvalidator Data Standards and Data Standards Tables (supplement to Calvoter and Calvalidator Data Standards) for current data standards.)		
S2.15	VoteCal must be capable of capturing and storing a voter's language preference, based on codes that can be defined and modified by authorized SOS administrators. (Refer to Bidder's Library, Calvoter and Calvalidator Data Standards, for current codes.)		
S2.15.1	VoteCal must be capable of capturing and storing multiple accessibility/assistance needs for a voter, based on codes that can be defined and modified by authorized SOS Administrators.		
S2.16	VoteCal must capture, store and display the status of any voter's registration, effective dates for such changes and reasons for the change. The status options must include: <ul style="list-style-type: none"> <li>• Active;</li> <li>• Inactive;</li> <li>• Cancelled; and</li> <li>• Pending.</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.17	VoteCal must store a voter's political party preference, if any, based on codes that can be defined and modified by authorized SOS administrators. (Documentation of currently used political party codes is available in the Data Standards Tables (supplement to Calvoter and Calvalidator Data Standards) document in the Bidder's Library.)		
S2.18	VoteCal must capture, store and display the following identification information for each voter record: <ul style="list-style-type: none"><li>• The voter's California issued Driver's License or State Identification Card (CDL/ID) number if known or provided;</li><li>• The DMV verification status of that number (i.e., verified, not-verified, or pending verification; see process described in S5: ID Verification); and</li><li>• If verified, the date verified.</li></ul>		

<b>Req. #</b>	<b>Mandatory VoteCal System Business Requirement</b>	<b>Proposed Solution Description</b>	<b>Supporting Documentation Reference</b>
S2.19	<p>VoteCal must capture and store the following identification information for each voter record:</p> <ul style="list-style-type: none"> <li>• The last 4 digits of the voter's Social Security Number (SSN4), if known or provided, which must be accessible for input, query and reporting;</li> <li>• The Social Security Administration verification status of that number (, verified, not-verified, or pending verification; see process described in S5; ID Verification); and</li> <li>• If verified, the date verified.</li> </ul>		
S2.20	<p>VoteCal must capture and store the voter's current and historical methods of registration (e.g., "by mail," "walk-in," "registration drive," "DMV," etc.), based on codes that can be defined and modified by authorized SOS administrators.</p>		
S2.21	<p>VoteCal must capture, store and display for voters who register by mail:</p> <ul style="list-style-type: none"> <li>• Whether or not the voter is a first-time voter, subject to the HAVA ID requirement (HAVA Section 303[b]);</li> <li>• Whether or not the voter has satisfied the ID requirement and, if so, how; and</li> <li>• If exempt from this requirement, the reason for that exemption.</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.22	<p>For each voter registration affidavit received, VoteCal must capture and store the following discrete data:</p> <ul style="list-style-type: none"><li>• Affidavit number;</li><li>• Execution date (from the affidavit);</li><li>• Date the affidavit was received; and</li><li>• Effective date of registration for the affidavit; and</li><li>• The voter registration record that was created or updated based on data in the affidavit.</li></ul>		
S2.23	<p>VoteCal must store and display the current and historic images of the full registration affidavit in a format consistent with either ANSI/AIIM standards or a Bidder-proposed standard.</p>		
S2.23.1	<p>VoteCal must store and display the current and historic images of the full registration affidavit with a minimum resolution of two hundred (200) dots per inch (dpi) and maximum resolution of three hundred (300) dpi.</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.24	VoteCal must provide ability to display the current and historic images of the voter's signature independently from the affidavit with a minimum resolution of two hundred (200) dpi and maximum resolution of three hundred (300) dpi.		
S2.25	VoteCal must provide the ability to zoom into affidavit and signature images.		
S2.26	VoteCal must provide ability to attach and store other images to a voter's record in GIF, TIF, JPG, PNG and PDF formats, such as letters received from the voter.		
S2.27	VoteCal must capture, store and display an average of fifty (50) free-form text comments and/or notes per voter record with an average size of five hundred (500) characters per comment or note.		
S2.27.1	VoteCal must be scalable to store an average of one hundred (100) free-form text comments and/or notes per voter record, with an average size per comment or note of one thousand (1,000) characters.		
S2.27.2		Requirement S2.27.2 is deleted effective Addendum #10.	

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S2.28	VoteCal must allow multiple comments and notes to be stored for a single registered voter. Each note must have a creation date, County ID and County user name (or user ID) associated with it.		
S2.29	VoteCal must retain all voter records and associated data, including images for each voter record, such that processes and reports that are generated with an "as of" date correctly reflect the data applicable on the "as of" date.		
S2.30	VoteCal must capture and store data for confidential voters under the California Elections Code (EC) §2166, EC §2166.5, EC §2166.7 such that the following criteria are met: <i>(see 2.30a through 2.30f below)</i>		
S2.30a	All such voters must have a mailing address different from the residence address or domicile.		
S2.30b	Such voters must be automatically designated as permanent vote-by-mail voters.		
S2.30c	All restricted information (residence address, phone number and email address) about such voters must not be displayed unless the user has appropriate and sufficient permissions.		

<b>Req. #</b>	<b>Mandatory VoteCal System Business Requirement</b>	<b>Proposed Solution Description</b>	<b>Supporting Documentation Reference</b>
S2.30d	By default, any restricted information about such voters must not be automatically included in any reports, queries or data extracts, and must only be included in reports or data extracts by special action of users with appropriate and sufficient permissions.		
S2.30e	Elections officials who create lists, rosters and data extracts from VoteCal must be able to optionally choose whether to exclude the voter.		
S2.30f	The counts of such voters must be either included in or excluded from statistical abstracts such as the Report of Registration, based on user selection report options.		
S2.31	VoteCal must capture and store the legal basis for which a voter qualifies as confidential (e.g., "court ordered," "victim of domestic violence," and "public safety officer") based on user-defined codes that can be defined and modified by SOS authorized administrators.		
S2.32	VoteCal must capture and store the date of application for confidential status under EC §2166.7 and other applicable state and federal law.		



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<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.32.1	VoteCal must provide the capability to automatically remove confidential status at the conclusion of a time period that is configurable by an authorized administrator, based on business rules. (See Bidder's Library, Current Business Rules, for currently known business rules.)		
S2.32.2		Requirement S2.32.2 is deleted effective Addendum #10.	

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.33	<p>VoteCal must capture and store the status of uniformed services and overseas voters that have been identified and fall under the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA), including the following information:</p> <ul style="list-style-type: none"> <li>• Category of qualification (e.g., uniformed services voter – domestic, uniformed services – overseas, non-military/civilian overseas voters);</li> <li>• Date and method of registration (e.g., state VRC, federal VRC, Federal UOCAVA Registration/Vote-By-Mail application postcard);</li> <li>• Date and method of application for vote-by-mail status (e.g. Federal UOCAVA Registration/Vote-By-Mail application postcard, County vote-by-mail application, etc.); and</li> <li>• If application was rejected, the reason for rejection and the date notice of rejection was sent to voter.</li> </ul>		
S2.34	<p>VoteCal must capture and store a record of list maintenance notices sent to a voter (e.g., RCP, ARCP, 8(d)(2) notices, CAN, etc.), including the date the extract for mailing label was created or the actual date sent.</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S2.35	VoteCal must provide a user interface for authorized SOS administrators to add and maintain allowable data values for all fields where the set of possible data values is constrained.		
S2.36	<p>VoteCal must capture and store vote-by-mail voting status of each voter, including:</p> <ul style="list-style-type: none"> <li>• Type of vote-by-mail voter: one-time, special absentee (e.g., military and overseas – see EC §300), permanent vote-by-mail (EC §3201), and all-mail precinct;</li> <li>• Type of application (e.g., State defined such as on-line, federal form, sample ballot return application, Federal UOCAVA Vote-By-Mail postcard, County vote-by-mail application, etc.);</li> <li>• Date application received;</li> <li>• Source of the application (how received);</li> <li>• Whether or not the application was accepted or denied; and</li> <li>• If denied, the reason for the denial.</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S3	VOTER REGISTRATION: Registrant Search	<p>S3 requirements cover voter registrant searches that will be executed by authorized SOS users or by authorized county elections officials' staff. County elections officials' staff and SOS users may execute searches to research voter registration issues. County elections officials' staff may also execute searches of VoteCal records to resolve list maintenance questions or address other issues that VoteCal transmits through electronic notices, as well as to pre-populate and modify data to submit to VoteCal.</p> <p>Requirements listed in S3 include those that are specific to searches that are executed for list maintenance or research purposes, as well as those that are applicable to any search. Requirements specific to searches that are executed for the purpose of pre-populating data for eventual submission to VoteCal (as a candidate update to a record) are described in S4: Registration Processing.</p>	

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S3.1	<p>VoteCal must allow an authorized user to query and locate an existing record in the system interactively, using any one or a combination of the following criteria:</p> <ul style="list-style-type: none"> <li>• Full or partial first name;</li> <li>• “Smart name” variances on first name;</li> <li>• Full or partial middle name;</li> <li>• Full or partial last name;</li> <li>• Soundex variations on last name;</li> <li>• Full or partial residence address;</li> <li>• Full or partial mailing address;</li> <li>• Full or partial telephone number;</li> <li>• Full or partial VoteCal assigned UID;</li> <li>• Full or partial CDL/ID;</li> <li>• Full or partial Registration affidavit number;</li> <li>• Full or partial SSN4;</li> <li>• Full or partial date of birth (DOB)</li> <li>• Place of birth;</li> <li>• Political party preference;</li> <li>• Precinct; and</li> <li>• Political district.</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S3.2	VoteCal must provide ability to search up to ten (10) years of historical values for name, address, UID, affidavit number, precinct and/or political district fields that are entered as search criteria, if the user chooses an option to include historical values for these fields.		
S3.2.1	In response to a search executed for research or list maintenance purposes, VoteCal must return all high-confidence matches and all potential matches that exceed the minimum matching threshold (See S9: Record Matching and Merging).		
S3.2.2	<p>For any executed search, VoteCal must display the following information, at a minimum, for each match:</p> <ul style="list-style-type: none"> <li>• Full voter name;</li> <li>• UID;</li> <li>• Date of birth;</li> <li>• CDL/ID (if available);</li> <li>• SSN4 (if available); and</li> <li>• Residence address</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S3.3	<p>For any executed search, VoteCal must, upon user choice, display applicable detail for a presented match, including:</p> <ul style="list-style-type: none"> <li>• historic voter activity data;</li> <li>• historic voting participation data;</li> <li>• historic affidavit images and</li> <li>• historic signature images.</li> </ul>		
S3.4		Requirement S3.4 is deleted effective Addendum #8.	
S3.4.1		Requirement S3.4.1 is deleted effective Addendum #8.	
S3.5		Requirement S3.5 is deleted effective Addendum #8.	
S3.5.1		Requirement S3.5.1 is deleted effective Addendum #8.	

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S4	VOTER REGISTRATION: Registration Processing	<p>All voter registration additions and updates from the county elections officials' staff will be submitted via the EMS to VoteCal. Online voter registration transactions from registrants/voters will come from the Secretary of State online voter registration website to VoteCal without streaming through the EMS.</p> <p>For voter registration transactions from the EMS, the county elections official's staff may <u>optionally</u> begin with a search of VoteCal records. If the county elections official's staff executes a search of the VoteCal database as an initial step, VoteCal will present a single matched record, if available, that meets or exceeds the high-confidence threshold for that search function. The county elections official's staff may optionally select that matched record for the purpose of pre-populating the data in a new transaction to submit to VoteCal, and then make additions and changes to the data through the EMS. If the county elections official's staff does not search for a match, or if VoteCal does not return a single high-confidence match in response to a search, the county elections official's staff will enter all required data fields for a new transaction.</p> <p>The process described in these requirements refers to the ID Verification process (which is described in more detail in S5: ID Verification), and includes a check for existing records with the same UID as that of the submitted record (as described in S9: Record Matching).</p> <p>The requirements do not include actions the county elections officials' staff would perform within the EMS.</p>	
S4.1	In response to a search that a user executes for purpose of submitting changes to an existing voter registration record, VoteCal must display a "match" result only if there is a single match that exceeds the high-confidence threshold.		



<b>Req. #</b>	<b>Mandatory VoteCal System Business Requirement</b>	<b>Proposed Solution Description</b>	<b>Supporting Documentation Reference</b>
S4.2	VoteCal must evaluate all submitted registration records against configurable data validation rules, and reject any records that have one or more errors configured as critical severity, and provide notice of the rejection to the appropriate county. (See Bidder's Library, Current Data Validation Rules, for currently known validation rules.)		
S4.3	Records presented to VoteCal that do not have critical severity data validation errors but have other non-fatal Deficiencies must be accepted into the system, with the need for correction of Deficiencies recorded. (See Bidder's Library, Current Data Validation Rules, for currently known validation rules.)		
S4.4	VoteCal must provide the capability for authorized users to configure data validations, including adding, modifying, enabling/disabling, and setting severity level. (See Bidder's Library for currently known validation rules.)		
S4.5	VoteCal must submit registration records that were not rejected for critical severity data validation errors to the ID verification (IDV) and UID creation process as described in S5: ID Verification.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S4.6	VoteCal must search for an existing voter record that contains the same UID as the submitted registration record in accordance with record matching requirements described in S9: Record Matching and Merging and S5: ID Verification.		
S4.7	If VoteCal finds a single, high-confidence match of an existing voter record with the submitted record, VoteCal must update the existing voter registration record with information from the submitted record. (See S9: Record Matching and Merging concerning merge and match requirements.)		
S4.8	If VoteCal cannot find a single, high-confidence match based solely on UID of an existing voter registration record with the submitted registration record, VoteCal must create a new record for the voter.		
S4.9	VoteCal must determine and indicate whether the voter is required to provide ID when voting in accordance with HAVA Section 303(b) and 42 U.S.C. Section 15483(b)(1), and any other applicable state or federal law. (See Bidder's Library, Current Business Rules, for documentation of currently known business rules.)		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S4.10	<p>Once a UID is assigned to a voter record, VoteCal must record:</p> <ul style="list-style-type: none"> <li>• The basis for the assigned UID (CDL/ID, SSN4, auto generated); and,</li> <li>• Voter status, according to configurable business rules. (See Bidder's Library, Current Business Rules, for currently known business rules.)</li> </ul>		
S4.10.1	<p>When a county submits a change in status of a voter's registration to "cancelled" or "inactive" based on information received locally within the county, VoteCal must automatically accept the change in status and the county-supplied reason for the change. (See Bidder's Library, Current Business Rules, for currently known rules pertaining to cancellation or inactivation of voter registration.)</p>		
S4.11	<p>Within twenty-four (24) hours of completing processing of any new registration, re-registration, or update of name, date of birth, CDL/ID or SSN4 with the resultant new or updated record in "active" status, VoteCal must compare that record against available death records for possible matches, in accordance with the requirements listed in S10: CDPH Death Records.</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S4.12	Within twenty-four (24) hours of completing processing of any new registration, re-registration, or update of name, date of birth, CDL/ID or SSN4 with the resultant new or updated record in "active" status, VoteCal must compare that record against available felon records for possible matches, in accordance with the requirements listed in S11: CDCR Felon Data.		
S4.13	Within twenty-four (24) hours of completing processing of any new registration, re-registration, or update of name, date of birth, CDL/ID or SSN4 with the resultant new or updated record in "active" status, VoteCal must compare that record against all other existing VoteCal records for possible duplicates, in accordance with the requirements listed in S12: Duplicate Identification.		
S4.14	For all voter registration transactions that do not have fatal data validation errors and are received by 11:59:59 p.m. PT in a given day, VoteCal must receive and store all new images associated with that voter record and not already contained within the database by 7:30:00 a.m. PT of the following State business day.		

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S5	VOTER REGISTRATION: ID Verification	S5 requirements describe the ID verification that is to occur for every voter registration or re-registration transaction that an EMS submits to VoteCal. The process validates a CA driver's license number, an identification card number or an SSN4 through an interface involving data maintained by California's Department of Motor Vehicles (DMV). Bidders should assume that the ID Verification interface features will support retrieval of digitized signatures (see Section IV.E.2.d for information on the extension of this interface that SOS plans will be implemented in mid-2012 to support an emerging SOS online Voter Registration website, COVR)).	
S5.1	VoteCal must support the existing DMV ID verification (IDV) interface, which operates on a transactional basis. (Refer to the Bidder's Library, ID Verification Interface Specifications, for more detailed specification of that interface.)		
S5.2	For new voter registrations, re-registrations, and for updates with a change of name, date of birth, CDL/ID or SSN4, VoteCal must automatically submit the data for validation from the DMV or the Social Security Administration through the IDV interface.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S5.3	<p>VoteCal must automatically assign the record a unique ID (UID) based on the CDL/ID provided by the DMV if:</p> <ul style="list-style-type: none"> <li>• IDV verifies the provided CDL/ID as an exact match, <i>or</i></li> <li>• IDV identifies a CDL/ID as a single exact match when no CDL/ID was provided, or when a different CDL/ID was provided.</li> </ul>		
S5.4	<p>If the UID that VoteCal would assign based on verified CDL/ID has already been assigned to a different record, VoteCal must generate a UID based on an SOS-approved algorithm. (Refer to the Bidder's Library, Calvoter and Calvalidator Data Standards, for more detailed information on the current version of the SOS-approved algorithm.)</p>		
S5.5	<p>When VoteCal generates a UID based on the SOS-approved algorithm because the UID that would be based on CDL/ID or SSN4 is already assigned to another record, VoteCal must send electronic notice to the affected county(ies) to resolve the issue.</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S5.6	In cases where VoteCal generated a notice to 2 or more counties to resolve a duplicate CDL/ID- or SSN4-based ID, and one of the involved counties changes a CDL/ID or SSN4 (e.g., to correct a data entry error), then VoteCal must change all affected voter UIDs to conform to UID assignment rules described in this section (e.g., assign a CDL/ID- or SSN4-based UID where it previously could not because the UID had already been in use) and send electronic notice of UID change to all affected counties.		
S5.7	When the UID that would be based on CDL/ID or SSN4 is already assigned to another record and both counties verify that the voter registration records with the same CDL/ID or SSN4-based ID information are not the same voter, VoteCal must notify SOS authorized administrators.		

<b>Req. #</b>	<b>Mandatory VoteCal System Business Requirement</b>	<b>Proposed Solution Description</b>	<b>Supporting Documentation Reference</b>
S5.8	<p>VoteCal must automatically generate a unique ID (UID) for the record based upon an SOS-approved algorithm for SSN4-based UIDs if:</p> <ul style="list-style-type: none"> <li>• The IDV verifies the SSN4 as a single exact match or multiple exact match; and</li> <li>• The IDV does not identify a CDL/ID as a single exact match when no CDL/ID was provided.</li> </ul> <p>(Refer to the Bidder's Library, Calvoter and Calvalidator Data Standards, for more detailed information on the current SOS-approved algorithm.)</p>		
S5.9	<p>VoteCal must automatically generate a unique ID (UID) for the record based upon an SOS-approved algorithm, if the IDV is unable to either match the provided CDL/ID or SSN4 or identify a single exact match to a CDL/ID. (Refer to the Bidder's Library, Calvoter and Calvalidator Data Standards, for more detailed information on the current SOS-approved algorithm.)</p>		



<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S5.10	When VoteCal generates a UID that is not based on the CDL/ID, the SOS-approved algorithm for generating that UID must ensure that if the voter reregisters at a later time with the same information, the system will generate the same UID or base number for the UID.		
S5.11	When ID verification cannot be completed at time of VoteCal receipt of the transaction, the record must be saved with a generated UID. VoteCal must automatically retry an incomplete ID verification, and if a CDL/ID or SSN4 is verified for the record, VoteCal must: <ul style="list-style-type: none"> <li>• Reassign an appropriate UID to the voter registration record; and</li> <li>• Identify any potential pre-existing records for that voter and provide electronic notice of the potential match to the county of the pre-existing record(s).</li> </ul>		
S5.12	VoteCal must receive digitized signature images from the DMV.		

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S6	VOTER REGISTRATION: DMV Change of Address	<p>California's current implementation of the National Voter Registration Act (NVRA, or 'motor voter') allows for electronic processing of address changes for existing registered voters. VoteCal will support the existing DMV Change-of-Address (DMV COA) interface and processes, namely:</p> <ul style="list-style-type: none"> <li>• Attempt to match the records received from DMV against existing voter registration records;</li> <li>• Provide such matches to counties for appropriate processing; and</li> <li>• Provide unmatched DMV COA transactions to the county for further research and possible match to a voter.</li> </ul>	
S6.1	VoteCal must receive voter registration address change data from the DMV in accordance with the National Voter Registration Act (NVRA), EC §2102, EC §2107 and Vehicle Code §12950.5.		
S6.1.1		Requirement S6.1.1 is deleted effective Addendum #8.	
S6.1.2		Requirement 6.1.2 deleted process (S5: ID Verification), effective Addendum #10.	
S6.2	VoteCal must attempt to match DMV voter registration change of address (COA) transactions against existing voter registration records using matching criteria established by the SOS. (See S9: Record Matching and Merging for requirements specific to matching criteria.)		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S6.3	For matches of DMV COA transactions against existing voter registration records that meet or exceed the established confidence threshold, VoteCal must automatically: <ul style="list-style-type: none"> <li>• Update the existing voter registration record with the new voter registration data received from DMV; and</li> <li>• Update the voter activity history with the basis for registration changes.</li> </ul>		
S6.4	For matches of DMV COA transactions that do not meet the established confidence threshold for automatic matching but that meet the established minimum confidence threshold of that match function, VoteCal must automatically send a notice to the county that it must make a determination of whether the records match.		
S6.5	When a county verifies that a pre-existing voter registration record matches the DMV COA transaction, VoteCal must: <ul style="list-style-type: none"> <li>• Record that information, including the basis for determination, in the voter activity history of the matched voter; and</li> <li>• Update the existing voter registration record with the new voter registration data received from DMV.</li> </ul>		

<b>Req. #</b>	<b>Mandatory VoteCal System Business Requirement</b>	<b>Proposed Solution Description</b>	<b>Supporting Documentation Reference</b>
S6.6	If a county determines that the potential match of DMV COA transaction to a pre-existing voter registration record is not valid, VoteCal must record the determination that the DMV COA transaction was not associated with the record and the basis for that determination.		
S6.7	VoteCal must provide authorized users the capability to un-match previously matched DMV COA transactions at any time after such matches have been applied. In such instances, VoteCal must correct any changes that were applied to the record as a result of the prior match and handle the transaction as a confirmed non-match for that process.		
S6.8	When a DMV COA transaction cannot be matched against any existing voter registration records, VoteCal must send unmatched DMV COA data to the appropriate county.		
S6.9	VoteCal must allow SOS authorized Administrators to record whether or not a county wants the SOS to mail voter registration cards for that county, for DMV COA transactions determined not to match an existing VoteCal record.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S6.10	VoteCal must generate a data extract of addresses for unmatched DMV COA transactions so that voter registration cards can be printed by the State through a third-party mailing house.		
S6.11		Requirement S6.11 is deleted effective Addendum #8.	
S6.12		Requirement S6.12 is deleted effective Addendum #8.	
S6.13		Requirement S6.13 is deleted effective Addendum #8.	
S6.14		Requirement S6.14 is deleted effective Addendum #8.	
S6.15		Requirement S6.15 is deleted effective Addendum #8.	
S6.16		Requirement S6.15 is deleted effective Addendum #8.	
S6.17		Requirement S6.15 is deleted effective Addendum #8.	
<b>S7</b>	<b>VOTER REGISTRATION: Voter Notification Cards (VNC)</b>	<b>In accordance with California law (EC §2155), county elections officials must mail voters voter notification card (VNC) following voter registration, re-registration, or updates to the voter record based on a variety of data points (e.g., voter's notification of an address change). VoteCal must provide the capability for SOS to generate an extract for some or all counties to mail VNCs through a third party such as the California Office of State Publishing (OSP).</b>	

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<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S7.1	VoteCal must have the capability to generate a data extract, based on the applicable mailing address for each voter, of all required VNC information across the State so that VNCs can be printed by the State through a third-party mailing house.		
S7.2	VoteCal must indicate in the voter record the date that the record was included in a data extract for VNC mailing.		

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S8	<b>VOTER REGISTRATION: EMS-VoteCal Synchrony Verification</b>	S8 requirements pertain to capability for either authorized county elections officials staff or authorized SOS users to conduct a “synchronization” audit to identify inconsistencies between EMS data and VoteCal data. The process supported by these requirements is for the purpose of ensuring accuracy and currency of VoteCal and EMS data.	
S8.1	<p>VoteCal must provide authorized administrators the ability to execute a process that identifies differences between VoteCal and EMS data. Differences would include data in VoteCal that is not in an EMS, as well as data in an EMS that is not in VoteCal. For purposes of this requirement, the data to be compared are:</p> <ul style="list-style-type: none"> <li>• Voter registration data other than images, including voter activity history and voter participation history (see Glossary for definitions of voter registration data, voter activity history, and voter participation history);</li> <li>• For affidavit, signature and document images (including historical images), the image file name, date created and date modified; and</li> <li>• Precinct and political district data as described in requirements within S18: Precinct-District mapping</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S8.2	<p>VoteCal must filter, sort and group identified differences between EMS and VoteCal records according to values or ranges of values of one or a combination of the following:</p> <ul style="list-style-type: none"><li>• Date of user's or VoteCal's action that created or changed data</li><li>• Registration date on the record</li><li>• CDL/ID</li><li>• UID</li><li>• Date of birth</li><li>• Registration status</li><li>• Electronic notice type</li><li>• Electronic notice date</li><li>• Electronic notice status</li></ul>		



<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S9	LIST MAINTENANCE: Record Matching and Merging	<p>S9 requirements focus on the configuration of criteria for determining matches between records (either duplicate voter records, matches returned in response to a user-initiated search, or matches of voter records with death, felon or third party address change records) and on requirements associated with merging records that are determined to be a “match.”</p> <p>Though this section is called upon in Section 4: Registration Processing and matching is referenced in S6: DMV Change of Address and other List Maintenance requirements sets, the focus in S9 is the specification of the matching processes and the merge and unmerge processes.</p>	

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S9.1	<p>VoteCal must include a user-configurable method for authorized SOS administrators to:</p> <ul style="list-style-type: none"><li>• Establish sets of registration record matching criteria;</li><li>• Configure which criteria apply to each type of matching function (e.g., user-initiated registrant search for list maintenance/research purposes, user-initiated search for purpose of submitting data additions or updates to VoteCal, VoteCal search for existing record upon receipt of a registration transaction, death record matching, felon record matching, duplicate record checks, NCOA matching, etc.);</li><li>• Assign “confidence” levels to each criteria set as it applies to each matching function; and</li><li>• Establish threshold confidence levels required for manual or automatic application of matches for each matching function.</li></ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S9.2	<p>VoteCal must allow SOS authorized administrators to establish one or more bases for matching data in a registration record field, including (where applicable):</p> <ul style="list-style-type: none"><li>• Exact character match;</li><li>• First "X" characters of the field (where "X" is user configurable);</li><li>• Same characters and order in string, but with spaces and punctuation removed;</li><li>• Soundex match (or alternative method based on phonetic pronunciation);</li><li>• "Smartnames" match based on common variations of First Name established by authorized SOS administrators (e.g., Robert = Bob, Bobby, Rob);</li><li>• "X" matching characters within string; and</li><li>• Same month and year.</li></ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S9.3	<p>VoteCal must allow SOS authorized administrators to identify a set of matching criteria based on combinations of individual field match settings, such as:</p> <ul style="list-style-type: none"> <li>• First Name- with "Smartnames"; Last Name- first 4 characters; and Date of Birth- same day and month; or</li> <li>• CDL/ID exact match; First Name- with "Smartnames"; Last Name- with Soundex.</li> </ul>		
S9.4	<p>VoteCal must allow SOS authorized administrators to configure and update whether or not an established matching criteria set is applied to each matching function, including:</p> <ul style="list-style-type: none"> <li>• Registrant searches for purposes of pre-populating a voter record;</li> <li>• Registrant searches for list maintenance and research purposes;</li> <li>• Searches for an existing record based on the UID;</li> <li>• Duplicate registration checks;</li> <li>• DMV transaction processing;</li> <li>• Death record matching; and</li> <li>• Felon record matching.</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S9.5	VoteCal must allow SOS authorized administrators to individually establish "confidence" values to each established matching criteria set as it applies to each potential matching function.		
S9.6	VoteCal must allow SOS authorized administrators to establish and modify confidence thresholds for each matching function so that matches found that meet or exceed that confidence threshold are automatically applied by the system. For matches that do not meet that threshold, but meet a lower "manual" minimum matching threshold, VoteCal must generate electronic notices to the appropriate county for match review and resolution.		
S9.7	<p>When evaluating voter records to identify potential matches with other voter records (match within VoteCal), DMV transactions, death records and felon records , VoteCal must exclude the following from matching results and notices to counties when same match criteria were used:</p> <ul style="list-style-type: none"> <li>• Previously verified matches;</li> <li>• Previously verified non-matches; and</li> <li>• Previously identified potential matches pending determination.</li> </ul>		

<b>Req. #</b>	<b>Mandatory VoteCal System Business Requirement</b>	<b>Proposed Solution Description</b>	<b>Supporting Documentation Reference</b>
S9.8	VoteCal must provide the ability for authorized SOS administrators to batch clear, by date range and/or by the county user ID, match determinations made inappropriately.		
S9.9	VoteCal must merge voter registration data into a single registration record when duplicate registrations are confirmed. The voter registration data must include voter activity history and voting participation history and be merged into the record with the most recent date of registration or voter registration update activity.		
S9.10	VoteCal must provide authorized users with the ability to un-merge a single voter registration record into separate registration records in the event that registration records were incorrectly merged. The separated voter registration data must include voter activity history and voting participation history and the separate registration records must contain the appropriate registration data.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
<b>S10</b>	<b>LIST MAINTENANCE: CDPH Death Records</b>	In accordance with Elections Code §2206 and California Administrative Code Title 2, Division 7, Chapter 1, Article 1, §20108.55, the Secretary of State receives death records from the California Department of Public Health (CDPH) and must provide this information to county elections officials for list maintenance purposes. The Secretary of State will also be responsible for ensuring any confirmed matches of death records with registered voters result in a cancellation of voter registration of the deceased persons.	
S10.1	VoteCal must receive and store new death records from CDPH.		
S10.2	VoteCal must match all new death records received from CDPH against existing voter registration records to identify existing voters that may have died.		
S10.3	For matches with new death records that meet or exceed the established confidence threshold, VoteCal must automatically: <ul style="list-style-type: none"> <li>• Cancel the voter's registration;</li> <li>• Record the basis for that cancellation in the voter's activity record; and</li> <li>• Send an electronic notice to the appropriate county of the cancellation and its basis.</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S10.4	<p>For matches of new death record transactions that do not meet the established confidence threshold for automatic matching but that meet the established minimum confidence threshold of that match function, VoteCal must automatically:</p> <ul style="list-style-type: none"> <li>• Note the potential match in the voter's record; and</li> <li>• Send electronic notice to the appropriate county of the potential match for investigation and resolution.</li> </ul>		
S10.5	<p>VoteCal must allow an authorized county user to enter a determination of the validity of the potential match (valid or invalid).</p>		
S10.6	<p>VoteCal must apply authorized county users' determinations of validity of potential matches and change voter status, if appropriate, according to configurable business rules (Documentation of currently known business rules is available in the Bidder's Library, Current Business Rules.)</p>		
S10.7		Requirement S10.7 has been deleted.	



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<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S10.8		Requirement S10.8 has been deleted.	
S10.9	VoteCal must provide authorized users the capability to un-match previously matched death records at any time after such matches have been applied. In such instances, VoteCal must correct any changes that were applied to the record as a result of the prior match and handle the transaction as a confirmed non-match for that process.		
S10.10	VoteCal must allow authorized SOS administrators to exclude from death record matching processes any death record determined to be incorrect or invalid.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S11	LIST MAINTENANCE: CDCR Felon Data	In order to comply with EC § 20108.55, VoteCal must have the capability to receive felon records from the California Department of Corrections and Rehabilitation (CDCR); to store such records on an ongoing basis; match records to voter registration records, and send electronic notices to counties to confirm potential matches; and, for confirmed matches, update registration status in accordance with business rules provided in the Bidder's Library. When CDCR data indicate that an individual is no longer under CDCR jurisdiction (i.e., no longer incarcerated or on parole), VoteCal must ensure that the CDCR record is no longer included in checks for matches of CDCR records with voter registration records.	
S11.1	VoteCal must be capable of receiving and storing the California Department of Corrections and Rehabilitation (CDCR) felon records file.		
S11.2	VoteCal must match all new felon records received from CDCR against existing voter registration records to identify existing voters that may have become ineligible due to felon status, or may have become eligible to vote due to no longer being under CDCR jurisdiction (i.e., no longer incarcerated or on parole).		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S11.3	<p>For matches with new CDCR records that meet or exceed the established confidence threshold, VoteCal must automatically:</p> <ul style="list-style-type: none"> <li>• Change the status of the voter's registration in accordance with configurable business rules (documentation of current business rules is available in the Bidder's Library); and</li> <li>• Record the basis for that change in the voter's activity record.</li> </ul>		
S11.4	<p>For matches of CDCR records that do not meet the established confidence threshold for automatic matching but that meet the established minimum confidence threshold of that match function, VoteCal must automatically note the potential match in the voter's record.</p>		
S11.5	<p>VoteCal must provide the ability for an authorized county user to enter a determination that the potential match is valid.</p>		
S11.6	<p>VoteCal must provide the ability for an authorized county user that has investigated and determined that the potential match was invalid to enter that determination.</p>		
S11.7		Requirement S11.7 has been deleted.	

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S11.8		Requirement S11.8 has been deleted.	
S11.9	VoteCal must provide authorized users the capability to un-match previously matched felon records at any time after such matches have been applied. In such instances, VoteCal must correct any changes that were applied to the record as a result of the prior match and handle the transaction as a confirmed non-match for that process.		
S11.10	VoteCal must allow authorized SOS Administrators to exclude from felon matching processes any felon record determined to be incorrect or invalid.		
<b>S12</b>	<b>LIST MAINTENANCE: Duplicate Identification</b>	<b>In accordance with Elections Code § 2193 and HAVA 303 (a)(2)(B), VoteCal must have the capability to identify duplicate voter records and take action to ensure there is only one voter record for every eligible voter in California in the official list of voters.</b>	
S12.1	VoteCal must provide the ability for authorized SOS administrators to schedule and run duplicate checks across all voters in the database to identify potential duplicate registration records for the same voter using the criteria established for such matching.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S12.2	VoteCal must automatically merge voter registration records and assign the voter to the appropriate county when duplicate records are identified based on match criteria sets that meet or exceed the established confidence threshold.		
S12.3	VoteCal must, before automatically applying potential duplicate records, check voting participation history for the older registration record. If the older record indicates voting activity in an election after the date of registration in the newer record, the match must not be applied automatically and, instead, VoteCal must send electronic notice of potential match to the appropriate county(s) as indicated in requirement S12.4.		
S12.4	For matches of potential duplicate records that do not meet the established confidence threshold for automatic matching but that meet the established minimum confidence threshold of that match function, VoteCal must automatically note the potential match in both records.		
S12.5	For those records where a potential duplicate was identified with a record in another county, and an authorized county user makes a determination of match validity, VoteCal must update the other record with the determination.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S12.6		Requirement S12.6 has been deleted.	
S12.7	VoteCal must provide authorized users the capability to un-match previously confirmed duplicate records at any time after such matches have been applied. In such instances, VoteCal must correct any changes that were applied to the record(s) as a result of the prior match and store the determination that the records were confirmed non-duplicates.		
<b>S13</b>	<b>LIST MAINTENANCE: NCOA</b>	<b>VoteCal must provide the capability to process all registered voter records against an external USPS National Change of Address (NCOA) service on a regularly scheduled basis. Currently, SOS contracts to receive this service monthly from the California Employment Development Department (EDD). VoteCal must update the voter record with the potential NCOA match (no change in status) and provide an electronic notice to the county for evaluation and resolution. SOS Administrators must have the capability to monitor all such pending NCOA updates until resolved by the county.</b>	
S13.1		Requirement S13.1 has been deleted.	
S13.2	VoteCal must provide authorized SOS administrators the capability to configure a value 'X', such that the extracts created for NCOA processing are broken into multiple files, each containing a maximum of X records.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S13.3	VoteCal must evaluate the results from NCOA processing and reject invalid results - such as address changes previously received and address changes that are older than most recent changes received for a voter - according to configurable business rules.		
S13.4	VoteCal must note a potential address change in the voter record and send electronic notice to the appropriate county of the potential address change for determination of validity.		
S13.5	<p>When an NCOA address update has been determined to be valid where a voter has a forwarding address in the same county, VoteCal must automatically:</p> <ul style="list-style-type: none"> <li>• Update the (residence or mailing) address of the registrant;</li> <li>• Note in the activity history for that registrant that the record was updated because of NCOA match; and</li> <li>• Flag the record for automatic generation and mailing of a Change of Address Notice (CAN) in accordance with EC §2225.</li> </ul>		

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<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S13.6	<p>When an NCOA address update has been determined to be valid where the voter has a forwarding address in a different California county or outside the State, VoteCal must automatically:</p> <ul style="list-style-type: none"><li>• Determine the status of the registrant in accordance with configurable business rules (documentation of current business rules is available in the Bidder's Library);</li><li>• Note in the activity history for that registrant that the record was updated because of NCOA match; and</li><li>• Flag the record for automatic generation and mailing of a CAN in accordance with EC §2225.</li></ul>		



<b>Req. #</b>	<b>Mandatory VoteCal System Business Requirement</b>	<b>Proposed Solution Description</b>	<b>Supporting Documentation Reference</b>
S13.7	When an NCOA address update has been determined to be valid where the voter has no forwarding address, VoteCal must automatically: <ul style="list-style-type: none"> <li>• Determine the status of the registrant in accordance with configurable business rules (documentation of current business rules is available in the Bidder's Library);</li> <li>• Note in the activity history for that registrant that the record was updated because of NCOA match; and</li> <li>• Flag the record for automatic generation and mailing of a CAN in accordance with EC §2225.</li> </ul>		
<b>S14</b>	<b>LIST MAINTENANCE: Pre-Election Residency Confirmation Postcards (RCPs)</b>	<b>VoteCal must allow for data extracts to be generated for residency confirmation postcard mailings in accordance with EC §§ 2220 thru 2224.</b>	
S14.1	VoteCal must provide the ability to automatically generate a data extract of all required information in any or all counties on a batch basis so that RCPs and ARCPs can be printed by the State through a third-party mailing house. VoteCal must exclude records for voters who have voted within the previous X months where X is configurable.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
<b>S15</b>	<b>LIST MAINTENANCE: Change of Address Notification (CAN)</b>	<b>When VoteCal receives third-party notice of a change of address, elections officials are required by law to follow up with postcard to the voter alerting them to the actions being taken. For uniformity and list maintenance practices, this section describes VoteCal capability to support mailing change of address notices to voters on behalf of counties, if counties choose to have SOS conduct mailings for them.</b>	
S15.1	VoteCal must provide the ability for authorized SOS administrators to generate a data extract, based on the applicable mailing address for each voter, of all required information for one or more counties across the State so that CANs may be printed by the State through a third-party mailing house.		
S15.2	In accordance with EC §2225, subsections (b), (c) and (d), VoteCal must determine for each voter record the appropriate CAN notice.		
<b>S16</b>	<b>VOTER ELECTION DATA: Official List of Voters</b>	<b>As the HAVA mandated official list of eligible voters, VoteCal must provide capability for extracting the official list of voters with respect to any election so that this data can be used to generate and print the polling place rosters.</b>	
S16.1	VoteCal must provide authorized county users the ability to extract the official list of eligible registered voters with respect to any given election.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
<b>S17</b>	<b>VOTER ELECTION DATA</b>	<p>VoteCal must maintain voter participation history data that are necessary for to make determination of whether a voter who registers by mail must show ID the first time he/she votes (42 U.S.C. Section 15483(b)(1)(B)).</p> <p>Throughout the Election Cycle period, VoteCal must capture ongoing data changes related to vote-by-mail and provisional voting, to support the voter lookup capabilities on the public website.</p>	
S17.1	<p>VoteCal must maintain historic voting participation for all voters, regardless of the number of elections in which voters might have participated. The history captured and maintained for each voting event must include:</p> <ul style="list-style-type: none"> <li>• State defined code for the election;</li> <li>• Election date;</li> <li>• Voting precinct;</li> <li>• How voted (vote-by-mail, early, polling place, or provisional); and</li> <li>• Partisan ballot voted (for primary elections).</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S17.2	<p>Prior to an election, VoteCal must receive data from the EMS that enables a user to determine the following data for each registered voter:</p> <ul style="list-style-type: none"> <li>• Voting precinct assignment for the election; and</li> <li>• Polling place assignment for the election</li> </ul>		
S17.3	<p>VoteCal must capture and store the following vote-by-mail data for registered voters for every election:</p> <ul style="list-style-type: none"> <li>• Date that a voter was mailed a vote-by-mail ballot;</li> <li>• Manner in which the vote-by mail ballot was transmitted to the voter;</li> <li>• When the vote-by-mail ballot was received by the elections official;</li> <li>• Method of return of vote-by-mail ballot (e.g., mail, fax, etc.);</li> <li>• Form of voting (e.g., county issued vote-by-mail ballot or federal write-in vote-by-mail ballot);</li> <li>• Whether the ballot was accepted or rejected; and</li> <li>• If rejected, the reason for that rejection.</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S17.4	For registered voters who vote a provisional ballot in an election, VoteCal must capture and store whether or not the provisional ballot was counted and, if not, the reason it was not counted.		
<b>S18</b>	<b>PRECINCTS AND DISTRICTS: Precinct – District Mapping</b>	<b>So that VoteCal can correctly determine the Official List of Registered Voters with respect to political districts, and so that VoteCal can correctly compile and produce the Statement of Registration required by EC §2187, VoteCal must maintain precinct-to-district cross reference information. These data are provided by the EMS. The information is required for derivation of residence in political district based on the voter's home precinct assignment.</b>	
S18.1	VoteCal must be able to identify, from the voter's home precinct, the voter's voting district for US Congress, State Senate, State Assembly, Board of Equalization and County Supervisory Districts, the municipality of residence if a voter is entitled to vote in that municipality, or if not, that the voter resides in the county's unincorporated area.		
S18.1.1	VoteCal must capture and store county-defined local districts (e.g., school districts, water boards) and must be able to identify, from the voter's home precinct, the voter's membership in such districts.		

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<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S18.2	VoteCal must validate updates to precinct-district mapping against configurable data validation standards. (See Bidder's Library, Calvoter and Calvalidator Data Standards, for information on current data validation standards.)		
S18.3	VoteCal must notify county and SOS administrators of "orphan" precincts or political districts (e.g., home precincts without required political district assignments), and of "orphan" voter registration records (lacking a valid home precinct assignment).		

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S19	<b>SOS PROCESSES: Political Party Tracking</b>	VoteCal must have the capability to track voters' political party data in order to (a) determine voter eligibility with respect to a primary election; (b) maintain uniformity of voter records and data; and (c) support the Report of Registration (ROR), which is a statistical abstract of party registration by political district.	
S19.1	VoteCal must allow authorized SOS administrators to define and document changes to political parties. For each such party, VoteCal must capture and store the following information: <ul style="list-style-type: none"> <li>• SOS assigned party code (refer to the Bidder's Library for codes for currently recognized parties);</li> <li>• Whether or not the party is Qualified, Attempting to Qualify, or Non-Qualified;</li> <li>• Date of all changes in party status (Qualified/Non-Qualified/Attempting to Qualify);</li> <li>• Reason for such changes (if applicable); and</li> <li>• Current state party contact information.</li> </ul>		

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S20	SOS PROCESSES: Report of Registration (ROR)	<p>The ROR a statistical abstract of voter registration by political district and partisan affiliation, is published by the Secretary of State at prescribed times in accordance with EC §2187. Currently, counties extract their registration counts as of the specified date from their EMS, and then submit these statistics to the Secretary of State for compilation and publication as the official Report. Because VoteCal will contain the official list of registered voters, in the future system the ROR will be extracted and compiled based on VoteCal data.</p> <p>VoteCal will need the capability for each county to report, via the remediated EMS, when all voter registration activity as of the effective ROR date has been input into the system so that SOS administrators will know when that county's statistics can be captured. The ROR statistics will need to be captured and separately stored within the system to protect the official published data from alteration due to subsequent changes in the underlying voter registration data. VoteCal must enable SOS users to input the estimated counts of each county's eligible citizens, which are derived manually from a variety of data sources, and which becomes an integral part of one ROR component report.</p> <p>VoteCal must also enable an authorized SOS Administrator to create, on an ad hoc basis, an extract of specified VoteCal ROR data elements as of an Administrator-specified ROR Date and enable the Administrator to specify/select the SOS internal network location to which the electronic version of the resulting extract shall be routed/stored (this extract will be imported by the SOS CalVoter 2 system to support Election Night statistical analysis and reporting functionality, which is outside the scope of this RFP).</p>	
S20.1	VoteCal must provide authorized SOS Administrators the ability to view ROR completion status ('county entry of voter registrations not completed', 'county entry completed,' 'data extracted') for any county.		



<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S20.2	VoteCal must capture and store ROR statistics of active registered voters by district and party within a county as of the established ROR date. VoteCal must capture these statistics county-by-county, or for the entire state at one time.		
S20.3	VoteCal must provide authorized SOS Administrators the ability to input the manually-calculated estimate for the number of persons 'eligible to register to vote' for each county as of the ROR date.		
S20.4	Once an ROR has been deemed final and ready for publication, VoteCal must provide authorized SOS Administrators the ability to 'finalize' the ROR such that its component statistical data cannot be modified.		
S20.5	Prior to 'finalization', VoteCal must permit authorized SOS Administrators the capability to delete ROR statistics for any or all counties and to recapture those statistics.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S20.6	VoteCal must support calculation and production of the following summary statistics for ROR component reports: <ul style="list-style-type: none"> <li>• Registration By County</li> <li>• Registration By Political Bodies Attempting To Qualify</li> <li>• Registration By Congressional District</li> <li>• Registration By Senate District</li> <li>• Registration By Assembly District</li> <li>• Registration By Board of Equalization District</li> <li>• Registration By County Supervisorial District</li> <li>• Registration By Political Subdivision By County</li> </ul> (See Bidder's Library, Example Report of Registration, for examples of ROR components.)		
S20.7	Once ROR data has been captured for a county, VoteCal must allow an authorized county user to request and receive VoteCal ROR statistics captured for that county, as well as information on whether or not the ROR has been 'finalized'.		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S20.8	<p>VoteCal must provide an authorized SOS Administrator the ability to:</p> <ul style="list-style-type: none"> <li>• Manually initiate a query to extract specified ROR data elements as of a specified ROR Date;</li> <li>• Specify the file format for the resulting extract file in accordance with authorized file formats; and,</li> <li>• Specify the SOS internal network drive location to which the extract file should be output/stored.</li> </ul> <p>(See Table III.3 within Section III.E.2.c – Internal and External Interfaces and Section IV.E.4.j – Other Processing for information regarding this requirement.)</p>		
<b>S21</b>	<b>SOS PROCESSES: State Voter Information Guide (VIG)</b>	<b>The requirements below pertain to the need for VoteCal administrators to have the capability to extract voter information based on specific data details (such as registrants within certain date ranges) and transmit that data extract to a third party for mailing of the State Voter Information Guide.</b>	
S21.1	<p>VoteCal must generate State “ballot pamphlet” or Voter Information Guide (VIG) mailing lists of registered voters eligible to vote in an upcoming election that meets the established specifications for this mailing list. (Refer to the Bidder’s Library for current mailing list specification.)</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S21.2	VoteCal must capture and store a voter's request to not be mailed the VIG. VoteCal must automatically exclude all voters who have so "opted out" from any VIG mailing lists generated.		
S21.3	VoteCal must update the voter activity record for each voter for whom a VIG address extract was generated, indicating the date of the extract and whether SOS or the county generated the extract.		
S21.4	VoteCal must provide the ability for authorized SOS administrators and authorized county users to generate mailing lists (or extracts of data for mailing lists) for all eligible registered voters that were not included in the State VIG mailing.		
<b>S22</b>	<b>SOS PROCESSES: Public Voter Registration Data Requests (PVRDR)</b>	<b>Requirements below pertain to the need for VoteCal to support workflow and associated data related to investigation, evaluation and fulfillment of PVRDRs.</b>	
S22.1	VoteCal must allow authorized SOS administrators and authorized county users to input, track and review Public Voter Registration Data Requests (PVRDRs), including: <ul style="list-style-type: none"> <li>• Requestor name;</li> <li>• Requestor ID number and type;</li> <li>• Requestor organization;</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
	<ul style="list-style-type: none"> <li>• Requestor residence and business addresses;</li> <li>• Requestor contact information (phone, fax, email addresses);</li> <li>• If Requestor is acting as an authorized agent for a qualified party, the name, address and contact information for the party legally qualified to purchase the data;</li> <li>• Requestor's stated purpose/use for the data;</li> <li>• Date of application;</li> <li>• Date application received;</li> <li>• Basis for qualification (election, party, academic, journalist, etc.);</li> <li>• Date of application fulfillment or denial;</li> <li>• Status of application;</li> <li>• Criteria used to select/exclude records for the extract; and</li> <li>• Filename(s) and number of records provided in the extract.</li> </ul> <p>(See Exhibit VI.2 – VoteCal Standard Reports, for additional description of the PVRDR.)</p>		

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<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S22.2	<p>VoteCal must allow authorized users to log the following items related to processing and fulfillment of a PVRDR:</p> <ul style="list-style-type: none"><li>• Date the event occurred</li><li>• Time the event occurred</li><li>• Free-form text note, averaging fifty (50) characters per PVRDR and scalable to one hundred (100) characters per PVRDR, of activities and events</li></ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S22.3	<p>VoteCal must provide authorized users with a method to select voter registration records for inclusion or exclusion in a PVRDR extract based on multiple criteria, with the ability to specify a range or list where applicable, including:</p> <ul style="list-style-type: none"> <li>• County of residence;</li> <li>• City of residence;</li> <li>• Zip code(s);</li> <li>• Home precinct;</li> <li>• Political party affiliation;</li> <li>• Current or historic date of registration;</li> <li>• Age (before or after a specified date of birth, or within a specified range of dates of birth);</li> <li>• Gender;</li> <li>• Language preference;</li> <li>• Voting participation history; and</li> <li>• Political district (such as Congressional District, State Assembly District, County Supervisorial District, etc.).</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S22.4	<p>In fulfillment of a PVRDR, VoteCal must be able to produce an extract as a standard tab-delimited text file that includes the following data fields for each voter:</p> <ul style="list-style-type: none"><li>• County of residence;</li><li>• Full name;</li><li>• Residence address;</li><li>• Mailing address;</li><li>• Party affiliation;</li><li>• Phone numbers;</li><li>• Email address;</li><li>• Language preference;</li><li>• Gender;</li><li>• Home precinct;</li><li>• Effective date of registration;</li><li>• Date of birth;</li><li>• Place of Birth;</li><li>• Registration status; and</li><li>• Registration method.</li></ul>		



<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S22.5	<p>In fulfillment of a PVRDR that requests inclusion of voter participation history for each voter, VoteCal must be able to produce an extract in multiple related tab-delimited text files that includes the following files/data:</p> <ul style="list-style-type: none"><li>• Voter registration data (all fields identified in S22.4); and</li><li>• Voting participation history, including each relevant election in which each selected voter has voted and the method of voting (i.e., vote-by-mail, early or in-person).</li></ul> <p>The extracted files must include key data fields to appropriately relate/join the data in each file, so that the extracts can be imported into a relational database.</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S22.6	<p>In fulfillment of a PVRDR that requests inclusion of voter political district assignment for each voter, VoteCal must be able to produce an extract in multiple related tab-delimited text files that includes the following fields/data:</p> <ul style="list-style-type: none"> <li>• Voter registration data (all fields identified in S22.4); and</li> <li>• Political districts to which each voter is assigned.</li> </ul> <p>The extracted files must include key data fields to appropriately relate/join the data in each file, so that the extracts can be imported into a relational database.</p>		
S22.7	<p>VoteCal must include the ability for authorized SOS administrators to insert one or more fictional registration records into each PVRDR extract to “salt” the data extract so that improper use of the data can be traced to the particular PVRDR data release.</p>		
S22.8	<p>VoteCal must provide the ability to record the salted record(s) associated with each PVRDR.</p>		
S22.9	<p>VoteCal must enable authorized SOS administrators to save PVRDR extract files to a location external to VoteCal. (Extracted files will not be saved within VoteCal.)</p>		

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S23	<b>SOS PROCESSES: Jury Wheel Extracts</b>	Requirements listed below pertain to the need for VoteCal to support activities and associated data related to the evaluation and fulfillment of jury wheel requests.	
S23.1	<p>VoteCal must provide authorized SOS administrators and authorized county users with a method to select voter registration records for inclusion or exclusion in a Jury Wheel extract based on multiple filtering criteria, with the ability to specify a range or list where applicable, including:</p> <ul style="list-style-type: none"> <li>• County of residence;</li> <li>• City of residence;</li> <li>• Political district (such as Congressional District, State Assembly District; County Supervisorial District, local school district, etc.).</li> </ul> <p>(See Bidder's Library, Calvoter and Calvalidator Data Standards, for current state and federal districts and associated codes.)</p>		
S23.2	<p>VoteCal must be able to further select records based on a formula that starts with the Nth record and selects every Mth record thereafter, where "N" and "M" are variables provided by an authorized administrator (e.g., select every 39<sup>th</sup> record after record #17).</p>		

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<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S23.3	<p>VoteCal must provide the ability for authorized SOS administrators to track requests for Jury Wheel Extracts (JWEs), including:</p> <ul style="list-style-type: none"><li>• Requestor name and contact information;</li><li>• Requestor address;</li><li>• Requestor specifications for the extract;</li><li>• Date of request;</li><li>• Date request received;</li><li>• Date request fulfilled (or denied); and</li><li>• Filename and number of records in the extract.</li></ul>		

Req. #	Mandatory VoteCal System Business Requirement	Proposed Solution Description	Supporting Documentation Reference
S24	SOS PROCESSES: Public Access Website	<p>Requirements listed below pertain to the need for VoteCal to provide online voter registration and self-service lookup of registration status and ballot status.</p> <p>SOS has adopted a standard for web applications to support mobile devices by optimizing standard browser screen displays via utilizing SOS standard cascading style sheets and java scripting (an approach that provides such support without requiring installation of an application or other component on the mobile device). SOS expects that any support VoteCal provides for mobile devices will not require installation any application or other component on those devices. VoteCal will be required to use the SOS-provided cascading style sheet in accordance with requirement T5.3 in this RFP.</p> <p>The requirements below include translation of public-facing pages into different languages. Pages and functions to be translated are all of those pages/functions that are used by the public in order to register to vote. Information and features that are not used in order to register to vote (e.g., polling place information) will not be translated.</p>	
S24.1	<p>For privacy purposes, the VoteCal public website must require an individual accessing the website to provide sufficient personally identifiable information to authenticate the individual and to prevent others from accessing that voter's data, and must not provide or confirm any additional private information. The personally identifiable information must be configurable by an authorized administrator, such as: first name, date of birth, house number and zip code.</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S24.2	<p>The VoteCal public website must allow a voter to determine:</p> <ul style="list-style-type: none"> <li>• Whether he or she is registered to vote;</li> <li>• Whether he or she has requested not to be mailed the Voter Information Guide;</li> <li>• Whether or not voter is registered as a permanent vote-by-mail or one-time mail ballot voter; and</li> <li>• Political party preference.</li> </ul>		
S24.3	<p>The VoteCal public website must support on-line voter registration pursuant to EC §2196 and other applicable state and federal law, including new registration and updates to an existing registration.</p>		
S24.3.1	<p>The VoteCal public website must allow a voter to determine:</p> <ul style="list-style-type: none"> <li>• His or her eligibility to vote in an upcoming election;</li> <li>• His or her voting precinct for an election; and</li> <li>• His or her polling place for an election.</li> </ul>		
S24.3.2	<p>The VoteCal public website must allow a voter to request not to be mailed (“opt out” of receiving) a Voter Information Guide, and allow a voter to undo a prior “opt out” request.</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S24.3.3	VoteCal must allow members of the public to perform all online voter registration and self-service lookup functions using mobile devices without requiring installation of any application or component on the mobile device.		
S24.4	The VoteCal public website must allow voters who have voted a provisional ballot to determine if their ballot was counted and, if not, the reason it was not counted.		
S24.5	The VoteCal public website must allow voters who have voted a vote-by-mail ballot to determine if their ballot was accepted and, if it was rejected, the reason it was rejected.		
S24.6	The data on voters' registration status and ballot status that VoteCal displays on the public website (Requirements S24.2 S24.4, S24.5) must be current as of a point in time that is no more than twenty-four (24) hours prior to the time of the user's query.		
S24.6.1		Requirement S24.6.1 is deleted effective Addendum #10.	

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S24.6.2	<p>VoteCal must allow an authorized SOS administrator to control the updates of public access website data on voters' eligibility to vote in an upcoming election, voting precinct assignment, and polling place assignment for an election (as described in requirement S24.3.1), by executing one of the following options:</p> <ul style="list-style-type: none"> <li>• Authorized administrator-initiated updates on an ad hoc basis for one or multiple counties for which updates have been received; and</li> <li>• Setting of an update frequency whereby VoteCal applies any and all data updates received from counties every X number of hours, where X is configurable by an authorized SOS Administrator.</li> </ul>		
S24.7	<p>The data that are accessible and queried through the VoteCal public access website must not change during a user's execution of a query.</p>		



<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S24.8	<p>All public-facing VoteCal web pages and functions that a member of the public views or uses in order to register to vote, change voter registration-related data, or look up registration status (according to requirements S24.2, S24.3, and S24.3.2) must be available in ten (10) languages (English plus nine (9) additional languages) required by the Voting Rights Act, EC §2300(a)(8) or deemed necessary by the Secretary of State for language minority groups. These languages currently include English, Hindi, Khmer (Cambodian), Thai, Spanish, Chinese (Mandarin), Japanese, Korean, Tagalog, and Vietnamese.</p> <p>(SOS will be responsible for providing the required translations.)</p>		
S24.8.1	<p>VoteCal must be scalable and extensible to support web pages and functions that a member of the public views or uses in order to register to vote, change voter registration-related data, or look up registration status (according to requirements S24.2, S24.3, and S24.3.2) in a total of twenty one (21) languages (English plus twenty (20) other languages).</p>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
<b>S25</b>	<b>AFFIDAVIT ISSUANCE TRACKING</b>	<b>For fraud detection and prevention purposes, VoteCal must capture data related to the issuance of voter registration cards to individuals and organizations who conduct registration drives, relating the identifiers of issued affidavits to voter registration records.</b>	
S25.1	<p>VoteCal must capture and store information related to SOS issuance of blank voter registration affidavits to an individual or organization and returns of blank affidavits to SOS, including:</p> <ul style="list-style-type: none"> <li>• The name and contact information for the person who requested the affidavits;</li> <li>• The name of the requesting organization if any;</li> <li>• The date of issuance of blank affidavits;</li> <li>• The date of edit or correction to a record of issuance of blank affidavits;</li> <li>• The date of return of blank affidavits from a prior issuance; and</li> <li>• The number range of affidavits issued or returned.</li> </ul>		

<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S25.2	<p>VoteCal must capture and store data from the EMS regarding county issuance of blank voter registration affidavits to an individual or organization and return of blank affidavits to the county, including:</p> <ul style="list-style-type: none"><li>• The name and contact information for the person who requested the affidavits;</li><li>• The name of the requesting organization if any;</li><li>• The date of issuance of blank affidavits;</li><li>• The date of edit or correction to a record of issuance of blank affidavits;</li><li>• The date of return of blank affidavits from a prior issuance; and</li><li>• The number range of affidavits issued or returned.</li></ul>		
S25.3	<p>VoteCal must enable an authorized user to input a specific affidavit number or a range of affidavit numbers and retrieve the individual(s) or organization(s) to which the affidavit(s) was/were issued.</p>		

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<i>Req. #</i>	<i>Mandatory VoteCal System Business Requirement</i>	<i>Proposed Solution Description</i>	<i>Supporting Documentation Reference</i>
S25.4	VoteCal must, upon authorized user's input of a specific affidavit number or a range of affidavit numbers, display all voter registration records that were created or updated based on each affidavit, including the data described in requirement S3.2.2 for each voter registration record.		

## E. TECHNICAL REQUIREMENTS

This section contains the detailed technical requirements and response form (Table VI.2) that SOS requires of a proposed business solution to address the business processes described in Section IV – Proposed System and Business Processes as well as Table VI.1 - Mandatory VoteCal System Requirements, Functionality Reference, and Requirement Response Form.

All identified requirements are Mandatory requirements and are required in Draft Proposals and must be addressed in Final Proposals. Proposals will be evaluated on the quality of the response and solution for each requirement.

This is a "solution-based procurement," and SOS is expecting Bidders to develop an appropriate solution to meet the business requirements listed in Section VI.D – Business Functional Requirements and the technical requirements described in this subsection.

The Bidder is required to respond to each technical requirement listed Table VI.2 using the table provided. Bidders must not retype the requirements. If there is a discrepancy between the electronic copy and the hardcopy of the stated requirement in the RFP, the RFP master hardcopy takes precedence.

**Bidders are reminded that in order to receive a "Pass" for these requirements, their responses must be complete and in sufficient detail for the Evaluation Team to understand how the each requirement is to be met.**

Bidders shall provide a narrative response for each requirement individually, consisting of, for each requirement:

- The Proposed Solution Description column: a detailed description how the Bidder's proposed solution meets the needs associated with the requirement. This description must be in sufficient detail for SOS to fully understand all aspects of the proposed solution or the proposal may be deemed non-responsive.
- The Supporting Documentation Reference column: indicate where (Proposal Response volume number and page number or section in the product literature) in the Bidder's proposal volumes additional material can be found that is to be considered in the evaluation of the requirement response.

**Table VI.2 – VoteCal Technical Requirements and Response Form**

All Bidders must respond to all requirements stated in the following table for the VoteCal System. Failure to respond to or meet one of these business requirements may be deemed a material deviation.

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T1	<b>SECURITY AND PASSWORDS</b>		
T1.1	VoteCal user authentication must use single sign on based upon existing SOS security systems and domain accounts.		
T1.2	VoteCal access must provide a security function that allows the establishment of user roles and allows authorized SOS administrators to define the specific functions that can be performed by users assigned to each role.		
T1.3	VoteCal must be designed such that voter data is not cached on user systems.		
T1.4	VoteCal systems and environment must conform to recognized United States federal and California state government security standards and practices including system hardening, security in-depth and utilize diversity of design.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T1.5	VoteCal must encrypt all data in transit between system components. Encryption must be at least 128-bit and based on recognized industry standards.		
T1.6	VoteCal must encrypt all voter registration data whenever stored in non-volatile memory.		
T1.7	VoteCal must be designed and implemented to ensure that no VoteCal system component or combination of components will allow or facilitate access from one county environment to another or from non-VoteCal portions of the SOS environment to any county.		
<b>T2</b>	<b>INTERFACES</b>		
T2.1	All VoteCal interfaces with external systems other than EMS' must be implemented as service points except where that architecture is not compatible with the external system.		
T2.2	All VoteCal interfaces with external systems other than EMS' must be implemented using XML; a removable converter must be used to communicate with non-XML partners.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
<b>T3</b>	<b>SYSTEM AVAILABILITY AND BACKUP/RECOVERY</b>		
T3.2	VoteCal must back up data, operating systems, application code and configuration of all components to an SOS-designated Backup and Restore site on an SOS-defined periodic basis in full and on an incremental, differential or item basis.		
T3.3	VoteCal must provide the ability to restore data, systems, code, and/or configurations of all or any specific or selected component(s) from the SOS approved backup facility.		
T3.4	VoteCal must be designed so that no more than two (2) hours of committed data (i.e., data added to the database) is lost in the event of any system failure or system component failure regardless of the cause of failure.		
T3.5	VoteCal must allow for routine maintenance to be performed while the system is online and meeting all performance and availability requirements described in this RFP (see T3: System Availability and Backup/Recovery and T4: Performance and Capacity in Table VI.2 – VoteCal Technical Requirements and Response Form).		



Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T3.6	<p>The VoteCal System solution (inclusive of Development, Test, Training, and Production environments) must be supportable by the SOS Data Center (e.g., electrical capacity, HVAC, etc.), consistent with the sub-requirements and constraints specified in this T3.6 series of requirements.</p> <p>[See <del>version 2.0 of</del> the document entitled <b>Secretary of State Infrastructure Overview</b> (updated <del>May</del> <del>July</del> 2012) located within the VoteCal Bidder's Library via the SOS <i>Infrastructure Overview</i> link for general information on the SOS Data Center's physical facilities and operating parameters (<a href="http://www.sos.ca.gov/elections/votecal/bidders-library/doc-specific-reference-rfp.htm">http://www.sos.ca.gov/elections/votecal/bidders-library/doc-specific-reference-rfp.htm</a>)]</p>		
T3.6.1	<p>The Bidder's proposed VoteCal System solution hosted in the SOS <del>VoteCal</del> Data Center, inclusive of Development, Test, Training, and Production environments, shall not require an additional floor Power Distribution Unit (PDU) in order to operate within the SOS Data Center and meet all of the VoteCal requirements.</p>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T3.6.2	The Bidder's proposed VoteCal System solution hosted in the SOS <del>VoteCal</del> -Data Center, inclusive of Development, Test, Training, and Production environments, shall not require floor pressure greater than 250 pounds/per square foot and 1,000 pounds per raised floor tile.		
T3.6.3	The Bidder's proposed VoteCal System solution hosted in the SOS <del>VoteCal</del> -Data Center, inclusive of Development, Test, Training, and Production environments, shall not require more than the 10 feet by 12 feet of raised floor space within the Data Center that SOS intends to dedicate to VoteCal.		
T3.6.4	The <u>total</u> BTU requirements of the Bidder's proposed VoteCal System solution hosted in the SOS <del>VoteCal</del> -Data Center, inclusive of Development, Test, Training, and Production environments shall not exceed 150,000 BTU.		
T3.6.5	The Bidder's proposed VoteCal System solution hosted in the SOS <del>VoteCal</del> -Data Center, inclusive of Development, Test, Training, and Production environments, shall not require more than a maximum of four (4) 30 AMP receptacles (e.g., L6-30Rs or L15-30Rs) per rack for up to eight (8) racks total.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T3.6.6	The Bidder's proposal must specify the BTU and electrical load requirements for each new Hardware item to be included in the VoteCal System solution hosted in the SOS Data Center (inclusive of Development, Test, Training, and Production environments) by completing and submitting Exhibits VI.3 thru VI.5.		
T3.6.7	For each of the up to eight (8) possible racks that SOS will allocate SOS Data Center space for to host the proposed VoteCal System solution (inclusive of Development, Test, Training, and Production environments), the Bidder's proposal must specify the BTU and electrical load requirements for <u>the</u> rack once loaded with all components anticipated by the Bidder by specifying this information (along with other required information) in Section B of Exhibit VI.6 - VoteCal System Rack Diagram and Description.		
T3.6.8	The Bidder's proposal must specify the <u>total</u> BTU and electrical load requirements for the entire VoteCal System solution hosted in the SOS <del>VoteCal</del> Data Center (inclusive of Development, Test, Training, and Production environments) by completing Section A of Exhibit VI.6 - VoteCal System Rack Diagram and Description (which specifies these totals based on all racks specified in Section B of this Exhibit).		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T3.7	The Bidder's proposal must specify the estimated network bandwidth required in order to conduct the required VoteCal Backup/Recovery activities while meeting all related requirements.		
T3.8	The Bidder's proposal shall specify all new Hardware and Third-Party and Contractor Commercial Proprietary Software that must be installed within the SOS Data Center in order to backup/recover the VoteCal System data, system components, documentation and other information to/from the external Backup/Recovery environment according to the specifications provided by the SOS Backup/Recovery vendor and consistent with the VoteCal requirements.		
<b>T4</b>	<b>PERFORMANCE AND CAPACITY</b>		
T4.1		Requirement T4.1 is deleted effective Addendum #8.	
T4.1.1	VoteCal must support and maintain, concurrently, five thousand (5,000) users of online registration (creation or update of voter registration records) through the public access website, while concurrently meeting all other T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements stated in this RFP.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.1.2	The VoteCal public access website functions for retrieval of voter registration status and related data (e.g., assigned polling place, vote-by-mail ballot status, provisional ballot status) must support and maintain twelve thousand (12,000) concurrent users while concurrently meeting all other T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements stated in this RFP.		
T4.1.3		Requirement T4.1.3 is deleted effective Addendum #8.	
T4.1.4		Requirement T4.1.4 is deleted effective Addendum #8.	

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.1.5	<p>VoteCal must support the following sustained transaction volumes concurrently, while concurrently meeting all other T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements stated in this RFP:</p> <ul style="list-style-type: none"> <li>• Three thousand (3000) county- and SOS-initiated transactions (e.g., EMS data transmittal of new and updated voter registration data, search for existing records, data retrieval for a record) per ten (10) second period;</li> <li>• Fifteen (15) ongoing processes involving sequential updates of multiple records (e.g., roster generation, extracts for mailing that require update to the voter record, updates of voter participation history, updates on voter vote-by-mail status, voter precinct reassignments);</li> <li>• Six hundred (600) online registrations (creating and updating voter registration data through the public access website) per ten (10) second period;</li> <li>• Twenty (20) ongoing executions of pre-defined reports, extracts, and ad hoc reports/queries;</li> </ul>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
	<ul style="list-style-type: none"> <li>• Twenty-six hundred (2600) online retrievals of voter registration status and related data (e.g., vote-by-mail ballot status, provisional ballot status, and assigned polling place) per ten (10) second period; and</li> <li>• Forty (40) ongoing EMS-VoteCal synchronization processes.</li> </ul>		
T4.2		Requirement T4.2 is deleted effective Addendum #8.	
T4.2.1		Requirement T4.2.1 is deleted effective Addendum #8.	
T4.3	VoteCal must support forty million (40,000,000) voter records as implemented under this contract while concurrently meeting all other requirements of this RFP.		
T4.4	VoteCal must be able to scale to one hundred million (100,000,000) voter records, while maintaining system performance as specified in T4: Performance and Capacity requirements, with the addition of Hardware, operating system and Third Party Software licenses only.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.5		Requirement T4.5 was previously deleted --- the original requirement number is restored effective Addendum #8 for purposes of consistency.	
T4.6	VoteCal must provide the capacity to store an average of ten (10) affidavit images and ten (10) signature images for each voter registration record concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		
T4.7	VoteCal must provide the capacity to store an average of ten (10) pages of attached document images per voter registration record concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		
T4.8		Requirement T4.8 was previously deleted --- the original requirement number is restored effective Addendum #8 for purposes of consistency.	



Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.9	VoteCal must complete List Maintenance Record Matching, automatic cancellation of voter records, and sending electronic notices to counties for CDPH Death Data and CDCR Felon Data within twenty-four (24) hours of availability of external CDPH or CDCR data files, as measured at the SOS LAN/WAN boundary located at the SOS Sacramento office, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		
T4.10	VoteCal must complete List Maintenance Record Matching, automatic merging of voter records, and sending electronic notices to counties for statewide Duplicate Identification within twenty-four (24) hours from the start of scheduled processing, as measured at the SOS LAN/WAN boundary located at the SOS Sacramento office, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.11	VoteCal must complete each county-initiated addition of or update to a voter registration record – including completing the ID verification process described in S4: Registration Processing and S5: ID Verification, checking for existing record with same ID in VoteCal, applying all data validation rules and business rules, and sending electronic notice to the county - within ten (10) seconds of receipt of the initiating county transaction, as measured at the SOS LAN/WAN boundary located at the SOS Sacramento office, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		
T4.11.1	VoteCal must complete each addition of or update to a voter registration record initiated through the public access website – including ID verification, checking for existing registration record with the same ID in VoteCal, applying all validation rules and business rules, and sending electronic notice to the county – no more than ten (10) seconds aggregated time after receipt of the website user's information, as measured at the SOS WAN/LAN boundary located at the SOS Sacramento office, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.11.2	VoteCal must complete processing and response to all voter inquiry transactions against the VoteCal public website for voter registration status and related data (e.g., vote-by-mail ballot status, provisional ballot status, assigned polling place and whether voter has opted out of receiving a VIG) within five (5) seconds, as measured at the SOS WAN/LAN boundary located at the SOS Sacramento office, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		
T4.12	For all pre-defined reports listed in Exhibit VI.2 – VoteCal Standard Reports <u>except</u> Public Voter Registration Data Request (PVRDR) reports, VoteCal must complete execution and return all results for queries needed to generate the reports within five (5) minutes, as measured at the SOS LAN/WAN boundary at the SOS Sacramento office, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP. (See Exhibit VI.2 – VoteCal Standard Reports, for descriptions of pre-defined VoteCal reports.)		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.12.1	VoteCal must complete extracts that include voter addresses – such as extracts for the Voter Information Guide, Voter Notification Cards, Residency Confirmation Postcards, Public Voter Registration Data Requests, Jury Wheel Extracts, Change of Address Notifications, NCOA processing, and Voter Registration Cards – VoteCal must complete extraction at a rate of at least one million (1,000,000) records every ten (10) minutes, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		
T4.12.2	VoteCal must complete query and return results for ad hoc reports and queries at a rate of no less than one thousand (1,000) records every 5 seconds, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		
T4.12.3	For ad hoc reports and queries, VoteCal must automatically terminate execution and return an explanatory error message to the user if the report/query has not completed within X seconds, where X is configurable by an authorized SOS administrator.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.12.4	<a href="#">VoteCal must have the capacity to store two thousand (2,000) reports and query statements, including the pre-defined reports described in Exhibit VI.2 – VoteCal Standard Report Specifications, while concurrently meeting all other requirements of this RFP.</a>		
T4.13	VoteCal must complete execution and return all results from a synchronization check between VoteCal and EMS within five (5) minutes for each one million (1,000,000) records checked, as measured at the SOS LAN/WAN boundary located at the SOS Sacramento office, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		
T4.14	VoteCal must complete processing of DMV COA data, including automatic updates to voter records and sending data to counties, within twenty-four (24) hours of the availability of DMV COA data, as measured at the SOS LAN/WAN boundary located at the SOS Sacramento office, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		

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Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.15	VoteCal must complete processing of NCOA matching results – including import of NCOA data, evaluation of NCOA results, and transmittal of required electronic notices to counties – within five (5) minutes of NCOA data availability for each one million (1,000,000) records available, as measured at the SOS LAN/WAN boundary located at the SOS Sacramento office, concurrent with meeting all T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		
T4.16		Requirement T4.16 is deleted effective Addendum #8.	
T4.17	For searches utilizing the UID field or the CDL/ID field, VoteCal must complete execution and return all results within two (2) seconds, as measured at the SOS LAN/WAN boundary located at the SOS Sacramento office, concurrent with meeting all other T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.18	<p>For searches not utilizing the UID field or the CDL/ID field, but using exact-match criteria on two (2) or more individually identifying data attributes (e.g., combination of Last Name, Data of Birth, First Name), VoteCal must return results within the following time frames, concurrent with meeting all other T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements of this RFP:</p> <ul style="list-style-type: none"><li>• 90% of the searches complete in less than one (1) second;</li><li>• 98% of the searches complete in less than two (2) seconds; and</li><li>• 100% of searches complete in less than (5) seconds.</li></ul>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.18.1	<p>Searches for registrants that do not use either the UID or a combination of individually identifiable fields as criteria must meet the following response times as measured from the LAN/WAN boundary to the database and back to the LAN/WAN boundary, concurrent with meeting all other T3: System Availability and Backup/Recovery and T4: Performance and Capacity requirements in this RFP:</p> <ul style="list-style-type: none"> <li>• 80% of the searches complete in less than three (3) seconds;</li> <li>• 90% of the searches complete in less than five (5) seconds; and</li> <li>• 98% of the searches complete in less than eight (8) seconds.</li> </ul>		
T4.18.2	<p>If any search for registrants that does not use either the UID or a combination of individually identifiable fields as criteria does not complete within ten (10) seconds, VoteCal must terminate the search and send a message to the user that the query was terminated and should be revised to be more efficient.</p>		
T4.18.3	<p>VoteCal must enable an authorized SOS administrator to override the automatic termination of searches that do not complete within ten (10) seconds.</p>		



Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T4.19		Requirement T4.19 has been deleted.	
T4.20	VoteCal must provide the capability to retrieve archived audit log data within 48 hrs.		
<b>T5</b>	<b>PUBLIC INTERNET ACCESS</b>		
T5.1	VoteCal public web pages must adhere to SOS web publishing standards. (Refer to the Bidder's Library, Web publishing standards, for current web publishing standards.)		
T5.2		Requirement T5.2 has been deleted. See requirement T10.6.	
T5.3	All web pages must accept application of an SOS-provided cascading style sheet (CSS) file without modifications to the web pages. This includes any web pages presented as a user interface to SOS VoteCal users.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T6	<b>NETWORK</b>		
T6.1	No VoteCal function except the public access website may be accessible over the Internet.		
T6.2	VoteCal must utilize the SOS network wide-area-network (WAN) for connectivity between the central site, county nodes, and other interfaces. The Bidder's VoteCal solution must propose any changes required to WAN Hardware, Software or configuration management components. If awarded the Contract, the Bidder must supply any WAN-related Hardware and Software changes and provide for maintenance of WAN changes at its own expense through Phase VII – First Year Operations and Close-out and for any subsequent years of optional VoteCal Hardware and Software M&O extensions permitted by this procurement subject to the roles and responsibilities defined in requirement T6.4. See Attachment 1 – Statement of Work Section 6.i for information about SOS' intention to extend the WAN to the Contractor's location and to each of three (3) EMS vendor locations.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
	<p><u>Note: Any new Hardware and/or Software the Bidder proposes in response to this requirement must be specified in the corresponding product lists in Exhibits VI.3 through VI.5 (see this Section's Exhibits) and included in the appropriate VoteCal System Hardware and Software cost tables (see Tables VII.1, VII. 2, and VII.3 in Section VII – Cost Tables).</u></p> <p>[See <del>version 2.0 of</del> the document entitled <b>Secretary of State Infrastructure Overview</b> (updated <del>May-July</del> 2012) located within the VoteCal Bidder's Library via the SOS <i>Infrastructure Overview</i> link for general information on the SOS Data Center's physical facilities and operating parameters (<a href="http://www.sos.ca.gov/elections/votecal/bidders-library/doc-specific-reference-rfp.htm">http://www.sos.ca.gov/elections/votecal/bidders-library/doc-specific-reference-rfp.htm</a>)]</p>		

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Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T6.3	<p>VoteCal must utilize the SOS local-area-network (LAN) for connectivity between VoteCal components and the existing SOS infrastructure. The Bidder's VoteCal solution must propose any changes required to Hardware, Software or configuration management components. If awarded the Contract, Bidder must supply any Hardware and Software changes and must support the additions to SOS LAN components at its own expense through Phase VII – First Year Operations and Close-out and for any subsequent years of optional extensions of VoteCal Hardware and Software M&amp;O permitted by this procurement subject to the roles and responsibilities defined in requirement T6.4. See Attachment 1 – Statement of Work Section 6.i for information about SOS' intention to extend the WAN to the Contractor's location and to each of three (3) EMS vendor locations.</p> <p><b>Note:</b> Any new Hardware and/or Software <del>that the Bidder proposes in response to this requirement</del> must be specified <del>for this requirement should also be included in the information to be specified in the corresponding product lists in Exhibits VI.3 through VI.5 (see this Section's Exhibits) and included in the appropriate VoteCal System Hardware and Software cost tables (see Tables VII.1, VII. 2, and VII.3 in Section VII – Cost Tables).</del></p>		<p>Addendum 11  July 24, 2012</p>

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
	<p>[See <del>version 2.0 of</del> the document entitled <b>Secretary of State Infrastructure Overview</b> (updated <del>May-July</del> 2012) located within the VoteCal Bidder's Library via the <i>SOS Infrastructure Overview</i> link for general information on the SOS Data Center's physical facilities and operating parameters (<a href="http://www.sos.ca.gov/elections/votecal/bidders-library/doc-specific-reference-rfp.htm">http://www.sos.ca.gov/elections/votecal/bidders-library/doc-specific-reference-rfp.htm</a>)]</p>		
T6.4	<p>The Contractor's agrees to adhere to the following SOS-prescribed division of roles and responsibilities between the Contractor and SOS regarding Contractor's implementation and maintenance of proposed network changes to the SOS WAN/LAN: the Contractor will be allowed view access to the network management tools for those components of the network included within the Contractor's VoteCal solution; the Contractor shall specify any changes required to the SOS WAN/LAN for SOS review/approval; and, SOS will collaborate with the Contractor to implement any requested and approved changes to the SOS WAN/LAN.</p>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T7	<b>AUDITING REQUIREMENTS</b>	VoteCal must log every action that changes voter registration data, precinct-district mapping data, political party data, or security roles or role assignments. Logs must contain sufficient information for authorized administrators to reliably reconstruct the chain of events and, where possible, track them back to a specific user.	
T7.1	<p>VoteCal must log all creations of and updates to voter registration data that are executed as a result of actions by county users, SOS users and automated VoteCal processes. (See Glossary for definition of "voter registration data.")</p> <p>The following information must be logged for each such change to voter registration data:</p> <ul style="list-style-type: none"> <li>• Data that was changed;</li> <li>• Prior value of the data before the change (if applicable);</li> <li>• Date and time of the change; and</li> <li>• Source of the change (either a VoteCal automated process identifier, SOS user name, or combination of county ID and county user name).</li> </ul>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T7.2	<p>VoteCal must log all creations of and updates to voter registration data that are executed as a result of actions by members of the public using the VoteCal public access website. (See Glossary for definition of "voter registration data.")</p> <p>The following information must be logged for each such change to voter registration data:</p> <ul style="list-style-type: none"><li>• Data that was changed;</li><li>• Prior value of the data before the change (if applicable);</li><li>• Date and time of the change; and</li><li>• Source of the change (i.e., 'VoteCal website user').</li></ul>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T7.2.1	<p>VoteCal must log all instances of viewing individual voter registration records, searching voter registration records, executing queries and reports against voter registration data, and executing extracts of voter registration data that are initiated by SOS users or county users. The following information must be logged for each such instance:</p> <ul style="list-style-type: none"><li>• Date and time of the initiation of the view of the record, search execution or query/report or extract execution;</li><li>• Source or performer of the action (either SOS user name or a combination of county ID and county user name); and,</li><li>• For searches, executions of queries and reports, and executions of extracts, the data selection and filtering criteria for the search, query/report, or extract.</li></ul>		



Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T7.2.2	<p>VoteCal must log creations of and updates to precinct and political district data (as described in S18: Precinct-District Mapping) by county users. The following information must be logged for each such change:</p> <ul style="list-style-type: none"> <li>• Data that was changed;</li> <li>• Prior value of the data before the change (if applicable);</li> <li>• Date and time of the change; and</li> <li>• County ID and county user name for the individual who submitted the change.</li> </ul>		
T7.2.3	<p>VoteCal must log creations of and updates to political party data (as described in S19: Political Party Tracking) by SOS users. The following information must be logged for each such change:</p> <ul style="list-style-type: none"> <li>• Data that was changed;</li> <li>• Prior value of the data before the change (if applicable);</li> <li>• Date and time of the change; and</li> <li>• SOS user name for the individual who submitted the change.</li> </ul>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T7.2.4	<p>VoteCal must log all creations of and updates to security roles, security role permissions, and assignments of security roles to users. The following information must be logged for each such change:</p> <ul style="list-style-type: none"><li>• Data that was changed;</li><li>• Prior value of the data before the change (if applicable);</li><li>• Date and time of the change; and</li><li>• SOS user name for the individual who made the change.</li></ul>		
T7.3	<p>VoteCal must provide a graphical user interface for authorized SOS administrators to search, view, and print VoteCal audit log data including filtering and sorting by any field or combination of fields. Filtering must support wild card searches and range of data where applicable.</p>		
T7.4	<p>VoteCal must provide authorized SOS administrators the capability to archive audit log entries prior to a given date of change and to retrieve archived data according to configurable criteria.</p>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
<b>T8</b>	<b>CODING AND ERROR HANDLING REQUIREMENTS</b>		
T8.1	All Software must adhere to an SOS-acceptable industry standard for code development and error handling that is appropriate for the development and implementation environment.		
T8.2	VoteCal must log all system processing errors, which must capture all relevant information for each error, including: <ul style="list-style-type: none"> <li>• Date/time;</li> <li>• User name;</li> <li>• Stack trace information;</li> <li>• Module/source; and</li> <li>• Error description.</li> </ul>		
T8.3	VoteCal must provide a graphical user interface for authorized SOS users to search, view, and print error log data that can be filtered and sorted by any field or combination of fields. Filtering must support wildcard searches and ranges of data values where applicable.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T8.4	<p>VoteCal user interfaces must provide user error messages that clearly communicate the following to the user:</p> <ul style="list-style-type: none"><li>• Simple, clear explanation of the error;</li><li>• Identification of the source/location of the error (e.g., module, line number, error code, etc.) for troubleshooting by SOS and Contractor support staff (VoteCal must allow this information to be suppressed in production environments); and</li><li>• Action that the user should take in order that will most directly and immediately correct the error (if applicable).</li></ul>		
T8.5	<p>VoteCal must provide a real-time alert (e.g., email, pager alert, etc.) to authorized SOS administrators and support staff upon each occurrence of one of a set of pre-defined application events.</p>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T8.6	<p>VoteCal must provide a user interface for authorized SOS administrators to configure</p> <ul style="list-style-type: none"> <li>the specific events for which alerts will be provided;</li> <li>for each event, the administrator(s) and/or staff who will receive an alert; and</li> <li>for each combination of event and administrator(s) or staff, the method of transmittal of the alert (e.g., email, phone or pager alert, etc.).</li> </ul>		
<b>T9</b>	<b>REPORTING/QUERYING REQUIREMENTS</b>	<p>The VoteCal solution must include multiple pre-defined reports ready for execution by an authorized SOS user, plus capability to define and execute ad hoc reports and queries.</p> <p>For additional information about expected volumes of report/query execution activity and types of reporting/querying users, see Exhibit VI.2 – VoteCal Standard Report Specifications and Attachment 1, Exhibit 2.A – Introduction.</p>	
T9.1	<p>The VoteCal solution must provide authorized SOS users with capability and tool(s) to query VoteCal data and create formatted reports with user-defined sort criteria, filters, and subtotals/totals.</p>		
T9.1.1	<p>The data that VoteCal displays in response to an executed report or query must be current as of a point in time that is not more than twenty-four (24) hours prior to the time of report/query execution.</p>		

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Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T9.1.2	The VoteCal data extracted during execution of a report or query must not change during query execution.		
T9.2		Requirement T9.2 is deleted effective Addendum #10	
T9.3	VoteCal must allow authorized SOS users to save created ad hoc report data selection, sort, filter, grouping, and formatting parameters for later re-execution.		
<a href="#">T9.3.1</a>	<a href="#">VoteCal must allow authorized SOS users to manually delete previously saved query/report statements (data selection, sort, filter, grouping and formatting parameters).</a>		
T9.4	VoteCal must provide execution-ready versions of the pre-defined reports identified in Exhibit VI.2 – VoteCal Standard Report Specifications.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T9.5	<p>VoteCal must, for both ad hoc queries, ad hoc reports and pre-defined reports, allow the user to:</p> <ul style="list-style-type: none"><li>• Preview/display the report or query results on screen, instead of or prior to printing the report;</li><li>• Print results of the entire report/query or user selected page(s) to a user selected printer in a local SOS network environment; and</li><li>• Export the report or query results electronically to a user specified location external to VoteCal, in multiple formats, including: Acrobat PDF, RTF, comma-delimited text file, and tab-delimited text file. (Report and query output will not be stored within VoteCal.)</li></ul>		
T9.6	<p>For ad hoc queries and reports as well as pre-defined reports, VoteCal must provide authorized SOS users with a visual “progress indicator” during data extraction and report generation, and must allow users who execute a query or report to cancel execution prior to completion.</p>		
T9.7	<p>For both ad hoc and pre-defined reports, VoteCal must, at authorized SOS user option, include the report parameters and report execution date in report output.</p>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T9.8	VoteCal must make all stored queries and reports available for immediate generation and for batch generation.		
T9.9	VoteCal must provide information to authorized users that batch-executed reports are completed.		
T9.10	.	Requirement T9.10 is deleted effective Addendum #10.	
<b>T10</b>	<b>GENERAL TECHNICAL REQUIREMENTS</b>		
T10.1	VoteCal must be instrumented to provide monitoring, alerts, notices and information to existing SOS monitoring systems. Additional tools for those areas that require more robust, extensive, and/or interactive monitoring must be included in the Bidder's proposal. (Refer to the Bidder's Library, SOS Infrastructure Overview, for information on existing SOS monitoring tools.)		
T10.2	VoteCal must provide functionality to allow authorized users to print screen information including application name and screen or function name.		
T10.3	VoteCal must provide a comprehensive and context-sensitive electronic help function that can be accessed both from the relevant application function and independently from a help menu.		



Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T10.3.1	VoteCal must allow an authorized user to access and view help information from an application function without having to exit or close the application function.		
T10.3.2	The information that VoteCal provides through either the electronic help function menu or in a context-sensitive manner must include field-specific information on required data content and data format as well as general information about each application function and application screen or page.		
T10.3.3	VoteCal's electronic help function content must be cross-referenced, allowing an authorized user to view and access content on help topics and subtopics that are related to the help topic or subtopic that the user is currently viewing.		
T10.4	VoteCal must provide a Help table of contents, multiple (up to 15) index levels, and full text search.		
T10.5	The VoteCal help index levels, index values, help content and hierarchy of index values and associated help content must be configurable by an authorized SOS administrator for all general, function-specific and field-specific help topics and subtopics.		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T10.6	<p>VoteCal functions and features must conform to accessibility standards cited in</p> <ul style="list-style-type: none"><li>• California Government Code Section 11135:</li><li>• Section 508 of the United States Rehabilitation Act: and</li><li>• Web Content Accessibility Guidelines 2.0 (W3C World Wide Web Consortium Recommendation WCAG 2.0 12/2008, Level A &amp; Level AA Success Criteria).</li></ul>		

Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T10.7	<p><del>Contractor must provide an</del>SOS and Contractor staff that provide Help Desk and Maintenance and Operations (M&amp;O) support shall use the automated problem-tracking tool currently in use by SOS (iSupport, version 10.5.1.0) to enable staff to <del>report</del>record, track, monitor, and report on VoteCal operational and performance problems (e.g., defects and Deficiencies) detected, prioritized, and resolved during:</p> <ul style="list-style-type: none"> <li>• Pilot and Production operation of the VoteCal System beginning with Phase V – Pilot Deployment and Testing and extending through the end of Phase VII – First Year Operations and Close-out; and,</li> <li>• Ongoing VoteCal Production operations and maintenance supported by: <ul style="list-style-type: none"> <li>○ Contractor(s) staff, if SOS exercises optional M&amp;O year(s) with Contractor for VoteCal Hardware and/or Software M&amp;O support and services (as defined in Attachment 1 SOW – Exhibits 4 - Hardware, Maintenance and Operations Services and Help Desk Service Levels and Exhibit 5 - Software Maintenance and Operations Services and Help Desk Service Levels for the VoteCal System); and/or,</li> </ul> </li> </ul> <p>—SOS staff providing VoteCal Hardware and/or Software M&amp;O support and services.</p>		

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Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T10.8	<p><u>The Contractor shall specify the estimated number of iSupport problem tracking tool licenses required for the Contractor staff that will perform VoteCal project activities requiring such licensing (e.g., VoteCal Help Desk and Hardware and Software M&amp;O support).</u></p> <p><u><b>Note:</b> SOS will pay for and provide iSupport licenses for Contractor and other VoteCal support staff use.</u></p>		

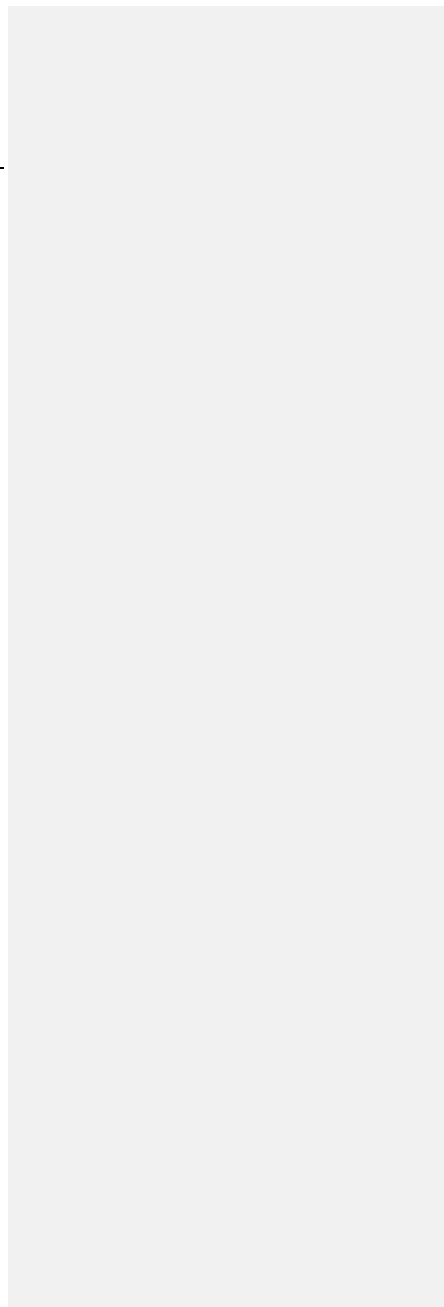
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Req. #	Technical Requirement Text	Proposed Solution Description	Supporting Documentation Reference
T10.9	<p>The Contractor shall provide and use software tools to scan and monitor the VoteCal System to ensure that security vulnerabilities are identified and addressed (see provisions 1.K and 1.I in Attachment 1 Exhibits 4 and 5). At a minimum, Contractor shall provide and use the vulnerabilities management tool set currently utilized by the SOS Information Technology Division (ITD), which is comprised of:</p> <ul style="list-style-type: none"> <li>• eEye Retina Network Security Scanner (v5.15.1)</li> <li>• Qualys Vulnerability Management (v7.2 – part of the QualysGuard Enterprise Suite)</li> <li>• Qualys Web Application Scanner (v2.0 – part of the QualysGuard Enterprise Suite)</li> </ul> <p><b>Note:</b> While SOS currently owns, maintains, and utilizes the tool set described above for general security vulnerability purposes, the Contractor must purchase, maintain and utilize (at a minimum) this same tool set to scan for, identify and address security vulnerabilities within the VoteCal System. The Bidder is reminded that this, as well as any additional software the Contractor proposes to address this requirement, must be specified in Exhibit VI.3 – VoteCal Third Party Software Products List and included in the VoteCal System Third-Party Software Cost Table (see Tables VII.1 in Section VII – Cost Tables).</p>		<p>Addendum 11  July 24, 2012</p>

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**Exhibit VI.1 – Project Management and Plan Requirements Response Matrix**

**Instructions**

This information table must specify the Volume and page number in the Bidder's Proposal in which the Bidder's response to each of the Project Management and Plan Requirements is located. Bidders should refer to Section VIII – Proposal Format for specifics regarding proposal format and content.

COLUMN HEADING	INFORMATION TO BE ENTERED IN THAT COLUMN
Project Management and Plan Requirement #	Do not enter – already in information table
Proposal Volume and Page # Where Response Can Be Found	Enter the Proposal Volume # and Page # where the Bidder's Response to the specified Project Management and Plan Requirement is located (location must conform with the prescribed format specified in Section VIII – Proposal Format)

Project Management and Plan Requirement #	Proposal Volume and Page # Where Response Can Be Found
P1	
P2	
P3	
P4	
P5	
P6	
P7	
P8	
P9	
P10	
P11	



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## Exhibit VI.2 – VoteCal Standard Report Specifications

VoteCal must allow the authorized user to configure report parameters for the following standard reports, which specify data detail, constraints/filters, and grouping/sorting options for each report. The standard reports are divided by category for ease of identification.

### Voter Registration

1. Detailed data for a specified individual voter, including (*at user option*):
  - o Voter participation history
  - o Voter activity history
  - o Audit log of changes to voter record
2. Affidavit image(s) for a specified individual voter
3. Document(s) associated with a specified voter record
4. List of registered voters as of a specified date, including voter address, precinct assignment, district membership, voter status and partisan affiliation, optionally sorted and/or filtered by:
  - o Voter name (*sort only*)
  - o Date of registration (range, before {date}, after {date})
  - o Jurisdiction
  - o District
  - o Precinct/precinct-part
  - o Age (range)
  - o Registration status
  - o Confidentiality status
  - o VBM/UOCAVA status
  - o Partisan affiliation
  - o Affidavit number (range)
  - o Language preference
  - o Combinations of above
5. Voter registration counts as of a specified date, optionally broken-out, sorted, grouped and/or filtered by:
  - o Partisan affiliation
  - o Voter age range
  - o Category of UID (i.e., CA DL based, SSN4 based, or generated)
  - o Registration status
  - o Voter language preference
  - o Vote-By-Mail status
  - o Confidentiality status
  - o Jurisdiction
  - o District
  - o Combinations of above
6. UOCAVA Voter counts as of a specified date, optionally broken-out, sorted, grouped and/or filtered by:
  - o Jurisdiction

- o UOCAVA type
- o Partisan affiliation
- o Voter age (range)

**Report of Registration (ROR)**

7. ROR status by county, indicating for each county whether the county has completed entry of voter registrations for a specific ROR, and whether the ROR statistics have been captured for that county.
8. Standard ROR statistical reports as of the specified ROR date:
  - o Registration by County
  - o Registration by Political Bodies Attempting to Qualify
  - o Registration by Congressional District
  - o Registration by Senate District
  - o Registration by Assembly District
  - o Registration by Board of Equalization District
  - o Registration by County Supervisorial District
  - o Registration by Political Subdivision by County
  - o (Note: see Bidders Library for examples of the required format and composition of each report.)
9. Historical comparison of between two ROR statistical reports for any two user-specified ROR dates, optionally filtered by:
  - o Jurisdiction
  - o Political district
  - o Partisan affiliation

**Voter Registration Activity**

10. Statistics on registration activity for a specified date range, optionally broken-out, sorted, grouped and/or filtered by:
  - o Jurisdiction
  - o District
  - o Partisan affiliation
  - o Voter age range
  - o Category of UID (i.e., CA DL based, SSN4 based, or generated)
  - o Voter language preference
  - o Vote-By-Mail status
  - o Confidentiality status
  - o Method of registration
  - o Type of registration (e.g., new, name change, address change in-county, address change out-of-county, partisan change, re-registration with no data change, etc)
  - o Time period of registration (by year or month)
  - o Combinations of above
11. Statistics on changes in voter registration status, optionally broken-out, sorted, grouped and/or filtered by:
  - o Jurisdiction
  - o Current Registration status

- Previous Registration status
  - Source/reason for change
  - Partisan affiliation
  - Voter age (range)
  - Type of voter (e.g., regular, confidential, UOCAVA)
  - Combinations of above
12. Statistics on voters who changed their VIG opt-out status, optionally broken-out, sorted, grouped and/or filtered by:
- Opt-out status
  - Date range (default monthly)
  - Jurisdiction
  - Partisan affiliation
  - Voter age (range)
  - Language preference
  - Combinations of above

#### **Voter Participation**

13. Statistics on voters who participated in a specified election, optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - District (category or specified district)
  - Voter age
  - Voter partisan affiliation
  - Partisan ballot voted (if applicable)
  - Registration status
  - Registration date
  - Confidentiality status/type
  - Vote-by-mail status/type
  - Language requirements
  - Voting method (e.g., Early, Vote-by-Mail, Polling Place, Provisional)
  - Ballot disposition (e.g., accepted, rejected)
  - Rejection reason (if applicable)
  - Combinations of above

#### **Registration Processing and List Maintenance Activity**

14. Detailed listing of unresolved registration issues over “X” days of age, optionally sorted and/or filtered by:
- Jurisdiction
  - Issue type (e.g., data validation error, fatal “pend,” potential move out of county, potential duplicate, potential death record match, potential felon match, potential DMV match, potential NCOA match)
  - Combinations of above
15. Statistics of unresolved registration issues over “X” days of age, optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction

- Issue type (e.g., data validation error, fatal “pend,” potential move out of county, potential duplicate, potential death record match, potential felon match, potential DMV match, potential NCOA match)
  - Aging period
  - Combinations of above
16. Voter registration activity error statistics (error count, resolution time) within a specified date range, optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - Type of transaction (e.g., new registration, re-registration within county, re-registration in new county, change of party, cancellation, inactivation, etc.)
  - Type of error
  - Resolution type
  - Time period of error occurrence (by year or month)
  - Combinations of above
17. Count of applicable voters who have not been mailed a VNC after X days from registration, broken down by county
18. Statistics of list maintenance notices optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - Notice type
  - Date sent to voters
  - Date returned by voters
  - Disposition (e.g., Returned as undeliverable, Returned by Voter, Unknown, etc)
19. Statistics on voters who have not voted in “X” years and have not been sent an RCP or an ARCP, optionally broken-out, sorted, grouped and/or filtered by:
- Date of registration (range, before {date}, after {date})
  - Jurisdiction
  - District
  - Voter Age (range)
  - Confidentiality status
  - VBM/UOCAVA status
  - Partisan affiliation
  - Language preference
  - Combinations of above
20. Listing of voters who have not voted in “X” years and have not been sent an RCP or an ARCP, optionally sorted, grouped, and/or filtered by:
- Voter name (sort only)
  - Jurisdiction
  - District
  - Combinations of above
21. Statistics on voters who have had an “inactive” status and not voted since a User-specified date, optionally broken-out, sorted, grouped and/or filtered by
- Effective date of ‘Inactive’ status (range, before {date}, after {date})
  - Jurisdiction

- District
  - Voter Age (range)
  - Confidentiality status
  - VBM/UOCAVA status
  - Partisan affiliation
  - Language preference
  - Combinations of above
22. Listing of voters who have had an “inactive” status and not voted since a User-specified date, optionally sorted, grouped, and/or filtered by:
- Voter name (sort only)
  - Jurisdiction
  - District
  - Combinations of above
23. Statistics on Removal notices [8(d)(2)] sent, optionally broken-out, sorted, grouped and/or filtered by:
- Date range(s) (default monthly)
  - Jurisdiction
  - District
  - Partisan affiliation
  - Voter age (range)
  - Disposition
  - Combinations of above
24. Statistics on voter cancellation activity, optionally broken-out, sorted, grouped and/or filtered by:
- Date ranges (default monthly)
  - Reason/basis
  - Jurisdiction
  - Political district
  - Partisan affiliation
  - Voter age (range)
  - Combinations of above
25. Statistics on VoteCal duplicate identification (match count, valid match rate, resolution time) within a specified date range, optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - Match basis
  - Disposition (e.g., not resolved, match confirmed, non-match verified); and
  - Time Period (by month or year)
  - Combinations of above
26. NCOA performance statistics (match count, valid match rate, resolution time) within a specified date range, optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - Type of NCOA notice (e.g., individual, family, etc.)
  - Type of move (e.g., in-county, new county, out-of-state, no forwarding address)
  - Match disposition (e.g., not resolved, match confirmed, non-match verified)

- Time Period (by month or year)
  - Combinations of above
27. DHS Death Record matching performance statistics (match count, valid match rate, resolution time) within a specified date range, optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - Match criteria
  - Type (i.e., new registration validation versus new death notice against existing registration records)
  - Match disposition (e.g., not resolved, match confirmed, non-match verified)
  - Time Period (by month or year)
  - Combinations of above
28. CDCR felon matching performance statistics (match count, valid match rate, resolution time) within a specified date range, optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - Match criteria
  - Type (i.e., new registration validation versus new felon notice against existing registration records)
  - Match disposition (e.g., not resolved, match confirmed, non-match verified)
  - Time Period (by month or year)
  - Combinations of above
29. DMV Motor Voter performance statistics (match count, valid match rate, resolution time) within a specified date range, optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - Type of transaction (e.g., new registration, in-county move, move between counties)
  - Match criteria
  - Match disposition (e.g., not resolved, match confirmed, non-match verified)
  - Time Period (by month or year)
  - Combinations of above
30. Statistics on DMV turnaround aging (registration date vs. date sent to SOS), optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - Type of transaction (e.g., new registration, in-county move, move between counties)
  - Time Period (by month or year)
  - Combinations of above
31. Statistics on DMV ID verification performance (match counts, valid match rate, turnaround time) , optionally broken-out, sorted, grouped and/or filtered by:
- Jurisdiction
  - Type of verification requested (i.e., CA DL, SSN4, no ID)
  - Type of verification response
  - Time Period (by month or year)
  - Combinations of above

32. Statistics on time to resolve work items/match cases, optionally broken-out, sorted, grouped and/or filtered by:
  - o Jurisdiction
  - o Type or source (e.g., DMV COA, Felon, Data validation error, etc)
  - o Time Period (by month or year)
  - o Combinations of above
33. Statistics on 'high-confidence matches' that are identified at time of registration but declined as a match, compared to ultimate disposition, optionally broken-out, sorted, grouped and/or filtered by:
  - o Jurisdiction, and/or
  - o Registration time period (by month or year)
34. Statistics on 'undo' match cases, optionally broken-out, sorted, grouped and/or filtered by:
  - o Jurisdiction
  - o Type or source (e.g., DMV COA, Felon, Data validation error, etc)
  - o Time Period (by month or year)
  - o Combinations of above

#### **Investigations**

35. List of voters that have voted more than once in a specified election, optionally sorted, grouped, and/or filtered by:
  - o Voter name (sort only)
  - o Jurisdiction
  - o Combinations of above
36. List of addresses and voters at that address where more than a User-specified number of voters are registered at that address as of a specified date, optionally sorted, grouped, and/or filtered by:
  - o Address
  - o Method of registration
  - o Jurisdiction
  - o Combinations of above
37. List of cancelled voters who voted in a specified election after date of cancellation, optionally sorted, grouped, and/or filtered by:
  - o Voter name (sort only)
  - o Jurisdiction
  - o Reason for cancellation
  - o Combinations of above
38. List of voters for whom the affidavit date and registration transaction are more than a user specified number of days apart, optionally sorted, grouped, and/or filtered by:
  - o Voter name (sort only)
  - o Jurisdiction
  - o Registration Source
  - o Affidavit number (range, filter only)
  - o By date of registration transaction (range, before {date}, after {date})



- o Combinations of above

**Address – Precinct – District Mapping**

39. Listing of Precincts by District as of a specified date, optionally sorted, grouped, and/or filtered by:

- o Jurisdiction
- o District type
- o District name/number
- o Combinations of above

40. Listing of Districts by Precinct as of a specified date, optionally sorted, grouped, and/or filtered by:

- o Jurisdiction
- o District type
- o Precinct number (range)
- o Combinations of above

41. Listing of 'orphaned precincts' (not assigned to one or more required districts), optionally sorted, grouped, and/or filtered by:

- o Jurisdiction
- o District type
- o Precinct number (range)
- o Combinations of above

42. Listing of 'orphaned districts' (not assigned to at least one precinct), optionally sorted, grouped, and/or filtered by:

- o Jurisdiction
- o District type
- o District name/number
- o Combinations of above

43. Listing of 'orphaned voters' (not assigned to a recognized precinct), optionally sorted, grouped, and/or filtered by:

- o Jurisdiction
- o Voter name (sort only)
- o Combinations of above

**Political Parties**

44. Detailed data for a specified party, including (*at user option*):

- o History of changes to party record
- o Audit log of changes to Party record

45. Listing of political parties, including status and assigned system party code, optionally sorted, grouped, and/or filtered on:

- o Party name (sort only)
- o Party status

46. Listing of party contacts and the associated contact information, optionally sorted, grouped, and/or filtered on:
- Party name (sort only)
  - Party status
  - Contact name (sort only)
  - Position/role
  - Contact method (e.g., phone, email, mailing address, etc)
  - Combinations of above

**Public Voter Registration Data Requests (PVRDRs)**

47. Detailed data for a specified applicant/customer, including (at user option):
- Current and historic contact information
  - History of data requests and their disposition
48. Listing of PVRDR requests for a specified period, optionally sorted, grouped, and/or filtered on:
- Applicant name
  - Application date
  - Disposition date
  - Qualification basis (e.g., governmental, candidate, journalist, academic, etc)
  - Disposition of request
  - Type of data requested (e.g., voter data only, participation history, district membership, etc)
  - Combinations of above
49. Statistics on PVRDR requests for a specified period, optionally broken-out, sorted, grouped and/or filtered by:
- Qualification basis (e.g., governmental, candidate, journalist, academic, etc)
  - Disposition of request
  - Time Period (by month or year)
  - Type of data requested (e.g., voter data only, participation history, district membership, etc)
  - Combinations of above

**System Administration**

50. Listing of user accounts and their status, optionally sorted, optionally sorted, grouped, and/or filtered on:
- User name
  - Assigned role(s)/permissions
  - Account status
  - Combinations of above
51. List of Invalid login activity, optionally sorted, grouped, and/or filtered on:
- User account provided
  - Login failure reason (e.g., invalid user account, invalid password, account locked, etc)
  - Activity date
  - Combinations of above

- 
52. Listing of county profile configuration (parameters/settings), optionally sorted, grouped and/or filtered by:
- o Jurisdiction
  - o Parameter
  - o Combinations of above
53. Listing of job history, optionally sorted, grouped and/or filtered by:
- o Job date/time
  - o Source
  - o Job Type
  - o Disposition
  - o Combinations of above
54. Statistics on job execution duration (performance), optionally broken-out, sorted, grouped and/or filtered by:
- o Job date/time
  - o Source
  - o Job Type
  - o Disposition
  - o Combinations of above
55. Online Registration usage statistics for a specified period, optionally broken-out, sorted, grouped and/or filtered by:
- o Disposition
  - o Jurisdiction
  - o Age (range)
  - o Partisan affiliation
  - o Language preference
  - o Time Period (by hour, day, week, month or year)
  - o Combinations of above
56. Online website usage statistics, optionally broken-out, sorted, grouped and/or filtered by:
- o Web page viewed
  - o Activity/function
  - o Jurisdiction
  - o Age (range)
  - o Partisan affiliation
  - o Language preference
  - o Time Period (by hour, day, week, month or year)
  - o Combinations of above

The table on the pages that follow provides the frequency with which each report is expected to be executed.

REPORT CATEGORY	REPORT #	FREQUENCY OF REPORT EXECUTION
Voter Registration	1	Weekly
Voter Registration	2	As needed
Voter Registration	3	Daily to Weekly
Voter Registration	4	Weekly to Monthly
Voter Registration	5	Monthly and As Needed
Voter Registration	6	Monthly and As Needed
Report of Registration (ROR)	7	5 times/year in election years Annually in non-election years
Report of Registration (ROR)	8	5 times/year in election years
Report of Registration (ROR)	9	Annually in non-election years
Voter Registration Activity	10	Monthly and As Needed
Voter Registration Activity	11	Monthly and As Needed
Voter Registration Activity	12	Monthly and As Needed
Voter Participation	13	Monthly and As Needed
Registration Processing and List Maintenance	14	Daily
Registration Processing and List Maintenance	15	Daily
Registration Processing and List Maintenance	16	Daily
Registration Processing and List Maintenance	17	Daily
Registration Processing and List Maintenance	18	Monthly and As Needed
Registration Processing and List Maintenance	19	Monthly and As Needed
Registration Processing and List	20	Monthly and As Needed

REPORT CATEGORY	REPORT #	FREQUENCY OF REPORT EXECUTION
Maintenance		
Registration Processing and List Maintenance	21	Monthly and As Needed
Registration Processing and List Maintenance	22	Monthly and As Needed
Registration Processing and List Maintenance	23	Monthly and As Needed
Registration Processing and List Maintenance	24	Monthly and As Needed
Registration Processing and List Maintenance	25	Daily
Registration Processing and List Maintenance	26	Monthly and As Needed
Registration Processing and List Maintenance	27	Monthly and As Needed
Registration Processing and List Maintenance	28	Monthly and As Needed
Registration Processing and List Maintenance	29	Monthly and As Needed
Registration Processing and List Maintenance	30	Monthly and As Needed
Registration Processing and List Maintenance	31	Monthly and As Needed
Registration Processing and List Maintenance	32	Monthly and As Needed
Registration Processing and List Maintenance	33	Monthly and As Needed
Registration Processing and List Maintenance	34	Monthly and As Needed
Investigations	35	Daily
Investigations	36	Daily
Investigations	37	Daily

REPORT CATEGORY	REPORT #	FREQUENCY OF REPORT EXECUTION
Investigations	38	Daily
Address-Precinct-District Mapping	39	As needed
Address-Precinct-District Mapping	40	As needed
Address-Precinct-District Mapping	41	Monthly and As Needed
Address-Precinct-District Mapping	42	Monthly and As Needed
Address-Precinct-District Mapping	43	Monthly and As Needed
Political Parties	44	As needed
Political Parties	45	Monthly and As Needed
Political Parties	46	Monthly and As Needed
Public Voter Registration Data Requests (PVRDR)	47	As needed
Public Voter Registration Data Requests (PVRDR)	48	As needed
Public Voter Registration Data Requests (PVRDR)	49	As needed
System Administration	50	Daily to Weekly
System Administration	51	Daily to Weekly
System Administration	52	Daily to Weekly
System Administration	53	Daily to Weekly
System Administration	54	Daily to Weekly
System Administration	55	Daily to Weekly
System Administration	56	Daily to Weekly

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**Exhibit VI.3 – VoteCal Third Party Software Products List and Instructions**

**Instructions**

The *VoteCal Third Party Software Products List* should include all such required products and licenses (as defined in Attachment 1 – Statement of Work, Section 12.c – Third Party Software).

COLUMN HEADING	INFORMATION TO BE ENTERED IN THAT COLUMN
Item #	Do not enter – already in information table
Brief Description of Third-Party Software Item	Provide a brief description of the Third-Party Software item.
Fuller description of Third-Party Software, including possibly Manufacturer, Part #, Version #, Release #, Product Name	Provide a fuller description of the Third-Party Software item, including information such as manufacturer, version number, release number, product name as applicable
H/W & S/W Implementation Period (“1” or “2”)	<p>Specify either a “1” or a “2” in this column to indicate the H/W and S/W Implementation Period during which this Third-Party Software will be installed based on the type of project activities the Third-Party Software is primarily intended to support:</p> <ul style="list-style-type: none"> <li>• Designate a “1” in this column if the Third-Party Software will be installed during the first H/W and S/W Implementation Period and is primarily (or initially) intended to support the Project’s Development, Test and Training activities;</li> <li>• Designate a “2” in this column if the Third-Party Software will be installed during the second H/W and S/W Implementation Period and is primarily (or initially) intended to support the VoteCal project’s Pilot or Production activities</li> </ul> <p>If the Third-Party Software item will support <i>both</i> Implementation Periods, the Bidder should indicate a “1” in this column (because the Third-Party Software would be implemented during the earlier period).  This designation should correspond to applicable Deliverable(s) within the Bidder’s Project Schedule</p>
# of this Item Required	Enter the quantity of the specified Third-Party Software item required for the proposed solution (e.g., # of licenses - # of users supported by each license).



**Exhibit VI.3 — VoteCal Third Party Software Products List**

Use additional pages if necessary

Third Party Software Products List Page: \_\_\_\_\_

Item #	Brief Description of Third-Party Software Item	HW & S/W Implementation Period	Fuller Description of Third-Party Software, including possibly Manufacturer, Part #, Version #, Release #, Product Name	# of this Item Required
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

**Exhibit VI.4 – VoteCal Contractor Commercial Proprietary Software Products List and Instructions**

**Instructions**

The *Contractor Commercial Proprietary Software Products List* should include all such required products and licenses (as defined in Attachment 1 – Statement of Work, Section 12.a – Contractor Commercial Proprietary Software).

COLUMN HEADING	INFORMATION TO BE ENTERED IN THAT COLUMN
Item #	Do not enter – already in information table
Brief Description of Contractor Commercial Proprietary Software Item	Provide a brief description of the Contractor Commercial Proprietary Software item
H/W & S/W Implementation Period (“1” or “2”)	<p>Specify either a “1” or a “2” in this column to indicate the H/W and S/W Implementation Period during which this Contractor Commercial Proprietary Software will be installed based on the type of project activities the Contractor Commercial Proprietary Software is primarily intended to support:</p> <ul style="list-style-type: none"> <li>• Designate a “1” in this column if the Contractor Commercial Proprietary Software will be installed during the first H/W and S/W Implementation Period and is primarily (or initially) intended to support the Project’s Development, Test and Training activities;</li> <li>• Designate a “2” in this column if the Contractor Commercial Proprietary Software will be installed during the second H/W and S/W Implementation Period and is primarily (or initially) intended to support the VoteCal project’s Pilot or Production activities</li> </ul> <p>If the Contractor Commercial Proprietary Software item will support both Implementation Periods, the Bidder should indicate a “1” in this column (because the Third-Party Software would be implemented during the earlier period).</p> <p>This designation should correspond to applicable Deliverable(s) within the Bidder’s Project Schedule</p>
Fuller Description of Contractor Commercial Proprietary Software, including possibly Manufacturer, Part #, Version #, Release #, Product Name	Provide a fuller description of the Contractor Commercial Proprietary Software item, including information such as manufacturer, version number, release number, product name as applicable
# of this Item Required	Enter the quantity of this item required.

**Exhibit VI.4 – VoteCal Contractor Commercial Proprietary Software Products List**

Use additional pages if necessary

Contractor Commercial Proprietary Software Products List Page: \_\_\_\_\_

Item #	Brief Description of Contractor Commercial Proprietary Software Item	HW & S/W Implementation Period	Fuller Description of Contractor Commercial Proprietary Software, including possibly Manufacturer, Part #, Version #, Release #, Product Name	# of this Item Required
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

**Exhibit VI.5 – VoteCal System One-Time Hardware List and Instructions**

**Instructions**

The *VoteCal Hardware Products List* should include all required Hardware items proposed for the VoteCal solution and installation within the SOS Data Center and external to SOS to support remote access, network and other requirements (as needed), including quantity, manufacturer, brand name, and model number. all such required products.

COLUMN HEADING	INFORMATION TO BE ENTERED IN THAT COLUMN
Item #	Do not enter – already in information table
Brief Description of Hardware Item	Provide a brief description of the Hardware item
	<p>Specify either a “1” or a “2” in this column to indicate the Hardware (H/W) and Software (S/W) Implementation Period during which this Hardware will be installed based on the type of project activities the hardware is primarily intended to support:</p> <ul style="list-style-type: none"> <li>• Designate a “1” in this column if the Hardware will be installed during the first H/W and S/W Implementation Period and is primarily (or initially) intended to support the Project’s Development, Test and Training activities;</li> <li>• Designate a “2” in this column if the Hardware will be installed during the second H/W and S/W Implementation Period and is primarily (or initially) intended to support the VoteCal project’s Pilot or Production activities</li> </ul> <p>If this Hardware will support both Implementation Periods, the Bidder should indicate a “1” in this column (because the Hardware would be implemented during the earlier period). This designation should correspond to applicable Deliverable(s) within the Bidder’s Project Schedule</p>
Fuller description of Hardware, including possibly Manufacturer, Brand Name, Model #, Version/Series	Provide a fuller description of the Hardware item, including information such as manufacturer, brand name, model number, Version/Series as applicable
BTU Requirement	Specify the BTU requirement for this Hardware item.
Electrical Load Requirement	Specify the Electrical Load requirement for this Hardware item.
# of this Item Required	Enter quantity of specified Hardware item required for the proposed solution.
BTU Requirement for Total # of this Item	Specify the BTU Requirement for the Total # designated of this Hardware Item
Electrical Load Requirement for Total # of this Item	Specify the Electrical Load Requirement for the Total # designated of this Hardware Item

**Exhibit VI.5 — VoteCal One-Time Hardware Products List**

Use additional pages if necessary  
Hardware Products List Page: \_\_\_\_\_

Item #	Brief Description	HW & SW Implementation Period	Fuller Description (Manufacturer, Brand, Model #, Version/Series)	BTU Requirement	Electrical Load Requirement	# of this Item Required	BTU Requirement for Total # of this Item	Electrical Load Requirement for Total # of this Item
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								

## Exhibit VI.6 – VoteCal System Rack Diagram and Description and Instructions

### Instructions

The Bidder must use this Exhibit to provide the following visual and narrative information for the VoteCal System solution hosted within the SOS Data Center (inclusive of all environments required to support the VoteCal System Development, Testing, Training, Pilot and Production environments as proposed in Bidder's response to requirement P11 – VoteCal Technical Architecture).

Bidder shall complete **Section A** of this Exhibit by specifying the total BTU and electrical load requirements for the VoteCal System solution operating within the SOS Data Center. These totals should reflect the sum of the BTU and electrical load requirements specified for each of the racks described in Section B of this Exhibit (described below).

Bidder shall complete **Section B** of this Exhibit (adding additional pages as needed) to fully specify the following information for each of the up to eight (8) racks the Bidder may specify to support the VoteCal System Solution hosted within the SOS Data Center. The information may include diagrams and narrative but **must clearly provide the following information (at a minimum) for each rack:**

- The physical specifications of the rack without Hardware components, including weight, height, width, and depth;
- The physical specifications of the rack as fully loaded with all specified components (see below) including weight and (if different than above), height, width, and depth;
- The number of 30 AMP receptacles (e.g., L6-30Rs or L15-30Rs) required for the rack (a maximum of four (4) may be specified per rack - see requirement T3.6.4).
- Each Hardware component to be included in the rack, including proposed location within the rack (cross-referenced to the completed Exhibit IV.5 - VoteCal System One-Time Hardware List – remembering that all new Hardware proposed for the VoteCal System solution component should also be listed in);
- The rack's total BTU and electrical load (inclusive of all Hardware components loaded within the rack); and,
- Other relevant attributes and requirements associated with each rack

The Bidder should present rack information in whatever blend of diagrammatic and narrative information best relays the required information, therefore the Exhibit's Section B does not include any pre-formatted subsections, fields, etc. However, the **Bidder must ensure that the required information is easily identifiable for each rack (including the total BUT and electrical load for each rack)**. The Bidder should include additional pages as needed to relay the information required in response to Section B and designate the appropriate header information on each additional page.

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**Exhibit VI.6—VoteCal System Rack Diagram and Description**

Use additional pages if necessary

VoteCal System Rack Diagram and Description Page: \_\_\_\_\_

**Section A: Total BTU & Electrical Load Requirements for VoteCal in Data Center**

**Total BTU requirements for VoteCal System solution operating within the SOS Data Center** (including all Development, Test, Training, Pilot and Production environments):

\_\_\_\_\_

**Total electrical load requirements BTU VoteCal System solution operating within the SOS Data Center** (including all Development, Test, Training, Pilot and Production environments):

\_\_\_\_\_

**Section B: Specification, Build Description & BTU/Electrical Load Requirements per Rack** (for each of up to 8 racks for VoteCal in Data Center). At a minimum, provide all of the information described in the Instructions.

*Use additional pages if necessary*