Solicitation RFI 11-023

VoteCal Backup, Restore, Disaster Recovery

State of California

Bid RFI 11-023
VoteCal Backup, Restore, Disaster Recovery

Bid Number	**RFI 11-023**
Bid Title	**VoteCal Backup, Restore, Disaster Recovery**
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Bid Contact	**Maria Harris** **916-653-5974** **ContractServices@sos.ca.gov**
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Description

The intent of this RFI is to elicit the advice and best analysis of knowledgeable persons in the vendor community to provide recommended solutions to the CA Secretary of State (SOS). This will enable SOS to develop a Special Project Report (SPR) and other solicitation documents to permit procurement of backup, restore, and disaster recovery services at a later date. The collective information provided by vendors will be used to develop alternatives for consideration, and to estimate costs related to system acquisition for a proposed solution.

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MANAGEMENT SERVICES | CONTRACT SERVICES
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May 16, 2012

Request for Information
RFI #11-023
VoteCal Backup, Restore, Disaster Recovery

You are invited to review and respond to this Request for Information (RFI), entitled #11-023 – Secretary of State VoteCal Project. The intent of this RFI is to elicit the advice and best analysis of knowledgeable persons in the vendor community to provide recommended solutions to the CA Secretary of State (SOS). This will enable SOS to develop a Special Project Report (SPR) and other solicitation documents to permit procurement of backup, restore, and disaster recovery services at a later date. The collective information provided by vendors will be used to develop alternatives for consideration, and to estimate costs related to system acquisition for a proposed solution. In submitting your response, please comply with the instructions found herein.

In the opinion of the Secretary of State's Office, this Request for Information is complete and without need of explanation. However, if you have questions, or should you need any clarifying information, the contact person for this RFI is:

Contract Services
Secretary of State
(916) 653-5974
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Please note that no *verbal* information given will be binding upon the State unless such information is issued in writing as an official addendum.

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1 INTRODUCTION

1.1 Intent for Request for Information (RFI)

In accordance with State Contract Manual Volume 3, Section 4.A1.11, the intent of this Request for Information (RFI) is not to select a proposed solution, or a vendor to provide backup and disaster recovery services.

The intent of this RFI is to elicit the advice and best analysis of knowledgeable persons in the vendor community to provide recommended solutions to the CA Secretary of State (SOS). This will enable SOS to develop a Special Project Report (SPR) and other solicitation documents to permit procurement of backup, restore, and disaster recovery services at a later date. The collective information provided by vendors will be used to develop alternatives for consideration, and to estimate costs related to system acquisition for a proposed solution. SOS understands that the data provided in this RFI is not sufficient to enable detailed analysis and costing by vendors. Please provide your best advice based on your experience with other organizations and initiatives of this kind.

This document shall not be construed as a request or authorization to perform work at SOS expense. Any work performed by a vendor to respond to this RFI will be at the vendor's own discretion and expense. This RFI does not represent a commitment to purchase or lease. No cost associated with responding to this RFI may be charged to SOS for any reason. In addition, a response to this RFI will not preclude any vendor from future bidding opportunities with SOS.

1.2 Proprietary Material

Any information contained in any response to this RFI that the vendor believes is proprietary must be clearly designated as such. Responses making the entire RFI response or an entire section as proprietary will be neither accepted nor honored and will be rejected. If, after opening all responses, a request is made to view any response to this RFI, SOS will comply with that request pursuant to the California Public Records Act and SOS Guidelines for Access to Public Records. To the extent, any information contained in a response to this RFI is marked as proprietary; such information will not be made available to the requestor until the affected Vendor has been given a period of five (5) days to provide an appropriate response.

The vendor should clearly identify any materials, which constitute valuable formulae, designs, drawings, and research data or any materials otherwise claimed to be to be confidential trade secrets, along with a citation to the applicable statutory provisions supporting such a claim for confidentiality. Failure to so label materials as such, or failure to respond in within five (5) days after notice of a

request for access to materials submitted for access to the vendor's response to this RFI has been given, may be deemed a waiver by the vendor of any claim that such materials are, in fact, confidential. [Note: SOS has only ten (10) days to respond to a Public Record Request.]

SOS sole responsibility must be limited to maintaining the above data in a secure area and to notify any Respondent of any request(s) for disclosure as soon as practicable from date of receipt of any such request.

1.3 Backup Restore, and Disaster Recovery for VoteCal

SOS will purchase at a later date, backup, restore and disaster recovery services for a new statewide voter registration system in the process of being procured and implemented. The full details of this VoteCal procurement are found at http://www.sos.ca.gov/elections/votecal/.

Interested vendors can research the VoteCal requirements by reviewing the details at this site. The winner of the VoteCal procurement is commonly referenced as the VoteCal Systems Integrator (SI) Vendor. A summary of VoteCal requirements follows in Section 3, Backup, Restore, and Disaster Recovery Requirements.

By Backup, SOS means the storage of key VoteCal information (data and applications) and the transmission of that information back to VoteCal upon request. The vendor performing backup will be responsible to provide an interface through which the winning SI Vendor can transfer data and applications to a backup site, and retrieve it when necessary in the event of hardware or software failures.

By Restore, SOS means the restoration of the system to an operational state following either a minor or major system failure.

By Disaster Recovery, SOS means the restoration of VoteCal and any related systems including certain interfaces in the event of a catastrophe for an indeterminate length of time upon request by the CA SOS. These catastrophes include flood, fire, earthquake, or any natural or man-made disaster that causes extended unavailability of the VoteCal system.

Once approved, the intent of the future procurement is to obtain a single vendor, Backup, Restore and Disaster Recovery Vendor (BRDR) to provide these services.

It is also the intent of this effort that all backup, restore, and disaster recovery data, applications, etc. be physically stored and/or located:

- Within the Continental US and in an area:
    a. Geographically outside of the Sacramento Valley and Northern section of the San Joaquin Valley air basins.

b. More geographically stable than the Sacramento valley

c. Less likely to be subject to civil unrest than the Sacramento metro area

d. Accessible by multiple methods of transportation (air, train, car)

2 VoteCal Project Background

VoteCal is a project that will support the registration of voters, administered jointly by the Secretary of State (SOS) Elections Division and county elections officials. The Procurement action for this project is currently underway, with a System Integrator Vendor scheduled to be selected by late 2012 or early 2013. The project is estimated to take approximately two years to complete.

VoteCal is intended to satisfy Section 303 of the Help America Vote Act (HAVA) of 2002 (Public Law 107-22, 107th Congress), which mandates that each state implement a uniform, centralized, interactive, computerized voter registration database that is defined, maintained, and administered at the state level. This database must contain the name and registration information of every legally registered active or inactive voter in the state. This system constitutes the official record of all registered voters. The state database must serve as the single system for storing and managing the official list of registered voters in the state.

This system must provide a functional interface for county elections officials, who are charged with the actual conduct of elections, to access and update the registration data. Additionally, HAVA mandates the voter registration database system coordinate electronically with the Department of Motor Vehicles (DMV), the California Department of Public Health (CDPH), the Employment Development Department (EDD), and the California Department of Corrections and Rehabilitation (CDCR) for voter identification and list maintenance purposes.

SOS has identified seven Phases for the VoteCal Project to include the following:

I. Project Initiation and Planning;

II. Design;

III. Development;

IV. Testing;

V. Pilot Deployment and Testing;

VI. Deployment and Cutover; and

VII. First Year Operations and Close-out.

The responsibilities for the BRDR begin with Phase V, Pilot Deployment and Testing.

3 BACKUP, RESTORE AND DISASTER RECOVERY REQUIREMENTS

3.1 Purpose

The purpose of this section is to provide an understanding of the business and technical requirements for the services requested in this RFI.

3.2 VoteCal Business Requirements

Appendix A is a list of general business requirements for VoteCal to provide Backup, Restore, and Disaster Recovery (BRDR) Vendors with further clarification of the functions that VoteCal will perform. This will allow BRDR vendors to understand more completely the VoteCal system needs for backup, restore, and disaster recovery services.

3.3 VoteCal Technical Requirements

Appendix B is a list of VoteCal technical requirements and operations performance objectives to help guide your response to this RFI. The winning BRDR vendor must meet all technical and performance requirements required for VoteCal.

3.3.1 Backup, Restore, and Disaster Recovery Interface

As part of the solution proposed, the BRDR Vendor will provide an interface to the SOS WAN to receive data and applications from VoteCal no less often than every two hours. A description of the volume and type of data and applications is in Appendix B, “Technical Requirements”. SOS expects the BRDR Vendor to make the data and applications available immediately upon request at any time 24x7 to be returned through this same interface. SOS also expects the BRDR Vendor to test this functionality at least annually.

SOS expects that the BRDR vendor will initiate the restoration of the VoteCal System immediately upon request of SOS.

3.3.2 Sample Technical Infrastructure

See Appendix C for a sample of hardware and software that might serve to support the new VoteCal system. It is important for vendors responding to this RFI to recognize that the final equipment and software configuration for VoteCal is unknown at this time. Appendix C represents one example of equipment and software needed to operate the VoteCal system, if the system were rendered unavailable due to an extended major failure or disaster such as fire, flood, earthquake etc. Once the final configuration is known, SOS will provide the actual

hardware and software list for purposes of the Backup and Disaster Recovery services contract. Vendors are encouraged to use this as a guide only, and to provide any assumptions used in the description of their proposed solution.

3.3.3 Backup, Restore and Recovery Responsibilities

The following describes the separation of responsibilities of the BRDR Vendor, and SOS/SI Vendor as they pertain to this RFI.

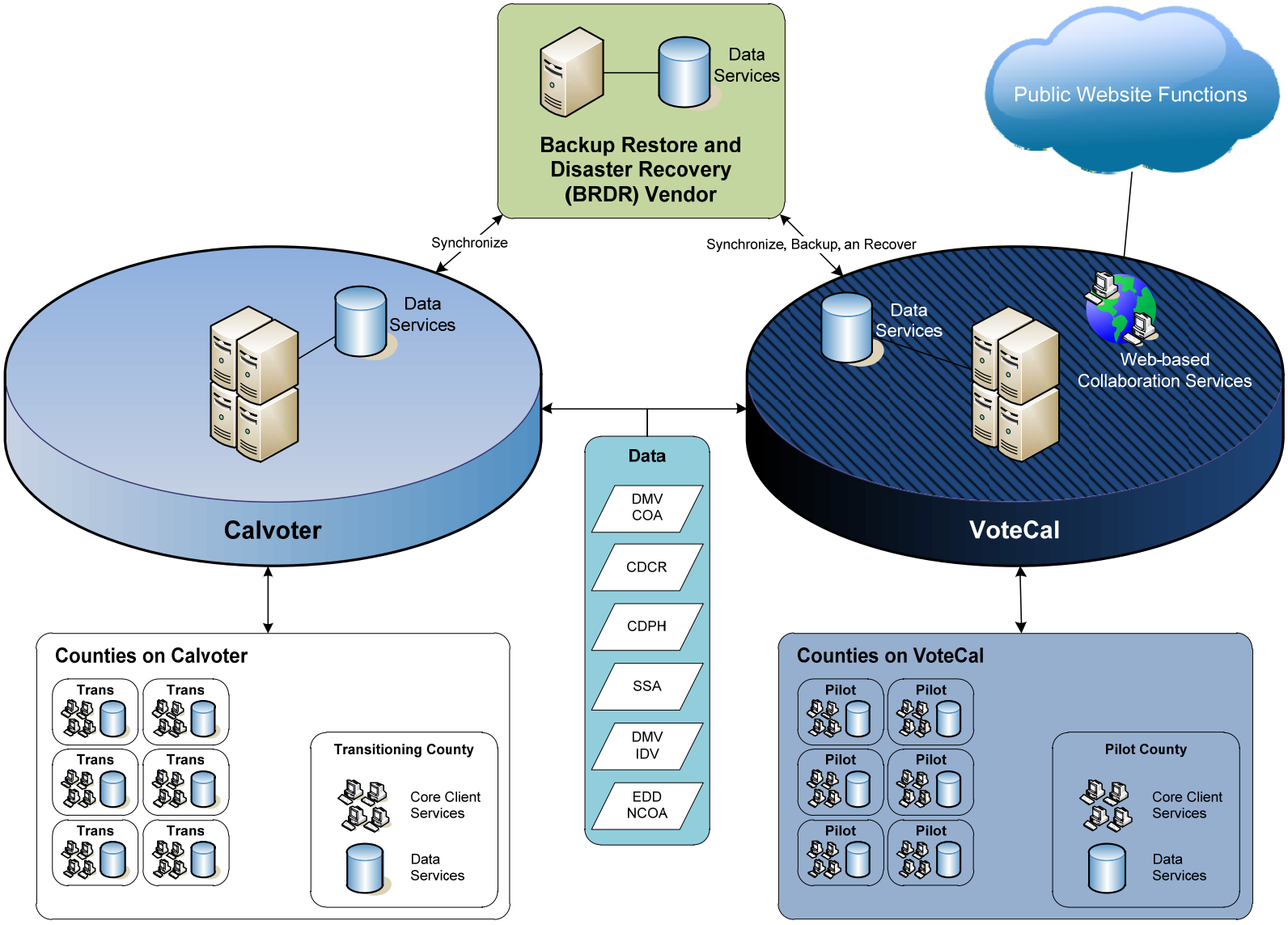
At the beginning of Phase V the BRDR Vendor will:

- Provide and maintain a backup location and service within the Continental United States and in an area and within the conditions as specified in Section 1.3 above.
- Establish the capability to interface with Calvoter upon request of SOS, in the event of a disaster or other situation where VoteCal is totally unavailable. (Note: This requirement will only exist during the period of transition from the current system (Calvoter) to the final VoteCal system implementation where all 58 counties are up and running on VoteCal.)
- Establish an interface on the SOS WAN through which SOS can:
    - Push data and applications on a periodic basis (minimum every 2 hours).
    - Retrieve the most current data and applications on call.
- Activate restoration of VoteCal within two weeks of notification by SOS if disaster occurs after the beginning of Phase V (Pilot Phase) of the VoteCal project.
- Provide complete Disaster Recovery services including the restoration of VoteCal and any related systems including certain interfaces in the event of a catastrophe for an indeterminate length of time upon request by the CA SOS. (Complete Disaster Recovery does not include Calvoter, as BRDR responsibilities for Calvoter will remain the responsibility of SOS until SOS retires the system. The only requirement is to interface with Calvoter, if a disaster occurs during transition to VoteCal.)
- Test the functionality of all backup and disaster recovery functions at least once every 12 months.

SOS/SI Vendor:

- Push data and applications from VoteCal to the BRDR vendor site at least every 2 hours.
- Restore the data and applications from the BRDR vendor as necessary for any reason; at the beginning of Phase V. (Prior to Phase V all VoteCal backup, restoration and disaster recovery services are the responsibility of the SI Vendor.)

The following diagram represents one view of the state of systems processes during the pilot and rollout phases. The BRDR vendor provides full services beginning with Phase V. The SI Vendor is responsible for backup to the approved BRDR site beginning with Phase V of the VoteCal Project.


Data Services
Backup Restore and Disaster Recovery (BRDR) Vendor
Public Website Functions
Synchronize
Synchronize, Backup, an Recover
Data Services
Calvoter
Data Services
Web-based Collaboration Services
VoteCal
Data
DMV COA
CDCR
CDPH
SSA
DMV IDV
EDD NCOA
Counties on Calvoter
Trans
Trans
Trans
Trans
Trans
Trans
Transitioning County
Core Client Services
Data Services
Counties on VoteCal
Pilot
Pilot
Pilot
Pilot
Pilot
Pilot
Pilot County
Core Client Services
Data Services

4 Current Business Program, Functions, and Background

The following overview describes the State's current voter registration functions and processes. This overview includes a brief description of the manual and automated processes that support the program.

The SOS Elections Division's primary mandate is to ensure that state and federal elections laws are fairly and uniformly administered, that every eligible voter can participate in the electoral process, and that the process remains open and free from fraud. California's voter registration program is fundamental to that effort. Maintaining accurate records of all legally registered voters is critical to ensuring the integrity of all elections conducted in this state. To fulfill the purposes of the voter registration program, the state distributes voter registration cards through many channels, including local advocacy groups, other state and local agencies, and provides online access to registration materials.

To fulfill the purposes of the voter registration program, the county elections officials are responsible for:

- Processing voter registration cards
- Verifying voter eligibility
- Notifying voters of their voter registration status
- Updating voter registration records with data received from multiple sources, including returned voter registration cards, direct communication from registrants, and electronic data received from other agencies

The information collected and maintained through the voter registration process is used to conduct a wide range of election management activities, including:

- Determining precinct boundaries
- Establishing polling places
- Verifying petition signatures
- Mailing election information to registered voters
- Providing voter information to courts for jury pools
- Qualifying candidates for the ballot

Currently, the elections officials of each of the fifty eight (58) counties maintain voter files separately. Voter information is keyed or scanned into the county databases. Information in the voter file is used for a variety of purposes including:

- Determining in which precinct and political subdivision the voter resides based on voter's address;
- Determining a voter's eligibility to participate in a particular election, and the appropriate ballot style;
- Processing of absentee and provisional ballots;
- Calculating precinct size and drawing precinct lines;
- Determining district boundaries for political subdivisions within jurisdictions;
- Producing precinct rosters;
- Tracking absentee voters and mailed absentee ballots;
- Providing voter registration information to individuals and organizations eligible to receive this information;
- Conducting county residency confirmation, sample ballot, absentee voter applications, and other mailings;
- Hiring precinct workers;
- Verifying that a candidate is registered with the party they are running under and is a resident of the jurisdiction in which they are seeking nomination/election;
- Verifying signatures on petitions for initiatives, candidate nomination and similar instruments to ensure that the signer is a registered voter for the appropriate jurisdiction, has not already signed the same or a competing petition, and that the signature appears to match that of the registered voter;
- Providing lists for jury pool selection; and
- Processing and making notation of miscellaneous communications with voters (e.g., telephone calls, voter comes to office, etc.).

The SOS maintains the official statewide database of all registered voters, supported by the Calvoter Statewide Voter Registration and Election Management System (Calvoter). Calvoter contains a copy of the county voter records, kept

current by daily updates from the counties. New voter records cannot be entered directly into Calvoter. Additions, changes, and deletion of voter information identified by the Calvoter system cannot be applied directly to the Calvoter database. Calvoter is updated once the counties have researched the changes, applied them to their databases, and then sent their extracts to the Calvoter system in an update.

The existing Calvoter system was augmented during late 2005 with the development of a series of external automated processes.

These processes, known collectively as the “interim enhancements”, were added to achieve compliance with the Help America Vote Act (HAVA) as required by agreement with the United States Department of Justice (USDOJ) to avoid threatened litigation for the State’s potential failure to meet the HAVA voter registration database requirements by the statutory January 1, 2006 deadline. These augmentations included:

- Establishment of interfaces to the California Department of Motor Vehicles (DMV) and the Social Security Administration (SSA) to support verification of unique identifiers provided by registrants;
- Implementation of a process to obtain and apply ineligible-felon information from the California Department of Corrections and Rehabilitation (CDCR);
- Enhancement of the existing process to obtain and apply death records from the California Department of Public Health (CDPH);
- Creation of new automated processes to identify non-standard and invalid county data and to notify counties of required corrections;
- Enhancement of existing processes to support the use of United States Postal Service (USPS) National Change of Address (NCOA) data to check all registered voter addresses on a monthly basis through the California Employment Development Department (EDD), SOS’ current provider of NCOA services;
- Addition of new data elements to the State database to store and process information required by HAVA and the National Voter Registration Act (NVRA);
- Modification of Calvoter to load inactive voter records from counties, and to edit those records;

- Automation of processes to upload county data changes at the end of each business day to ensure daily currency of the Calvoter database;
- Modification of adaptable (those that could be changed) existing county voter registration systems to include new required data elements, to support verification of voter identification through DMV and SSA, to upload active and inactive records each day, and standardize data coding and formats; and
- Migration of existing non-adaptable (those that could not be changed) county voter registration systems to modified systems.

The existing Calvoter system contains approximately 23 million voter records and runs on a virtualized TRU64 platform. SOS is using the Stromasys Charon AXP/GS80 product to virtualize the Alpha-based Tru64 environment on a Windows 2008R2x64 platform.

To assist BRDR Vendors in estimating their costs to provide interfaces to the Calvoter system, Appendix D is a list of the current hardware and software that will support the Calvoter system for informational purposes only.

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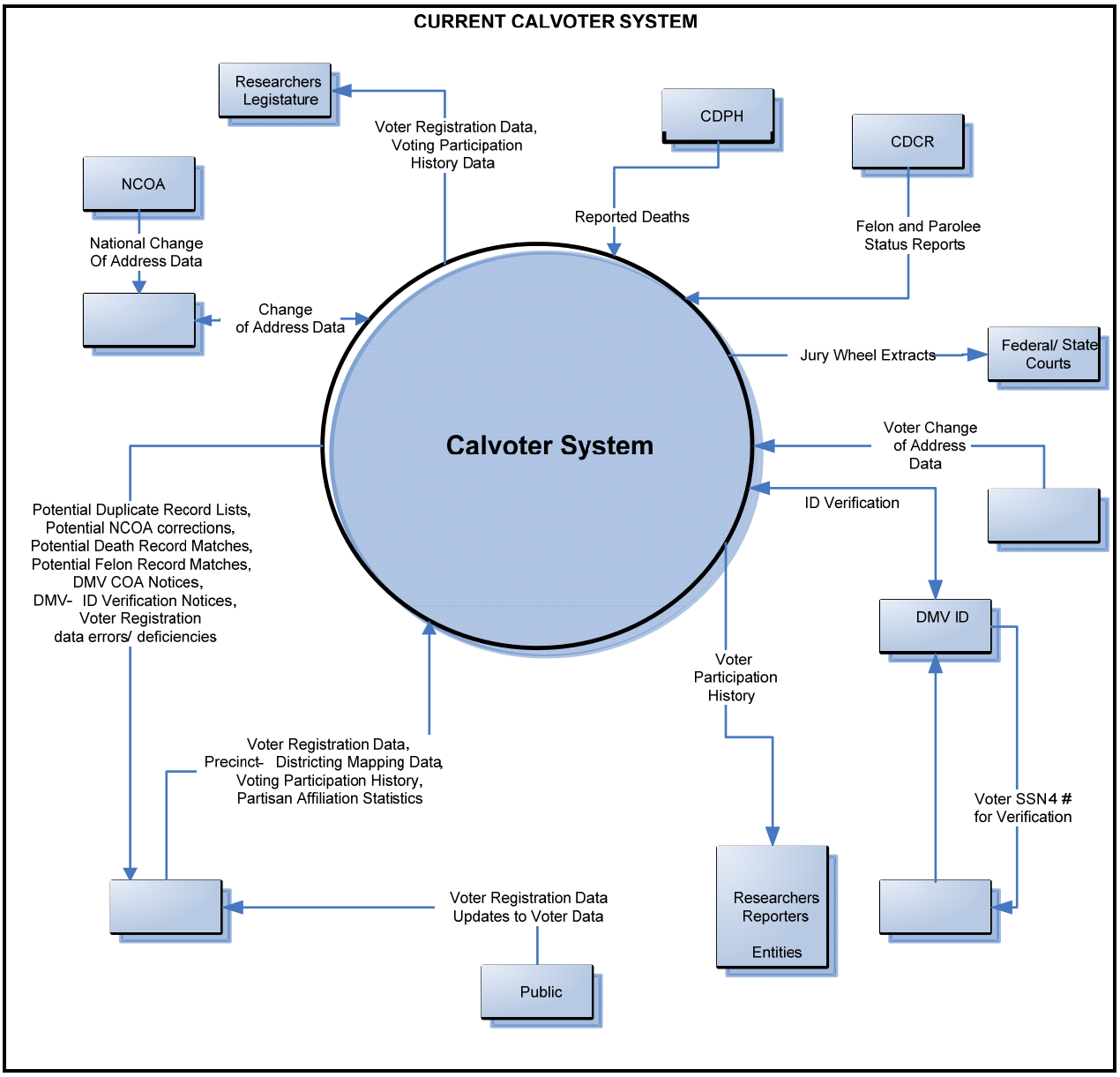
The following Figure 3.1 describes the current business processes the Calvoter system supports.

Figure 3.1 – Context Diagram for Calvoter System



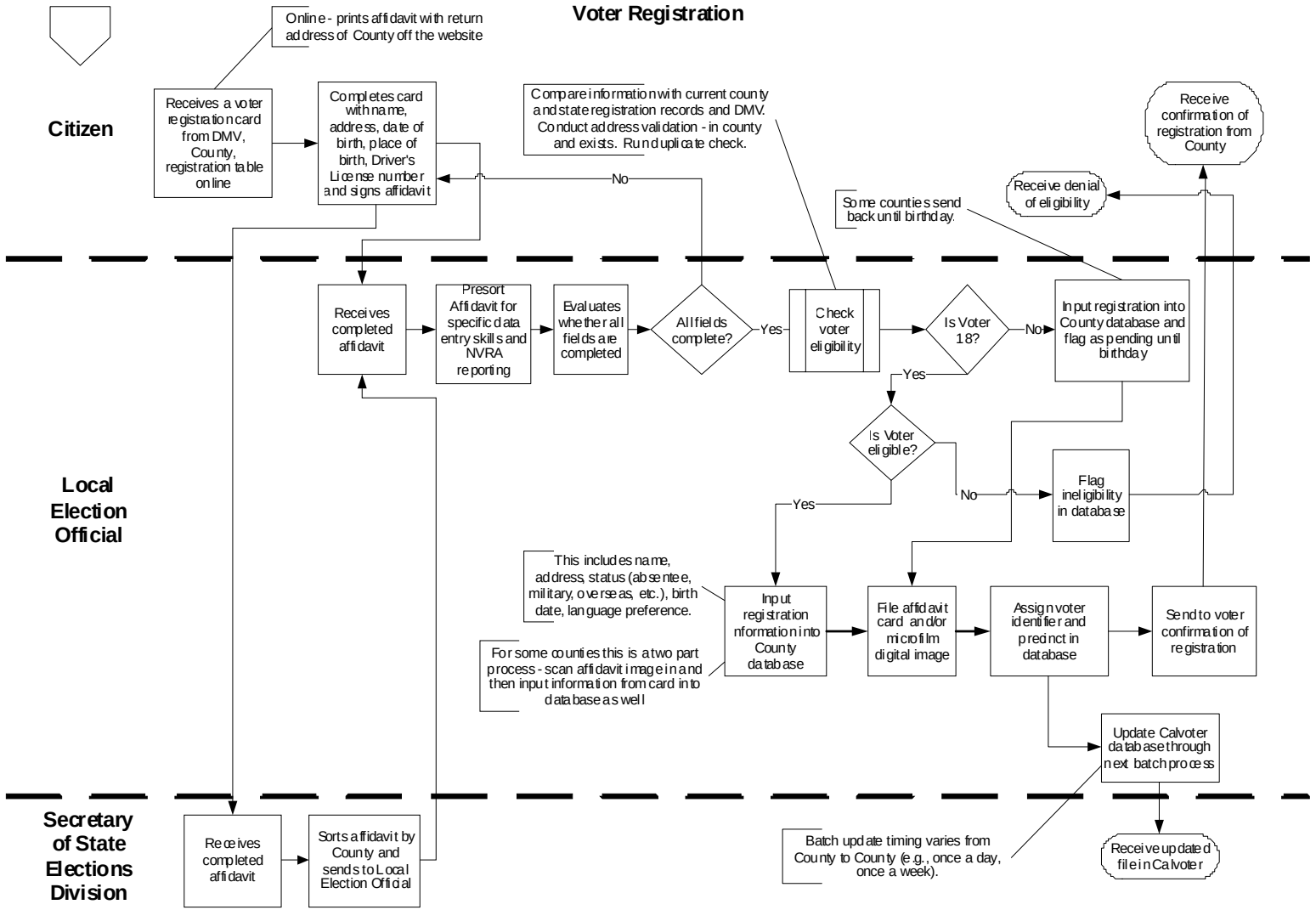
4.1 Current Voter Registration Process

The registration process begins with the individual voter completing and signing an affidavit of registration and delivering it to the county elections officials' staff or the SOS by any of several delivery mechanisms, including:

- Personal delivery to the county elections officials' staff or the SOS (SOS delivers to appropriate county);
- USPS delivery to the county elections officials' staff or the SOS (SOS delivers to appropriate county);
- Third-party delivery by registration drive or political campaign staff;
- DMV delivery to SOS per program mandated by NVRA (SOS delivers to appropriate county);
- Registration at federal, state and local agencies providing food stamps, services to the disabled, or through the Temporary Assistance for Needy Families (TANF), Women/Infants/Children (WIC) programs or delivery to SOS (SOS delivers to appropriate county); and
- Alternative mail delivery services.

The following Figure 3.2 depicts the typical steps involved in the voter registration process.

Figure 3.2 – Current Voter Registration Process



4.2 Voter Registration List Maintenance Process

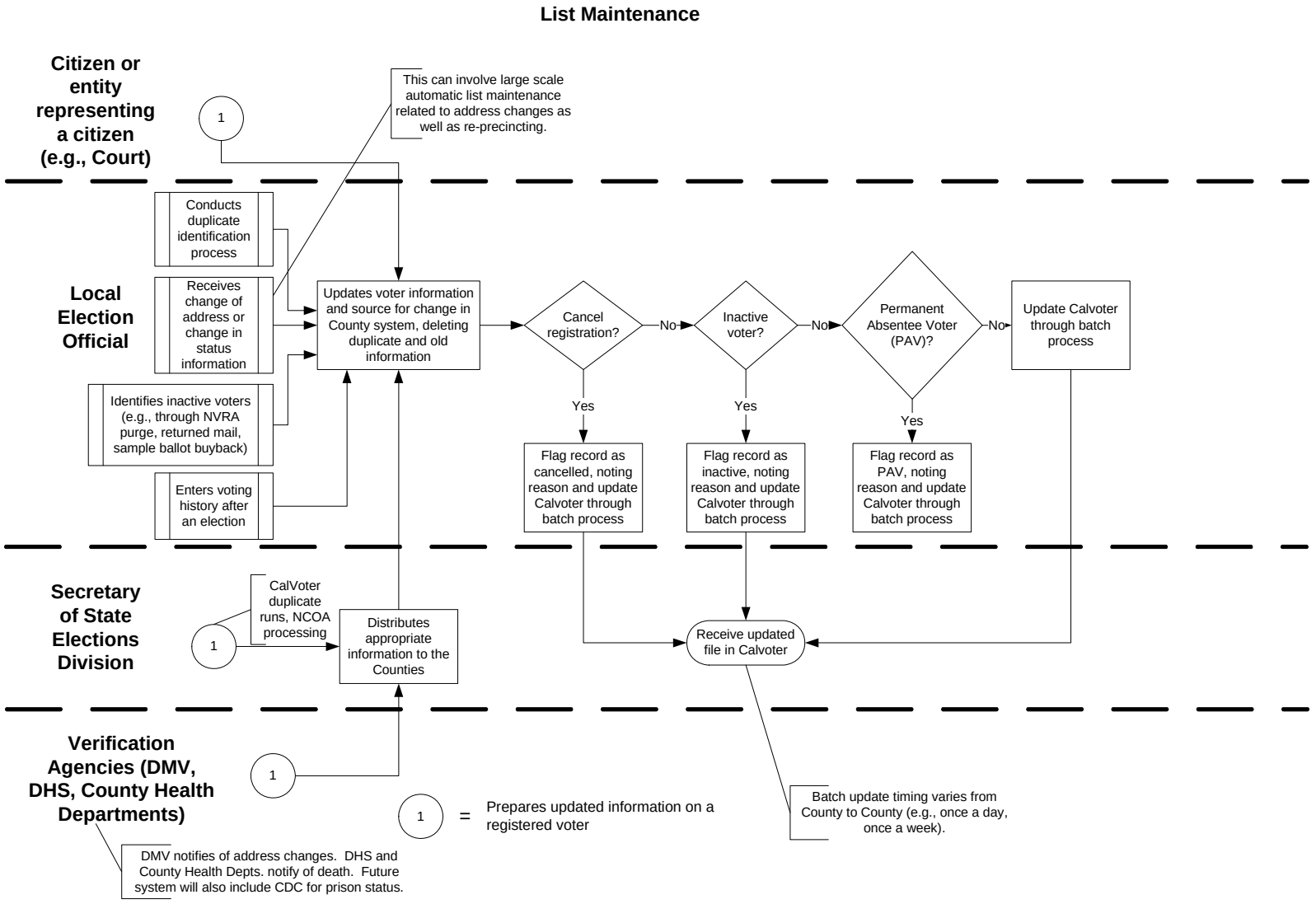
Duplicate, changed, and invalid registrations are identified by election management systems (EMS') and Calvoter using any or all of the following means:

- Residency confirmation mailings;
- Use of the NCOA information by county elections officials' staff provided by the USPS;
- Notification from CDPH and/or the county Registrar of Births and Deaths of the death of a registrant;
- Change of address notification and other voter information from DMV and other state and federal agencies as designated under the NVRA;
- Notification from other jurisdictions that a voter has reregistered in a new location;
- Direct notification from individual voters that they have moved to another jurisdiction or otherwise changed their registration information;
- Notification from CDCR and federal courts of individuals convicted of felonies and sentenced to prison; and
- Receipt of any official mailing returned by the USPS as undeliverable.
- Note that for the purpose of Recovery, SOS is limiting the interfaces to the DMV interface only.

Batch processes are used to transfer data files from DMV, CDCR, EDD, and CDPH to the Calvoter system and then to convert the files from their native formats to an acceptable format for further processing by the Calvoter application. The Calvoter system then attempts to match each record against existing records in the Calvoter database. The records are parsed into files for the appropriate county together with the registration ID of any matching registrants that are found. These files from the Calvoter database are then transferred to the counties via a batch process where counties must evaluate the notices and make appropriate changes to their voter registration records.

The following Figure 3.3 depicts the typical steps involved in the voter registration list maintenance process. Actual activities may vary by county implementation.

Figure 3.3 – Current List Maintenance Process

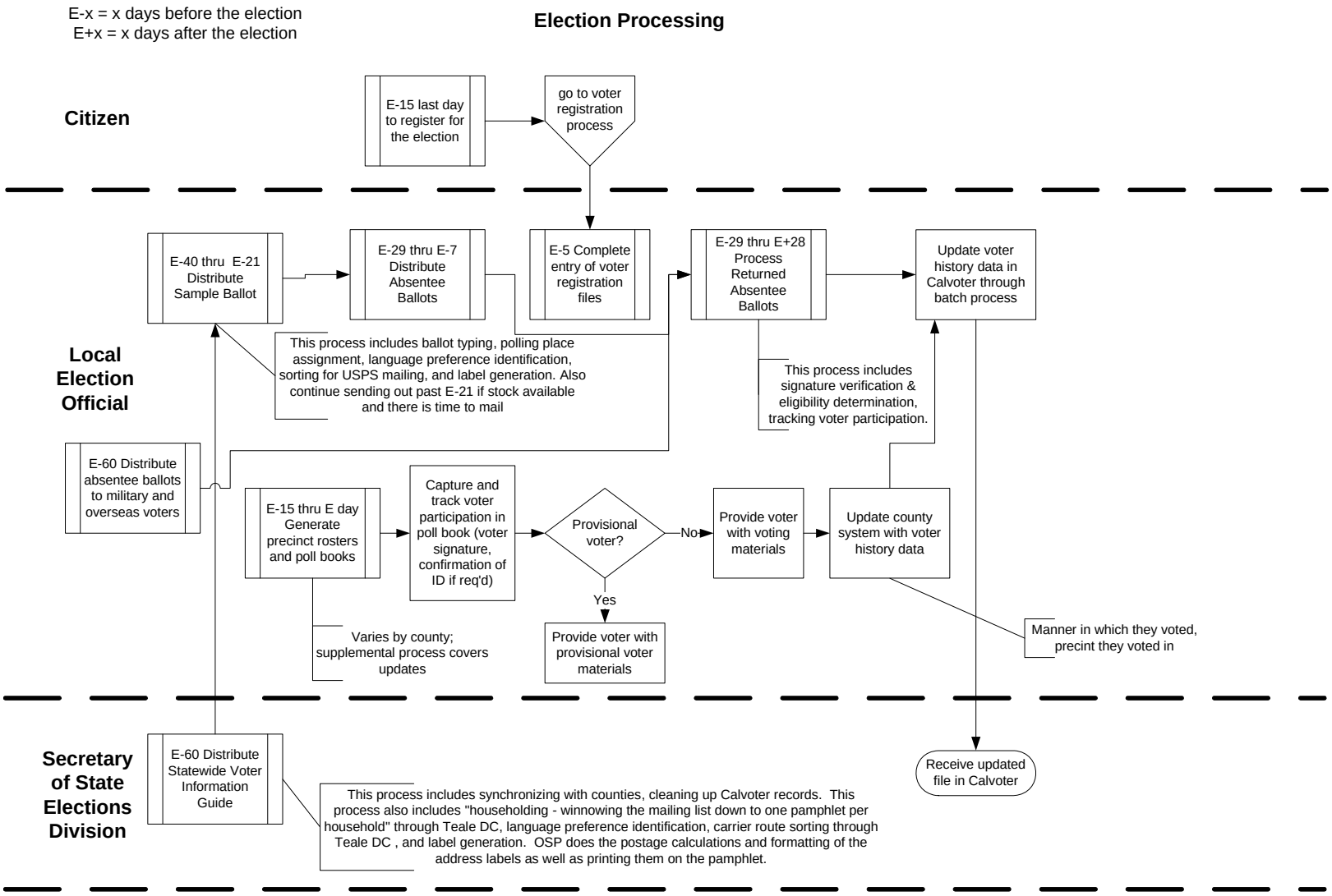


4.3 Election Processing Activities

Voter registration information is critical to election processing activities conducted by the State and County election officials. This information must be made available to election officials twenty four (24) hours a day, seven (7) days a week during critical election cycles that require the mailing of voter information guides and ballot materials, printing of precinct rosters and poll books, processing of absentee ballots, and tracking of voting history.

Figure 3.4 depicts the typical steps involved in the election processing activities that most directly relate to the voter registration data. Actual activities may vary by county implementation.

Figure 3.4 – Current Election Processing Process



5 POTENTIAL SOLUTIONS

5.1 Solution Alternatives

The vendors should determine viable solution alternatives to address the identified requirements. SOS intends to use the results from this RFI as a means to understand the vendor/product capabilities, and determine the scope of a backup and disaster recovery system for a later solicitation for these services. The following factors apply:

a. During Phase V and VI of the VoteCal project (Pilot and Rollout to all counties); the current Calvoter Database will remain the database of record. At various stages of transition, some counties will be using VoteCal, and some are still on Calvoter. The SI vendor for the VoteCal project will have developed a synchronization process such that newly updated data from counties that have transitioned to VoteCal will be synchronized back to the Calvoter database at least every 24 hours.

b. Should a disaster occur during either the Pilot or Rollout phases of the VoteCal project, the BRDR Vendor is required to restore to operational status both VoteCal and the synchronization process with Calvoter. SOS is responsible for restoring Calvoter and notifying the BRDR that the synchronization process can continue.

c. When VoteCal is officially designated as the database of record at the end of the VoteCal project (Currently projected in spring 2015), then disaster recovery will no longer include this synchronization process, because Calvoter will be discontinued.

The project team has no pre-defined notion of a potential solution. Vendors should include satisfaction of the following requirements in conjunction with their own experience on what a robust backup, restore and disaster recovery solution entails:

1. Provide the ability to capture and store data and applications through an interface, or other defined process

2. Suggested options for such an interface, including addressing the need for a high degree of security on the transmission of data and applications

3. The ability to provide the backed up information so that the SI vendor can restore the VoteCal system and make its applications and data available to SOS authorized users remotely over secure transmission lines.

4. Provide the capability to run the VoteCal system at the BRDR Vendor site for an indeterminate length of time not to exceed 1 year.

5. Provide a restored system that meets all business, technical and performance requirements of the VoteCal System with the exception that interfaces to external systems are limited to the county EMS' and DMV.

6 RESPONSE REQUIREMENTS

6.1 Response Delivery

Please submit an electronic version of the response by no later than **Monday, July 2, 2012**. Responses may be e-mailed to Contract.services@sos.ca.gov

Additionally, one (1) Printed copy of the response should be sent to the following address:

Secretary of State
Attn: Contract Services
1500 11th Street, Room 460
Sacramento, CA 95814

When submitting responses via e-mail, the State assumes no responsibility if the entire response is not received prior to the response submittal deadline that may be blocked by the SOS e-mail filter. Please note the SOS will not confirm receipt of the responses or if any attachments can be opened that have been submitted by e-mail.

This RFI remains the property of SOS at all times, and all responses to this RFI, once delivered, become the property of SOS.

6.2 RFI Questions and Clarifications

Any questions and requests for clarification of this RFI should be directed to:

Secretary of State Contract Services
1500 11th Street, Room 460
Sacramento, CA 95814
E-mail: Contractservices@sos.ca.gov

Questions are only accepted in writing, via fax, e-mail or posted to via this RFI advertisement on the California State Contract Register within E-Procurement, prior to Friday, May 25, 2012. SOS will provide responses to questions by June 1, 2012. SOS does not guarantee a response to all submitted questions.

6.3 Response Assumptions

None at this time

6.4 Response Format

To facilitate a timely and comprehensive analysis of all responses, request vendors only submit responses using the format requested in this RFI. Supplemental materials may be provided, but for the purposes of this RFI, supplemental information should be directed specifically at addressing the issues contained in this RFI.

Vendor responses should provide the information, in the following sequence:

1. Vendor Information and Relevant Experience
2. Company Headquarters and Contact Information
3. Regional or Local Offices
4. Lessons Learned
5. Description of Potential Solution
6. Description of Services
7. BRDR Vendor Description of Estimated Costs - Monthly charge to provide backup and disaster recovery services, and to restore the entire VoteCal system within:
    a. 8 hours
    b. 24 hours
    c. 3 - 5 days
    d. 14 days
8. Responses include these costs for the period when the BRDR Vendor must restore VoteCal and interface to Calvoter, and the cost of restoring VoteCal only.

6.5 Response Templates

The following RFI sections are guidelines for developing the RFI response and follow the sequence defined above.

6.5.1 Vendor Information and Relevant Experience

6.5.1.1 Company Headquarters and Contact Information

Complete the following information regarding your organization's headquarters and primary contact for any questions pertaining to your organization's responses to this RFI.

COMPANY HEADQUARTERS INFORMATION:	
Company Name:	
Address:	
City, State & Zip Code:	
Company Type (Check One):	☐Private ☐Public
Company Size:	(Total Number of Employees)

PRIMARY CONTACT INFORMATION:			
Name:		Title:	
Address:			
City, State & Zip Code:			
Phone:		Fax:	
E-mail:			

6.5.1.2 Regional or Local Offices

REGIONAL OR LOCAL OFFICE INFORMATION:			
Company Name:			
Address:			
City, State & Zip Code:			
Primary Contact:			
Phone:		Fax:	
E-mail:			

6.5.2 Description of Potential Solutions

Technical solutions proposed in response to this RFI should be described clearly. The use of diagrams is encouraged to illustrate how information will flow.

6.5.3 Description of Services

6.5.3.1 Testing and Training Services

Describe what your firm believes to be an effective testing and training approach and what training you would recommend to SOS for these services.

6.5.4 Description of Estimated Costs

6.5.4.1 Estimated Costs

SOS seeks to gain an understanding of the potential costs associated with a solution that meets stakeholder requirements. Indicate what your firm believes to be reasonable potential costs associated with implementing a system of this kind. SOS realizes that your estimates are based on limited information and will not be considered contractually binding. Please be advised that these estimates are for informational purposes only and will be used to guide the creation of the forthcoming financial approval and procurement documents.

Please complete the Cost Workbook at Appendix E. Feel free to add any comments regarding costs that you deem appropriate.

APPENDIX A – VOTECAL BUSINESS REQUIREMENTS

GENERAL BUSINESS REQUIREMENTS

Requirement	Description
VOTER REGISTRATION: Registrant Search	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.
VOTER REGISTRATION: Registration Processing	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. For voter registration transactions from the EMS, the county elections official's staff may optionally 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

Requirement	Description
	high-confidence match in response to a search, the county elections official's staff will enter all required data fields for a new transaction.
VOTER REGISTRATION: ID Verification	This is 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).
VOTER REGISTRATION: DMV Transactions	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, and also to be able to process new registrations from DMV, namely: Attempt to match the records received from DMV against existing voter registration records; Provide such matches to counties for appropriate processing; and Provide unmatched DMV COA transactions to the county for further research and possible match to a voter. Receive a digitized signature image
VOTER REGISTRATION: Voter Notification Cards (VNC)	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).

Requirement	Description
	As a potential cost saving measure, 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).
VOTER REGISTRATION: EMS-VoteCal Synchrony Verification	This requirement pertains 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.
LIST MAINTENANCE: Record Matching and Merging	This requirement focuses 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."
LIST MAINTENANCE: Duplicate Identification	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.
LIST MAINTENANCE: Pre-Election Residency Confirmation Postcards (RCPs)	VoteCal must allow for data extracts to be generated for residency confirmation postcard mailings in accordance with EC §§ 2220 thru 2224.
LIST MAINTENANCE: Change of	When VoteCal receives third-party notice of a change of address, elections officials are required by law to follow up with postcard to the

Requirement	Description
Address Notification (CAN)	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.
VOTER ELECTION DATA: Official List of Voters	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.
VOTER ELECTION DATA	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)). 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.
PRECINCTS AND DISTRICTS: Precinct – District Mapping	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.
SOS PROCESSES: Political Party	VoteCal must have the capability to track voters' political party data in order to (a) determine voter eligibility with respect to a primary election;

Requirement	Description
Tracking	(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.
SOS PROCESSES: Report of Registration (ROR)	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. 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.
SOS PROCESSES: State Voter Information Guide (VIG)	This requirement pertains 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

Requirement	Description
	extract to a third party for mailing of the State Voter Information Guide.
SOS PROCESSES: Public Voter Registration Data Requests (PVRDR)	This requirement pertains to the need for VoteCal to support workflow and associated data related to investigation, evaluation and fulfillment of PVRDRs.
SOS PROCESSES: Jury Wheel Extracts	This requirement pertains to the need for VoteCal to support activities and associated data related to the evaluation and fulfillment of jury wheel requests.
SOS PROCESSES: Public Access Website	This requirement pertains to the need for VoteCal to provide online voter registration and self-service lookup of registration status and ballot status.
AFFIDAVIT ISSUANCE TRACKING	For fraud detection and prevention purposes, VoteCal must capture data related to the issuance of voter registration cards to individuals and organizations that conduct registration drives, relating the identifiers of issued affidavits to voter registration records.

DETAILED BUSINESS REQUIREMENTS

S1	DETAILED REQUIREMENTS & FEATURES	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'.
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 Vote Cal's automatic processes.	
S1.5	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. Otherwise, the interfaces may be interactive, or batch or both as appropriate to the Bidder's proposed solution.	
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.”
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. **Note**: 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.
	VOTER REGISTRATION: Registration Data
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.
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 Cal validator 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: • First name (full or initial); • Middle name (full name or initial); • Full last name (can include hyphenated last name); • Suffix (Sr., Jr., other generations); and • Previous name(s)

S2.4.1	VoteCal must capture and store the EMS voter ID for each voter.
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	VoteCal must provide for capture and storage of the following discrete data fields related to a voter's address: • House number; • House fraction number; • House number suffix (alphanumeric); • Two-character pre-directional code (e.g. S., SW) *; • Street name (alphanumeric); • Type (e.g. Street, Road, Lane) *; • Two-character post-directional code *; • Apartment or space number (alphanumeric); • Unit Type *; • City; • Zip *; • Zip plus four* (optional with respect to each voter); and • County. NOTE: * indicates code must conform to USPS standards
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: • Free-form data entry; • Fields long enough to meet US postal, foreign and military mail regulations; • Postal codes; and • Country code.
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: • Telephone number (up to four different numbers, including type and extension, as separate fields or records); • Gender; and • Email address.
S2.13	VoteCal must be capable of capturing and storing voter registration information that is optional on the California affidavit, including: • Name prefix; • Whether the voter wishes to exercise the permanent vote by mail option; and • Ethnicity/race (Refer to Bidder's Library, Calvoter and Cal validator Data Standards, for current codes for these fields.)
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 Cal validator Data Standards and Data Standards Tables (supplement to Calvoter and Cal validator 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 Cal validator 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: • Active; • Inactive; • Cancelled; and • Pending.
S2.18	VoteCal must capture, store and display the following identification information for each voter record: • The voter's California issued Driver's License or State Identification Card (CDL/ID) number if known or provided; • The DMV verification status of that number (e.g., verified, not-verified, or pending verification); and • If verified, the date verified.
S2.19	VoteCal must capture and store the following identification information for each voter record: • 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; • The Social Security Administration verification status of that number (e.g., verified, not-verified, or pending verification); and • If verified, the date verified.
S2.20	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.

S2.21	VoteCal must capture, store and display for voters who register by mail: • Whether or not the voter is a first-time voter, subject to the HAVA ID requirement (HAVA Section 303[b]); • Whether or not the voter has satisfied the ID requirement and, if so, how; and • If exempt from this requirement, the reason for that exemption.
S2.22	For each voter registration affidavit received, VoteCal must capture and store the following discrete data: • Affidavit number; • Execution date (from the affidavit); • Date the affidavit was received; and • Effective date of registration for the affidavit; and • The voter registration record that was created or updated based on data in the affidavit.
S2.23	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.
S2.23.1	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.
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 a maximum of one hundred (100) free-form text comments and/or notes per voter record with a size of five hundred (500) characters per comment or note.

S2.27.1	VoteCal must be scalable to store a maximum of 200 hundred (200) free-form text comments and/or notes per voter record, with a size per comment or note of one thousand (1,000) characters.
S2.27.2	During entry and editing of comments in a voter record, VoteCal must display a warning that all comments and notes are a matter of public record.
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 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: *(see 2.30a through 2.30f below)*
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.
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.
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	VoteCal must provide the ability to automatically generate notices to confidential voters that their confidential status will expire unless renewed.
S2.33	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: • Category of qualification (e.g., uniformed services voter – domestic, uniformed services – overseas, non-military/civilian overseas voters); • Date and method of registration (e.g., state VRC, federal VRC, Federal UOCAVA Registration/Vote-By-Mail application postcard); • 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 • If application was rejected, the reason for rejection and the date notice of rejection was sent to voter.
S2.34	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.
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	VoteCal must capture and store vote-by-mail voting status of each voter, including: • 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; • 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.); • Date application received; • Source of the application (how received); • Whether or not the application was accepted or denied; and • If denied, the reason for the denial.

S3	**VOTER REGISTRATION: Registrant Search**
S3.1	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: • Full or partial first name; • “Smart name” variances on first name; • Full or partial middle name; • Full or partial last name; • Soundex variations on last name; • Full or partial residence address; • Full or partial mailing address; • Full or partial telephone number; • Full or partial VoteCal assigned UID; • Full or partial CDL/ID; • Full or partial Registration affidavit number; • Full or partial SSN4; • Full or partial date of birth (DOB) • Place of birth; • Political party preference; • Precinct; and • Political district.
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	For any executed search, VoteCal must display the following information, at a minimum, for each match: • Full voter name; • UID; • Date of birth; • CDL/ID (if available); • SSN4 (if available); and • Residence address
S3.3	For any executed search, VoteCal must, upon user choice, display applicable detail for a presented match, including: • historic voter activity data; • historic voting participation data; • historic affidavit images and • historic signature images.
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.

S4	**VOTER REGISTRATION: Registration Processing**	**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.** **For voter registration transactions from the EMS, the county elections official's staff may optionally 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.** **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).** **The requirements do not include actions the county elections officials' staff would perform within the EMS.**
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.	
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.
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.)
S4.10	Once a UID is assigned to a voter record, VoteCal must record: • The basis for the assigned UID (CDL/ID, SSN4, auto generated); and, • Voter status, according to configurable business rules. (See Bidder's Library, Current Business Rules, for currently known business rules.)

S4.10.1	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.)
S4.11	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.
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.

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).**
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.	
S5.3	VoteCal must automatically assign the record a unique ID (UID) based on the CDL/ID provided by the DMV if: • IDV verifies the provided CDL/ID as an exact match, *or* • IDV identifies a CDL/ID as a single exact match when no CDL/ID was provided, or when a different CDL/ID was provided.	
S5.4	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 Cal validator Data Standards, for more detailed information on the current version of the SOS-approved algorithm.)	
S5.5	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.	

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.
S5.8	VoteCal must automatically generate a unique ID (UID) for the record based upon an SOS-approved algorithm for SSN4-based UIDs if: • The IDV verifies the SSN4 as a single exact match or multiple exact match; and • The IDV does not identify a CDL/ID as a single exact match when no CDL/ID was provided. (Refer to the Bidder's Library, Calvoter and Cal validator Data Standards, for more detailed information on the current SOS-approved algorithm.)
S5.9	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 Cal validator Data Standards, for more detailed information on the current SOS-approved algorithm.)
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: • Reassign an appropriate UID to the voter registration record; and • 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).	
S6	**VOTER REGISTRATION: DMV Transactions**	**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:** • **Attempt to match the records received from DMV against existing voter registration records;** • **Provide such matches to counties for appropriate processing; and** • **Provide unmatched DMV COA transactions to the county for further research and possible match to a voter.** **The existing interface with DMV will need to be modified or supplemented to accept digitized signature images as well.**
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	VoteCal must receive digitized signature images from the DMV for individuals represented in DMV's transmitted address change data.	
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.)	

S6.3	For matches of DMV COA transactions against existing voter registration records that meet or exceed the established confidence threshold, VoteCal must automatically: • Update the existing voter registration record with the new voter registration data received from DMV; and • Update the voter activity history with the basis for registration changes.
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: • Record that information, including the basis for determination, in the voter activity history of the matched voter; and • Update the existing voter registration record with the new voter registration data received from DMV.
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.

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.	
S7	**VOTER REGISTRATION: Voter Notification Cards (VNC)**	**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).**
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.	

S8	**VOTER REGISTRATION: EMS-VoteCal Synchrony Verification**	**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	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 data to be compared are: • Voter registration data other than images, including voter activity history and voter participation history; • For affidavit and signature images (including historical images), the image file name, date created and date modified; and • Precinct and political district data.	
S8.2	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: • Date of transaction for the differing data • Registration date on the record • CDL/ID • UID • Date of birth • Registration status • Transaction error code • Electronic notice type • Electronic notice date • Electronic notice status	

S9	**LIST MAINTENANCE: Record Matching and Merging**	**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."** **Though this section is called upon in Section 4: Registration Processing and matching is referenced in S6: DMV Transactions and other List Maintenance requirements sets, the focus in S9 is the specification of the matching processes and the merge and unmerge processes.**
S9.1	VoteCal must include a user-configurable method for authorized SOS administrators to: • Establish sets of registration record matching criteria; • 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.); • Assign "confidence" levels to each criteria set as it applies to each matching function; and • Establish threshold confidence levels required for manual or automatic application of matches for each matching function.	

S9.2	VoteCal must allow SOS authorized administrators to establish one or more bases for matching data in a registration record field, including (where applicable): • Exact character match; • First “X” characters of the field (where “X” is user configurable); • Same characters and order in string, but with spaces and punctuation removed; • Soundex match (or alternative method based on phonetic pronunciation); • “Smartnames” match based on common variations of First Name established by authorized SOS administrators (e.g., Robert = Bob, Bobby, Rob); • “X” matching characters within string; and • Same month and year.
S9.3	VoteCal must allow SOS authorized administrators to identify a set of matching criteria based on combinations of individual field match settings, such as: • First Name- with “Smartnames”; Last Name- first 4 characters; and Date of Birth- same day and month; or • CDL/ID exact match; First Name- with “Smartnames”; Last Name- with Soundex.
S9.4	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: • Registrant searches for purposes of pre-populating a voter record; • Registrant searches for list maintenance and research purposes; • Searches for an existing record based on the UID; • Duplicate registration checks; • DMV transaction processing; • Death record matching; and • Felon record matching.
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	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: • Previously verified matches; • Previously verified non-matches; and • Previously identified potential matches pending determination.
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.

S10	**LIST MAINTENANCE: CDPH Death Records**	**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: • Cancel the voter's registration; • Record the basis for that cancellation in the voter's activity record; and • Send an electronic notice to the appropriate county of the cancellation and its basis.	
S10.4	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: • Note the potential match in the voter's record; and • Send electronic notice to the appropriate county of the potential match for investigation and resolution.	
S10.5	VoteCal must allow an authorized county user to enter a determination of the validity of the potential match (valid or invalid).	

S10.6	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.)	
S10.7	Requirement S10.7 has been deleted.	
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.	
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).
S11.3	For matches with new CDCR records that meet or exceed the established confidence threshold, VoteCal must automatically: • 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 • Record the basis for that change in the voter's activity record.
S11.4	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.
S11.5	VoteCal must provide the ability for an authorized county user to enter a determination that the potential match is valid.
S11.6	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.
S11.7	Requirement S11.7 has been deleted.
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.

S12	**LIST MAINTENANCE: Duplicate Identification**	**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.**
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.	
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.	
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.	

S13	**LIST MAINTENANCE: NCOA**	**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.**
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.	
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	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: • Update the (residence or mailing) address of the registrant; • Note in the activity history for that registrant that the record was updated because of NCOA match; and • Flag the record for automatic generation and mailing of a Change of Address Notice (CAN) in accordance with EC §2225.	

S13.6	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: • Determine the status of the registrant in accordance with configurable business rules (documentation of current business rules is available in the Bidder's Library); • Note in the activity history for that registrant that the record was updated because of NCOA match; and • Flag the record for automatic generation and mailing of a CAN in accordance with EC §2225.
S13.7	When an NCOA address update has been determined to be valid where the voter has no forwarding address, VoteCal must automatically: • Determine the status of the registrant in accordance with configurable business rules (documentation of current business rules is available in the Bidder's Library); • Note in the activity history for that registrant that the record was updated because of NCOA match; and • Flag the record for automatic generation and mailing of a CAN in accordance with EC §2225.
S14	**LIST MAINTENANCE: Pre-Election Residency Confirmation Postcards (RCPs)** — **VoteCal must allow for data extracts to be generated for residency confirmation postcard mailings in accordance with EC §§ 2220 thru 2224.**
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.

S15	**LIST MAINTENANCE: Change of Address Notification (CAN)**	**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.**
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.	
S16	**VOTER ELECTION DATA: Official List of Voters**	**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.**
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.	
S17	**VOTER ELECTION DATA**	**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)).** **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.**

S17.1	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: • State defined code for the election; • Election date; • Voting precinct; • How voted (vote-by-mail, early, polling place, or provisional); and • Partisan ballot voted (for primary elections).
S17.2	Prior to an election, VoteCal must receive data from the EMS that enables a user to determine the following data for each registered voter: • Voting precinct assignment for the election; and • Polling place assignment for the election
S17.3	VoteCal must capture and store the following vote-by-mail data for registered voters for every election: • Date that a voter was mailed a vote-by-mail ballot; • Manner in which the vote-by mail ballot was transmitted to the voter; • When the vote-by-mail ballot was received by the elections official; • Method of return of vote-by-mail ballot (e.g., mail, fax, etc.); • Form of voting (e.g., county issued vote-by-mail ballot or federal write-in vote-by-mail ballot); • Whether the ballot was accepted or rejected; and • If rejected, the reason for that rejection.
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.

S18	**PRECINCTS AND DISTRICTS: Precinct – District Mapping**	**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.**
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.	
S18.2	VoteCal must validate updates to precinct-district mapping against configurable data validation standards. (See Bidder's Library, Calvoter and Cal validator 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).	

S19	**SOS PROCESSES: Political Party Tracking**	**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: • SOS assigned party code (refer to the Bidder's Library for codes for currently recognized parties); • Whether or not the party is Qualified, Attempting to Qualify, or Non-Qualified; • Date of all changes in party status (Qualified/Non-Qualified/Attempting to Qualify; • Reason for such changes (if applicable); and • Current state party contact information.	

S20	**SOS PROCESSES: Report of Registration (ROR)**	**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.** **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.** **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).**
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.	
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.
S20.6	VoteCal must support calculation and production of the following summary statistics for ROR component reports: • Registration By County • Registration By Political Bodies Attempting To Qualify • Registration By Congressional District • Registration By Senate District • Registration By Assembly District • Registration By Board of Equalization District • Registration By County Supervisorial District • Registration By Political Subdivision By County (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'.

S20.8	VoteCal must provide an authorized SOS Administrator the ability to: • Manually initiate a query to extract specified ROR data elements as of a specified ROR Date; • Specify the file format for the resulting extract file in accordance with authorized file formats; and, • Specify the SOS internal network drive location to which the extract file should be output/stored. (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.)
S21	**SOS PROCESSES: State Voter Information Guide (VIG)** — **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.**
S21.1	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.)
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.

S22	**SOS PROCESSES: Public Voter Registration Data Requests (PVRDR)**	**Requirements below pertain to the need for VoteCal to support workflow and associated data related to investigation, evaluation and fulfillment of PVRDRs.**
S22.1	VoteCal must allow authorized SOS administrators and authorized county users to input, track and review Public Voter Registration Data Requests (PVRDRs), including: • Requestor name; • Requestor ID number and type; • Requestor organization; • Requestor residence and business addresses; • Requestor contact information (phone, fax, email addresses); • 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; • Requestor's stated purpose/use for the data; • Date of application; • Date application received; • Basis for qualification (election, party, academic, journalist, etc.); • Date of application fulfillment or denial; • Status of application; • Criteria used to select/exclude records for the extract; and • Filename(s) and number of records provided in the extract. (See Exhibit VI.2 – VoteCal Standard Reports, for additional description of the PVRDR.)	

S22.2	VoteCal must allow authorized users to log the following items related to processing and fulfillment of a PVRDR: • Date the event occurred • Time the event occurred • Free-form text note, with a maximum of (100) characters per PVRDR and scalable to one hundred (200) characters per PVRDR, of activities and events
S22.3	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: • County of residence; • City of residence; • Zip code(s); • Home precinct; • Political party affiliation; • Current or historic date of registration; • Age (before or after a specified date of birth, or within a specified range of dates of birth); • Gender; • Language preference; • Voting participation history; and • Political district (such as Congressional District, State Assembly District, County Supervisorial District, etc.).

S22.4	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: • County of residence; • Full name; • Residence address; • Mailing address; • Party affiliation; • Phone numbers; • Email address; • Language preference; • Gender; • Home precinct; • Effective date of registration; • Date of birth; • Place of Birth; • Registration status; and • Registration method.
S22.5	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: • Voter registration data (all fields identified in S22.4); and • 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). 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.

S22.6	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: • Voter registration data (all fields identified in S22.4); and • Political districts to which each voter is assigned. 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.
S22.7	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.
S22.8	VoteCal must provide the ability to record the salted record(s) associated with each PVRDR.
S23	**SOS PROCESSES: Jury Wheel Extracts** — **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	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: • County of residence; • City of residence; • Political district (such as Congressional District, State Assembly District; County Supervisorial District, local school district, etc.). (See Bidder’s Library, Calvoter and Cal validator Data Standards, for current state and federal districts and associated codes.)

S23.2	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 39th record after record #17).
S23.3	VoteCal must provide the ability for authorized SOS administrators to track requests for Jury Wheel Extracts (JWEs), including: • Requestor name and contact information; • Requestor address; • Requestor specifications for the extract; • Date of request; • Date request received; • Date request fulfilled (or denied); and • Filename and number of records in the extract.

S24	**SOS PROCESSES: Public Access Website**	**Requirements listed below pertain to the need for VoteCal to provide online voter registration and self-service lookup of registration status and ballot status.**
S24.1	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.	
S24.2	The VoteCal public website must allow a voter to determine: • Whether he or she is registered to vote; • Whether he or she has requested not to be mailed the Voter Information Guide; • Whether or not voter is registered as a permanent vote-by-mail or one-time mail ballot voter; and • Political party preference.	
S24.3	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.	
S24.3.1	The VoteCal public website must allow a voter to determine: • His or her eligibility to vote in an upcoming election; • His or her voting precinct for an election; and • His or her polling place for an election.	
S24.3.2	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.	
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	VoteCal must refresh 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), within two (2) hours of receipt of new data from a county EMS.
S24.6.2	VoteCal must allow an authorized SOS administrator to override the automatic data refresh described in S24.6.1, by executing one of the following options: • Authorized administrator-initiated refresh on an ad hoc basis for one or multiple counties; and • Setting of a refresh frequency whereby VoteCal applies any and all available data updates from counties every X number of hours, where X is configurable by an authorized SOS Administrator.
S24.7	The data that are accessible and queried through the VoteCal public access website must not change during a user's execution of a query.
S24.8	All VoteCal web pages and functions provided to meet these requirements 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. (SOS will be responsible for providing the required translations.)
S24.8.1	VoteCal must be scalable and extensible to support web pages and public access website functions in a total of twenty one (21) languages (English plus twenty (20) other languages).

S25	**AFFIDAVIT ISSUANCE TRACKING**	**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.**
S25.1	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: • The name and contact information for the person who requested the affidavits; • The name of the requesting organization if any; • The date of issuance of blank affidavits; • The date of edit or correction to a record of issuance of blank affidavits; • The date of return of blank affidavits from a prior issuance; and • The number range of affidavits issued or returned.	
S25.2	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: • The name and contact information for the person who requested the affidavits; • The name of the requesting organization if any; • The date of issuance of blank affidavits; • The date of edit or correction to a record of issuance of blank affidavits; • The date of return of blank affidavits from a prior issuance; and • The number range of affidavits issued or returned.	
S25.3	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.	

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.	
S25	**AFFIDAVIT ISSUANCE TRACKING**	**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.**
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S25.3	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.
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.

APPENDIX B – VOTECAL TECHNICAL REQUIREMENTS

Req. #	Technical Requirement Text
T1	**SECURITY AND PASSWORDS**
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 recognize United States federal and California state government security standards and practices including system hardening, security in-depth and utilize diversity of design.
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.

Req. #	Technical Requirement Text
T2	**INTERFACES**
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.
T3	**SYSTEM AVAILABILITY AND BACKUP/RECOVERY**
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
T3.6	VoteCal systems must be supportable by the existing physical facilities and environment (e.g., existing and projected available electrical capacity, HVAC, etc.) at the Secretary of State office and data center except the Bidder may specify **minor** augmentation and/or revisions to existing SOS facilities and physical environment in the Bidder's proposal if required to support the Bidder's proposed VoteCal solution in response to this requirement (and requirement P11 – VoteCal Architecture. If the Bidder is awarded the Contract, SOS will make such **minor** changes as described in the proposal in compliance with appropriate State policies and procedures and within a timeframe that is mutually acceptable to SOS and the Contractor and which allows sufficient time for securing DGS approvals for such **minor** changes (if needed). Existing load on the facility's uninterruptible power supply (UPS) is at 68%. If addition of VoteCal to the facility increases load beyond 70%, Bidder must propose augmentation of the UPS. (See the Bidder Library for general information on physical facilities and operating parameters.)
T4	**PERFORMANCE AND CAPACITY**
T4.1	Deleted
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.
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.

Req. #	Technical Requirement Text
T4.1.3	Requirement T4.1.3 is deleted effective Addendum #8.
T4.1.4	Requirement T4.1.4 is deleted effective Addendum #8.
T4.1.5	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: • 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; • 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); • Six hundred (600) online registrations (creating and updating voter registration data through the public access website) per ten (10) second period; • Twenty (20) ongoing executions of pre-defined reports, extracts, and ad hoc reports/queries; • 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 • Forty (40) ongoing EMS-VoteCal synchronization processes.

Req. #	Technical Requirement Text
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.
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 a maximum of fifty (50) affidavit images and fifty (50) 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 a maximum of fifty (50) pages of attached documents 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
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.
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.

Req. #	Technical Requirement Text
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.
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 except 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
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.
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.

Req. #	Technical Requirement Text
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.
T4.18	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: • 90% of the searches complete in less than one (1) second; • 98% of the searches complete in less than two (2) seconds; and • 100% of searches complete in less than (5) seconds,

Req. #	Technical Requirement Text
T4.18.1	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: • 80% of the searches complete in less than three (3) seconds; • 90% of the searches complete in less than five (5) seconds; and • 98% of the searches complete in less than eight (8) seconds.
T4.18.2	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.
T4.18.3	VoteCal must enable an authorized SOS administrator to override the automatic termination of searches that do not complete within ten (10) seconds.
T4.19	Requirement T4.19 has been deleted.
T4,20	VoteCal must provide the capability to retrieve archived audit log data within 48 hrs.

Req. #	Technical Requirement Text
T5	**PUBLIC INTERNET ACCESS**
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.
T6	**NETWORK**
T6.1	No VoteCal function except the public access website may be accessible over the Internet.
T6.2	VoteCal must utilize the existing SOS network wide-area-network (WAN) for connectivity between the central site, county nodes, and other interfaces. Bidder must propose any changes to WAN Hardware, Software or configuration management components as part of the solution. If awarded the Contract, Bidder must supply any changes to the WAN at its own expense, and must provide for the maintenance of the changes at its own expense – excluding one-time and monthly telecommunications costs and administrative support for WAN Hardware, Software and configuration management components – 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. (WAN and LAN network summaries can be found in the Bidder's Library, Network summary.)

Req. #	Technical Requirement Text
T6.3	VoteCal must utilize the existing SOS local-area-network (LAN) for connectivity between VoteCal components and the existing SOS infrastructure. Bidder must propose any changes to Hardware, Software or configuration management components as part of the solution. If awarded the Contract, Bidder must supply any changes to SOS LAN components at its own expense, and must support the additions at its own expense – excluding administrative support for LAN Hardware, Software and configuration management components – 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. (WAN and LAN network summaries can be found in the Bidder's Library, Network summary.)
T7	**AUDITING REQUIREMENTS**
T7.1	VoteCal must log all attempts by authenticated intranet users to access voter registration data. Such system logs must contain sufficient information for authorized administrators to reliably reconstruct the chain of events and track them back to a specific user.
T7.2	VoteCal must capture and store for all changes of data, the following information for audit and review, including: • Data that was changed; • Prior value of the data before the change; • Date and time of the change; • Source of the change (including jurisdiction, and originating user account where known to the system); and • For changes from automated matching processes, the basis and confidence value of the match.

Req. #	Technical Requirement Text
T7.3	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.
T7.4	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.
T8	CODING AND ERROR HANDLING REQUIREMENTS
T8.1	1.1 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: • Date/time; • User name; • Stack trace information; • Module/source; and • Error description.
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
T8.4	*VoteCal user interfaces must provide user error messages that clearly communicate the following to the user:* • Simple, clear explanation of the error; • 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 • Action that the user should take in order that will most directly and immediately correct the error (if applicable).
T8.5	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.
T8.6	VoteCal must provide a user interface for authorized SOS administrators to configure • the specific events for which alerts will be provided; • for each event, the administrator(s) and/or staff who will receive an alert; and • 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.).
T9	REPORTING/QUERYING REQUIREMENTS
T9.1	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.

Req. #	Technical Requirement Text
T9.1.1	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.
T9.1.2	The VoteCal data extracted during execution of a report or query must not change during query execution.
T9.2	VoteCal must provide views (virtual tables) to support creation and execution of ad hoc queries and reports.
T9.3	VoteCal must allow authorized SOS users to save created ad hoc reports for later re-execution.
T9.4	VoteCal must provide execution-ready versions of the pre-defined reports identified in Exhibit VI.2 – VoteCal Standard Report Specifications.
T9.5	VoteCal must, for both ad hoc and pre-defined reports, allow the user to: • Preview/display the report on screen, instead of or prior to printing the report; • Print the entire report or user selected page(s) to a user selected printer in a local SOS network environment; and • Export the report data electronically to a user specified location, in multiple formats, including: Acrobat PDF, RTF, comma-delimited text file, and tab-delimited text file.
T9.6	For both ad hoc and 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 report to cancel execution prior to completion.

Req. #	Technical Requirement Text
T9.7	For both ad hoc and pre-defined reports, VoteCal must, at authorized SOS user option, include the report parameters and report date in report output.
T9.8	VoteCal must make all 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	VoteCal must provide an interface for allowing authorized users to retrieve executed report output.
T10	GENERAL TECHNICAL REQUIREMENTS
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.
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.

Req. #	Technical Requirement Text
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.
T10.6	VoteCal functions and features must conform to accessibility standards cited in • California Government Code Section 11135: • Section 508 of the United States Rehabilitation Act: and • Web Content Accessibility Guidelines 2.0 (W3C World Wide Web Consortium Recommendation WCAG 2.0 12/2008, Level A & Level AA Success Criteria).

Req. #	Technical Requirement Text
T10.7	Contractor must provide an automated problem-tracking tool to enable staff to report, track, monitor, and report on VoteCal operational and performance problems (e.g., defects and Deficiencies) detected, prioritized, and resolved during: • 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, • Ongoing VoteCal Production operations and maintenance supported by: o Contractor(s) staff, if SOS exercises optional M&O year(s) with Contractor for VoteCal Hardware and/or Software M&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, o SOS staff providing VoteCal Hardware and/or Software M&O support and services,

APPENDIX C – SAMPLE VOTECAL HARDWARE AND SOFTWARE LIST

VoteCal solution will be at the data center located at the California Secretary of State's Office. The tables referenced are broken down by system category to include the following classifications:

- Storage Area Network (SAN)
- Server Devices
- Network Devices
- Software Applications
- Uninterruptible Power Supply (UPS)

This table is notional only, but is provided to give vendors a basis upon which to develop their cost estimates.

Table A.1 Storage Area Network (SAN)

PART #	DESCRIPTION	QUANTITY
2858-A21	IBM System Storage N6070 Model A21	1
1029	4-Port 4-Gbps FC HBA	6
6051	CIFS	1
6057	SnapMirror	1
6061	SnapRestore	1
6072	NearStore	1
6074	SAN Bundle	1
6075	iSCSI Protocol	1
6082	Adv. Single Instance Storage	1
6098	SnapManager VI – Filer	1
6201	Data ONTAP	1
8052	ONTAP DSM for Windows MPIO	6
8053	ONTAP DSM Win MPIO Media Kit	6

PART #	DESCRIPTION	QUANTITY
8100	FCP Host Attach Kit – Win	6
8134	SnapManager/VI - Media Kit	1
9000	PDU Power Cord, 42U Rack	1
9557	Num. of FC Target Ports	8
9559	Num. of SATA Storage Loops	3
9560	Dual-path FC Cabling	1
2101-N00	IBM Storage Solutions Rack (36U)	2
7190	Two – iPDUs	2
7192	Two - Additional iPDUs	2
9854	Pwr Cords,1-ph NEMA L6-30	4
2861-001	IBM System Storage EXN1000 SATA Expansion	3
2010	SFP GBIC	6
2044	5.0 m FC Optical Cable	6
4016	1 TB SATA Drive	42
9000	PDU Power Cord, 42U Rack	3
2861-001	IBM System Storage EXN1000 SATA Expansion	15
2010	SFP GBIC	30
2042	1.0 m FC Optical Cable	15
4016	1 TB SATA Drive	210
9000	PDU Power Cord, 42U Rack	15
2870-584	IBM System Storage N6040 Licensed Functions 584	1
6051	CIFS	1
6057	SnapMirror	1
6061	SnapRestore	1

PART #	DESCRIPTION	QUANTITY
6072	NearStore	1
6074	SAN Bundle	1
6075	iSCSI Protocol	1
6082	Adv. Single Instance Storage	1
6098	SnapManager VI – Filer	1
6201	Data ONTAP	1
8052	ONTAP DSM for Windows MPIO	6
8053	ONTAP DSM Win MPIO Media Kit	6
8100	FCP Host Attach Kit – Win	6
8134	SnapManager/VI - Media Kit	1

Table A.2 Server Devices

PART #	DESCRIPTION	QUANTITY
88524YU	IBM eServer BladeCenter(tm) H Chassis with 2x2900W PSU UltraSlim Enhanced Multi-Burner	2
31R3335	IBM BladeCenter(tm) H 2900W AC Power Supply Modules	3
39Y9314	Multi-Switch Interconnect Module for IBM BladeCenter	6
43W4395	Cisco Catalyst Switch Module 3012 for IBM BladeCenter	12
39Y9284	Cisco Systems 4Gb 10 port Fibre Channel Switch Module for IBM BladeCenter	2
39Y9280	Cisco Systems 4Gb 20 port Fibre Channel Switch Module for IBM BladeCenter	2
41Y8596	Cisco Systems 4Gb Short-wave Length 4-pack SFP Module for IBM BladeCenter	3
25R5778	BladeCenter Redundant KVM/Advanced Management Module	3
25R5785	2.8m, 200-240V, Triple 16A IEC 320-C20	6

PART #	DESCRIPTION	QUANTITY
44W3981	IBM BladeCenter Open Fabric Manager	3
46C3551	IBM BladeCenter Open Fabric Manager – Advanced	1
7978B9U	x3550, Xeon Quad Core X5450 120W 3.0GHz/1333MHz/12MB L2, 2x1GB ChK, O/Bay 3.5in HS SATA/SAS, SR 8k-I, PCI-E Riser Card, Ultrabay Enhanced DVD-ROM/CD-RW Combo Drive, 670W p/s, Rack	3
44E5121	Intel Xeon QC Processor Model X5450 120W 3.0GHz/1333MHz/12MB L2	3
46C7418	2 GB (2x1GB kit) Single Rank PC2-5300 CL5 ECC Low Power	3
46C7419	4 GB (2x2GB kit) Dual Rank PC2-5300 CL5 ECC Low Power	3
40K1043	IBM 73GB 3.5in 15K HS SAS HDD	6
42C1780	NetXtreme II 1000 Express Dual Port Ethernet Adapter	3
39Y9566	Remote Supervisor Adapter II Slimline	3
32R2815	x3550 redundant power supply 670W	3
7995G6U	HS21 XM, Xeon Quad-Core E5450 80w 3.0GHz/1333MHz/12MB L2, 2x512MB, O/Bay SAS	10
43W3996	Intel Xeon QC Processor Model E5450 80W 3.0GHz/1333MHz/12MB L2	10
46C7419	4 GB (2x2GB kit) Dual Rank PC2-5300 CL5 ECC Low Power	20
43W7606	IBM Dual 15.8 GB 2.5-inch Solid State Drive	10
43W6859	Emulex 4Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter	10
44W4479	2/4 1GB Port Ethernet Expansion Card (CFFh) For IBM BladeCenter	10
7995G6U	HS21 XM, Xeon Quad-Core E5450 80w 3.0GHz/1333MHz/12MB L2, 2x512MB, O/Bay SAS	13
43W3996	Intel Xeon QC Processor Model E5450 80W 3.0GHz/1333MHz/12MB L2	13

PART #	DESCRIPTION	QUANTITY
46C7420	8 GB (2x4GB kit) Quad Rank PC2-5300 CL5 ECC Low Power	52
43W7606	IBM Dual 15.8 GB 2.5-inch Solid State Drive	13
43W6859	Emulex 4Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter	13
44W4479	2/4 1GB Port Ethernet Expansion Card (CFFh) For IBM BladeCenter	13
72332RU	x3850 M2, 2 x Xeon Quad Core E7420 90W 2.13GHz/1066MHz/8MB L3, 4x1GB, O/Bay HS 2.5in SAS, UltraSlim Enhanced SATA CD-RW / DVD-ROM Combo, 2x1440W p/s, Rack	8
44E4252	Memory Expansion Card	16
41Y2768	8GB (2x4GB) PC2-5300 CL5 ECC DDR2 667 LP RDIMM Memory Kit	64
43X0837	IBM Server 73GB 15 K SFF HS SAS HDD	16
43W4280	ServeRAID-MR10k SAS/SATA Controller	8
42C2071	Emulex 4 Gb FC HBA PCI-E Controller Dual Port for IBM System x	8
42C1780	NetXtreme II 1000 Express Dual Port Ethernet Adapter	8
72336RU	x3850 M2, 2 x Xeon Six Core X7460 130W 2.66GHz/1066MHz/16MB L3, 8x1GB, O/Bay HS 2.5in SAS, UltraSlim Enhanced SATA CD-RW / DVD-ROM Combo, 2x1440W p/s, Rack	1
44E4473	Intel Xeon Six Core Processor Model X7460 130W 2.66GHz/1066MHz/16MB L3	2
41Y2762	2GB (2x1GB) PC2-5300 CL5 ECC DDR2 667 LP RDIMM Memory Kit	4
41Y2771	4GB (2x2GB) PC2-5300 CL5 ECC DDR2 SDRAM RDIMM Memory Kit	4
43X0837	IBM Server 73GB 15 K SFF HS SAS HDD	2
43W4280	ServeRAID-MR10k SAS/SATA Controller	1

PART #	DESCRIPTION	QUANTITY
42C2071	Emulex 4 Gb FC HBA PCI-E Controller Dual Port for IBM System x	1
42C1780	NetXtreme II 1000 Express Dual Port Ethernet Adapter	3
93084EX	IBM 42U Enterprise Expansion Rack	1
93084PX	IBM 42U Enterprise Rack	1
71762MX	IBM Ultra Density Enterprise C19/C13 PDU+ Module (WW)	2
39M2816	IBM DPI C13 PDU+	2
39Y8941	IBM DPI C13 Enterprise PDU w/o Line Cord	4
40K9615	IBM DPI 60a Cord (IEC 309 2P+G)	4
40K9614	IBM DPI 30a Cord (NEMA L6-30P)	4
17233RX	1U 15in Flat Panel Monitor Console Kit w/o keyboard	1
40K5372	IBM Keyboard with Integrated Pointing Device- 3m Cable - Black - USB - US English	1
17353LX	IBM 1x8 Console Switch	1
39M2895	NetBAY 1.5m USB Conversion Option pack	4
25R5559	1U Quick Install Filler Panel Kit	5

Table A.3 Network Devices

PART #	DESCRIPTION	QUANTITY
WS-C3750G-24TS-E1U	Catalyst 3750 24 10/100/1000 + 4 SFP + IPS Image; 1RU	12
CAB-STACK-50CM	Cisco StackWise 50CM Stacking Cable	12
CAB-AC	Power Cord,110V	12
ASA5580-20-8GE-K9	ASA 5580-20 Appliance with 8 GE, Dual AC, 3DES/AES	2
CAB-US515P-C19-US	NEMA 5-15 to IEC-C19 13ft US	4

PART #	DESCRIPTION	QUANTITY
ASA5510-SEC-BUN-K9	ASA 5510 Security Plus Appl with SW, HA, 2GE+3FE, 3DES/AES	4
CAB-AC	Power Cord,110V	4
SF-ASA-8.0-K8	ASA 5500 Series Software v8.0	4
DS-C9124-0-K9	MDS 9124 4Gbps FC switch with 8 ports active	2
DS-9124-KIT-IBM	MDS 9124 Accessory Kit for IBM	2
CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America	4
DS-C24-300AC	MDS 9124 Power Supply	2
M9124PL8-4G=	MDS 9124 Port Activation Lic for 8 4Gbps Ports	4
ASA5510-SEC-BUN-K9	ASA 5510 Security Plus Appl with SW, HA, 2GE+3FE, 3DES/AES	58
CAB-AC	Power Cord,110V	58
SF-ASA-8.0-K8	ASA 5500 Series Software v8.0	58
ASR1002	Cisco ASR1002 Chassis,4 built-in GE, Dual P/S,4GB DRAM	1
SPA-2XOC3-POS	2-port OC3/STM1 POS Shared Port Adapters	1
SFP-OC3-SR	OC3/STM1 SFP, Single-mode fiber, Short Reach	1
SASR1R1-AISK9-24SR	Cisco ASR 1000 Series RP1 ADVANCED IP SERVICES	1
ASR1002-PWR-AC	Cisco ASR1002 AC Power Supply	2
CAB-AC-RA	Power Cord,110V, Right Angle	2
ASR1000-ESP5	ASR1K Embedded Services Processor,5Gbps,Crypto,ASR1002 only	1
SFP-GE-T	1000BASE-T SFP (NEBS 3 ESD)	2
ASR1000-SPA	SPA for ASR1000; No Physical Part; For Tracking Only	1
CISCO3925/K9	Cisco 3925 w/SPE100(3GE,4EHWIC,4DSP,2SM,256MBCF,1GBRDRA	1

PART #	DESCRIPTION	QUANTITY
	M,IPB)	
S39UK9-15001M	Cisco 3925-3945 IOS UNIVERSAL	1
SL-39-DATA-K9	Data License for Cisco 3925/3945	1
NM-1T3/E3	One port T3/E3 network module	1
SM-NM-ADPTR	Network Module Adapter for SM Slot on Cisco 2900, 3900 ISR	1
PWR-3900-AC	Cisco 3925/3945 AC Power Supply	1
PWR-3900-AC/2	Cisco 3925/3945 AC Power Supply (Secondary PS)	1
CAB-AC	AC Power Cord (North America), C13, NEMA 5-15P, 2.1m	2
3900-FANASSY	Cisco 3925/3945 Fan Assembly (Bezel included)	1
C3900-SPE100/K9	Cisco Services Performance Engine 100 for Cisco 3925 ISR	1
ISR-CCP-EXP	Cisco Config Pro Express on Router Flash	1
MEM-3900-1GB-DEF	1GB DRAM (512MB+512MB) for Cisco 3925/3945 ISR (Default)	1
MEM-CF-256MB	256MB Compact Flash for Cisco 1900, 2900, 3900 ISR	1
SL-39-IPB-K9	IP Base License for Cisco 3925/3945	1
CISCO2901/K9	Cisco 2901 w/2 GE,4 EHWIC,2 DSP,256MB CF,512MB DRAM,IP Base	57
S29UK9-15001M	Cisco 2901-2921 IOS UNIVERSAL	57
SL-29-DATA-K9	Data License for Cisco 2901-2951	57
HWIC-1DSU-T1	1-Port T1/Fractional T1 DSU/CSU WAN Interface Card	75
PWR-2901-AC	Cisco 2901 AC Power Supply	57
CAB-AC	AC Power Cord (North America), C13, NEMA 5-15P, 2.1m	57
ISR-CCP-EXP	Cisco Config Pro Express on Router Flash	57

PART #	DESCRIPTION	QUANTITY
MEM-2900-512MB-DEF	512MB DRAM for Cisco 2901-2921 ISR (Default)	57
MEM-CF-256MB	256MB Compact Flash for Cisco 1900, 2900, 3900 ISR	57
SL-29-IPB-K9	IP Base License for Cisco 2901-2951	57
CAB-CONSOLE-USB=	Console Cable 6 ft with USB Type A and mini-B	2
WAE-674-K9	WAE-674 with 4GB MEM and 3 300GB HDD included	1
WAAS-ENT-APL	Cisco WAAS Enterprise License for 1 WAE Appliance	1
SF-WAAS-4.1-SAS-K9	Cisco WAAS 4.1 s/w image for 674/7341/7371(Separate lic req)	1
RED-PWR-FAN-674	Redundant power and fan option for the WAE-674	1
WAE-INLN-4CG	Cisco WAE Inline Network Adapter	1
CAB-OEM-IBM-AC	AC Power Cord, United States	2
WAE-512-K9	Wide Area Application Engine 512, 1GB MEM, No HDD Incl.	1
SF-WAAS-4.1-SA-K9	Cisco WAAS 4.1 SATA SW image (separate license required)	1
WAAS-ENT-APL	Cisco WAAS Enterprise License for 1 WAE Appliance	1
DISK-SATA2-80GB	80 GB SATA-II Disk Drive for WAE-512	1
CAB-OEM-IBM-AC	AC Power Cord, United States	1
F5-BIG-GTM-1600-4G-R	BIG-IP Switch: Global Traffic Manager 1600 4GB ROHS	1
F5-BIG-LTM-1600-4G-R	BIG-IP Switch: Local Traffic Manager 1600 4GB ROHS	2
CPIS-IPS-M500F-US	Check Point IPS-1 Sensor 500 Fiber	2
CPIS-IPS-SMDF-M500	Check Point SmartDefense Services for IPS-1 Sensor 500 Annual Subscription	1

Table A.4 Software Applications

PART #	DESCRIPTION	QUANTITY
LSA-00339	Win Svr Ent w/o Hyper-V Sngl Lic/SA Pack MVL	18
P72-02472	Windows Svr Ent 2008 32-bit/x64 English Disk Kit MVL CD	1
LTA-00197	Win Svr Std w/o Hyper-V Sngl Lic/SA Pack MVL	14
P73-01780	Windows Svr Std 2008 32-bit/x64 English Disk Kit MVL CD	1
R18-00129	Windows Server CAL Sngl Lic/SA Pack MVL Device CAL	2000
228-04538	SQL Svr Standard Edtn Sngl Lic/SA Pack MVL	8
228-03147	SQL Svr Standard Edtn Sngl Lic/SA MVL 1 Proc Lic	2
228-08442	SQL Svr Standard Edtn 2008 English Disk Kit MVL DVD	1
810-04871	SQL Svr Enterprise Edtn Sngl Lic/SA Pack MVL	8
810-04413	SQL Svr Enterprise Edtn Sngl Lic/SA MVL 1 Proc Lic	4
810-07416	SQL Svr Enterprise Edtn 2008 English Disk Kit MVL DVD	1
359-00769	SQL CAL Sngl Lic/SA Pack MVL Device CAL	1
MUY-00214	SysCtr Mgmt Ste Ent Sngl Lic/SA Pack MVL	2
MUY-00014	Sys Ctr Mgmt Ste Ent 2007 English Disk Kit MVL DVD	1
121-00003	VStudioTeamSuiteAllLngLic/SAPackMVLw/MSDNPrem	1
H04-0023	Office SharePoint Server Sngl Lic/SA Pack MVL	1
76N-02439	SharePoint Enterprise CAL Sngl Lic/SA Pack MVL User CAL	50
MCT0983	Red Hat Enterprise Linux Advanced Platform Premium - Premium Subscription	5
OPM-SCS-PB	Quest Management Xtensions Operations Manager 2007 Edition – license	3
CIS-SCS-PB	Quest Management Pack for Cisco Operations Manager 2007 Edition – license	158
SERV-NES-	Nessus Annual ProfessionalFeed Subscription	1

PART #	DESCRIPTION	QUANTITY
01		
4817V72	VMware Infrastructure Standard - 2 Sockets License Only	2
51J8641	RTS for VMware - Standard 4 Sockets - 3yr	1
D5326LL	IBM Rational RequisitePro Floating User License + SW Subscription & Support 12 Months	5
N/A	JIRA Standard: Commercial License	1
00025795	VERISIGN UNIFIED AUTHENTICATION - OTP SOLUTION	1
00025799	UA IN-PREMISE VALIDATION CD KIT V 6.0	1
-	SECURITY CARD OTP FORM FACTOR	2000

APPENDIX D – CALVOTER HARDWARE, SOFTWARE AND CHARACTERISTICS LIST

Hardware in Support of Calvoter
2 Dell PowerEdge R710 Servers
Windows Server®2008SP2,ENTx64, Incl Hyper-V™,10 CALs,w/2008R2 Lic
PowerEdge R710 Shipping
64GB Memory (8x8GB), 1333MHz Dual Ranked RDIMMs for 2 Procs, Advanced ECC
Embedded NICs are TOE Ready with iSCSI Offload Enabled
Intel® Xeon® X5680, 3.33Ghz, 12M Cache,Turbo, HT, 1333MHz Max Mem
Intel® Xeon® X5680, 3.33Ghz, 12M Cache,Turbo, HT, 1333MHz Max Mem
146GB 15K RPM Serial-Attach SCSI 3Gbps 3.5in Hotplug Hard Drive
PERC H700 Integrated RAID Controller, 512MB Cache, x6
Performance BIOS Setting
2x Broadcom 5709 Dual Port 1GbE NIC w/TOE iSCSI, PCIe-4
iDRAC6 Enterprise
DVD+/-RW, SATA, Internal
Riser with 2 PCIe x8 + 2 PCIe x4 Slot
146GB 15K RPM Serial-Attach SCSI 3Gbps 3.5in Hotplug Hard Drive
RAID 1/RAID 10 for H700 or PERC 6/i Controllers
High Output Power Supply, Redundant, 870W
600GB 15K RPM Serial-Attach SCSI 6Gbps 3.5in Hotplug Hard Drive
600GB 15K RPM Serial-Attach SCSI 6Gbps 3.5in Hotplug Hard Drive
600GB 15K RPM Serial-Attach SCSI 6Gbps 3.5in Hotplug Hard Drive

Hardware in Support of Calvoter
600GB 15K RPM Serial-Attach SCSI 6Gbps 3.5in Hotplug Hard Drive

A single server will support the Calvoter Application. The 2nd server will support test and development systems.

Software in Support of Calvoter
The Calvoter front-end interface developed in PowerBuilder 7.0.3.
Microsoft SQL Server; and Data processing (modules written in .NET).
Database management software (DBMS): Oracle (v. 9i);
Data processing: modules written in Brio SQR
Front-end interface developed in PowerBuilder (PowerLock 5.0)

Internal and External Interfaces

The primary interface with counties is the exchange of batch data files in the Calvoter file formats via FTP transfer. The internal interfaces include the SOS Elections Division staff and the SOS ITD. Both divisions' responsibilities are listed in Table III.3 below. External interfaces include:

- Access by the fifty eight (58) counties to conduct file transfers;
- Data updates from CDPH and CDCR in order to help maintain the voter registration records;
- Data exchange with DMV to verify voter ID information (CDL/ID and the last four (4) digits of the SSN [SSN4]);
- Data exchange with EDD to compare registration records against the NCOA database; and
- Data exchange with DMV to update addresses on existing voter registration records for within county moves.

Table III.3 – Overview of Internal and External Interfaces

Internal	External
SOS Elections Division staff: • Use Calvoter to carry out their election-related responsibilities • Responsible for batch imports and exports, as well as data processing SOS ITD staff who are responsible for maintaining the Calvoter infrastructure	The 58 counties who use Calvoter through their county workstations
Files sent from counties to SOS	**Files sent to counties from SOS**
Voter registration changes (additions, corrections and deletions)	DMV change of address information
Voter participation history	CDPH death certificate information
Precinct to district mapping	NCOA address updates
Report of Registration statistics	CDCR potential felon notices
DMV-ID Verification Notices	Potential duplicate registrant notices
	DMV-ID Verification Notices
	Voter Registration data errors/deficiencies

For further details of Calvoter requirements and operations see Section III, Current Systems and Opportunities in the VoteCal RFP found at the following website: http://www.sos.ca.gov/elections/votecal/

APPENDIX E – RFI COST WORKBOOK (BACKUP AND DISASTER RECOVERY)

Please refer to the attached Appendix E Microsoft Excel Workbook.

Appen
Backup and Disaster R

dix E
Recovery Cost Workbook

Appendix E - Cost Workbook

Estimated Backup Cost	
Cost Category	**Total Project Cost by Category**
Software Leasing/Purchase Costs	
Implementation Costs	
Maintenance Costs - Base Contract	
Maintenance Costs - Optional Years up to Five	
Hardware Cost	
Other Costs	
Total Cost	**$0.00**

Appendix E - Cost Workbook

Estimated 8 hr Recovery Cost	
Cost Category	**Total Project Cost by Category**
Software Leasing/Purchase Costs	
Implementation Costs	
Maintenance Costs - Base Contract	
Maintenance Costs - Optional Years up to Five	
Hardware Cost	
Other Costs	
Total Cost	**$0.00**

Appendix E - Cost Workbook

Estimated 24 hr Recovery Cost	
Cost Category	**Total Project Cost by Category**
Software Leasing/Purchase Costs	
Implementation Costs	
Maintenance Costs - Base Contract	
Maintenance Costs - Optional Years up to Five	
Hardware Cost	
Other Costs	
Total Cost	**$0.00**

Appendix E - Cost Workbook

Estimated 3-5 Day Recovery Cost	
Cost Category	**Total Project Cost by Category**
Software Leasing/Purchase Costs	
Implementation Costs	
Maintenance Costs - Base Contract	
Maintenance Costs - Optional Years up to Five	
Hardware Cost	
Other Costs	
Total Cost	**$0.00**

Appendix E - Cost Workbook

Estimated 14 Day Recovery Cost	
Cost Category	**Total Project Cost by Category**
Software Leasing/Purchase Costs	
Implementation Costs	
Maintenance Costs - Base Contract	
Maintenance Costs - Optional Years up to Five	
Hardware Cost	
Other Costs	
Total Cost	**$0.00**

Question and Answers for Bid #RFI 11-023 - VoteCal Backup, Restore, Disaster Recovery

OVERALL BID QUESTIONS

There are no questions associated with this bid. If you would like to submit a question, please click on the "Create New Question" button below.

Question Deadline: May 25, 2012 5:00:00 PM PDT