

# California Electronic Poll Book Requirements

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*California Secretary of State*

*Proposed DRAFT*

CALIFORNIA SECRETARY OF STATE  
OFFICE OF VOTING SYSTEMS TECHNOLOGY ASSESSMENT  
1500 11<sup>th</sup> Street | Sacramento, CA 95814  
916.653.7244  
[www.sos.ca.gov](http://www.sos.ca.gov)

## 1. Introduction

### 1.1 Use of California Electronic Poll Book Requirements

These requirements are intended to guide the development, testing, and acquisition of electronic poll books and will be used by:

- (a) The state-approved testing agencies (S-ATA) to develop test plans and procedures for the analysis and testing of systems in support of the certification testing process.
- (b) Local election officials who are evaluating electronic poll book systems for potential use in their jurisdictions.
- (c) Electronic poll book system designers and manufacturers who need to ensure that their products fulfill all these requirements so they can be certified.
- (d) Voters who are interested in the rigorous testing process of electronic poll book systems to ensure accuracy, efficiency, reliability, accessibility and security in the voting process.

### 1.2 Applicability

- (a) The requirements outlined in this document are applicable to all electronic poll book systems used in California.
- (b) Any modification to the hardware, firmware, or software of an electronic poll book system previously certified by the California Secretary of State in accordance with these requirements will, in general, invalidate the certification unless it can be determined that the change does not affect the accuracy, reliability, security, usability or accessibility of the system.
- (c) For the purpose of certification, web-based electronic poll book systems that are operated via a web browser must certify all requirements across all anticipated device platforms and browsers.
- (d) Re-certification shall be required when a vendor makes significant changes or enhancements to its electronic poll book system. This shall include, and not be limited to, changes to:
  - i. The programming language in which the certified software was written.
  - ii. The operating system(s). Minor updates to previously certified operating systems are excluded, however the Secretary of State will determine if an update to a previously certified operating system is classified as major or minor update and shall be consulted prior to any patching of an operating system. Generally, the Secretary of State will only seek certification of operating system updates if the update results in a risk to the interfacing systems used for the electronic poll book device.

## 2. Technical Data Package

Prior to the initiation of any certification testing, the Secretary of State shall receive a complete Technical Data Package (TDP). The TDP shall include all of the items listed within this section. If the TDP is incomplete, or if the Secretary of State cannot clearly identify each of the items listed within this section, the entire TDP may be rejected.

The vendor must clearly mark any documentation it requests be treated as confidential and proprietary before providing it to the Secretary of State or its representatives for evaluation. Marking the entire package as confidential and/or proprietary is insufficient. All pages of the documentation that contain information the vendor considers confidential and/or proprietary information must be clearly marked as such.

### **2.1 Customer Maintenance Documentation**

Documentation describing any maintenance that the vendor recommends can be performed by a customer with minimal knowledge of the system shall be provided.

### **2.2 Operations Manual**

Documentation that is normally supplied to the customer for use by the person(s) who will operate the equipment shall be provided.

### **2.3 Use Procedures**

Specific election administration procedures recommended for use with the system shall be provided.

### **2.4 Software System Design**

Documentation describing the logical design of the software shall be provided. This documentation should clearly indicate the various modules of the software, their functions, and their interrelationships with each other.

### **2.5 Test Data**

Any available test data that can be used to demonstrate the various functions of the electronic poll book system or verify that the version of the applications submitted are identical to the versions that will be certified shall be provided. This shall include test reports for certification of the identical system in other jurisdictions.

### **2.6 Security Procedures**

Documentation of the recommended security procedures and system hardening setting to ensure the optimum security and functionality of the system shall be provided.

## **3. Software**

### **3.1 Source Code**

A copy of the electronic poll book software and firmware source code shall be provided. It shall include the directory structure of the source code and a map to show how the source code was built into the final install files. Also, all build environment information and necessary compiler(s) shall be provided. All of this information shall be provided in an encrypted form on standard machine-readable media (e.g. CD, DVD, USB drive, etc.).

### **3.2 Electronic Poll Book Software**

A copy of the electronic poll book software shall be provided in a machine-readable form. The software shall be provided in a form that can be readable by the electronic poll book hardware that is being submitted for certification.

### **3.3 COTS Software**

A copy of all commercial-of-the-shelf (COTS) software and drivers necessary to run the electronic poll book, including but not limited to the operating system, any software applications for logging, reporting, printing, etc., shall be provided.

## **4. Hardware**

All equipment necessary to run the electronic poll book shall be provided for testing. This includes, but is not limited to, the polling place device, electronic poll book server, and peripheral devices (e.g. bar code scanners, signature capture devices, transport media, printers, etc.). The equipment provided shall be identical in fit, form, and function as the production units that will be sold to California jurisdictions, if the electronic poll book is certified. Engineering or development prototypes are not acceptable. The Secretary of State, at its discretion, may request more than one set of all hardware to be submitted for testing.

Any modifications to hardware that has been previously certified will invalidate the prior certification unless it can be determined by the Secretary of State that the change does not affect the accuracy, reliability, security, usability or accessibility of the system.

The Secretary of State recognizes that most electronic poll book vendors develop simple software solutions to be applicable to a variety of COTS hardware elements that are traditionally chosen by its customers. Therefore, the Secretary of State will only certify an electronic poll book system on current or substantially similar hardware platforms. A substantially similar hardware platform shall be any device capable of running the identical version of the operating system as that being certified.

If the vendor is providing a “web-based” electronic poll book, the system may only be certified on the devices that are submitted for certification testing.

## **5. Certification Testing Criteria**

Certification testing shall be conducted to demonstrate that the electronic poll book meets or exceeds the requirements set forth in this section.

### **5.1 System Requirements**

- (a) The electronic poll book shall not be connected to a voting system at any time.
- (b) The electronic poll book shall be compatible with:
  - i. All voter registration election management systems used in the State of California, including any software system (middle ware) used to prepare the list of voters for the equipment.

- ii. Any hardware attached to the electronic poll book (e.g. bar code scanners, signature capture devices, transport media, printers, etc.).
- (c) An electronic poll book shall contain all of the following voter registration data:
  - i. Name
  - ii. Address
  - iii. Precinct
  - iv. Party preference
  - v. Whether or not the voter has been issued a vote by mail ballot; and
  - vi. Whether or not the vote by mail ballot has been recorded as received by the election official.
- (d) The electronic poll book shall encrypt, using industry best practices, all of the voter registration data.
- (e) The electronic poll book shall be capable of providing secure, reliable transmission of voter registration and election information.
- (f) The electronic poll book shall have the capability to store a local version of the electronic list of registered voters to serve as a backup.
- (g) The electronic poll book shall produce a list of audit records that reflect all actions of the system, including in-process audit records that display all transactions. Such audit records shall be able to be exported in non-proprietary, human readable format.
- (h) The electronic poll book shall enable a poll worker to easily verify that the electronic poll book:
  - i. Has been set up correctly;
  - ii. Is working correctly so as to verify the eligibility of the voter;
  - iii. Is correctly recording that a voter has voted; and
  - iv. Has been shut down correctly.
- (i) After the voter has been provided with a ballot, the electronic poll book shall permit a poll worker to enter information indicating that the voter has voted at the election. The electronic poll book shall have the capability to transmit this information immediately to every other electronic poll book in the county utilizing the same list of registered voters.
- (j) The electronic poll book shall permit voter history to be quickly and accurately uploaded into the voter registration election management system.
- (k) The electronic poll book shall have the capacity to allow a voter to sign the poll book during an interruption in network connectivity. If the alternative method is through a software application outside of the electronic poll book software, the electronic poll book shall have the capacity to transmit that electronic signature to the voter's record after connectivity has been restored.
- (l) If the electronic poll book uses an electronic signature capture device, an image of the electronic signature made by the voter on such device shall be retained and identified as the signature of the voter.
- (m) The electronic poll book shall have the capacity to transmit all information generated by the voter or poll worker as part of the process of casting a ballot, including the time and date stamp indicating when the voter voted, and the electronic signature of the voter, where applicable, to the voter registration election management system.

(n) The electronic poll book shall demonstrate that it accurately processes all activity regarding each voter registration record included on the electronic list of registered voters, including the use, alteration, storage, and transmittal of information that is part of the voter registration data. Compliance with this subdivision requires the mapping of the data life cycle of the voter registration data as processed by the electronic poll book.

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