

August 28, 2015

Sandro Burgos
Department of Elections
City Hall, Room 48
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

RE: Response to RFI for New Voting System

Mr. Burgos,

Election Systems & Software, LLC (“ES&S”) has been privileged to provide election hardware, software, support, and services to jurisdictions across the State of California for over 30 years. We are pleased to respond to San Francisco’s Request for Information to replace your current voting system. We propose our state-of-the-art 2005 VVSG-compliant voting system.

KEY ASPECTS OF OUR SOLUTION FOR SAN FRANCISCO

The election-proven system we propose has been used in binding elections throughout the United States. Our solution **includes: DS200 precinct scanner, DS850 high speed central, ExpressVote Universal Voting Device and the Electionware EMS.** These products are unrivaled in our industry.

Our DS200® digital precinct scanner provides the most accurate and reliable digital scan technology available. More than 25,000 DS200s are in use today by more than 650 jurisdictions in North America. Both your poll workers and voters will find the DS200 easy to set up and use.

Complementing the DS200 is our new universal voting system, the ES&S ExpressVote®. As a fully compliant ADA (Americans with Disabilities Act) voting solution, the ExpressVote enables each voter to cast his or her vote independently and privately. It combines paper-based voting with multiple user interfaces, including large, easy-to-read touch screen. The audio voting session includes the same multi-language options available to sighted voters. The ExpressVote prints a paper card summary of the voter’s selections for tabulation on ES&S scanners. No longer must election officials guess the number of ballots to print – instead, the ExpressVote can display any ballot style appropriate for a voter.

The election-proven system we propose has been used in binding elections throughout the United States. Our solution's centerpiece, our DS850 high-speed scanner and tabulator, is unrivaled in speed, accuracy, and ability to process folded ballots. Our digital-imaging solution allows for smooth, continuous ballot scanning from start to finish, which will save San Francisco valuable time in processing process your mail-in ballots.

The proposed Election Management System (EMS), Electionware®, is our newest integrated solution. Electionware will allow the County to create the election, design the ballot, program the voting system configurations and media, and view the stored cast vote records and ballot images for the purpose of ranked choice voting, write-in resolution, voter intent adjudication, and support of the County's voter registration system.

Finally, our proposal provides the County with a tried-and-tested solution of services and support that includes:

- ⊕ Implementation services for planning and analysis, design and development, deployment, and support of equipment and software, acceptance testing, and training.
- ⊕ Hardware and software maintenance and license agreements throughout the term of contract.
- ⊕ Pre-election, Election Day, and post-election support from a team of knowledgeable professionals ready to assist you 24/7.

We look forward to discussing our solutions with San Francisco in the near future! Thank you for taking the time to review our responses to this request for information.

Best regards,

Larry Tonelli
Regional Manager, California

Election Systems & Software, LLC.
11208 John Galt Blvd.
Omaha, NE 68137

SUMMARY STATEMENTS OF PROPOSED SYSTEM AND REFERENCES

Provide organization's or firm's legal name and address.

ES&S RESPONSE:

Election Systems & Software, LLC
11208 John Galt Blvd.
Omaha, NE 68137

Provide the name, title, address, telephone number, and email address of the person(s) who will serve as the contact(s).

ES&S RESPONSE:

Lawrence (Larry) Tonelli	1714 Bibao Drive	(315) 559-1653
Regional Manager, California	Santa Maria, California 93454	larry.tonelli@essvote.com

Provide a letter of introduction with a brief description of the organization or firm, including organizational structure, experience in the industry, number of years providing voting systems and election support services to federal, state, or local governments.

ES&S RESPONSE:

Election Systems and Software, LLC (ES&S) is the largest elections-only company in the world and has been providing election equipment and services for more than 42 years. Today, our product line includes all the equipment, software, and services that customers require to conduct successful elections.

ES&S is a privately owned Delaware limited liability company that entered the elections industry in 1969. The company was initially incorporated in 1979 as American Information Systems and subsequently incorporated as ES&S in 1997 upon its acquisition of the elections division of Business Records Corporation. On September 2, 2009, ES&S acquired the assets of Premier Election Solutions and Premier-Canada. Effective October 1, 2011, Premier was merged with and into ES&S and ES&S changed its form of legal entity from a C-corporation to a Delaware limited liability company. ES&S corporate headquarters is located in Omaha, Nebraska.

ES&S maintains a staff of more than 500 election professionals. Every ES&S staff member is trained and certified to provide on-site election support. ES&S' staff of full-time equipment technicians and election professionals and operatives provide specialized support, depending on the requirements of the specific project.

Today, not only do we work with many of the same customers we've served for more than 42 years, but our business has grown to serve four countries, 39 states with more than 4,000 election offices and three states, and two U.S. territories where we provide back office business services. ES&S currently serves more than 2,400 of the 3,140 county-level governments across the United States.

In order to achieve our vision of greater efficiency and accessibility to our customers, we have employees positioned from coast to coast to ensure we maintain voter confidence and enhance the voting experience for all our customers.

Provide a summary of the products and services offered, including annual license fees, annual support fees, and/or annual subscription fees. Include third party applications that are being recommended. List prices are acceptable.

ES&S RESPONSE:

Please see Attachment 1

Describe any election-related services that the organization or firm offers, including, without limitation, integration assistance, training, and ongoing support. Provide a rate structure or other costing information (i.e. hourly rate or pricing methodology) for the professional services offering. List prices are acceptable.

ES&S RESPONSE:

With offices in close proximity, San Francisco will benefit from back-up technical resources such as a field service technician via phone or in person.

Our proposal provides you with ES&S' tried-and-tested solution of services and support, including the following:

- ✔ Implementation services that provide for planning and analysis, design and development, deployment and support of equipment and software, acceptance testing, and training on the new hardware and software.
- ✔ Hardware and software maintenance and licensing agreements throughout the term of the contract.
- ✔ Pre-election, Election Day, and post-election support. Our support team of knowledgeable professionals is ready to assist you around the clock.

Upon the expiration of the Warranty period, ES&S proposes your hardware be covered under ES&S' post-warranty maintenance packages. The proposed ES&S coverage plan will provide repair services for the devices as well as routine preventative maintenance service event during the coverage period. The routine preventative maintenance service event includes the cleaning and lubrication of each unit of equipment and all labor and parts (except consumables items such as printer cartridges, paper rolls, batteries, removable memory devices, or marking instruments).

When you require assistance with your hardware or software, ES&S offers you technical help desk services, Monday-Friday, 7am – 7pm CST. We have some of our more experienced technicians answering the help desk line. When you call into our toll free number (1-877-377-8683) your call will be quickly answered and you will receive professional technical support. During non-business hours or during weekends or holidays, you can still reach our help desk team by leaving a voice message or an email; we will return your call as quick as possible, but, no later than one business day. During business hours, we will initiate actions to resolve your problem immediately or we will escalate the call to our Product Engineers or Development Team for resolution.

Describe the different implementation approaches (i.e. big bang vs phased roll out) that the organization or firm can offer to the City to fully implement a particular solution. Include the benefits and/or risks of each.

ES&S RESPONSE:

ES&S will employ a phased implementation approach. Criteria for determining a successful implementation will be defined within a documented agreement between San Francisco and Election Systems and Software, LLC (ES&S). The agreement will specify the services, deliverables, and acceptance requirements of the project. Each of the project deliverables will be detailed in a project plan. The plan will define the tracking and communication methods that will be used to monitor the status of deliverables and milestones. A detailed schedule will be included in the project plan and the project team will utilize reporting mechanisms to update and track actual project activity, as well as forecast task completions, for the duration of the project. These mechanisms will ensure communication of project status and activity to all stakeholders, including clear identification of implementation phase gateways, major milestones and critical path.

The benefit of this approach for a jurisdiction the size of San Francisco is to mitigate unforeseen issues that may arise during an implementation. Giving the County and ES&S the flexibility to pivot at a moment's notice will ensure the project stays on track and in scope. ES&S has implemented voting systems in over 75% of the largest jurisdictions in the United States and Canada. Phased rollouts have resulted in successful implementations in each of these jurisdictions.

Provide a brief description of the overall software and architectural design of applicable products.

ES&S RESPONSE:

The underlying architecture of the ES&S voting system has been developed from the ground up to meet the need of election administrators. As laws and voter needs evolve, the system is designed to adapt and accommodate the ever-changing landscape.

ELECTION DATA MANAGEMENT

Managing election data supports all tasks related to the creation of the election database, precinct, office, and candidate information required to configure a jurisdiction's elections. Once an election database exists, Electionware can recall the same data for any following election.



Event log management includes a series of programs that track user and equipment actions throughout the election process.

BALLOT AND ACTIVATION CARD FORMATTING AND PRINTING FOR EXPRESSVOTE

Ballot formatting and printing includes activities required for defining the image of a paper ballot, populating that ballot with information imported from the election database, and printing the ballot with ballot style code.

Activation card formatting and printing includes activities required for capturing the voter record, populating that activation card with information imported from the poll book system, and printing the activation card with ballot style code.

VOTING EQUIPMENT CONFIGURATION

Configuring voting equipment converts election database information into ballot definition parameters ES&S voting equipment.

Within this functional subsystem, software users transfer the election rules specific to an election to the memory devices used to program voting equipment.

VOTING AND TABULATION

Voting and tabulation includes the following:

- ⊕ ExpressVote universal voting system
- ⊕ Accessible ballot marking includes all tasks related to preparing, testing and implementing assistive voting devices for use in a polling place environment.
- ⊕ Central ballot tabulation includes all tasks required to prepare, test and scan official ballots at a central count location.
- ⊕ Precinct ballot tabulation covers the activities required to prepare, test and implement ES&S precinct ballot tabulators within a polling place environment.

RESULTS CONSOLIDATION AND REPORTING

Results consolidation and reporting encompasses the functions necessary to gather and combine results from ballot scanners and use that data to generate paper and electronic reports for election workers, candidates and the media.

Describe the recommended operating environment(s) required to install and use any relevant systems and the minimum system requirements necessary to run such systems. Include any suggested production, development/test, and disaster recovery environments.

ES&S RESPONSE:

- Dual core processor
- 2 GB of RAM minimum, 4 GB of RAM recommended.
- 500 GB hard drive or larger
- Keyboard
- Mouse
- Monitor with a resolution of 1024x768 or better
- CD/DVD Reader (must be able to read both) with a speed of 16x or faster
- Minimum of 2 USB 2.0 ports
- Ethernet port (only required if you are using a networked deployment)
- USB Media - Depending on voting system configuration and supported tabulators:
 - USB thumb-drive (DS200, DS850 and ExpressVote)
 - USB CF drive (AutoMARK)
- Installation Media for OEM drivers
- Printer attached to the individual PC
- Windows 7, Service Pack 1
- Microsoft Patches

Describe how the organization or firm envisions its software and hardware solutions changing over the next five to ten years.

ES&S RESPONSE:

ES&S prides ourselves on a steadfast commitment to innovation in the election industry. We envision our hardware products aligning with the technology of tomorrow. This includes portability of the devices to accommodate the wide range of poll worker capabilities, simplicity through new-age UX/UI, responsiveness in our firmware applications, and continued enhancement of security features to ensure the integrity of our systems. As for our election management software, ES&S looks to focus on making election administration easier by integrating with any jurisdiction's complementary applications for managing an election, i.e. voter registration, electronic poll books, poll worker management (time sheets, payroll, etc.), asset management and election night reporting on the web.

If applicable, submit at least two (2) references of federal, state or local governments equal in size or larger than the City and County of San Francisco that have implemented the proposed system, or, a similar system, within the last five (5) years. Include:

- a. Name of the client*
- b. Contact information (name, address, phone, email)*
- c. Date system fully implemented*
- d. Total # of employees*
- e. Technical environment, i.e. commercial off-the-shelf (COTS), proprietary, mixture of COTS and proprietary. If your organization's or firm's voting system is a combination of elements that are COTS and proprietary, note which items are COTS and those that are proprietary.*

ES&S RESPONSE:

CITY OF NEW YORK, NEW YORK

- Mr. Michael J. Ryan, Executive Director

32 - 42 Broadway, 7th Floor
New York, NY 10004
212-487-5457
webmail_ryanmj@boe.nyc.ny.us
- 17 employees
- System was fully implemented in 2010
- AutoMARK Ballot Marking Device, DS200 Precinct Scanner and DS850 Central Scanner, and Electionware EMS
- All products are proprietary

FAIRFAX COUNTY, VIRGINIA

- Cameron Quinn

12000 Government Center Parkway
Fairfax, VA 22035
703-324-4715
Cameron.Quinn@fairfaxcounty.gov
- 15 employees
- System was fully implemented in 2014
- ExpressVote Universal Voting System, DS200 Precinct Scanner and DS850 Central Scanner, and Electionware EMS
- All products are proprietary

SPECIFIC CRITERIA FOR NEW VOTING SYSTEM

I. FUNCTIONALITY

a. Approved by the Secretary of State for use in California before the City obtains the new system.

ES&S RESPONSE:

The proposed system from ES&S is currently in the certification process with the State of California. We anticipate approval of this system in early 2016.

b. Designed for votes to be cast and tabulated using paper ballots.

ES&S RESPONSE:

ES&S scanners are specifically designed for votes to be cast and tabulated using paper ballots. To cast an official ballot on an ES&S DS200 precinct tabulator, the voter simply inserts the marked paper ballot, in any orientation, into the DS200 input slot and follows the easy-to-read instructions displayed on the terminal's 12-inch LCD touch screen. After a voter inserts the ballot, precise contact imaging sensors simultaneously scan both sides of the ballot paper for the voter's selection marks. The terminal scans the entire ballot (front and back) in mere seconds, interprets voter selections and either accepts the ballot, storing a cast vote record and scanned ballot image; or identifies and alerts the elector to any ballot handling exception condition (undervotes, overvotes, blanks, mismarks) with large, easy-to-read system messages and audible alerts. The DS200 provides instructions for resolving any ballot issue, vastly improving voter oversight and accountability.

As the DS200 records ballot choices, the scanner stores a high-resolution image of the entire ballot and cast vote record to the inserted USB flash drive.

c. Designed so that all or part of the system's software operates using open source software.

ES&S RESPONSE:

The database used by the Electionware election definition system is PostgreSQL, a scalable open source database.

d. Assigns the least restrictive software license so that third parties may also utilize the code.

ES&S RESPONSE:

As a standard practice, ES&S maintains in escrow with Iron Mountain Intellectual Property Management, Inc., a copy of all program source code developed and used for our proprietary software and firmware, as well as any changes, modifications or updates to the source code. Should ES&S cease operations and become unable to maintain and support our proprietary software and firmware while under an obligation to do so, the County shall have the right to obtain the source code to the extent necessary to enable the County to use ES&S' proprietary software and firmware in accordance with the terms of the final contract.

Because the source code is key to the continued operation of ES&S' business and constitutes a trade secret, ES&S cannot otherwise agree to a release of the source code to the County. The source code will remain the property of ES&S and may not otherwise be used by the County. ES&S will work with the County to add the County as a preferred beneficiary under its current escrow agreement or enter into a separate escrow agreement with the County.

e. Incorporates ranked-choice voting and allows for the formatting and tabulation of ballots that list the same number of selections as there are candidates, including qualified write-in candidates.

ES&S RESPONSE:

Electionware enables the use of RCV voting with integrated support for ballot layout and cast vote record generation upon tabulation. Post tabulation and results collection, Electionware exports an Excel file containing all CVR candidate selections. The RCV algorithm can be externally applied to determine contest winners when needed.

f. Accommodates the formatting of multiple-language ballots and is designed to integrate additional languages with minimal preparation of and modification to the overall system.

ES&S RESPONSE:

Electionware can accommodate multiple languages such as English, Spanish, Chinese, Korean, and Japanese. Users can display various languages based on the precinct level. For example, a jurisdiction could ensure certain precincts have English only whereas other precincts have English and Spanish. Multiple audio languages are supported (Chinese Mandarin and Chinese Cantonese). Translations can be imported similar to English data import, or users can enter all English data (contests, districts, referendum) and create a Ballot Translations spreadsheet. This spreadsheet is then translated by the jurisdiction or a professional translation service, and then easily imported into Electionware.

The DS200 and ExpressVote will display language choices based on the election setup. The audio provided to the voter matches the language selected.

Audio files for both English and translated languages can be quickly generated using a separate software application, Electionware Toolbox. These are then imported into Electionware in one simple step. Automatic validations for missing translations or audio files are generated prior to burning media for accessible devices.

g. Requires the staging of one piece of equipment per precinct for each polling place and supports all voters.

ES&S RESPONSE:

ES&S recommends the use of our DS200 precinct scanner to accomplish the goal of staging one piece of equipment per precinct for each polling place.

h. Utilizes high-speed scanners to tabulate vote-by-mail ballots.

ES&S RESPONSE:

To better help you process vote-by-mail and absentee ballots more quickly and efficiently, we propose our DS850® high-speed scanner and tabulator.

The DS850 is **over three times faster** than any other high-speed scanner in the election industry. The system can scan ballots of multiple sizes and handle folded and roughed-up ballots with ease. For example, the DS850 can scan 14-inch double-sided ballots at the rate of 300 per minute. Even when you consider the time to load the hopper and unload the finished ballots, the DS850 will scan 10,000 ballots in an hour. Faster results can mean lower costs due to fewer resources necessary to accomplish the same task.

With three separate sorter bins, you can determine whether you want to sort specific types of ballots for further review. The DS850 can separate out ballots with write-in votes, over-votes, or blank ballots without missing a beat.

The DS850 includes a 1TB hard disk drive and utilizes the same removable flash memory drives used by the DS200 for transfer of data to and from the scanner.

i. Creates a digital image of all (paper) ballots cast and facilitates the posting of the images on the Department's website while allowing for quick referencing between the paper ballot and its digital image.

ES&S RESPONSE:

The DS200 has the capability to collect digital images of all ballots, including images of the write-in names entered by the voter for contests where write-in candidates are permitted. Depending on the options set in Electionware, the DS200 will collect all ballot images, only those containing write-in votes, or none at all. These ballot images are stored with random names and timestamps assigned to each file to protect voter anonymity. When the scanner detects a write-in vote, the system stores the write-in ballot image under a special file name to identify the image as a write-in ballot.

Optionally, the system may be set up to detect write-in responses from the voter, even if the oval is not filled in. If allowed per jurisdictional statutes, this feature aids in capturing the voter's full intent.

Additionally, the DS200 will print a Results Report that contains the actual write-in images by contest. This report will further facilitate review of write-in votes at the polling place or during canvass operations.

All images can be exported from the system and compared to the hard-copy paper ballot.

j. Meets or exceeds the most recent security standards set as minimum requirements for voting systems by the Election Assistance Commission and the California Secretary of State.

ES&S RESPONSE:

ES&S is committed to meeting the current and future standards of the VVSG and the requirements of our customers. For example, our patented image-recognition technology and patent-pending algorithms make the DS850 the most accurate scanner on the market for correctly evaluating poorly or incompletely marked voter responses. Mark-recognition thresholds and algorithms have been exhaustively tested using test ballots that significantly exceed the complexity of ballots required for certification. In another example, Electionware uses Advanced Encryption Algorithm (AES) for key management and protection, which is beyond the uses for which the VVSG requires AES technology.

ES&S' system architecture allows for the implementation of variable state and federal level requirements as needed. When a customer's state has requirements that exceed or differ from VVSG requirements, we work with the customer to ensure the product meets state requirements. When a state-specific enhancement that exceeds VVSG requirements might benefit additional customers, we may roll the enhancement into our next federal certification release.

k. Allows for automated formatting of ballots with minimal manual manipulation of content by importing candidate information from the Department's existing election management system.

ES&S RESPONSE:

Electionware allows for both manual data entry and import of properly formatted election files. The election data accepted by Electionware includes Languages; Parties; Precincts; District types/Districts; Offices/Contests; Questions; Candidates; Poll Places, Registered Voters, Precinct/Poll associations; Precinct/District associations; and translations. All of the attributes associated with this data, including alternate IDs; candidate full name, candidate sequence, ballot text, and vote-for can be included in the import or is automatically generated from the import data.

l. Includes auxiliary battery power to run polling place equipment for at least two hours of continuous use.

ES&S RESPONSE:

The DS200's internal battery supplies a minimum of two hours of continuous use in the event of power failure. The unit's backup memory and power supply ensure that no votes are ever lost due to power loss or equipment failure. The battery is "floating" on the system, meaning the DS200 transitions to battery operation immediately without system impact.

When the battery gets low, the system deactivates gracefully to ensure no ballots are being scanned, or data is being written to the USB flash media when it loses power completely. The systems integrated ballot box includes an emergency ballot bin for temporary storage of voted ballots until power returns.

m. Designed with minimal moving parts to reduce maintenance and associated costs of any mechanical operations.

ES&S RESPONSE:

Throughout our 40 year history, ES&S has fine-tuned our hardware development philosophies to ensure we are building sustainable voting systems. Every precinct tabulator has some number of moving parts to allow the ballot to be fed, tabulated and deposited, or returned to a voter. We minimize the number of components required to execute these functions, thereby keeping the maintenance operations as low as possible for our customers.

n. Includes clearly written documentation available before implementation for both hardware and software functions and provides instruction and reference materials for all system-related processes.

ES&S RESPONSE:

The following documentation will be made available to you before implementation. These documents will be used in the training of staff, poll workers and technicians for the County.

- ExpressVote Election Day Manual
- ExpressVote Maintenance Guide
- ExpressVote Operator's Guide
- DS200 Precinct Scanner Election Day Manual
- DS200 Maintenance Guide
- DS200 Operator's Guide
- DS850 Central Scanner Election Day Manual
- DS850 Maintenance Guide
- DS850 Operator's Guide
- Electionware Volume I: Administrator's Guide
- Electionware Volume II: Define User's Guide
- Electionware Volume III: Design User's Guide
- Electionware Volume IV: Deliver User's Guide
- Electionware Volume V: Results User's Guide
- Election Reporting Manager User's Guide

o. Permits the auditing of ballot cards at multiple points in the tabulation process and with minimal disturbance of operations to reduce the reliance on post-Election Day audits and to affirm the system is operating successfully.

ES&S RESPONSE:

The DS200 has an audit log to allow for the auditing of all operations relating to the election setup, ballot creation, ballot creation, ballot tabulation, results consolidation, and report generation.

The DS200 audit log (also called Event Log Report) report lists all events (errors, exceptions, and user-initiated functions) that occur on the system from the time an election worker inserts the terminal's removable USB flash drive until the drive is removed. Each event appears in the audit record with a date and time stamp. The ES&S proposed voting system audit log provides sufficient information to allow the auditing of all operations related to system events, ballot tabulation, results consolidation, and report generation. The system audit log contains such items as number of system halts, system errors, last power on, and other system audit items.

Additional audit log capability exists in the DS200 Ballot Status and Accounting Report also includes the total number of write-in votes cast (if any), the number of blank ballots, the number of over-voted ballots, and the number of crossover ballots (if applicable) processed by the system.

In addition, the DS200 stores an individual record of each ballot cast (a cast-vote record) and an image of each ballot cast on the USB flash drive when the ballot is processed. It also copies the entire USB flash drive content onto the backup flash drive (if used) when the user closes the polls on the DS200. These records are then available for re-tabulation if required.

p. Produces easily customizable reports containing any audit data or other information collected by the system.

ES&S RESPONSE:

The **Admin Audit Events Report** includes information regarding all administrator events in Electionware, such as the type of Event, an event Description, the event's Timestamp, the User ID, and the module in which the event occurred. The time and date stamp is updated to reflect the most recent audit event.

Event	Description	Timestamp	User Id	Module
Verbose	Generating Report...	03/01/2012 10:02:52AM	admin	Setup
Info	Running report: Admin Audit Events Report	03/01/2012 10:02:52AM	admin	Setup
Verbose	Connecting...	03/01/2012 10:02:52AM	admin	Setup
Verbose	Done.	03/01/2012 10:00:29AM	admin	Setup
Verbose	Generating Report...	03/01/2012 10:00:28AM	admin	Setup
Info	Running report: User Report	03/01/2012 10:00:28AM	admin	Setup
Verbose	Connecting...	03/01/2012 10:00:28AM	admin	Setup
Info	Setup module activated.	03/01/2012 10:00:24AM	admin	Setup
Info	Election Opened: AnyCounty Primary	03/01/2012 09:21:22AM	admin	Home
Info	Home module activated.	03/01/2012 09:05:24AM	admin	Home

The **Election Audit Events Report** includes information regarding events in Electionware for the open election, including the type of Event, an event Description, the event's Timestamp, the User ID, and the module in which the event occurred. The time and date stamp is updated to reflect the most recent audit event.

Report: Election Audit Events Report

ElectionWare County
AnyCounty Primary
January 24, 2012

03/01/2012 10:05AM

Event	Description	Timestamp	User Id	Module
Info	Running report: Election Audit Events Report	03/01/2012 10:05:46AM	admin	Setup
Warning	User Response: No	03/01/2012 10:00:24AM	admin	Configure
Warning	There are pending changes. Do you want to save?	03/01/2012 10:00:22AM	admin	Configure
Info	Configure Equipment module activated.	03/01/2012 09:21:41AM	admin	Configure
Verbose	Open Election: Finding Election...	03/01/2012 09:21:22AM	admin	Home
Verbose	Open Election: Finding Jurisdiction...	03/01/2012 09:21:22AM	admin	Home
Verbose	Open Election: Finding Customer...	03/01/2012 09:21:22AM	admin	Home
Info	Election Opened: AnyCounty Primary	03/01/2012 09:21:21AM	admin	Home
Info	Election Closed: AnyCounty Primary	02/29/2012 04:21:43PM	admin	Element Library
Info	DS200 Modem Configuration successfully imported. Remember to thoroughly test the DS200 prior to your election in order to verify the modem	02/29/2012 01:21:33PM	admin	Element Library

q. Logs all normal and abnormal events and ensures that event logging cannot be disabled or altered.

ES&S RESPONSE:

Logging cannot be disabled or altered in the system.

r. Seamlessly supports risk limiting auditing of results by generating random samples, reconstructing electronic records for comparison, and handling statistics.

ES&S RESPONSE:

Random audits are easily accomplished using the application logs and reports generated from the tabulators. In addition, Electionware EMS supports random recounts of particular precincts or contests by means of a simple recoding of the election and the use of the DS850 to sort and identify particular ballots or recount them to compare against the results from the election ballot scanning and tabulation.

Finally, the high ballot processing speed of the DS850 scanner and its ballot indexing capability make it a great solution for Risk Limiting Audits.

The DS850, has the ability to spray a unique sequenced serial number on every scanned ballot. This serial number reflects the file names of the digitized ballot image and the Cast Vote Record (CVR). The CVR is a record of exactly how the voter marked the ballot and its interpretation by the tabulator. Batch reports can be developed to associate and catalogue each ballot serial number with the batch. Ballots in the batch can be left in the order they were scanned and boxed, coupled with printed batch ballot manifests listing the contained ballots.

This batch identification, and the ballot serial number manifests can also be inserted into a database. The printed reports and the database make it easy to retrieve physical ballots as required for Risk Limiting Audits and that may be required for recounts. There are great benefits to this solution.

- ✔ Risk Limiting Audits are an independent method to validate an election's outcome and increase voter confidence.
- ✔ The DS850 provides a high-speed method to index each individual paper ballot at the same time the ballot is being scanned and processed for the initial tabulation. In the case of absentee / central tabulated ballots, this means there is no additional work.
- ✔ DS200 precinct ballots can be re-processed very quickly on the high-speed DS850, so they too can be indexed and included in the pool of ballots for the Risk Limiting Audit.

With the individual ballots indexed by the high speed DS850, the sample size for the Risk Limiting Audit can be reduced dramatically and therefore be very efficient.

The DS850 scanner produces a digital ballot image and a Cast Vote Record (CVR) that is tied together via the index number sprayed on the ballot. This provides greater transparency and the potential for RLAs to be conducted on ballot images rather than physical ballots if desired.

s. Facilitates the review of voted ballots or contests by election personnel using digital images to resolve issues when possible using a digital interface, and subsequently facilitates the posting of such actions on the Department's website.

ES&S RESPONSE:

All ballot images can be exported from the system and viewed independently during an adjudication process.

t. Allows for reporting results in near real time in such manner that does not require elections personnel to manually prepare and post results-related information.

ES&S RESPONSE:

Electionware reads ballot image records from precinct tabulation units and updates the cumulative election results in real-time. Reporting module also reads and updates results from central scanners. Electionware performs the following functions:

- Automatically read and update results from ballot tabulation equipment.
- Use Cyclic Redundancy Checks (CRCs) to ensure the integrity of results.
- Make reports available any time during the accumulation process and allow election officials the freedom to customize reports.
- Print, e-mail and display election results on a monitor as officials update results.
- Protect results with strong security checks to avoid tampering.
- Include a wide variety of report types and appearances.
- Maintain an audit log to track user actions.

u. Designed so that the Department can transport equipment using minimal resources and requires a small footprint inside delivery vehicles.

ES&S RESPONSE:

The DS200 specifications are 5.5” H (with monitor down) x 14” W x 16” D. The ballot box specifications are 35 1/2” x 24” x 26”.

v. Allows elections personnel to set voting patterns when preparing logic and accuracy testing.

ES&S RESPONSE:

The Electionware Toolbox allows the user to create pre-printed test decks with a 1 to x pattern, then to optionally include under voted and over voted ballots. Over voted ballots can either have all ovals marked, or one oval more than the vote for marked. The test deck function in Toolbox also creates a results report based on the marking algorithm selected. This report can be compared to the results report from the tabulator that scans the marked test deck.

w. Operates in a manner that is compatible with the Department’s existing election management system from DFM Associates.

ES&S RESPONSE:

ES&S ensures the integration of San Francisco’s voter registration system with the tabulation system. Although modifications may need to be made to the DFM System, ES&S has a very good understanding of many voter registration systems and will ensure a fully capable interface is developed between the DFM and the tabulation system.

ES&S has experience with building custom data interfaces and bridges between database systems in order to support the implementation of tabulation systems for our customers. We have recent experience with building interface modules for numerous voter registration systems including the VR systems that ES&S owns: PowerProfile, MegaProfile and DIMS.

x. Allows elections personnel to meet the pre-election testing requirements for automated reporting established by the California Secretary of State in such a manner that does not require manual results generation.

ES&S RESPONSE:

The test deck function in Toolbox creates a results report based on the marking algorithm selected. This report can be compared to the results report from the tabulator that scans the marked test deck.

2. USABILITY/TRANSPARENCY

a. Accessible to all voters to cast ballots in an independent and confidential manner.

ES&S RESPONSE:

The ExpressVote® Universal Voting System is a leading-edge technology touch screen device that enables voters to vote any ballot in the jurisdiction without the need for paper ballots, saving money for (insert name) County taxpayers.

The ExpressVote combines paper-based voting with touch screen technology to create an innovative breakthrough in voting solutions. Used in early vote centers and on Election Day in precincts or vote centers, the ExpressVote handles the entire ballot-casting process. Election officials no longer have to guess the number of ballots to print — instead, an inexpensive Vote Session Activator™ card determines the ballot style presented on the touch screen.

The ExpressVote system can serve every eligible voter, including those with special needs. The ExpressVote was developed with universal design principles applied to be usable by all voters, with or without visual impairments, hearing issues, or need for physical accommodations.

As a fully compliant ADA (Americans with Disabilities Act) voting solution, ExpressVote enables each voter to cast his or her ballot independently.

b. Provides fully accessible and intuitive features for all voters and includes connections and ports to fit all currently known types of assistive devices.

ES&S RESPONSE:

All voters – with or without visual impairments, hearing issues, and/or physical disabilities – can vote autonomously on the ExpressVote, a fully compliant ADA (Americans with Disabilities Act) voting solution.

- ✔ Multiple user interfaces including touch screen, Braille-embossed keypad, sip-and-puff tube, and foot pedal or other two-way switch.
- ✔ Audio voting session via text-to-speech or .wav files with volume control and the same multi-language options available to sighted voters.
- ✔ Voter selects speed, tone, and volume.
- ✔ High-visibility on-screen ballots.
- ✔ Voter-selected font size and contrast settings.
- ✔ The voter's ability to turn off the touch-screen display and the use of privacy screens lend additional privacy.
- ✔ Multilingual capability — Ensures that all citizens in a diverse population can exercise their privilege to vote in their native languages, and or change the language at any time during the voting process, without losing selections already made.

c. Promotes intuitive setup and operation of equipment in the polling places so that poll workers do not require specialized training on the equipment.

ES&S RESPONSE:

DS200 PRECINCT SCANNER

Plug the DS200 into an AC outlet and unlock/unseal the top of the ballot box lid to access the scanner. Unlock the DS200 lid and raise the lid to automatically initiate the boot-up process. The unit boots up in a matter of minutes and automatically prints reports. The poll worker presses a button to open polls and another to go to voting mode.

The time to power on and open a DS200 for voting scales with election size and complexity. A poll worker can power on and open a DS200 in five to ten minutes for many elections. Printing the Zero report for a large or complex election or for an Early Voting poll adds variable minutes.

Counties can also configure the DS200 to bypass the polls open access code, allowing warehouse technicians to enter security codes prior to deploying equipment. After deployment to the poll site, poll workers open the polls for voting simply by lifting the scanner’s lid and powering on the scanner.

EXPRESSVOTE (ADA DEVICE)

There are no special procedures required for opening or closing polls. Audit logs provide operational information and time/date stamps for printed vote records. The one-step startup and poll-closing procedure makes the ExpressVote an ideal device for poll workers. The intuitive design offers streamlined simplicity for all voters, poll workers, and election staff. The paper card is the vote session activator – there is no expensive technology to manage or program. Set up of the ExpressVote can be done in less than 5 minutes without technical skills or use of tools.

d. Indicates how the system tallied each vote on every ballot card and indicates if any votes were unreadable while ensuring the confidentiality of each voter's ballot.

ES&S RESPONSE:

The DS200 employs sophisticated and patented image scanning technology to quickly process ballots and accurately discriminate between valid voter marks and extraneous ballot elements such as smudges, spills, and perforations.

ES&S uses a two-part, patented vote detection process. First, PTRAC® (Positive Target Recognition & Alignment Compensation) corrects for variations in ballot alignment and printing, allowing the DS200 to zero in on the marking area. PTRAC clips a rectangle of 32 pixels long by 24 pixels tall around each target oval (each pixel is 0.005”).

The oval is then located inside of the rectangle, and the black pixels inside of the oval are counted (there are 243 pixels inside of the oval). Intelligent Mark Recognition then digitally subtracts the outline of the voting target to read only the voter's mark.

- If the number of black pixels inside of the oval is fewer than 13 pixels, no vote is registered.
- If the number of black pixels inside of the oval is greater than 120, a vote is registered.
- If the number of black pixels inside of the oval is between 13 and 120, a pattern matching algorithm (Intelligent Mark Recognition) is run on the entire rectangle area to determine whether or not a vote is present. IMR looks for patterns of pixels which match a single line passing through the clipped rectangle at any angle.

The size of the area in which a voter can cast a vote that can be read is a rectangle, 0.16" x 0.12", which is clipped around each target and used for vote detection. At least 13 pixels must be inside of the oval. Only pixels inside the 0.16" x 0.12" clipped rectangle are used for vote detection.

The DS200 recognizes voter marks that include filled ovals, check marks, X's, or slashes. The target areas are always the same size on the ballot. As long as a voter's mark passes through or is inside the target area, the DS200 scanner will see it and record the vote.

e. Indicates any action taken for every ballot card or contest that elections personnel reviewed and generates a digital audit log for posting on the Department's website that records such actions.

ES&S RESPONSE:

All audit logs are collected in Electionware and can be exported and posted to the Department's website.

f. Issues all result reports, ballot tally files, audit logs, in open data formats (machine-readable) and human readable formats to increase the scope of election transparency.

ES&S RESPONSE:

All reports, ballot tally files and audit logs are exportable in human readable formats.

g. Creates and facilitates the posting of ballot image files on the Department's website so that members of the public can tabulate the same vote information that the Department uses when tallying the official results.

ES&S RESPONSE:

All ballot images can be exported and posted to the Department's website.

h. Collects and then converts the election information in a manner that facilitates the Department's ability to provide reports in data formats and styles requested from other agencies, the media, and members of the public.

ES&S RESPONSE:

All data can be exported from the system in XML and CSV format and provided to other agencies, media and members of the public.

3. RESULTS REPORTS

a. Produces rapid, versatile, and easily customizable reports, including in real-time, when issuing results reports on Election Night.

ES&S RESPONSE:

There are essentially two types of reports available on Election Night, Summary and Canvass. Summary reports are available on a precinct or election level and can include group breakdown. Summary reports allow for the inclusion/exclusion of over/under vote reporting, date/time stamp, page number and one or two-column format. Canvass reports are available with two different key layouts, name or number. Canvass reports allow for the inclusion/exclusion of over/under vote reporting, date/time stamp, page number, precincts reported and line and totals only (no detail).

The capability to report results at the statewide level could be enhanced if the State were to direct ES&S to develop a statewide results transfer utility. This utility is already in use in 14 states. The utility allows County's to export a results file to a secure server at the State whereupon the County's results are accumulated and posted to the State's ENR website. ES&S stands ready to work with the State to develop a statewide utility.

b. Provides easily customizable reports for a wide variety of purposes, including the reporting of partial election returns throughout Election Night, final unofficial election returns, and canvass reports.

ES&S RESPONSE:

The system produces standard election reports and displays by separate cumulative, subdivision, district, ward and precinct reports of all absentee, provisional and in precinct votes cast as one total.

The precinct and accumulated totals reports provide a quick and effective means to accommodating candidate and media requests for totals and are available upon demand. High-speed printers are configured as part of the system Accumulation/Reporting Stations (PC and related software).

Our reporting software provides various public displays, printed reports and links to the media. The display program scrolls automatically through the live results with a user-definable time delay. The reports can be printed as well as displayed. Multiple freestanding PCs, overhead displays or large screen video monitors attached to the reporting PCs provide very effective dissemination of results. Any of the reports can be printed to an electronic file, which can subsequently be posted on the Internet.

BALLOT TALLY FEATURES

Election workers enter totals of final write-in candidate votes directly into the EMS. These write-in totals appear in final summary reports, Statement of Vote, and Supplemental Statement of Vote to contain the write-in votes as required by the State's chief election officer.

REPORTING FEATURES

Election Reporting Manager formats election results and generates consolidated results reports in either paper or electronic formats. The system produces standard election reports and displays in accordance with county-specific requirements.

ELECTION CENTRAL REPORTS

Each election central report includes numerous variations that may be selected by the user prior to generating the report. Options include:

- Report titles
- Page numbers
- Time stamps
- Overvotes
- Undervotes
- Total votes per candidate
- Percentages for overvotes and undervotes
- Candidate percentages based on votes cast in the office
- Number of copies to print
- 1 column or 2 column reports
- Votes eligible to be cast based on ballots cast

All election results reports can include results for all contests or designated contests and results from all polls or designated polls. In addition, election workers can use script files set up in advance to print reports containing designated contests or designated polls, and can be used for canvass reports, or subtotalling of polls in a ward as long as the polls are consecutively listed. Available reports include:

- Poll Report
- Election Summary (Accumulated) report
- Canvass with Number Key Heading
- Statistics Canvass with Number Key Heading
- Ward Canvass only with Number Key Heading
- Canvass with Candidate Name Heading
- Canvass with Candidate Name Heading and Ward Totals
- Polls Counted/Not Counted Listing
- System Log Listing and Results Correction (Manual Entry) Log Listing

c. Organizes and exports data in a variety of formats including but not limited to TXT (delimiter-separated), CSV, XLSX, PDF, and XML/EML that the Department can upload to its website and provide to the Secretary of State, the media, etc. with minimal intervention.

ES&S RESPONSE:

All data can be exported from the system in XML and CSV format and provided to other agencies, media and members of the public.

4. ADAPTABILITY

a. Anticipates the City modifying its use of the system or the system's components in response to changes in law such as the possible implementation of Senate Bill 450 that would allow the City to conduct mail-ballot elections with voting centers staged at multiple locations in the City.

ES&S RESPONSE:

VOTING CENTERS

The ExpressVote® allows voters to choose where they vote in vote centers. The device enables voters to access any ballot style without the need for pre-printed ballots. An inexpensive activation card determines the ballot style presented on the touch screen. The ExpressVote can store all ballot styles for the entire county and produce vote summary cards for tabulation in the DS200.

MAIL-BALLOT ELECTIONS

With the increase in mail and other absentee ballot voting across the U.S., a high-speed central counter is becoming a critical node in voting system solutions. ES&S offers San Francisco County the industry's fastest high-speed ballot scanner, the ES&S DS850. Key features include:

- ✓ High-Speed Sorting — The DS850 can scan over 300 – 14” double-sided ballots per minute – even folded ballots with full sorting options enabled. The DS850's three unique output bins allow programmable ballot sorting without compromising speed.
- ✓ Folded Ballot Processing — The DS850 was designed with a series of patent-pending TruGrip™ composite rollers that apply constant control to folded ballots throughout the entire process.
- ✓ User-Friendly Design and Operation— The DS850 features a user-friendly software interface on an easy-to-use 15-inch LCD color touch screen display.
- ✓ Patented Intelligent Mark Recognition (IMR) – World-class image capture and processing capability integrated with ES&S' patented IMR solution to deliver fast, accurate election results.

b. Implemented in the City under a possible final agreement that institutes a purchase, lease, lease-to-own, or any other mechanism that best suits the City's interests in obtaining a new system.

ES&S RESPONSE:

ES&S will allow the County to enter into a purchase, lease, or lease-to-own agreement.

c. Allows the City to obtain the new system and its components and also provides the City with the flexibility throughout the term of the agreement to upgrade components, including software, when improvements to the new system become available, including an option to fully replace the new system.

ES&S RESPONSE:

During the warranty period and thereafter so long as San Francisco continues to subscribe to and pay for post warranty license, maintenance and support services from ES&S, ES&S will provide upgrades, new releases and maintenance patches to ES&S' proprietary systems, along with appropriate documentation, on a schedule defined by ES&S without additional charge.

d. Allows the Department to continue to select how all voting-related services are obtained such as for ballot printing and translations without restrictions from the design of the new system.

ES&S RESPONSE:

ES&S complies with this requirement.

ATTACHMENT I





San Francisco, California
Purchase Proposal Quote
 Submitted by Election Systems & Software

Purchase Solution Includes:

<u>Item Description</u>	<u>UOM</u>	<u>Price</u>
Tabulation Hardware		
Model DS200 Precinct Scanner:		
Model DS200 (Includes Scanner, Plastic Ballot Box with Steel Door and e-Bin, Reverse Wound Paper Roll and 4GB Jump Drive)	Each	\$5,750.00
DS200 Wireless Modem-Verizon (Price does not include data transmission fees)	Each	\$300.00
Reverse Wound Paper Roll (Additional)	Each	\$1.75
Tote Bin	Each	\$225.00
4GB Jump Drive (Additional)	Each	\$105.00
Model DS850 High Speed Digital Image Scanner:		
Model DS850 (Includes Scanner, Steel Table/Cart, Start-up Kit, Dust Cover, Reports Printer, Audit Printer, Battery Backup, Two (2) USB Cables, and Three (3) 8GB Thumbdrives)	Each	\$111,500.00
DS850 Annual License Fee	License	Included
Installation/Training Fee (1st Unit)	N/A	\$3,500.00
ExpressVote:		
ExpressVote Unit Including Soft-Sided Case, Detachable ADA Keypad, 4GB Flash Drive, and Headphones	Each	\$3,500.00
4GB Jump Drive (Additional)	Each	\$105.00
DS200 Paper Guide	Each	Included
ExpressVote Ballot Card Stock - 11" (250 per pkg)	Each	\$22.50
ExpressVote Ballot Card Stock - 14" (250 per pkg)	Each	\$23.75
ExpressVote Ballot Card Stock - 17" (250 per pkg)	Each	\$26.25
ExpressVote Ballot Card Stock - 19" (250 per pkg)	Each	\$30.00
Software		
Electionware Software - PYO Standard (Base Package)	License	\$35,850.00
Synthesized Audio Capability - English Language	License	\$10,870.00
Synthesized Audio Capability - Each Additional Language	License	\$2,200.00
Election Services		
Implementation Services (Does not include Coding, Voice Files or Ballots):		
Project Management	Day	\$1,575.00
Equipment Operations Training	Day	\$1,575.00
Poll Worker Train-the-Trainer	Day	\$1,575.00
Software Training	Day	\$1,575.00
Public Test	Day	\$1,575.00
Network Installation - On Site	Day	\$2,300.00
First Election On-Site Support (One Event includes a person on-site the day before, day of, and day after election)	Event	\$4,125.00
Installation/Acceptance Testing - DS200 (per unit)	Each	\$115.00
Installation/Acceptance Testing - ExpressVote (per unit)	Each	\$105.00
1 Year Hardware and Software Warranty	N/A	Included



San Francisco, California
Purchase Proposal Quote
 Submitted by Election Systems & Software

Purchase Solution Includes:

<u>Item Description</u>	<u>UOM</u>	<u>Price</u>
Initial Annual Post-Warranty License and Maintenance and Support Fees		
Annual Post-Warranty Hardware Maintenance and Support Fees:		
HMA DS200 - Gold Coverage (Annual Maintenance)	Each	\$175.00
HMA DS850 - Gold Coverage (Annual Maintenance)	Each	\$3,900.00
HMA ExpressVote - Gold Coverage (Annual Maintenance)	Each	\$115.00
Annual Post-Warranty Firmware License and Maintenance and Support Fees:		
Firmware License - DS200	Each	\$75.00
Firmware License - DS850	Each	\$1,500.00
Firmware License - ExpressVote	Each	\$60.00
Annual Post-Warranty Software License and Maintenance and Support Fees:		
Electionware Software - PYO Standard (Base Package)	License	\$35,850.00
Synthesized Audio Capability - English Language	License	\$10,870.00
Synthesized Audio Capability - Each Additional Language	License	\$2,200.00
Total Annual Post-Warranty License and Maintenance and Support Fees		\$54,745.00

Footnotes:

1. This quote is an estimate and is subject to final review and approval by both ES&S and the Customer.
2. Rates valid for 60 days and thereafter may change.
3. Any applicable (City & State) sales taxes have not been included in pricing and are the responsibility of the customer.
4. The quantity of service days reflects a reasonable estimate for implementation and selected ongoing election services. Quantities may change depending on specific Customer needs.



San Francisco, California
Electronic Pollbook Quote
Submitted by Election Systems and Software, LLC

Description	UOM	Unit Price
ExpressPoll Tablet with Barcode Scanning and Signature Capture Capabilities. Includes Tablet Protector Sleeve, Z-Stand, Stylus with Tether, Micro-SD Card w/SD Adapter, 16GB Thumb Drive, USB Dongle, USB Power Cable, Carrying Case, ExpressPoll Software, and Loading of Software on the Unit.	Each	\$865.00
MY3 Printer with Power Supply/Cord, USB Cable, Paper Roll, and Battery Backup	Each	\$412.00
DYMO 450 Turbo Printer with Power Supply/Cord, USB Cable, and Label Roll	Each	\$131.00
16GB Micro-SD Card w/SD Adapter (Additional)	Each	\$12.00
16GB Thumb Drive (Additional)	Each	\$10.00
MY3 Printer Battery Charging Station (1 unit)	Each	\$95.00
MY3 Printer Battery Charging Station (4 unit)	Each	\$190.00
Replacement Battery for MY3 Printer	Each	\$55.30
MY3 Printer Paper Roll	Each	\$3.45
DYMO White Labels (2.125" x 4") - 220 Labels per Roll	Each	\$14.40
DYMO White Labels (1.125" x 3.5") Thermal - 350 Labels per Roll	Each	\$14.65
DYMO Thermal Paper Rolls - 300 ft	Each	\$6.80
Replacement Stylus	Each	\$6.00
Replacement Tether	Each	\$4.00
Mag-Stripe Reader	Each	\$62.00
Other:		
Mobile Broadband Router with Enterprise Cloud License (CradlePoint 1200)	Each	\$264.00
Portable 150n 3G Router for Wireless LAN (For devices in one location to	Each	\$46.00
ExpressPoll Software Customization (Per Hour)	Hour	Per Quote
4-Port USB Hub (Required if using any peripheral item with the tablet)	Each	\$18.00
8-Port Switch (Required if more than one poll book in a location and no router)	Each	\$56.00
Cat5 Cable (10 ft)	Each	\$3.60
SmartCard Reader/Writer	Each	\$18.00
PLB Coil Tether Adapter w/Detach	Each	\$4.80
Anti-Glare Screen Protector	Each	\$10.65
Power Strip	Each	\$31.25
Micro SD Card Security Seal	Each	\$0.35
Touch Screen Cleaning Kit	Each	\$7.25
Tablet Protector Sleeve	Each	\$5.80
Anthro Charging Cart 40 with PLB Cable USB, Dual Adapter	Each	\$2,068.25
Anthro Charging Cabinet 20 with PLB Cable USB, Dual Adapter	Each	\$974.75
Voter Activated PEB	Each	\$72.50
PEB Reader/Writer	Each	\$136.25



San Francisco, California
Electronic Pollbook Quote
Submitted by Election Systems and Software, LLC

Description	UOM	Unit Price
Sequoia Card Reader/Writer Cable	Each	\$21.25
ExpressLink Printer	Each	\$450.35
ExpressLink Software	Each	\$848.75
Bar Code Scanner	Each	\$222.05
Bar Code Scanner Cable	Each	\$17.40
Bar Code Scanner Stand	Each	\$82.30
PLB Case Plastic Single - Turbo	Each	\$76.30
Software:		
Data Conversion Software License. Allows Customer to Independently perform Data Conversion of VR Records for Electronic PollBook. (Includes one-time Data Conversion Services and formatting by ES&S.)	License	\$7,755.00
CentralPoint Software License and Hosting Fee. Requires Internet Explorer 10 or above.	License	\$7,750.00
Implementation Services:		
Acceptance Testing (per Unit)	Per Unit	\$50.00
Project Management - Initial Kick-Off and Process Consultation	Day	\$1,575.00
Project Management	Day	\$1,575.00
On-Site Support (3 Consecutive Days)	Event	\$4,125.00
Web-Ex Training for CentralPoint (Class Size of 10 Participants)	Event	\$1,000.00
Web-Ex Training Session - Other (Class Size of 10 Participants)	Event	\$1,000.00
Data Conversion Software Training	Event	\$1,575.00
EZRoster Software Training	Day	\$1,575.00
Shipping (ExpressPoll Hardware & Software)	Per Unit	\$20.00
One-Year Hardware and Software Warranty	N/A	



San Francisco, California
Electronic Pollbook Quote
Submitted by Election Systems and Software, LLC

Description	UOM	Unit Price
Estimated Data Conversion Fees (Per Election if ES&S is Performing the Data Conversion):		
Set-Up/Configuration Fee Includes Data Analysis, Delivery of Sample Data, and Delivery of Final Data Configuration File Customization - Screen Customization - Options Setting	Per Election	\$750.00
Testing/Validation - Validation of Final Record Counts - Baseline Validation of Application Workflows & Active Functions - Testing of Special Configuration or Customer Options		
Processing Fee Per Registered Voter	Per RV	\$0.0225
Signature File Processing	Per RV	\$0.0050
Voter Images Processing	Per RV	\$0.0050
Pollbook Database Update (fee per update)	Per Update	\$225.00
Voter History Update (fee per update)	Per Update	\$225.00
Custom Report Generation	N/A	Per Quote
Custom VR Voter History Import File Creation	Each	\$300.00
Reconversion Fee	Each	\$250.00
Pollbook Screen Revision	Each	\$125.00
Poll Location Map Display	Each	\$150.00
Custom Conversion per Hour	Hour	\$2,100.00

Initial Annual Post-Warranty Maintenance and Support (Beginning Upon Expiration of the Initial Warranty Period):

PollBook Software:

ExpressPoll Software License and Maintenance and Support Fee - Year 1	Per Unit	\$99.00
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Software:

Data Conversion Software License and Maintenance and Support Fee - Year 1	License	\$7,755.00
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CentralPoint Software License Fee and Hosting Services - Year 1	License	\$7,750.00
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Footnotes:

1. Pricing valid for thirty (30) calendar days and is subject to change without notice thereafter.



San Francisco, California
Purchase Proposal Quote
 Submitted by Election Systems & Software

Solution Includes:

<u>Item Description</u>	<u>Price</u>
Hardware, Software, and Services	
Balotar Compact Printer Package	
Compact Printer with Firmware	Included
Laptop Computer	Included
Compact Laptop Holder	Included
Printer & Software Training	Included
Installation & Acceptance Testing	Included
Single Request Software (SRS) 5-Year License (One License per Printer Required)	Included
Multiple Request Software 5-Year License (MRS)	Included
Shipping and Handling	Included
Net Purchase Solution	\$17,320.00
Balotar Flex Printer Package	
Flex Printer with Firmware	Included
Laptop Computer	Included
Laptop Tray	Included
Precision Input Feed Tray (For Flex Series Printers using J-Series or D-Series Cart)	Included
Printer & Software Training	Included
Installation & Acceptance Testing	Included
Single Request Software (SRS) 5-Year License (One License per Printer Required)	Included
Multiple Request Software 5-Year License (MRS)	Included
Shipping and Handling	Included
Net Purchase Solution	\$20,850.00
Balotar Options	
E-Series Printer Cart	\$ 1,605
J-Series Printer Cart	\$ 705
D-Series Printer Cart	\$ 1,790
Ballot Folder with Chute, Stacker, Cover, Noise Reducer, and Shelf	\$ 4,190
Single Request Software (SRS) 1-Year License (One License per Laptop Required)	\$ 930
Multiple Request Software 5-Year License (MRS)	\$ 1,230
Election Set-Up Fee per Election Event:	
Remote Access: Up to 4 computers-- \$40 per computer over 4 units	\$250 + \$1
If remote access not used (per person, per day)	Per unique PDF or \$1575

PRODUCT OVERVIEWS



PRECINCT SCANNER & TABULATOR

DS200[®]

BECAUSE WHO WANTS TO BE STUCK INSIDE COUNTING BALLOTS?

The DS200 is a precinct-based ballot scanner and vote tabulator equipped with the latest in ES&S' patented technology to make your job easier. Fully certified and compliant with the latest federal Voluntary Voting Systems Guidelines, the DS200 enhances the voting experience for voters and officials alike.

Intelligent, integrated, digital, patented, flexible, easy to use, reliable, secure, certified, and accessible – the DS200 is the answer to your precinct-level election needs.



Faster election results and greater voter confidence



KEY FEATURES

LARGE CAPACITY

Handles up to 9,900 precincts for early voting needs.

SPEED

Completely processes both sides of a ballot in six seconds or less. Handles bent or folded ballots with ease.

ACCURACY

DS200 combines the ES&S Positive Target Recognition & Alignment Compensation (PTRAC) and patented Intelligent Mark Recognition™ (IMR) systems to positively track and pinpoint target locations, accommodating for ballots inserted at irregular angles and erroneous marks to create unparalleled accuracy in determining voter intent. This accuracy improves the reliability of elections that require recounts, as well.

ACCESSIBILITY

Compatible with the ES&S ExpressVote® and AutoMARK® Americans with Disabilities Act (ADA)-compliant ballot-marking device.

RELIABILITY

Battery backup in case of a power outage and thermal paper means you never have to worry about power outages or running out of printer ink.

COMPATIBILITY

Works in conjunction with ES&S' Electionware® and Election Reporting Manager® software, ADA-compliant ballot marking devices (AutoMARK® or ExpressVote®), the DS850® central scanner and tabulator, and plastic or metal ballot bins to provide a complete end-to-end election solution.

AVAILABLE OPTIONS

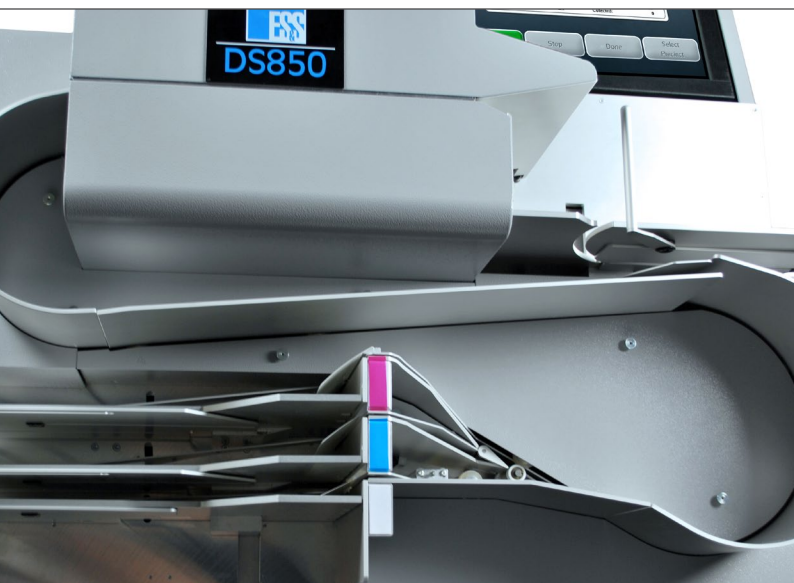
Wireless modem and capacity to send data via Secure File Transfer Protocol (SFTP) server; backup data storage in addition to primary data storage device.

HIGH-SPEED SCANNER & TABULATOR

DS850[®]

**THE INDUSTRY LEADING HIGH-SPEED
CENTRAL SCANNER AND TABULATOR.**

The DS850 central scanner and tabulator is a high-speed digital ballot scanner and tabulator equipped with the latest ES&S technology to make your job easier. The DS850 system is the fastest central scanner in the industry. Fully certified and compliant with the latest federal Voluntary Voting Systems Guidelines, the DS850 enhances the voting experience for voters and election officials.



Enhance the Voting Experience

KEY FEATURES & BENEFITS

FAST

The DS850 can scan ballots of multiple sizes and handle folded and roughed-up ballots with ease. For example, the system can scan 14-inch double-sided ballots at the rate of 300 per minute with next to no ballot jams. The DS850 is three times faster than any other digital scanner on the market.

EASY TO USE

The durable 15-inch color touch screen and user-friendly interface walk you through every step of the process.

EXTENSIVE

With three separate sorter bins, you can determine whether you want to set apart specific types of ballots for further review. Let the DS850 handle separating write-in votes, over-votes, and blank ballots – *all without missing a beat.*

SECURE

Safeguard your election data with the DS850's system integrity, electronic audits, data encryption, and digital signatures. Nearly 35 years of election industry experience makes ES&S the vendor you can trust.

ACCURACY

ES&S' patented Intelligent Mark Recognition™ (IMR) and PTRAC™ technology ensure that ballots are read accurately and consistently, protecting voter intent and eliminating manual adjudication time.

PTRAC (Positive Target Recognition & Alignment Compensation) corrects for variations in ballot alignment and printing, allowing the digital scanners to zero in on the marking area. IMR then digitally subtracts the outline of the voting target to read only the voter's mark. Our competitors' optical scanners require you to set an arbitrary pixel threshold to determine what counts as a mark.

Instead, the DS850 does the work for you. To determine which marks were intentional, sophisticated algorithms analyze the mark's darkness (pixel density) and directionality. Unlike other scanners, the DS850 is not fooled by erasures or other stray marks.

Does the election require a recount? With the DS850, you get the same consistent and accurate results every time.





RECOGNITION TECHNOLOGY

AUTO-ADJUDICATION

**PATENTED TECHNOLOGY THAT PROTECTS VOTER INTENT
IN REAL-TIME.**

On Election Day, nothing is more frustrating than ballots that can't be read by a ballot scanner and tabulator, resulting in time-consuming review and manual adjudication. Incomplete voter marks, poorly printed ballots, and ballots entered into the tabulator in a skewed fashion commonly cause problems for election administrators.

Our EVS has patented Intelligent Mark Recognition™ (IMR) and Positive Target Recognition and Compensation™ (PTRAC) technology to solve this problem, which is programmed into every DS200® and DS850®. This technology ensures even the most problematic ballots are read accurately and consistently, protecting voter intent and saving hours of time spent in review and manual adjudication. Our experience processing millions of ballots helped us create this technology, enabling you to run elections with less added costs, while also reducing the potential for debate or controversy.



Sophisticated technology to protect voter intent

EVS KEY FEATURES

IMR RECOGNIZES REAL WORLD VOTER MARKS

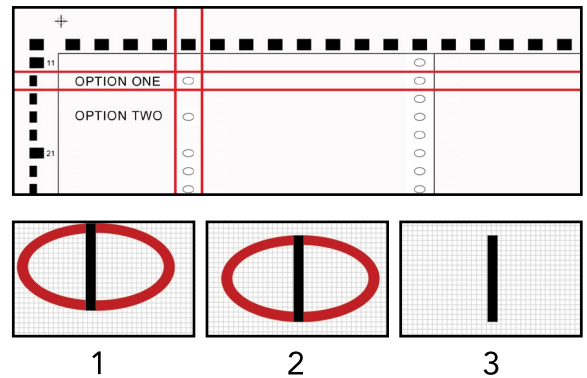
IMR has the ability to recognize the most common non-traditional voter marks (such as X's, checkmarks, diagonal slashes and horizontal slashes). Since it considers not just pixel count, but also the shape of each mark, it can determine a pattern and the mark's intent, not getting fooled by inadvertent marks such as smudges or stains.

LIKE A HEAT SEEKING MISSILE

PTRAC's sophisticated image processing algorithms start by using the ballot's timing marks to quickly create an evaluation window where the oval for each contest is expected to be. Because ballots can skew, stretch, crumple, etc., we positively search for the ovals containing voter selections, moving the ballot image as necessary.

PTRAC OVAL MASKING TECHNOLOGY

1. PTRAC performs a series of "hunting" steps, locating the oval exactly for a contest in the scanning window.
2. It then detects the exact center of the oval and adjusts the image.
3. The oval perimeter line is then digitally removed, leaving just the voter's marks.

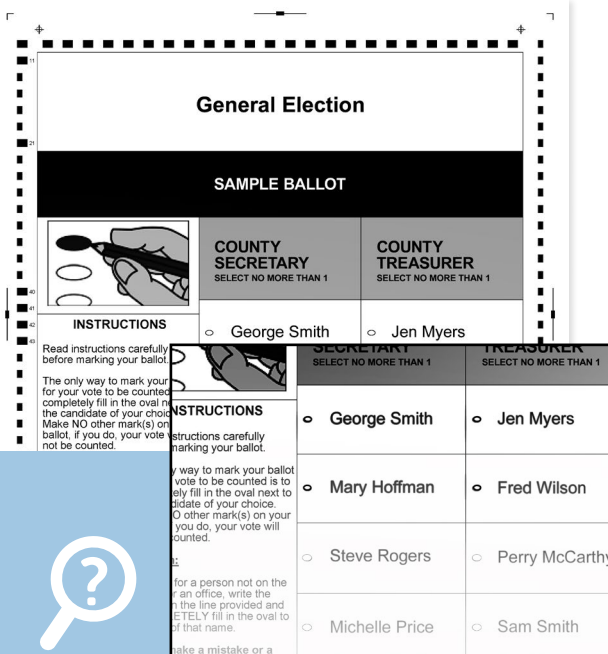


Finding the exact center of the oval and removing the oval outline is crucial as many ballots can print irregularly. The scanner no longer has to compensate for ovals printed too thickly or thinly as the oval is "hidden" from the scanner, providing the best possible means to determine voter marks with extraordinary accuracy.

LET THE SYSTEM DO THE WORK

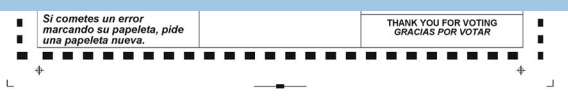
Many primitive voting systems will require election administrators to "dial-in" the thresholds to compensate for ballot irregularities. Problems arise when ballots and scanners vary in different ways in the same election and no matter what you use for a threshold, you reject a large number of ballots.

IMR and PTRAC eliminate this guessing game, compensating for variations in both the printing and normal variations in the scanners imaging heads. In addition, you no longer have to print out ballots for manual adjudication with colored ovals that are difficult to see and expensive. The system simply removes the oval for you, leaving just the voter marks visible.



CAN YOU GUESS THE CORRECT THRESHOLD?

Auto-adjudication takes the guesswork out of ballot scanning and tabulation.





UNIVERSAL VOTING SYSTEM



THE ES&S EXPRESSVOTE HANDLES IT ALL.

The ExpressVote Universal Voting System combines paper-based voting with touch screen technology to create an innovative breakthrough in voting solutions.

Used in early vote centers and on Election Day in precincts or vote centers, the ExpressVote handles the entire ballot-casting process. Election officials no longer have to guess the number of ballots to print — instead, an inexpensive Vote Session Activator™ card determines the ballot style presented on the touch screen.

ExpressVote can serve every eligible voter, including those with special needs. As a fully compliant ADA (Americans with Disabilities Act) voting solution, ExpressVote enables each voter to cast his or her ballot independently.



Choose Leading-edge Technology

KEY FEATURES

VOTE SESSION ACTIVATOR

The voter receives a voting session activator card to begin the process. Election officials can choose from three options:

- If only one ballot is programmed for the election, a blank card activates the ballot.
- If the election has multiple ballots, a blank card requires a poll worker to select the correct ballot for the voter.
- If the election has multiple ballots, a card with an activation barcode displays the correct ballot for the voter.

CASTING OPTIONS

The ExpressVote enables casting options. Voters can:

- Manually place ballots in the DS200 for scanning and tabulating.
- Use AutoCast® to place ballots into a secure container for later tabulation by an election official, who may use the DS850 central scanner and tabulator.

VERIFIABLE PAPER RECORD

After all selections are made, a human- and machine-readable paper record is produced, including text and an optical scan barcode. All votes are digitally scanned for tabulation on ES&S' DS200 and DS850 devices.

EASY TO SET UP AND USE

The one-step startup and poll-closing procedure makes the ExpressVote an ideal device for poll workers. The intuitive design offers streamlined simplicity for all voters, poll workers and election staff. The paper card is the vote session activator – there is no expensive technology to manage or program. The ExpressVote is small, lightweight at less than 20 pounds, and easy to carry.

CONTROLLED AND REDUCED COSTS

Traditional ballot printing costs can be reduced significantly by eliminating the need and expense for pre-printed paper ballots. With low operation and maintenance fees, budgeting for recurring expenses with the ExpressVote is easy.

The system does not use ink, toner, or paper rolls and consumes 70 percent less paper than traditional ballots.

INNOVATIVE DESIGN

Complete and total independence is maintained while voters cast their own records. Voters review a summary page and can make changes before casting ballots. A voter's selection changes will not spoil the voting session. The system produces a verifiable paper record for each voter that is digitally scanned for tabulation. ExpressVote neither stores nor tabulates vote counts. The system is secure – the election definition media device is protected in a locked environment.





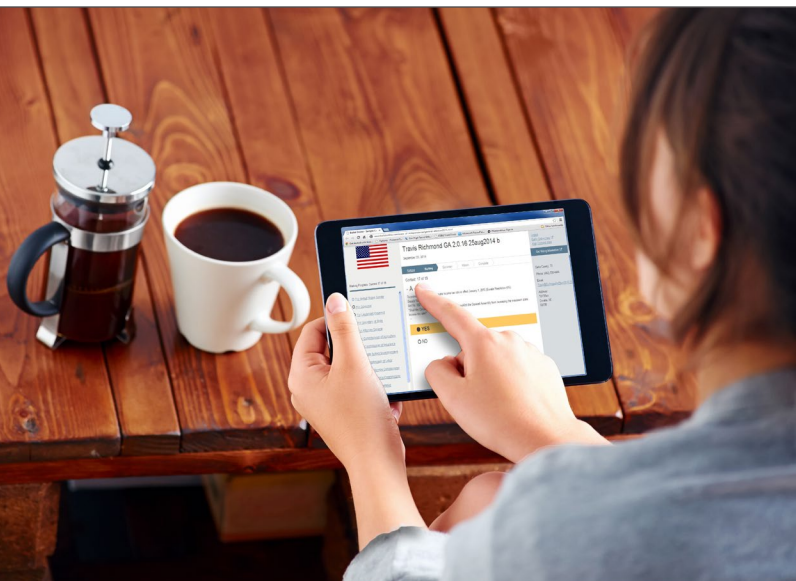
MAKE YOUR MARK™

ExpressPass®

The ExpressPass system offers an interactive, voter-specific sample ballot, that they can view online at anytime. This gives voters the freedom to research candidates and contest that will appear on their ballot, allowing them to make the most informed decisions.

Voters also have the ability to mark their selections, which can be printed or save to their mobile device. This gives them an easy reference guide at the polling location, and helps make their voting experience quick and stress-free.

The ballot information that is provided online are SAMPLE BALLOTS. Actual casting of a ballot is still done in person or through an Absentee Ballot by Mail.



www.essvote.com/expresspass

Make Your Mark

CONVENIENCE:

The ExpressPass Sample Ballot system can be accessed from the voter's computer, tablet or smartphone. From the security of their own homes, voters can research their choices and take as much time as needed to mark their sample ballots. Voters have the option to print their choices or save them to a mobile device. They can then take their "marked" sample ballot to the poll to use as a guide for voting. Their printout will even provide them with our Early Voting locations and/or their personal Election Day Polling location.

CONTINUITY:

The interactive sample ballot is identical to the ballot the voter will see in their polling location. Once the voter logs on to the site, they will enter their address. From there, our system will select the correct ballot for their residential address. Navigating through the ballot and marking choices is intuitive. The process is as easy as completing an online form.

CLARITY:

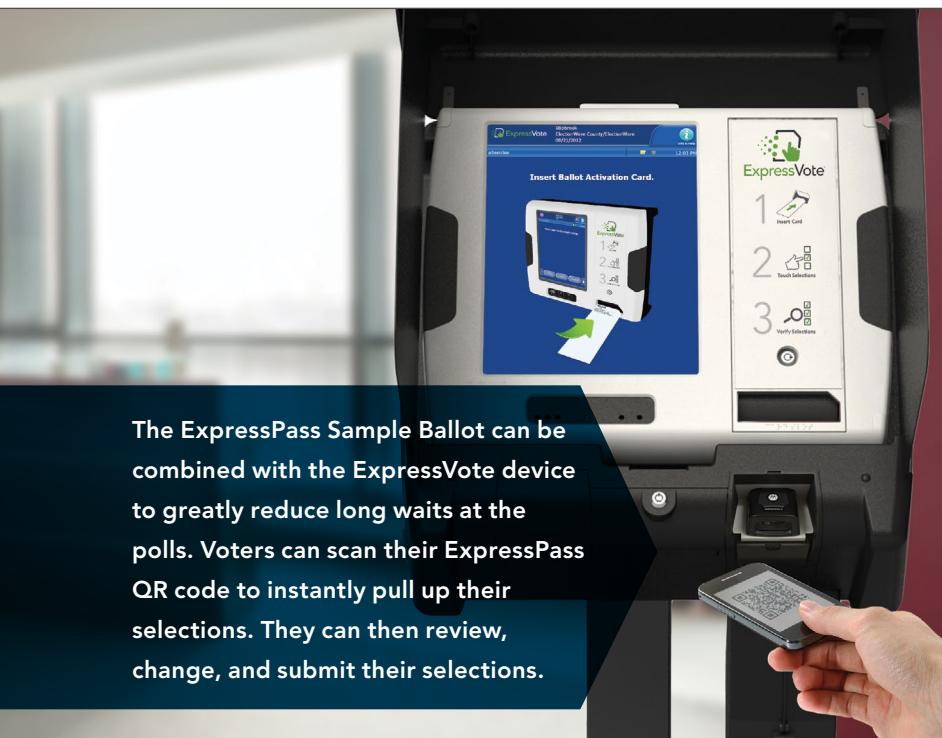
Voters will feel empowered to make educated choices. Polling location information and directions are provided.

ACCESSIBILITY:

ExpressPass Sample Ballots are provided in an accessible format for voters utilizing assistive technologies (screen readers and navigational software). They meet ADA requirements of Section 508 of the U.S. Rehabilitation Act.

PRIVACY:

The ExpressPass Sample Ballot look-up based on voter address is anonymous. Although the voter may choose to mark their choices online, no records of a voter's choices are recorded. This system passed the highest standards and voters may rest assured that their anonymity and privacy is protected.





electionware®

election management system

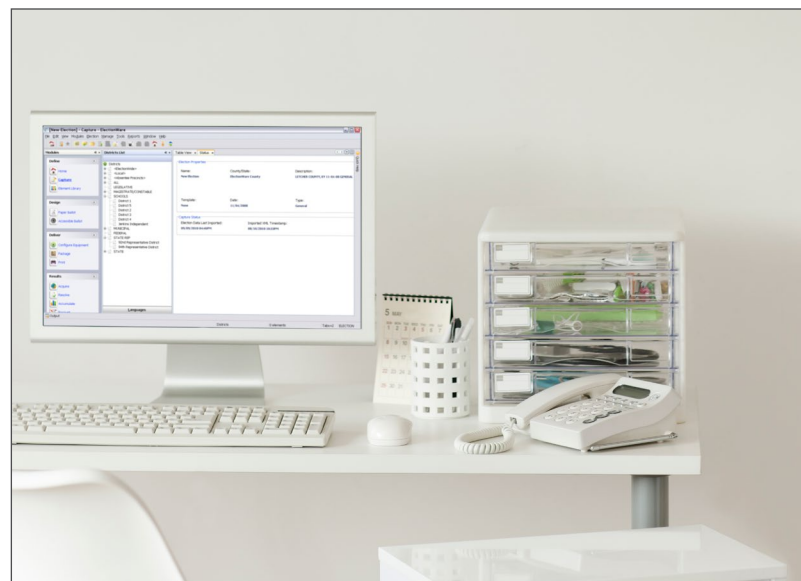
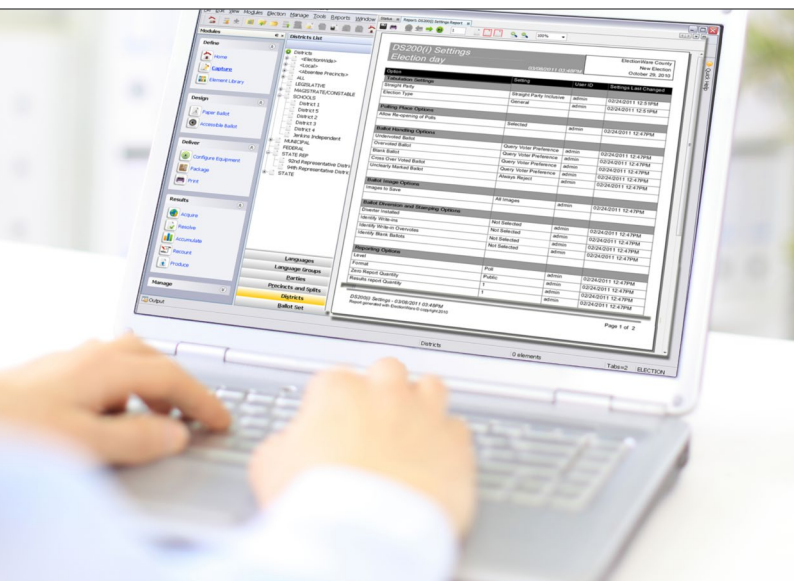
Electionware® allows jurisdictions of all sizes to manage their elections through an easy-to-use interface. This agile election management system is the result of our nearly 35 years of election software leadership.

The election management system provides everything needed to run an election at every stage, enabling election administrators to:

- Create elections
- Design ballots
- Manage election results data
- Configure selected digital scanning and accessible equipment

Electionware's design accommodates the latest in election trends, such as early voting, super polls, and electronic ballot image management.

Electionware's ability to use data from past elections as well as built-in election and ballot templates eliminates the need to re-enter data or re-create templates with each new election. These powerful capabilities enable election administrators to create error-free elections in less time.



Electionware Group Structure

KEY FEATURES

EASE OF USE

Electionware is an intuitive, easy-to-use application that streamlines workflow and removes repetition.

SIMULTANEOUS MULTIUSER ACCESS

Electionware enables large jurisdictions to allow multiple authorized personnel to simultaneously create poll media devices. Additionally, multiple teams of election officials can work simultaneously on different elections.

DATA SECURITY

Electionware incorporates the latest in election security, including heightened audit controls and change management processes that are built in to keep election data safe and secure.

COMPLIANT WITH THE LATEST VOTING SYSTEM STANDARDS

Electionware is certified by the U.S. Election Assistance Commission (EAC) according to its 2005 Voluntary Voting Systems Guidelines.

BENEFITS

POWER

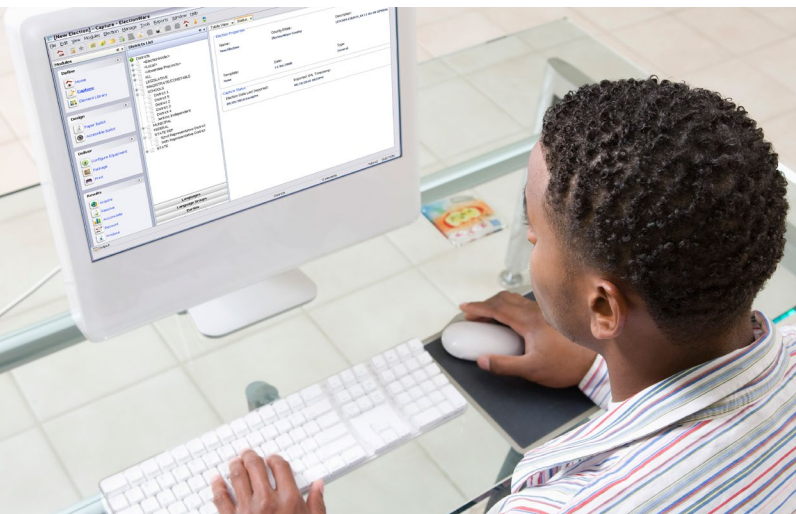
Manages thousands of ballot styles and precincts; incorporates many languages; manages and deploys multiple levels of security

INTELLIGENCE

Real-time election data queries and reports; workflow management and error alerts; enforced data accuracy; user customization; tracking of election media; live status indicators for incoming results

PRODUCTIVITY

Fast data import; re-use of election and ballot layout templates; simple translation and audio file management; multiple simultaneous users; ballot image filtering, viewing, and printing



ELECTRONIC POLLBOOK

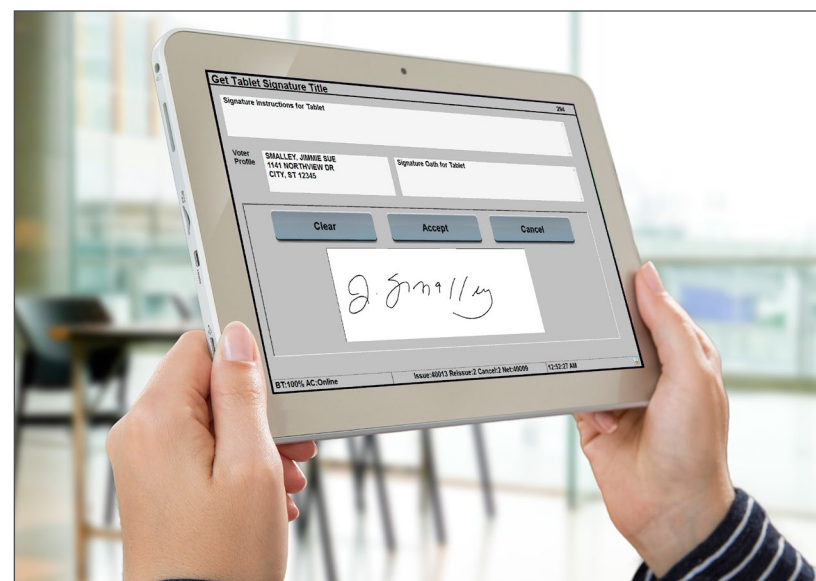
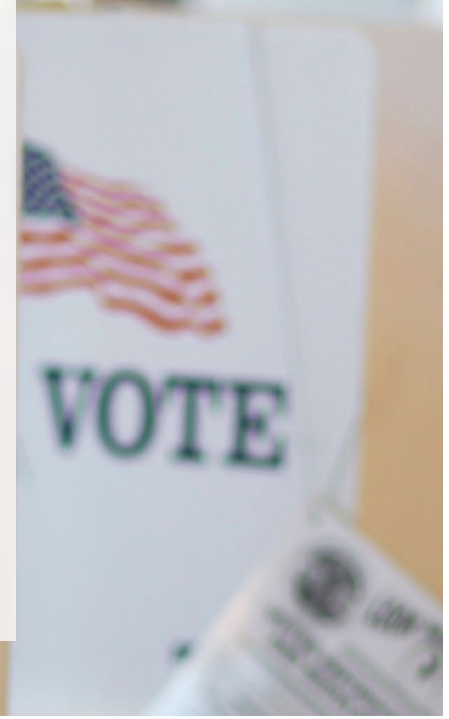


THE FUTURE OF POLL PLACE VOTER MANAGEMENT NOW FITS IN YOUR HANDS.

The ExpressPoll® system gives election poll workers a simple-to-operate voter check-in device that slashes waiting time for voters, increases the accuracy of voters' personal information, and improves the Election Day experience for voters and poll workers alike.

Our popular electronic pollbook software, EZRoster, runs on low-cost touchscreen tablets using the Windows® operating system, giving poll workers an intuitive, easy-to-understand user interface that's similar to the devices they use in their everyday lives.

Gone are the days of many external peripheral devices needed to check in voters. Instead, devices such as a signature pad and barcode reader are built right in to each tablet, making the devices easy to use and set up. The ExpressPoll can also be integrated with multiple ballot tabulation devices to provide a complete voter check-in solution and ensure the correct ballot style is issued.



WWW.ESSVOTE.COM

A LOW-COST POLL PLACE MANAGEMENT SOLUTION

BUILT-IN PERIPHERALS

Poll workers scan barcodes with the tablet's built-in camera and capture voters' signatures on the unit's touch screen, eliminating the hassle of extra cords connected to external peripherals and slashing costs. The end result is a device that's easy to set up and operate.

REDUNDANT DATA STORAGE

The ExpressPoll tablet offers "redundant" integral data storage, ensuring that voter validation information can be retrieved following each election. Data is stored in solid state internal memory and on a microSD card installed in the tablet. If one of these storage areas experience any issue, data can be easily retrieved from the other data storage location.

FASTER VOTER HISTORY UPLOADS

After an election, voter history is uploaded directly from the ExpressPoll unit, dramatically slashing upload times and enabling faster updates to the voter registration system.

WORKS WITH THE EXPRESSPOLL-5000®

Are you a current ExpressPoll-5000 customer? Our new ExpressPoll tablets can seamlessly be added to your existing system. Both solutions use the same EZRoster software, database and resource file to provide the same user experience.

SMALL AND LIGHT

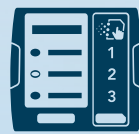
Unlike laptop computers and older tablet technology, the ExpressPoll tablets are compact, light and easily transported and set up.

ROBUST EZROSTER SOFTWARE AND CONNECTIVITY

- Supports same-day registration
- Helps reduce provisional voting by providing up-to-date absentee status or directions to a voter's correct polling location
- Displays on screen instructions, giving poll workers information and the confidence to serve all voters
- Connects wirelessly using connectivity available in polling places to sync across all pollbooks, in all locations, securely

FULLY INTEGRATED SOLUTION

- Communicates seamlessly with our data conversion software
- Shares real-time data with our CentralPoint® web application, enabling Election Administrators to manage poll locations like never before
- Integrates with ExpressVote®, iVotronic®, Balotar®, AccuVote-TS®, and AccuVote-TSX® voting systems for a powerful election management system



EXPRESSVOTE®



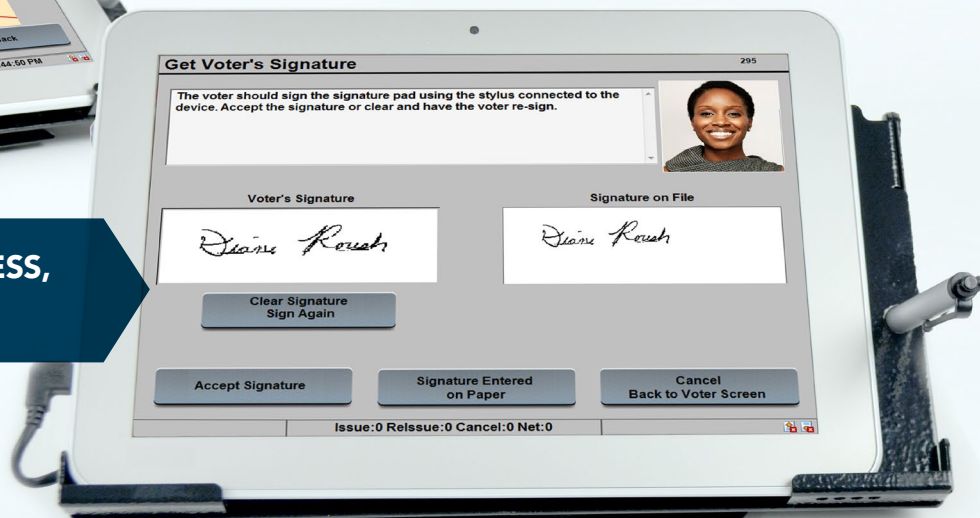
BALOTAR®



CENTRALPOINT®



EASILY VERIFY VOTERS BY ADDRESS, PHOTO, AND SIGNATURE



BALLOT ON DEMAND PRINTER

Balotar[®]

THE FUTURE OF BALLOT ON DEMAND[®] PRINTING.

The Balotar Flex is an integrated, highly secure printing system specifically designed to automatically generate ballots for governmental elections on request, eliminating the waste typical of absentee and early voting.

The Balotar Printing System[®] consolidates commercially available printing components with ES&S' proprietary software and hardware modifications, enabling the system to fulfill the demanding printing and audit needs of elections.

The system enables election staff to print the exact number of ballots needed for each vote center, based on Election Day turnout, increasing efficiency while reducing cost and waste.



Advance Voting Steadily Grows



BENEFITS

ENVIRONMENTALLY FRIENDLY

- Eliminate waste from pre-printing too many ballots
- Lower energy use for ballot printing and shipment
- Reduce chemical use

STRESS RELIEF

- Control pre-election ballot production
- No Election Day delays for ballot deliveries
- Ensure the correct ballot style for every voter
- Avoid ballot shortages
- UOCAVA and absentee ballots ready in an instant

AUTOMATED BALLOT MANAGEMENT

- Remove the need for organizing and storing mass quantities of ballots
- No more estimating how many ballots to order

COST EFFICIENT

- Limit overtime costs
- Reduce temporary staffing needs for ballot processing and inventory
- Flexible fees to fit your budget



KEY FEATURES

- Precision alignment feeder ensures maximum ballot readability
- Integrates with your voter registration system, providing an easy-to-use interface
- Works with all tabulation systems
- Eliminates ballot picking and pulling
- Print ballots as-needed
- Remove the risk of ballot shortages
- Automated email and fax capability
- Overlay capability
- Plug-and-play capability
- Automatic duplex capability for 19-inch ballots