Enhancing the Colorado Election Process
Request for Information for a Universal Voting System

April 1, 2013
Enhancing the State of Colorado Election Process

Request for Information for a Uniform Voting System

April 1, 2013
March 28, 2013

Mr. Al Davidson, UVS Project Lead
Colorado Department of State
1700 Broadway, Suite 200
Denver, Colorado 80290

RE: RFI - Uniform Voting System for the State of Colorado

Dear Mr. Davidson:

Election Systems & Software, LLC (“ES&S”) and its preceding companies have been privileged to provide election hardware, software, support and services to jurisdictions across the State of Colorado for many years. As the leading voting system vendor in the U.S., we are pleased to respond to this RFI for a Uniform Voting System for the State of Colorado.

ES&S has the technology and proven record to successfully support the deployment and maintenance of a statewide Uniform Voting System for many years to come. In fact, we currently support 15 statewide deployments. This gives us the experience and resources to supply the equipment, staff, training, and support for such a large undertaking.

**KEY ASPECTS OF OUR SOLUTION**

ES&S offers the State of Colorado a state-of-the-art 2005 VVSG certified optical scan voting system that includes the latest voting system technology and innovations available in the market. The centerpiece of our solution is the DS200® digital optical scanner. More than 15,000 DS200s are currently in use by more than 50 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 newest entry to the market, the ExpressVote®. Based on the success of the ES&S AutoMARK®, this new, leading-edge device provides a means for the disabled community to vote independently and privately while also serving a broader base of voters as a perfect early vote/vote center solution. No longer must the election official guess the number of ballots to print – instead a blank Vote Session Activator™ card is printed at the polling place with a barcode that determines the ballot style to be presented on the ExpressVote touch screen.

Our central count system solution proposes the use of the DS850® high-speed scanner and tabulator to process absentee ballots at various jurisdictions throughout the State. The DS850 is unrivaled in speed and accuracy and its ability to process folded ballots. Its high-speed digital imaging solution allows for smooth, continuous ballot scanning from start to finish – saving valuable time during the election process.

The proposed software for the State, ElectionWare®, is our newest, integrated election management system. ElectionWare will allow the State and its jurisdictions 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 write-in resolution and voter intent adjudication. In addition, our proposal allows the State to use our election-proven reporting software, Election Reporting Manager®, for media and web results reporting.

The ES&S Balotar® Ballot on Demand Printing system provides for a cost-efficient, environmentally friendly and automated ballot management system. Balotar will provide the State of Colorado the ability to print walk-in absentee ballots at a vote center or courthouse when required. The Balotar Okidata C9650dn or Okidata C711dn printers sit on a cart that allows you the mobility of easily moving
the BOD system wherever you desire. Incorporated into Balotar is our vote-by-mail system and our electronic ballot delivery system for qualified UOCAVA voters.

ES&S is aware that the State is considering several options for counties to purchase a Universal Voting System. ES&S has the ability to provide flexibility in procurement options, including long-term lease programs designed to ensure that you always have the ability to utilize state-of-the-art technology. We have successfully contracted with other states to provide equipment, updates and services through a leasing arrangement, and would happy to customize a voting system that meets all of your needs for years into the future.

We also are aware that the State of Colorado is considering a partnership with a university for ballot coding, and other support services. ES&S would be happy to work with the State to implement this partnership. We have experience working with Kennesaw State University Center for Election Systems, which serves 159 counties in Georgia. ES&S has a long history of working with State partners such as Kennesaw, and we are very comfortable in supporting and working with any designated State partner. ES&S customers currently are very pleased with this successful initiative to work with the University to manage the state’s elections process.

**SUMMARY**

ES&S is the recognized leader in the election market. Through the continual development and introduction of innovative election products, ES&S has emerged as the leading provider of end-to-end, fully integrated voting and business service solutions. With more than 60 percent of the county-level jurisdictions in the U.S. voting on ES&S equipment, you can understand why more jurisdictions have chosen to lease or purchase their voting equipment, software, and election services products from ES&S.

Thank you for considering our response. We appreciate the opportunity to present our election-proven voting system to you and look forward to a continued partnership with you and your staff. If you have any questions, please feel free to contact me directly at (402) 970-1110, or our Colorado Regional Sales Manager, Paul Harrington, at (520) 869-4290.

Very Respectfully,

Thomas E. Burt  
Executive Vice President and COO
# Enhancing the State of Colorado Election Process

## Request for Information for a Universal Voting System

## Table of Contents

<table>
<thead>
<tr>
<th>Cover Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
</tr>
<tr>
<td>Information Requested: Potential Requirements</td>
</tr>
<tr>
<td>Support</td>
</tr>
<tr>
<td>Company Overview</td>
</tr>
</tbody>
</table>

**ES&S Appendices**

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A</td>
<td>ElectionWare®/ERM®/Web Results® Overview</td>
</tr>
<tr>
<td>Appendix B</td>
<td>DS200® Overview</td>
</tr>
<tr>
<td>Appendix C</td>
<td>DS850® Overview</td>
</tr>
<tr>
<td>Appendix D</td>
<td>ExpressVote® Overview</td>
</tr>
<tr>
<td>Appendix E</td>
<td>Balotar® Ballot on Demand/Vote by Mail Overview</td>
</tr>
<tr>
<td>Appendix F</td>
<td>ExpressPoll 5000® Overview and Survey Results</td>
</tr>
<tr>
<td>Appendix G</td>
<td>Pollbook Comparison Chart</td>
</tr>
<tr>
<td>Appendix H</td>
<td>ES&amp;S Product Information</td>
</tr>
</tbody>
</table>
Executive Summary

At Election Systems and Software, our mission is to maintain voter confidence and enhance the voting experience. We achieve that goal by providing voting systems designed to meet the needs of our customers. For some states early voting is popular, in others all-mail balloting is successful, in others vote centers are required, and for many it may be a combination of several forms of voting that makes voting successful for a particular state or jurisdiction.

At ES&S we leave the policy decision of what type of voting is right for you — up to you. Our job is to provide the right system to meet the requirements which are established by the state, the locals and the legislature. Over the past few years, ES&S has worked with state election officials, our National Customer Advisory Group and a large segment of our customer base to gauge current market trends and make certain that we design world-class systems that meet those trends.

Should the State of Colorado elect to deploy a uniform voting system, ES&S has the technology and know-how to successfully support that deployment for many years without fail. ES&S has a proven record of supporting statewide uniform voting systems. In fact, we currently support 15 state deployments.

In today’s ever-changing world of election technology, it is important to have a partner who can be flexible enough to meet your needs. At ES&S we have the ability to provide all of your elections needs or a portion of those needs — we leave that choice to you. We have the ability and willingness to work with you to help customize the solution that fits Colorado voters rather than a solution designed to fit “anywhere USA”. We would be honored to be selected to serve as the provider of a uniform voting system specifically designed to meet the needs of Colorado voters.

STATE OF COLORADO UNIFORM VOTING SYSTEM NEEDS

We understand your need to gather information about the systems and products that are available for consideration in establishing a Uniform Voting System (UVS). ES&S has provided this information about our current products that we’ve proposed for this solution. They include:

- DS200® Digital Precinct Tabulator and Scanner.
- DS850® Digital High Speed Central Scanner and Tabulator.
- ExpressVote®
- AutoMARK® ballot marking device for voters with disabilities.
- ExpressPoll 5000® electronic poll book.
- Balotar® ballot on demand printing solution.
- Electronic ballot delivery system and processing software.
- ElectionWare® election management system software.
OUR SOLUTION

Based on your RFI requirements and our expert evaluation of the best fit solution to meet your needs, ES&S is submitting a proven voting system solution for your consideration. ES&S is unique in the fact that we are the only vendor who is proposing a proven system to the State of Colorado — proven with more than 15,000 DS200 precinct scanners in use during the 2012 Presidential Election cycle. No other vendor in the world can come close to matching this proven experience. Why is this important to the State of Colorado? Because you want a system that is proven to work and meet the complex and differing needs of both the large and small counties within the State.

THE ES&S DS200® PRECINCT TABULATOR AND SCANNER

Our solution’s centerpiece, the DS200 precinct-based digital scanner, combines the very best attributes of a paper-based system with the flexibility and efficiency of a digital environment. It uses the latest in digital scanning technology – state-of-the-art, precise, high resolution ballot image sensors that simultaneously scan both sides of a ballot, in any orientation. As a result, cast vote records and ballot images can be stored on a removable USB flash drive, giving you the ability to tabulate results and later review ballot images for write-ins and voter intent resolutions. Unlike other precinct-based paper ballot tabulators on the market, the DS200 is designed with flexibility to support a wide range of ballot configurations and designs. It allows for more efficient accumulation and transmission of votes, directly from the polling place.

THE DS200 HAS ACHIEVED CERTIFICATION FROM THE EAC, AND THE STATES OF ALABAMA, FLORIDA, IDAHO, INDIANA, IOWA, MAINE, MINNESOTA, MISSISSIPPI, MONTANA, NEW YORK, NORTH CAROLINA, OHIO, UTAH, VIRGINIA, WISCONSIN AND WYOMING.

With the most accurate and reliable digital scan technology available, the DS200 features:

✓ Large LCD display – Our 12.1” LCD display enhances voter, election staff, and poll worker interfaces and usability. It provides immediate feedback and instructions to the voter in the language that they select.

✓ Image Mark Recognition – The DS200 employs patented image scanning technology to quickly process ballots formatted in a variety of lengths and accurately discriminate between valid voter marks and extraneous ballot elements such as smudges, spills and perforations. This U.S. patented technology enhances the accuracy of the DS200 and is only available from ES&S.

✓ Internal battery backup – The DS200 has a built-in internal battery backup designed to meet the EAC Voluntary Voting System Guidelines (VVSG) certification standards. Unlike one of our competitors, the DS200 does not need an external UPS (backup power supply) to meet the backup power requirement of the VVSG.

✓ Unique user-friendly design – The DS200 allows easy access for maintenance and setup activities as well as access to paper path, scanner bars and other key maintenance components within seconds.

✓ Integrated thermal printer – No longer will you have to thread the paper roll through a small slot to change paper rolls. You simply remove the used plastic core and drop in a new roll of thermal paper – it’s as easy as that.
Accessibility and flexibility – The DS200 is compatible with the ExpressVote, our newest addition to our industry-leading suite of products, as well as the tried and true accessibility solution, ES&S AutoMARK Voter Assist Terminal.

2005 VVSG – The DS200 is designed to meet all the requirements of the more rigorous 2005 VVSG standards. The DS200 was certified by the states of Florida and New York in 2012, passing all the requirements of the rigorous 2005 VVSG standard. The DS200 will have a 2005 VVSG certification from the EAC by May 2013.

The ES&S DS850® High-Speed Central Count Scanner and Tabulator

With the increase in mail and other absentee ballot voting across the U.S., a high-speed central counter is becoming a critical part of any voting system solution. ES&S offers the industry’s fastest high-speed ballot scanner, the ES&S DS850. Key features include:

- High-speed sorting — The DS850 can scan more than 300 14-inch 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.

- Patented S-curve design — With the patented (US Patent # 8,261,984) S-curve transport design, the DS850 provides the real-time sorting of ballots at speeds previously achieved only by non-image-based OMR systems, while keeping the unit more compact and maneuverable.

The ES&S ExpressVote®

ExpressVote combines paper-based voting with touch screen to create a breakthrough in voting solutions. Used in early vote centers and on Election Day in precincts or in vote centers, the ExpressVote handles it all. No longer must election officials guess the number of ballots to print — instead, a Vote Session Activator™ card, similar to a punch card, is printed with a barcode which determines the ballot style presented on the touch screen.

Accommodating to various election needs, this system can serve all voters, even those with special needs, allowing voters to vote autonomously with tabulation done in the exact same manner. A feature-rich system, ExpressVote is for people with or without visual impairments, hearing issues, and physical accommodations.
ExpressVote is an early voting, Election Day, vote center, and ADA voting solution. Key features include:

- **Vote session activator** — The voter receives a voting session activator card to begin the process. The ExpressVote reads a barcode indicating which ballot style is presented to the voter. Once all selections are made, a readable record is produced, which can be tabulated on the DS200 or DS850.

- **Easy to set up and use** — 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.

- **Innovative design** — Complete and total independence is maintained while the voter marks and records their selections. A voter’s selection change will not spoil their voting session.

- **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 becomes easy with the ExpressVote.

- **Touch screen interface** — The touch screen and navigational keypad buttons are interconnected and can be used to complete all required operations. On the touch screen interface, various colors and accessibility-enhancing effects have been chosen to prompt and guide the voter. These digital buttons meet all applicable guidelines regarding size and readability.

- **ADA voting** — The lightweight and portable navigational keypad has been tested and modified through consultation with special needs groups. The keys are arranged to allow for an intuitive voting session. Each key has both Braille and printed text labels designed to indicate function and a related shape to help the voter determine its use.

**The ES&S ExpressPoll 5000® Poll Book**

The ES&S ExpressPoll 5000 System can quickly and accurately authenticate voters and capture their voting history. More than 17,000 ExpressPoll Electronic Poll Book units in more than 200 jurisdictions are currently supporting elections in the U.S. Key benefits include:

- Provides voter database information for the precinct, group of precincts, and the entire jurisdiction within each unit.

- A voter’s correct voting location can be identified in seconds, at the voting site, without contacting election central.

- Identifies the correct ballot style for the voter.

- Election Day telephone support calls from precincts will be reduced 70-80%, enabling jurisdiction staff to perform other Election Day duties.

- Voters at the incorrect voting site can be easily directed to the correct location as the address of the correct voting location can be displayed and printed out for the voter.

- Physical design and the platform reduce the likelihood of theft compared to other systems including laptop and tablet PC based alternatives.

- Supports the networking of all units within a polling location and WAN.
BALOTAR® BALLOT ON DEMAND AND VOTE BY MAIL SYSTEM

The Balotar Ballot Printing System is a comprehensive solution that addresses the challenges of early and absentee voting. It provides the technology and services to ensure accurate, efficient and secure production of ballots for absentee and walk-in absentee voting applications.

BALOTAR BALLOT PRINTING SYSTEM

The Balotar Ballot Printing System is an integrated, portable, highly secure printing system specifically designed to generate ballots on demand for governmental elections, eliminating the waste that typically occurs with absentee and early voting.

✓ Combines commercially available printing components that are integrated with proprietary hardware and software modifications that enable it to meet the demanding printing and audit needs of our election customers.

✓ Designed to print volumes up to 150,000 pages per month. Capable of printing simplex or duplex ballots in sizes ranging from 8.5” X 11” up to 9.75” X 19”.

✓ Free-standing system can be placed on a customer-owned cart or table, or on a countertop. Optional heavy duty cart, paired with an Okidata C9650dn printer, can be used for the efficient use and transport of the Balotar in a mail and Early Voting environment. A smaller printer (Okidata C711dn) is available for smaller counties with lower print volume requirements.

Other Balotar system components include:

✓ eBalotar®, which was designed in response to the MOVE (Military Overseas Voter Empowerment Act), supports the requirement for counties to distribute ballots electronically to military and overseas voters upon request. This software is designed to select the proper ballot for that voter, and automatically route those requests to the proper distribution channel by email or fax. It will also append any additional documents required or desired by the county (certificate or affidavit document, instructions, etc.) with the ballot PDF. The audit system within the Balotar will record that the request has been processed and distributed electronically.

✓ Automated Ballot Remake/Duplication Module, The Ballot Duplication Module is a software/hardware solution that automates the process of reprinting blank ballots needed to duplicate ones that are non-scannable during tabulation due to damage or voter mismarking.

✓ The Integra-Vote product suite, a comprehensive, integrated set of hardware and software tools designed to help election officials save time, reduce cost, improve accuracy and enhance the transparency with their inbound mail processes. The suite provides for the automation of the following key inbound envelope steps:
  • Inbound remittance and endorsement.
  • Envelope and signature image capture.
  • Signature verification (manual or ASR).
  • Exception identification and reporting.
  • Envelope opening.
  • Fine level sortation.
ES&S ElectionWare® Election Management System Software

ES&S ElectionWare and Election Reporting Manager (ERM) make up ES&S’ election management system (EMS) software. The ES&S EMS solution provides end-to-end election management activities. ES&S’ EMS software enables users to create an election information database, format ballots, program ballot scanning equipment, create voice files, and count ballots and generate results reports. ES&S software products allow users to customize and scale election processes to meet the needs of any size jurisdiction within the jurisdiction.

ElectionWare is a fully integrated election management software application that allows customers to carry out election management tasks through a single uniform user experience. It has a powerful and intuitive user interface and a single, common relational database.

ElectionWare addresses customer productivity issues with automation instead of repetition, reuse of previous election data instead of duplicative data entry, and built-in election and ballot templates instead of recreating ballot templates each new election. It also has integrated warning and alerts and configurable levels of security based on the customer requirements.

Benefits of ElectionWare include:

✔ **Ease of use**: ElectionWare is an intuitive, easy-to-use EMS software application that eliminates wasted effort on unnecessary tasks.

✔ **Single user interface**: The multi-function modules are delivered through a single user interface, streamlining access to, and management of, information. Common database and customer-specific settings provide seamless movement between modules, simplifying execution of key tasks.

✔ **Online help system**: ElectionWare contains an interactive and comprehensive online help system.

✔ **Multi-user interface**: Multi-user ElectionWare functionality enables large jurisdictions to use authorized election personnel to simultaneously create precinct memory storage devices and enter information for the DS200, DS850, ExpressVote, and ERM. Additionally, the multi-user functionality in ElectionWare allows multiple teams of election officials to simultaneously work on different elections.

✔ **Modernized technology, networked environment**: ElectionWare leverages the power of new technology languages, methods and networked environments that enables a multiple-user application.

✔ **Security**: ElectionWare incorporates the very latest in election security, including heightened audit controls and change management processes that are in built in to make sure your election data is safe and secure.

**Strengths and Benefits of the ES&S Team**

ES&S’ team offers State Of Colorado the most election experience of any comparable vendor. Table 1.1 illustrates the benefits of partnering with ES&S for election systems and support services.
<table>
<thead>
<tr>
<th><strong>STRENGTHS</strong></th>
<th><strong>BENEFITS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current relationship with Colorado counties</td>
<td>• ES&amp;S has years of experience supporting Colorado counties using ES&amp;S equipment. We know Colorado election laws and our customer needs.</td>
</tr>
<tr>
<td>Local State of Colorado service and support</td>
<td>• ES&amp;S has Colorado-proven field service technician and customer support personnel located in Denver.</td>
</tr>
<tr>
<td>ES&amp;S’ financial strength is unmatched by any vendor in the industry</td>
<td>• Capacity to scale our solution to State of Colorado’s needs, providing a technically robust and financially responsible solution.</td>
</tr>
<tr>
<td>Experience with Colorado’s election rules and regulations</td>
<td>• Familiarity with Colorado’s election processes and procedures was gained from our long-standing presence in the State.</td>
</tr>
<tr>
<td>Vote tabulation experience</td>
<td>• 40+ years of ballot tabulation experience at your service. Our team has unmatchable knowledge and experience preparing, maintaining and conducting elections in Colorado.</td>
</tr>
<tr>
<td>ES&amp;S is the elections industry leader</td>
<td>• Being <strong>Number 1</strong> demands accountability. Our commitment, dedication and credibility in the industry will give you the assurance that your elections will be accurate, safe, and secure.</td>
</tr>
<tr>
<td>Experience with university partnerships</td>
<td>• ES&amp;S works directly with Kennesaw State University to serve our statewide system implementation in Georgia. We would be happy to work with the State of Colorado if they decide to implement a similar partnership with a Colorado-based university.</td>
</tr>
<tr>
<td>Options to purchase or lease</td>
<td>• ES&amp;S offers long-term leasing options that could make it easier for counties to acquire new equipment, as well as the services and maintenance needed for a complete voting system.</td>
</tr>
</tbody>
</table>

**Table 1.1** Strengths and benefits
The ES&S Client Base

ES&S is the largest elections-only company in the world. ES&S provides voter tabulation systems to clients ranging in size from small county governments and individual organizations to state boards of elections and international governments. ES&S has completed successful installations of statewide voting systems in Alabama, Arkansas, Georgia, Idaho, Maine, Maryland, Minnesota, Mississippi, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, and West Virginia.

From our humble beginnings supporting election administrators and voters in 1969, we have grown to support a client base of more than 4,200 North American jurisdictions which includes over 2,400 U.S. county-level jurisdictions.

Why Should You Choose ES&S?

ES&S offers State of Colorado the right mix of equipment, service, customer support and experience to implement a statewide Universal Voting System (UVS). Additionally, doing business with ES&S provides State of Colorado:

✓ Proven financially stable company. The State of Colorado has the peace of mind and security knowing that ES&S is the most experienced, financially sound election company in the USA. With more than 40 years of elections experience and more than 450 full-time employees, ES&S is well-positioned to assist the State of Colorado with this statewide implementation, and support it for years to come.

✓ Colorado-based Customer Service Manager. ES&S has a full-time resident based in the State of Colorado ready to meet your service and support needs and will increase those in-state resources to support a statewide system.

✓ A high-value solution that provides you the most cost-effective, low-risk option available.

✓ Technology that is tried and true. More than 15,000 DS200 scanners are installed across the U.S. The DS200 has been used in binding elections since 2008.

✓ Our central count scanner, the DS850, is the fastest, most accurate, and most secure digital high-speed scanner in the industry. No other tabulator can scan and sort ballots simultaneously like a DS850.

✓ A long and continuing history of client-focused feedback sessions on our voting equipment.
**Summary**

Our solution provides State of Colorado with a **reliable, cost-effective, state-of-the-art** voting tabulation system that will continue to meet the needs of State Of Colorado voters well into the future. County staff and poll workers will find our equipment easy to move and set up on Election Day, and convenient to store and maintain when the election is over. And, as always, our team of customer service and technical support experts will be available to assist with any questions or concerns that may arise.

Thank you for this opportunity and consideration. We look forward to future successes as we provide the State of Colorado with ES&S’ unparalleled election service and support.
The Secretary of State will accept information concerning systems that include any or all of the following or any alternative approaches that may be submitted:

**ES&S RESPONSE**

As the industry leader in the design, development and manufacture of technology-based voting systems, ES&S is proposing a comprehensive elections system that will serve the State of Colorado’s election officials and citizens no matter where they live or work, or how they vote. Our hardware and software include state-of-the-art technologies that have achieved State and EAC certifications and approval, and have been used successfully in binding elections throughout the country. Our proposed solution covers the spectrum of voting system hardware, software, service and support. We are confident that the following ES&S voting system components will allow the State of Colorado to meet its vision to establish a Universal Voting System for its 64 counties:

- The **DS200**® precinct-level paper ballot scanner.
- **ExpressVote**® voting device for people with or without visual impairments, hearing issues and physical accommodations.
- The **DS850**®, our latest and fastest central high-speed paper ballot scanner.
- An **Electronic Ballot Delivery** system for voters qualifying under the Uniform and Overseas Citizens Absentee Voting Act and other voters allowed by Federal or Colorado law to receive or cast ballots by secure electronic delivery methods.
- **Balotar**® Ballot on Demand and vote by mail system.
- The **ExpressPoll 5000**® electronic pollbook for rapid voter check-in and voter data updates.
- **ElectionWare**® integrated election management system software.
- **Election Reporting Manager**® results reporting software.
- **University-based service model** – based on our well-established and successful voting system support model provided by Kennesaw State University and the State of Georgia.

1. Provide for the design, creation, and testing, of ballots to be voted electronically or on paper, and for the importation of the ballots into an electronic voting unit upon or through which an individual voter may cast his or her ballot on all contests for which the voter is eligible.

**ES&S RESPONSE**

Intelligent by design, **ElectionWare**, ES&S’ election management system, provides end-to-end election management activities through a powerful and intuitive user interface. Built on strengths of 40+ years of election software development experience, its efficient and flexible design enables jurisdiction of all sizes to effectively manage their elections.

ElectionWare is modular and customizable; it’s made up of components called modules that can turn displays on and off based on user profiles and equipment types.

Organized as a collection of features/actions based on work flow of elections, the user will find ElectionWare easy to learn and master due to the familiar and conventional design.
ElectionWare is a fully integrated election management software application that allows customers to carry out election management tasks through a single uniform user experience. It has a powerful and intuitive user interface and a single, common relational database.

ElectionWare enables administrators to create elections for the ES&S DS200, ES&S DS850, ES&S ExpressVote, and ES&S AutoMARK. Within ElectionWare there are five groups and eleven modules. A brief description of these groups and their modules are listed below:

**Define** – The Define group is used to input critical data for your election. Modules contained within the Define group are Home, Capture, and Element Library.

- **Home** – This module is the starting point within ElectionWare. Use Home to create, edit, and manage your elections.
- **Capture** – This module is used for entering important election-based information into the election database. Use Capture to enter precincts, districts, contests, candidates, parties and other information pertinent to creating an election.
- **Element Library** – Store graphics in this module for use with ES&S ExpressVote and AutoMARK, ES&S DS200, and ES&S DS850. Or manage system translations and audio for the ES&S ExpressVote and ES&S AutoMARK.

**Design** – The Design group is used to design ballot and audio elements for your election. Modules contained within the Design group are Paper Ballot and Accessible Ballot.

- **Paper Ballot** – This module opens in a separate window and enables you to design paper ballots for use with the ES&S DS200, ES&S DS850 and ES&S AutoMARK.
- **Accessible Ballot** – Format ballot display options as they will appear on the ES&S ExpressVote and AutoMARK and manage ADA audio settings for the ES&S ExpressVote and AutoMARK. You also can validate data prior to generation of the ES&S AutoMARK/ExpressVote election files.

**Deliver** – The Deliver group is used to configure equipment, package election data and print ballots on demand. Modules contained within the Deliver group are Configure Equipment, Package, and Print.

- **Configure Equipment** – This module enables you to add or edit polling information, set parameters and create access codes for voting on the ES&S DS200, ES&S DS850, ES&S ExpressVote and ES&S AutoMARK. You can also generate your election files for use with the ES&S DS200, ES&S DS850, ES&S ExpressVote and ES&S AutoMARK.
- **Package** – Create media for use in the ES&S DS200, ES&S DS850, and ES&S AutoMARK with this module. You can also create the ballot file for the ExpressPoll.
- **Print** – View and print Ballot on Demand (BOD) ballots by precinct from the Print module.

**Results** – Modules in the Results group are used to load election results data; view, filter and export poll place and ballot records; view and print ballot scan images, facsimiles and Cast Vote Records; generate Media Status, Machine Log and Election Summary results reports; and optionally clear loaded results. Modules within this group are **Acquire** and **Produce**.

- **Acquire** – This module is used to load results files and view data related to media devices encoded for the election. Poll place records can be viewed and exported to file. Media Status and Machine Log reports can be viewed, saved to file or printed. If required, results loaded from selected media storage device(s) can be cleared from the database, or all loaded results can be cleared from the database.
- **Produce** – This module is used to filter, display and export ballot data from loaded results data. Ballot records can be viewed and exported to file. The scan images or facsimiles of ballots associated with selected ballot records can be viewed and printed. In addition, scan images of
ballots and their Cast Vote Records can be viewed, printed and saved. The Election Results Summary report, which includes the results of all loaded ballots, can be viewed, printed or saved.

**Manage** – The Manage group is used to manage users and jurisdictions in ElectionWare. Module contained within the Manage group is Setup.

- **Setup** – This module enables you to add and edit users and jurisdictions, and set the strength of election codes. Note: Each module in ElectionWare enables you to generate reports to track event activity and workflow.

Please see **Appendix A** for more information about ElectionWare.

### 2. Capture the voter’s vote electronically and provide for output to a paper ballot for tabulation.

**ES&S Response**

Once the voter makes their selections electronically on the ExpressVote or manually on the paper ballot for the DS200/DS850, the recorded outputs on the ballot/card are subsequently entered into the DS200/DS850 for tabulation. The vote selections on the ExpressVote are not saved on the unit after they are printed to the paper activation card.

To cast an official ballot/ExpressVote activation card, voters simply insert the marked paper ballot/activation card, in any orientation, into the DS200 input slot and follow the easy-to-read instructions displayed on the terminal’s 12-inch LCD touch screen. The terminal scans the entire ballot/card (front and back), interprets voter selections and either accepts the ballot/card, storing a cast vote record for system tally; or identifies and alerts the voter to any ballot handling exception condition (undervotes, overvotes) 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. Handling exceptions do not occur with an ExpressVote card as the voter has already had the opportunity to work through any exceptions when making their selections on the ExpressVote.

As the DS200 records voter selections, the scanner stores a high-resolution image of the entire ballot and cast vote record to the inserted USB flash drive. The cast vote records are both digitally signed and encrypted using FIPS 140-2 level 2 certified algorithms.

The DS850 is a high-speed, digital scan central ballot counter that uses advanced cameras and imaging algorithms to simultaneously capture voter selections on the front and back of a ballot, evaluate the results and then sort ballots into discrete bins without interrupting scanning. The scanner saves voter selections and ballot images to an internal hard disk and exports results to a USB flash drive for processing with Election Reporting Manager.

ES&S’s electronic ballot delivery system will allow voters to make selections on-screen and generate a server-side encrypted marked ballot that can be viewed online by the voter. The system stores voters’ ballot selections securely and protects voter anonymity through the use of security protocols. After voting, the voter downloads and prints a ballot selection sheet and additional materials required, such as an affidavit, then returns these materials to election officials in a manner similar to current absentee processes. The system allows for the creation of ballots that can be tabulated directly from the digitally received ballots with no manual transcription or bar code process.

Please see **Appendix B** for more information about the DS200 and **Appendix C** for more information about the DS850.
### Potential Requirements

**3. Provide a method for the voter to receive and visually verify that the correct ballot is displayed in the electronic voting unit.**

**ES&S Response**

During the voter check-in procedure, the poll worker will verify that the voter is at the correct polling place by either an electronic poll book or paper poll book and will subsequently issue the voter the correct ballot style to cast their vote on the DS200 or DS850. Once the ballot is issued by the poll worker, the voter has the responsibility to determine whether they were issued the wrong ballot style.

Similarly, an ExpressVote voter will be issued a Session Activator Card containing the correct ballot style during voter check-in. Or the voter will be issued a blank Session Activator Card, whereupon the correct ballot style is selected upon activation of the ExpressVote.

**4. Allow vote capture by electronic means and provide for a voter verifiable paper audit trail.**

**ES&S Response**

Cast vote records captured by the DS200 and DS850 are captured electronically on the unit’s memory devices. The paper ballot utilized with the DS200 and the DS850 is the voter-verifiable paper record of all votes cast and provides an audit trail that is available to jurisdictions in the event a recount, including manual recount, is required.

Votes cast on the ES&S ExpressVote can be captured electronically on a DS200 tethered to the ExpressVote. In the un-tethered mode, vote selections are not captured by the ExpressVote; voter selections are captured on the paper activator card whereupon they can be subsequently tabulated by the DS200 or DS850. In either case, the activator card is the voter verifiable paper audit trail.

The ES&S electronic ballot delivery system is designed to provide the voter with a ballot selection form which must be returned to the election official in order for the electronic vote to be recorded. The receipt of this ballot selection form triggers a process in the election office in which election officials duplicate the returned results onto an official ballot for subsequent tabulation. The returned form and transcribed ballot provide a means for a voter verifiable paper audit trail with this method of voting.

**5. Allow vote capture by electronic means and meet accessibility standards, including providing the voter the opportunity to access an audio ballot or other accessible ballot form, and to cast a ballot privately and independently.**

**ES&S Response**

**ExpressVote®**

ExpressVote combines paper-based voting with touch screen to create a breakthrough in voting solutions. Used in Early Vote centers and on Election Day in precincts or in vote centers, the ExpressVote handles it all and is a feature-rich system for voters with or without visual impairments, hearing issues and physical accommodations.

The touch screen and navigational keypad buttons are interconnected and can be used to complete all required operations. On the touch screen interface, various colors and
accessibility-enhancing effects have been chosen to prompt and guide the voter. These digital buttons meet all applicable guidelines regarding size and readability.

The navigational keypad has been tested and modified through consultation with special needs groups. The keys are arranged to allow for an intuitive voting session. Each key has both Braille and printed text labels designed to indicate function and a related shape to help the voter determine its use.

Regardless whether the voter uses the touch screen or audio interface, changes can easily be made throughout the voting process by simply navigating back to the appropriate screen and selecting the change.

From concept to construction, ES&S adheres to industry-leading standards for quality and design. ExpressVote meets and exceeds the more rigorous 2005 Voluntary Voting Systems Guidelines for usability, accessibility and security requirements.

In addition to the ExpressVote, ES&S continues to offer the AutoMARK Voter Assist Terminal to meet accessibility standards.

Please see Appendix D for more information on the ES&S ExpressVote.

6. Allow the importation of audio ballot content that may have been created externally.

**ES&S Response**

ElectionWare’s Accessible Ballot module provides the ability to format screen elements and create audio files for the ExpressVote. With the ease and usability ElectionWare provides with the creation of both instructional and ballot informational scripts, the creation of audio files can be performed through either (.wav) file recording or through the use of synthetic (text to speech) audio. In either scenario, audio files are imported into the ballot marking device, and then utilized for playback for the voter. Additionally, both the AutoMARK and ExpressVote utilize all of the languages supported by ElectionWare. All audio is transferred to the appropriate media type when creating your media. For this reason, enabling audio on your accessible equipment is as easy as installing your election media, and then powering up your system.

7. Allow the voter to review, change, and confirm choices made while casting votes on the electronic vote capture system.

**ES&S Response**

Voters who mark their choices on paper ballots to be scanned by the DS200 or DS850 can review, change and confirm their selections before the ballot is inserted into the scanner or ballot box. Voters using the ExpressVote system will be presented with a summary screen to confirm their choices before the activation card is marked and subsequently tabulated.

Voters using the electronic ballot delivery system will be able to review, change, and confirm all selections prior to returning the marked ballot to the county or state.

8. Allow the casting of provisional ballots electronically and the segregation of these ballots from other ballots cast until verification of voter eligibility is complete.

**ES&S Response**

Provisional ballots/cards are NOT electronically tallied and integrated into the election results on election night. Rather, provisional ballots are returned to the poll worker and placed into an envelope whereupon they will be reviewed during official canvass for authenticity. Once each county’s canvass
board determines the validity of the provisional ballots, these ballots will then be tabulated on either the DS850 high-speed scanner or the DS200.

9. Allow the reporting of accepted provisional ballots as an individual category along with other categories the State of Colorado may require, including but not limited to, ballots cast during Early Voting, on Election Day, and by mail.

**ES&S Response**

ElectionWare software integrates tallying and reporting of early voting, vote-by-mail ballots, electronic ballots, Election Day and provisional ballots. The State of Colorado can choose any ES&S system to tally and report these separate ballots. On Election Night, electronic media from each ES&S system, for each ballot type, is read separately into Election Reporting Manager. Results from each type are electronically integrated and a variety of election results is produced in varying formats. Once each county's canvass board determines the validity of the provisional ballots, these ballots can then be tabulated on either the DS850 high-speed scanner or the DS200.

10. Provide for accumulation, tabulation, and reporting of all votes cast by electronic means.

**ES&S Response**

ES&S is proposing Election Reporting Manager (ERM) software for results reporting. This application works in conjunction with ElectionWare software.

ERM is used to generate paper and electronic reports for poll workers, candidates and the media. ERM is designed to display updated election totals on a monitor as ballot data is tabulated. Report editing features enable the user to read data from a variety of ballot scanners, customize report formats, and generate accurate election results. Online voting results would be electronically incorporated with those obtained from the tabulators using standard data conversion processes.

ERM is designed to support a wide range of ES&S ballot scanning equipment and can produce reports for both the ballot scanning systems and Internet voting systems. When integrated with our Web Results™ election night reporting application, the State of Colorado will have the ability to post election results to its website in a variety of charts, graphs and user-friendly graphics.

Please see Appendix A for complete information on Election Reporting Manager and Web Results.

11. Allow accumulated election results to be audited in a risk limiting audit via a single vote cast record.

**ES&S Response**

The ES&S system saves a cast vote record of each processed ballot, and provides the ability for the user to view a graphical ballot image of any desired ballot with its associated cast vote record. This provides the ability to manually audit the machine interpretation of any user-selected ballot or group of ballots.

Although it's intentionally not possible to match a ballot to a voter, stored ballot records are identified by precinct and ballot style, which enables selection of ballots from predetermined precincts for audit.
12. Allow printing of a removable paper copy of results at the polling site from each individual electronic voting unit used.

**ES&S Response**

The DS200 Results Report prints automatically when the polls are closed. The number of copies of the report that prints is programmable in ElectionWare. A sample of the Results Report (Poll Level Summary report) is shown below:
13. Provide for the design and development of paper ballots by ballot style and precinct, on two-sided ballot pages, and multiple page ballots.

**ES&S Response**

As outlined in question 1, ballot design begins with the setup of the election definition, which is done through the ElectionWare Capture. This process is the same whether the ballots are paper ballots, audio ballots or electronic ballots.

The **Paper Ballot** module enables election personnel to import database information from the Capture module, and create various ballot types based upon the information in the election database. Using flexible options such as style sheets, users are able to create variable stylistic elements such as candidate, race and heading information, as well as ballot graphics and elector instructions.

Unlike other poll-based paper ballot counters, the DS200 and DS850 support a wide range of ballot styles and designs — allowing you to dictate the size and format of your ballot rather than your ballot scanning equipment. The following chart illustrates the benefits of the DS200's and DS850's flexible ballot features.

<table>
<thead>
<tr>
<th>DS200/DS850 flexible ballot — supported features</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Supports paper width of 8.5 inches.</td>
</tr>
<tr>
<td>• Supports ballot page lengths of 11, 14, 17, and 19 inches (with 1- or 2-inch stubs).</td>
</tr>
<tr>
<td>• Accepts ballots formatted in portrait or landscape orientation.</td>
</tr>
<tr>
<td>• Supports target area with check marks, Xs, or slashes to the right or left of selection.</td>
</tr>
<tr>
<td>• Ballots can be printed on one site or both sides, and on multiple pages.</td>
</tr>
</tbody>
</table>

**Table 1** DS200/DS850 flexible ballot support details

14. Provide for the printing of paper ballots on demand for issue via mail, at polling sites, through County Elections Offices, and Service Centers.

**ES&S Response**

The Balotar Ballot On Demand Printing System is a comprehensive solution that addresses the challenges of early and absentee voting by providing the technology and services to ensure accurate, efficient and secure production of ballots. It is an integrated, portable, highly secure printing system specifically designed to generate ballots on demand for governmental elections, eliminating the waste that typically occurs with absentee and early voting.

The Balotar system combines commercially available printing components that are integrated with proprietary hardware and software modifications that enable it to meet the demanding printing and audit needs of our election customers.

More information about Balotar Ballot on Demand can be found in **Appendix E**.
15. Provide for the efficient processing of ballots that require resolution of voter intent.

**ES&S Response**

The DS200 precinct-based digital scanner uses the latest in digital scanning technology – state-of-the-art, precise, high resolution ballot image sensors that simultaneously scan both sides of a ballot, in any orientation. As a result, cast vote records and ballot images can be stored on a removable USB flash drive, giving elections officials the ability to tabulate results, and later review ballot images for write-ins and voter intent resolutions.

These ballot images can be reviewed through the Acquire and Produce modules in ElectionWare, ES&S' election management software, to examine write-in votes and resolve voter intent in unclear ballots.

16. Provide for a central count accumulation and reporting of votes cast on paper ballots.

**ES&S Response**

Election Reporting Manager is used to generate paper and electronic reports for poll workers, candidates and the media. ERM is designed to display updated election totals on a monitor as ballot data is tabulated. Report editing features enable the user to read data from a variety of ballot scanners, customize report formats and generate accurate election results. Online voting results would be electronically incorporated with those obtained from the tabulators using standard data conversion processes.

ERM is designed to support a wide range of ES&S ballot scanning equipment and can produce reports for both the ballot scanning systems and Internet voting systems. When integrated with our Web Results™ election night reporting application, the State of Colorado and its counties will have the ability to post election results to their websites in a variety of charts, graphs and user-friendly graphics.

Please see Appendix A for complete information on Election Reporting Manager and Web Results.

17. Allow the centralized accumulation and reporting of all votes cast and the reporting of such votes by method cast including provisional ballots.

**ES&S Response**

ERM will allow the centralized accumulation of all votes cast. Reports can indicate the method by which the votes were cast, including provisional ballot.

18. Allow the centralized accumulation and reporting of all votes cast and the reporting of such votes by candidate, “yes or no”, and contest within each precinct in the election.

**ES&S Response**

ERM is capable of accumulating and reporting votes cast by candidate, “yes or no”, and contest within each precinct in the election.
19. Allow production of a uniform precinct-level electronic results export.

**ES&S Response**

ERM produces a wide array of user-configurable election reports, displays and files for export in different formats. Voting location level, accumulated totals and elector turnout and other statistical reports provide quick and effective means of accommodating candidate and media requests for election results and are available upon demand.

If the standard reports available don’t have the exact information needed by the counties and the state, ES&S can assist the State of Colorado in creating custom report formats to fulfill this request.

20. Allow secure electronic delivery and return of ballots for voters qualifying under the Uniform and Overseas Citizens Absentee Voting Act and other voters allowed by federal or Colorado law to receive or cast ballots by secure electronic delivery methods.

**ES&S Response**

ES&S’s electronic ballot delivery and return system ensures that qualified voters can be securely authenticated against official voter registration information, be alerted of the availability of a ballot electronically, have a fully accessible on-screen voting experience which uses official ballot information to match the voter to the correct ballot style, and print a ballot selection sheet to confirm that the selections saved on the system match the voter’s intent. The voter can access the system multiple times, and is permitted to submit his/her ballot multiple times (with only the final ballot being official.)

Election officials have a simple, integrated method for creating ballots that are read by ElectionWare without the need to transcribe voters’ selections either manually or through barcodes. Election officials can retain the returned ballot selection sheets and use them in the same manner as VVPATs are used – e.g., for use in post-election audit processes.

The system also offers a comprehensive method of managing encryption and security schemes to protect voter anonymity. Pre-election logic and accuracy testing can be conducted to confirm that voter selections made through the system are tabulated accurately.

21. Allow automated verification of voter signatures via comparison with voter registration file signatures and the signatures provided on mail ballot return envelopes. These systems must provide a means to calibrate acceptance criteria.

**ES&S Response**

Automated signature recognition software is utilized to automatically compare and verify the authenticity of the signatures on the return mail ballots. The ASR system compares an image of a voter’s signature scanned from the incoming mail piece against that voter’s corresponding reference image in the voter registration database.

Confidence values range from 1 to 99. The confidence value indicates how confident the verification process is about the match between the instance image presented for verification and the corresponding reference image. A high confidence value indicates a high probability that the reference image resembles the instance image.

The level of effective for ASR varies based on several key considerations:
Potential Requirements

- Threshold level set.
- Quality of reference images.
- Amount of other graphics, text, noise in the signature block areas.

Upon completion of the ASR process, the envelope will contain a status as **Accepted** or **Challenged**. Challenged pieces will be made available for a signature verification client to allow manual comparison and verification.

ES&S’ ASR tool can be used with all available hardware platforms. We also have installations where our ASR product is used to verify signatures processed with other major manufacturers' sorter systems.

Please see **Appendix E** for more information.

22. Provide automated sorting of mail ballot envelopes to various jurisdictional or precinct level divisions.

**ES&S RESPONSE**

During the final sorting process, sorters can be configured to accommodate from four to 64 bins for precinct/group sorts. Our in-line opening of envelopes automates this process. Challenged pieces or exceptions also can be sorted into a separate bin. Please see **Appendix E** for more information.

23. Provide, possibly in conjunction with sorting or signature verification, the attachment of a date stamp to the mail ballot envelope.

**ES&S RESPONSE**

Each mail or online ballot is time and date stamped and endorsed when return envelopes are fed through the scanning system. An image of the ballot and the signature are captured for further processing. In addition, all reports created for this process include the date, time and operator log-in at the time these ballots were scanned. Please see **Appendix E** for more information.

24. Provide a solution for security of the entire system including physical security, data integrity measures, contingencies, and backup strategies.

**ES&S RESPONSE**

A voting system's sensitivity to disruption or corruption of data depends, in part, on the physical location of equipment and data media. ES&S addresses these concerns by working with clients to develop an Equipment and Data Security Plan. This plan outlines steps to ensure the highest level of protection for voting machines, software, election data and facilities. These steps include:

- Creating a secure physical location for storage and use of the ES&S voting system.
- Limiting external access to secure rooms to the least number of privileged personnel.
- Proper disposal of confidential waste, including paper and electronic media.
- Separating business critical systems from general systems.
- Defining and assigning system backup and recovery responsibilities.
- Safely storing election supplies and non-election media, such as USB flash drives and CDs.
- Appropriate configuration of network security resources.
• Defining procedures for security for polling places and for the central count location where all votes are tallied – before, during and after the election.

This plan also includes a Security Breach Recovery Plan to be followed should there be any indication of a security breach in the accountability and chain of custody procedures. The plan is developed in a manner that enhances public confidence in the security and integrity of the election. Any indication of a security breach, documentation errors, or seal damage must be reported immediately and confirmed by more than one individual.

**EQUIPMENT SECURITY**

A number of external security features have been incorporated into the **DS200** to prevent tampering.

• The DS200 carrying case (top portion of ballot box) can be locked with a key.
• The device cannot be powered up without the control key (controlled by election manager).
• Tamper-evident seals can be applied to the case itself to prevent malicious entry.
• The ES&S DS200 election definition is stored on a USB flash drive that is inside a locked compartment. The flash drive itself can employ a wire-type seal to add tamper evidence. The compartment door remains locked throughout the election day, and the flash drive can remain sealed in the DS200 until the time to download the encrypted and digitally signed results.
• Both prior to and after use, additional seals can be used to secure the DS200 itself, as well as all ballot box compartments.
• Details on recommended security practices can be found in the operator’s manual.
• All administrative functions are password protected. These passwords are user configurable.
• All DS200 data is signed with FIPS compliant digital signature algorithms and software and checked for valid signatures when the data is introduced into the machine. All data generated is also signed so the program receiving the data can validate it. The system will generate an error message and will not allow the machine to continue processing an election if a signature check fails.

On both the DS200 and DS850, the operating system is stored on a compact flash card socket that is protected by a combination of locks and tamper evident seals. The BIOS on the main board is locked to prevent any edits to CMOS settings and configured to only allow booting from the compact flash card; this also prevents control of the operating system using a USB keyboard. Network access for the DS200 has been disabled, as has any super user access.

Other security features of the **DS850** include:

• Key locks and special screws are used to protect the unit against tampering during system repair, or intervention in system operations, in response to system failure.
• The DS850 has no capability to write or otherwise change the election program once installed.
• The contents of the DS850 election media are digitally signed and verifiable using the application.
• The scanner does not include any form of data entry keypad, thus providing a general safeguard for critical data. All administrative functions are limited to the controls allowed through the touch screen interface.

Security features of the **ExpressPoll 5000** include:

• Access to data on the ExpressPoll is restricted by a user ID and password.
• A separate password is required to access supervisor functions.
• A supervisor password can be required on any button displayed on the ExpressPoll, allowing the user to exclude the poll workers from any functionality, such as canceling an issued ballot or issuing a provisional ballot.

• A central administrator card and PIN is required to access the administrative functions of the ExpressPoll.

• The use of an election official’s or poll worker’s user ID and password provides access to accomplish designated tasks within the system. Every log-on attempt generates an audit log event, so it is very easy to determine what activities were completed by a specific user.

• An additional physical security element provided by the ExpressPoll 5000 includes a cover protecting the removable memory card portals. This cover can be secured using a numbered audit security tag.

• In regards to network security, many jurisdictions that deploy VPN routers on their WAN provide native data encryption to their transmissions.

25. Allow electronic tracking of voting equipment location.

**ES&S Response**

ES&S is currently working with the New York City Board of Elections to implement a pilot project to install radio frequency identification (RFID) devices in every piece of the voting system: scanners, ballot boxes, tote bins, memory devices, voting privacy booths, etc. The goal of this pilot project is to track the movement of any tagged item from its origin to destination through the use of RFID readers and scanners. This is a huge project and will eventually apply RFID tags to approximately 30,000 valuable election assets.

ES&S does not offer RFID equipment or services. However, there are a number of companies who currently work with election jurisdictions to provide an asset management solution.


**ES&S Response**

The ExpressPoll 5000 unit with EZRoster software is an electronic poll book solution that can be used to manage a computerized list of registered voters for a polling location, county or an entire state. The ExpressPoll tracks and updates voter registration data throughout the election lifecycle, from initial voter registration, to early and Election Day voting, to post-election VR system updating.

Voter information can be rapidly retrieved from the ExpressPoll 5000 unit by entering the letters of the voter’s name on the touch screen. If a barcode reader is used, voter information can be retrieved simply by scanning the voter’s driver’s license or voter ID card.

Voter lookup on the ExpressPoll is fast and efficient. When searching for a voter by last name, 96 percent of voters are immediately found after entering just three letters, and 99.99 percent of voters are found after entering just five letters. If the voter is not found in a precinct search, the poll worker can easily expand the search to the county, or to the entire state, simply by touching an icon on the screen.
The voter registration database can optionally be searched by voter address, voter ID, affidavit number, Social Security number and/or driver's license number.

More information about the ExpressPoll 5000 can be found in Appendix F. We also have provided a chart in Appendix G that outlines the benefits of using a dedicated electronic pollbook as compared to a standard laptop PC or tablet.

27. Systems must be able to provide content and instructions in both English and Spanish with the potential for adding additional languages in the future.

**ES&S Response**

The proposed DS200 version can accommodate the following languages:

- English
- Spanish
- Chinese
- Korean
- Japanese

Once a voter or poll worker selects a language, the ballot insertion screen will appear in the selected language. Examples of the English/Spanish language Welcome screens follow:
Responses should address available support and help desk services. In particular, responses should discuss technical service and help desk service available to the State and counties during the installation phase of the project as well as services available during the life of the system.

**ES&S RESPONSE**

**ES&S Core Project Team**

An ES&S Senior Project Manager, certified by the Project Management Institute (PMI), will lead the ES&S Project Team and will simplify communication channels by serving as the principal point of contact to the State of Colorado. The ES&S Project Manager will hold single-point accountability for coordination of the activities and personnel assigned to the project on behalf of ES&S and provide all status reporting required by the State.

The Senior Project Manager will be assisted by:

- An ES&S Senior Project Director, who will serve as an escalation point and project sponsor to the State of Colorado and the ES&S Project Team.
- An ES&S Senior Technical Lead, will be assigned to the project to ensure all technical requirements are met to the satisfaction of the State. The Senior Technical Lead will bring technical and election system implementation experience to the project and will also have access to a vast network of certified technicians and voting system experts, both locally and nationwide.
- A Help Desk staffed with experienced hardware and software support technicians and engineers specifically trained to support the new voting system. The Help Desk utilizes a systematic three-tiered escalation process to ensure that all issues and questions, whether minor or major, are quickly addressed by the appropriate subject matter experts. The Tier 2 Help Desk team has direct access to Tier 3 product engineers, system administrators and software developers.
- The Tier 3 Support team, which includes product engineers, system administrators, and software developers. As needed, the ES&S Project Team and Colorado staff will have access to Tier 3 ES&S resources capable of addressing advanced requests, questions or issues. These same resources will be responsible for the design, development and deployment of system changes, including any updates and enhancements.
- The ES&S Customer Service Manager (CSM), who will provide project guidance, communication support, and administrative project support to Colorado and the ES&S Project Team. The ES&S CSM will serve as your first point of contact (Tier 1) and is responsible for overall customer satisfaction.

**System Delivery and Deployment**

ES&S will deliver the voting system equipment and software on a schedule dictated by the State of Colorado.

ES&S will work with the State to implement a thorough pre-election system testing and deployment program. Prior to each election, ES&S staff will begin to gather specific election data and information to develop ballots and machine programming. Once ballot design and functionality are approved, ES&S will initiate a series of unit-level and system tests to ensure full voting system operability.
**ONGOING MAINTENANCE AND SUPPORT SERVICES**

The ES&S Team will work with the State of Colorado to determine and implement the appropriate level of ongoing user support, including help desk and on-site technical support and training. ES&S will adjust its support plan based on the State’s direction, and will accommodate any variance in support needs throughout implementation and ongoing phases.

The ES&S Team can provide software/firmware maintenance, enhancements and upgrades on an agreed-upon basis. Initial support will be based upon the agreement between ES&S and the State. Should changes to the maintenance and support plan be requested, the ES&S Project Manager will implement change procedures to adapt the plan and accommodate the State’s needs.

ES&S will work with the State of Colorado to deploy a hardware maintenance program that ensures the voting system equipment is operating at optimum performance levels throughout the contract period(s). ES&S will use a combination of state-of-the-art preventive maintenance and remedial maintenance processes and tools to ensure performance is measured and managed at both the unit and system levels.

**ES&S HELP DESK (TIER 2)**

The ES&S National Help Desk operates from 7 a.m. to 7 p.m. Central time, Monday through Friday. Customers requiring assistance should place a call to our Help Desk via a toll-free number (1-877-377-VOTE). During the weeks leading up to our customers’ important election events, our National Help Desk is on call 24x7 by phone, email, cell phone or facsimile.

Our ES&S National Help Desk technicians can answer any question regarding hardware or software. No question is too hard and we will stay with you till you feel comfortable about the answer.

Customers requiring assistance outside these hours may call their ES&S dedicated Customer Service Manager’s cell phone 24/7 for assistance. Our goal is to make ourselves available to anyone on your staff when you need us.

Customers may also send a Help Desk request through e-mail or facsimile. Customers can expect to receive a reply or callback immediately from their CSM or the Help Desk during peak election activity, or within 4 hours during non-election periods.

ES&S offers multiple support channels to assist customers with issues and concerns ranging from simple “how-to” questions to complex functional inquiries.

- **Toll-free support** — Customer support is available by telephone, fax or e-mail to our ES&S Help Desk. Our dedicated toll-free customer support telephone number is 877-ESS-VOTE (877-377-8683, then press the appropriate number for support). The support line is open 24 hours a day. Representatives monitor the line from 7 a.m. to 7 p.m. Central time, Monday through Friday. We have a team of very experienced hardware and software support technicians who will comfortably guide you to an issue resolution.

- **E-mail support** — Customers can also communicate directly with their dedicated CSM or specialized ES&S support and technical representatives via e-mail.

- **FAX support** — Facsimile support is available to our Help Desk at (402) 970-1267.

- **Customer portal** — Each customer will be provided a user name and password to access the ES&S customer portal. The portal contains copies of all user documentation to include Standard Operating Procedure manuals and technical bulletins. In addition, the portal provides access to ES&S Election Services forms, RMA request forms, and a link to the ES&S Supply Store.

- **WebEx support** — ES&S Technical Support uses WebEx as our remote desktop assistance tool to provide over-the-shoulder assistance when needed.
The respondent’s approach to training during implementation and operations should also be addressed.

**ES&S Response**

ES&S has more than 43 years of experience training thousands of customers in the effective, efficient use of election systems. We’ve worked with a variety of jurisdictions from the smallest counties to the largest city in the United States where 40,000 poll workers were trained. Although individual client training plans vary by the product solution and needs of the client, ES&S confidently recommends a standard approach that can be customized for individual clients.

**Overview of Training**

The training for elections staff and poll workers will encompass key learning outcomes that will focus on the success of the training participant in operating the new equipment and software. Courses will be a combination of classroom and online (WebEx) courses primarily offered at county or state facilities. ES&S limits the number of students in the hardware operations courses to 20 and software and Train-the-Trainer courses to 10 participants to minimize the student-to-instructor ratio and allow as much hands-on access to the new voting equipment as possible.

The curriculum for the hardware courses reinforces the procedural steps that the student will have to perform to be successful on Election Day. Software courses expose the students to all facets of using the application for election setup, ballot layout, programming, and reporting functions. Students will be provided up-to-date training documentation that is easy to understand and can be used by the student when questions arise.

Ongoing training can be conducted by county or state trainers who have completed the ES&S Train-the-Trainer (TTT) curriculum. The TTT course is two days long, and the trainers will have plenty of opportunity to practice teaching to their peers to gain confidence, knowledge and feedback on their performance.

To summarize, ES&S will work with the State of Colorado to develop a training plan that incorporates initial and ongoing hardware, software and TTT courses for a variety of audiences to include the election staff, county technicians and poll workers.

**ES&S Training Approach**

When implementing a new election system, initial training must be a primary consideration. There are many different approaches to this challenge. ES&S measures the success of new installations by the ability of our clients to more efficiently manage their election process using our systems. Our comprehensive training program has been developed to promote a strong level of competency for all intended users. A series of training modules has been developed that provide successful participants of your election team with the skills to perform necessary operations. Well-written training documentation that is easy to understand and can be referred to at a later date, when needed, will be provided to each participant who attends training.

While we have developed a standard curriculum approach, we believe a key element in a successful implementation is the appropriate customization and integration of our training to incorporate the laws, regulations and procedures unique to the State and to each county. ES&S will work with the State of Colorado election staff to develop a training plan that is current and relevant to you.

The curriculum is designed using theory and methods that are optimal for adult learning. Course instruction utilizes audio, visual and hands-on demonstrations and exercises. The manuals and job aids are designed to complement the course instruction and provide simulation of election activities. The evaluation of the course and transfer of knowledge has been completed in a number
of fashions. Customized job aids and testing materials can be developed to meet the individualized needs of each county.

Knowing that training stands as the most critical linchpin of any installation and support plan for the election system, ES&S takes great pride in providing our clients extensive, world-class voter system training programs. ES&S will also be there for you when your team requires ongoing training to refresh them on the procedures to safely and efficiently operate the equipment and software.

The optimum class size for equipment operations training is no more than 20 participants per class. The optimum class size for Train-the-Trainer and software training is smaller. These programs have a suggested maximum of 10 participants.

<table>
<thead>
<tr>
<th>Training Type</th>
<th>Intended Audience</th>
<th>Facility Requirements</th>
<th>Course Duration</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS200, ExpressVote, and DS850 Hardware Operations User Courses</td>
<td>Election Staff, central count machine operators, poll workers</td>
<td>Classroom large enough for participants and equipment.</td>
<td>DS200: 1 day ExpressVote: 1 day DS850: 1 day</td>
<td>Recommendation is no less than 1 piece of equipment per every 2 participants. Hardware classes have a maximum participant number of 20.</td>
</tr>
<tr>
<td>Train-the-Trainer Course (Prerequisite: Hardware Operations Courses)</td>
<td>County training staff</td>
<td>Classroom large enough for participants and equipment</td>
<td>2 days</td>
<td>Train-the-Trainer classes have a maximum participant number of 10. Allows the county trainers to train poll workers.</td>
</tr>
<tr>
<td>ElectionWare EMS Software User Course</td>
<td>County Election Office staff, IT personnel</td>
<td>Classroom large enough for participants and equipment. Computers could be desktop or laptop.</td>
<td>5 days</td>
<td>Software classes have a maximum participant number of 10.</td>
</tr>
<tr>
<td>Election Reporting Manager (ERM) User Course (optional)</td>
<td>County Election Office staff, IT personnel</td>
<td>Classroom large enough for participants and equipment. Computers could be desktop or laptop.</td>
<td>1 day</td>
<td>Software classes have a maximum participant number of 10.</td>
</tr>
<tr>
<td>Training Type</td>
<td>Intended Audience</td>
<td>Facility Requirements</td>
<td>Course Duration</td>
<td>Comments</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Electronic Ballot Delivery User Course</td>
<td>State Election staff, county Election Office staff, IT personnel</td>
<td>Classroom large enough for participants and equipment. Computers could be desktop or laptop. Can also be presented via WebEx.</td>
<td>1 day</td>
<td>Software classes have a maximum participant number of 10.</td>
</tr>
<tr>
<td>ExpressPoll 5000 Operations Training</td>
<td>County Election Office staff, voting system techs, training consultants</td>
<td>Classroom large enough for participants and equipment. Computers could be desktop or laptop.</td>
<td>1 day</td>
<td>Recommendation is no less than 1 piece of equipment per every 2 participants. Hardware classes have a maximum participant number of 20.</td>
</tr>
<tr>
<td>ExpressPoll 5000 Poll Worker</td>
<td>Poll workers</td>
<td>Classroom large enough for participants and equipment. Computers could be desktop or laptop.</td>
<td>1 day</td>
<td>Recommendation is no less than 1 piece of equipment per every 2 participants. Hardware classes have a maximum participant number of 20.</td>
</tr>
<tr>
<td>ExpressPoll 5000 BridgePoint</td>
<td>County Election Office staff, voting system techs</td>
<td>Classroom large enough for participants and equipment. Computers could be desktop or laptop.</td>
<td>1 day</td>
<td>Recommendation is no less than 1 piece of equipment per every 2 participants. Hardware classes have a maximum participant number of 20.</td>
</tr>
<tr>
<td>Certified Technician Training</td>
<td>State and County IT personnel</td>
<td>None</td>
<td>2 weeks</td>
<td>Sessions are conducted at ES&amp;S offices in Omaha by our senior field service technicians. Refresher courses are required annually.</td>
</tr>
</tbody>
</table>
Company Overview

Respondents to this RFI should include a brief company overview describing the company’s relevant experience and qualifications with the systems and products described in the response.

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 43 years. We have completed more than 1,200 state- and county-level installation projects across the nation. Today, not only do we work with many of the same customers we’ve served for more than four decades, but our business has grown to serve 41 states and includes more than 4,200 clients. ES&S currently serves more than 2,400 of the 3,140 county-level governments across the United States.

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. On December 7, 2011, ES&S acquired Advanced Ballot Solutions, a leader in ballot on demand technology. ES&S corporate headquarters is located in Omaha, Nebraska.

ES&S is the world’s most experienced provider of total integrated election management solutions. No other voting system vendor can compare to the financial stability and customer base of ES&S. ES&S is a well-capitalized, professionally managed company, capable of continuously sustaining high-quality development and support to our customers for the long term. We have installed more than 260,000 voting systems, more than 15,000 electronic poll books, and have supported more than 50,000 elections during the past decade alone.

We provide our large customer base with a variety of products and services that includes voting system hardware and software sales and support, ballot layout/coding/voice file production, equipment maintenance and support, on-site support for pre-election testing and Election Day activities, 24/7 technical and customer support, project management and implementation services, voter registration services and support, ballot printing, vote by mail packet processing and mail services, electronic ballot delivery software and services, electronic poll book sales and services, and voting system consumables and supplies.

ES&S has completed successful installations of statewide voting systems in Alabama, Arkansas, Georgia, Idaho, Iowa, Maine, Maryland, Minnesota, Mississippi, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Rhode Island, South Carolina, South Dakota and West Virginia. From our humble beginnings supporting a handful of election administrators and voters in 1969, we have grown to serve more than 60% of the market share of customer voting system installations (see Figure 1 below; ES&S customers in dark blue).
Responses should discuss relevant staffing considerations and unique qualifications.

**ES&S RESPONSE**

ES&S maintains a staff of more than 450 election professionals. 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. The company maintains 10 facilities across the United States, as well as two Canadian field offices in Pickering, Ontario and Vancouver, British Columbia. Our company headquarters is located in Omaha, Nebraska and is staffed by more than 200 full-time employees. In those states where we provide service and support on a statewide basis, ES&S provides in-state employees and service provider partners to ensure the highest level of quality and expedited service. Our current facilities map is below:
ES&S RESPONSE

ELECTION CHALLENGES

Each election comes with both typical/known as well as new/unique challenges. Having more than 43 years of election-specific experience, ES&S is organized and staffed to be fully prepared for both types of challenges. In each General election, particularly Presidential General Elections, the main key to overcoming the known challenges is having the right people in place. By creating a deep, nationwide resource pool of technical and election experts, ES&S is able to meet this known challenge year after year.

ES&S also has a long history of experience handling and responding to the unique challenges that tend to present themselves with elections. For example, in preparation for the 2012 Presidential General Election, ES&S customers in New York, New Jersey, Virginia and other states were faced with the devastation of Hurricane Sandy just days prior to the election. ES&S worked closely with our affected customer base to guarantee the election would be successful. Immediately following the storm, ES&S had resources, equipment and power generators in transit to our customer locations.

For the 2012 general election, ES&S supported more than 7,000 elections, with high marks on performance for all of our deployed products across the country. Another unique challenge ES&S recently overcame in partnership with our customer was in the Phase 1 implementation of DS200s in the State of Maine. The Phase 1 implementation (part of a two-phase, statewide installation) called for implementation in more than 50 municipalities within approximately 60 days of the 2012 Presidential General election. To add to the challenge, the majority of the municipalities had traditionally hand-counted their ballots.
Despite the technological and timeline challenges, ES&S worked closely with the State of Maine and by all accounts, conducted a successful Phase 1 implementation. The experienced and focused ES&S team assigned to the project combined with the strength and organizational leadership from the State of Maine and its respective municipalities has enabled the project to continue to be successful at each milestone of the project.

ES&S is focused solely on elections and has a deep appreciation and understanding of the challenges and difficult timelines that come with managing elections.

**Security Attacks or Breaches**

ES&S has not experienced any security attacks or breaches with the voting equipment and software proposed here. Our equipment and software meet or exceed the security criteria set forth by the Election Assistance Commission (EAC).

A voting system's sensitivity to disruption or corruption of data depends, in part, on the physical location of equipment and data media. ES&S addresses these concerns by working with clients to develop an Equipment and Data Security Plan. This plan outlines steps to ensure the highest level of protection for voting machines, software, election data and facilities. These steps include:

- Creating a secure physical location for storage and use of the ES&S voting system
- Limiting external access to secure rooms to the least number of privileged personnel.
- Proper disposal of confidential waste, including paper and electronic media.
- Separating business critical systems from general systems.
- Defining and assigning system backup and recovery responsibilities.
- Safely storing election supplies and non-election media, such as USB flash drives and CDs.
- Appropriate configuration of network security resources.
- Defining procedures for security for polling places and for the central count location where all votes are tallied – before, during and after the election.

This plan also includes a Security Breach Recovery Plan to be followed should there be any indication of a security breach in the accountability and chain of custody procedures. The plan is developed in a manner that enhances public confidence in the security and integrity of the election. Any indication of a security breach, documentation errors, or seal damage must be reported immediately and confirmed by more than one individual.

**Certifications**

ES&S has completed numerous Federal and State certifications over the past six years. The DS200 has achieved certification from the U.S. Election Assistance Commission (EAC), and the states of Florida, Indiana, Iowa, Maine, Mississippi, New York, North Carolina, Ohio, Virginia and Wisconsin.

In the past year, ES&S successfully achieved certification in the State of Florida of EVS 4.0.3.0, version 2. This version was created specifically for the State of Florida. It has the latest DS200, DS850 and ElectionWare technologies, including wired and wireless transmission of results from the polling places. This capability was used in Duval County, FL for the 2012 Presidential election. Final receipt of all results was accomplished in just 45 minutes after polls were closed.

In addition, Unity 3.4.0.0 was federally certified in October 2012 to 2002 VSS standards. This upgraded version allows current users of Unity software, the precursor to ElectionWare, to use the DS850 for ballot scanning and counting. It also added significant enhancements to the DS200.
Our first EAC-certified voting system that includes the DS200 precinct scanner, ES&S AutoMARK, DS850 central count scanner, ElectionWare Election Management System software, and all associated firmware, software, COTS software, and hardware components, is currently in Federal certification by the EAC as EVS 5.0.0.0 ("ESSEVS5000"). We expect to obtain full certification from the EAC in early May 2013. This new system incorporates advanced technologies that our competitors did not have when they were certified at the 2005 level two years ago. Consequently, this system will be much more advanced in terms of security and technology than our competitors'.

Our next generation of voting system products has begun the certification process as EVS 5.1.0.0. This version of components will offer several functionalities that our competitors do not—such as the capability to transmit results by both wired and wireless modem with FIPS 2 encryption compliance, adding the ExpressVote ballot marking device for voters with disabilities, and support of Instant Runoff Voting (IRV). IRV is accomplished by exporting Ranked Choice Voting (RCV) vote data to a customer’s application containing the RCV algorithm model to iteratively select a winner and avoid the high cost of runoff elections.

Responses should also discuss relevant timelines for a project that might be implemented for the 2014 General Election.

**ES&S Response**

The implementation of a new, statewide voting system requires a great deal of time for planning, testing, manufacturing and distribution. ES&S’ project management experts will work closely with the State of Colorado to create a detailed project management plan to implement the new system.

ES&S would prefer to have a timeline of six to nine months to successfully complete a statewide implementation of your new voting system. ES&S will work with the State of Colorado to develop a mutually agreeable timeline.
Appendix A: ElectionWare Overview

Intelligent by design, ElectionWare, ES&S’ election management system solution provides end-to-end election management activities through a powerful and intuitive user interface. Built on strengths of 40+ years of election software experience, its efficient and flexible design enables jurisdictions of all sizes to effectively manage their elections.

ElectionWare is modular and customizable; depending upon the licenses applied to the program, components can be turned on and off based on user profiles and equipment types.

Organized as a collection of features/actions based on work flow of elections, the user will find ElectionWare easy to learn and master due to the familiar and conventional design.

ElectionWare is a fully integrated election management software application that allows customers to carry out election management tasks through a single uniform user experience. It has a powerful and intuitive user interface and a single, common relational database.

ElectionWare offers an efficient and flexible user experience that supports small to large jurisdictions. It is designed for a range of user types – from advanced frequent users to novice infrequent users. ElectionWare also was designed to address as well as incorporate election trends such as early voting, super polls, and electronic ballot handling and adjudication.

ElectionWare uses automation instead of repetition. Reuse of previous election data instead of duplicative data entry, and built-in election and ballot templates instead of recreating ballot templates each new election, enables election administrators to create error-free elections in less time. It also has integrated warning and alerts and configurable levels of security based on the customer requirements.

ElectionWare – created to be an intelligent application of customizable components – is made up of groups and modules. The ElectionWare groups contain several complementary functions called modules and are defined by workflow. ElectionWare modules are a set of functions specific to the workflow and can be distributed separately, depending on customer setup.

**ELECTION SETUP**

The election definition is set up through the ElectionWare **Capture module**. The Capture module provides a single-entry database that stores all of a jurisdiction’s poll, office and candidate information. The Capture module is used in conjunction with the rest of ElectionWare and other EMS software to format and print ballots, program ballot scanning equipment, and produce Voting Day reports.

Capture enables you to add languages (including audio), add language groups, add a party, add polls and registered voters, add district types and districts, assign polls to districts, add headings, add contests, add voting locations and assign polls to them and generate ballot styles via the Manage menu bar.

Capture’s Tools menu bar enables you to select your equipment, set election preferences, import election data, import and export ballot translations, edit election options, set user preferences and more.

Once this process is completed and proofed, ballot styles are automatically created and assigned to the respective polls. The election files are then created and used by the various vote tabulation devices and the Results Accumulation and Reporting subsystem. Users can print all required reports of poll, district/ward combinations, contest and ballot style listings, etc. from the Capture module.
Capture module generates ballot styles based on information entered by the user. Ballots are coded with the following information:

- Ballot Style ID.
- Poll Number.
- Split Number.
- Party Number or Ballot Type.

After entering information for an initial election, it can be recalled and edited for all elections that follow. Once the election definition tasks are complete, the user continues to the other modules within ElectionWare to complete election set up activities.

**PROOFING REPORTS**

Multiple reports are available for proofreading in ElectionWare. Capture reports include the Poll Reports – reports that provide district and language group information; District Reports – poll and contest heading information; Voting Location Reports – summary and detail reports with voting location information; Ballot Style Reports – polls by style and style by polls reporting various ballot style information; and Data Verification Reports – various data verification information such as missing languages and missing translation reports.

To assist with audio product, the Accessible Ballot module generates a Missing Ballot Data Report and Missing Ballot Audio Files. These reports detail the data and audio that is still needed in order to have a complete audio election.

Configure reports include equipment settings reports for the DS200 as well as the Jurisdiction Ballot Style Listing and Ballot Detail Listing Report. The Package module has two reports to help with media management: the Media Creation Log Report and the Election Media by Voting Location report.

**BALLOT DESIGN AND HARDWARE CONFIGURATION – ELECTIONWARE**

Building on the strengths of ES&S’ other EMS applications, ElectionWare’s other modules make the administration of elections easier – and more efficient – than ever before.

Modules such as Paper Ballot enable you to import database information from the Capture module, and create various ballot types based upon the information in the election database. Using flexible options such as style sheets, users are able to create variable stylistic elements such as candidate, race, and heading information, as well as ballot graphics, and elector instructions.

Modules such as Element Library and Accessible Ballot enable you to create instructional and ballot audio for accessible users. Additionally, these same modules can be used to import translations. Using these two modules, you will be able to create both visual and audio instructional elements for your accessible equipment, as well as visual and audio information for the ballot information (e.g. contests and candidates) as well. Using the scripts produced by these two modules, audio files can be created with ease. Additionally, the font and various other characteristics of the ballot can be changed to reflect how you want them to appear for the on-screen ballot associated with your accessible equipment.

Configure Equipment enables you to configure various aspects of tabulation equipment, and enables configurations to be changed in order to better meet your election needs. Additionally, using this module in conjunction with that of the Package module, all of the information entered in previous modules is used to create election data for your election, as well as create election media to be used in conjunction with your election tabulation equipment.
Lastly, the **Acquire** and **Produce** modules can be used to import ballot images from tabulators, review ballot images, as well as produce various reports to be utilized and reviewed after the close of Voting Day.

The Acquire module automatically generates results files in a data folder when results are loaded into Election Reporting Manager. Machine and results media status reports can then be printed from this ElectionWare module.

Election officials use the Produce module to:

- View and filter the list of provisional and non-provisional ballots included in loaded results.
- Process provisional ballots by flagging them as accepted or rejected, or escalated for further review.
- View, save and print HTML and XML versions of the Election Summary Results report.
- View, save and print machine logs.

**BENEFITS OF ELECTIONWARE**

✓ **Ease of use** – ElectionWare is an intuitive, easy-to-use EMS software application that does just what a customer wants . . . eliminating wasted effort on unnecessary tasks.

✓ **Single user interface** – Most of the multi-function modules are delivered through a single user interface, streamlining access to, and management of, information. Common database and customer-specific settings provide seamless movement between modules, simplifying execution of key tasks.

✓ **Online help system** – ElectionWare contains an interactive and comprehensive help system. With characteristics such as multimedia and updatable content, ElectionWare provides election personnel with extensive supplemental information and support.

✓ **Multi-user interface** – Multi-user ElectionWare functionality enables large jurisdictions to use authorized election personnel to simultaneously create poll media devices and enter information for the DS200, DS850, ExpressVote and ERM. Additionally, the multi-user functionality in ElectionWare allows multiple teams of election officials to simultaneously work on different elections. The Track Media Report can be used to determine poll media creation. This is a great advantage to large jurisdictions, which are able to enter data and create media rapidly with many users as the events are recorded within the EMS.

✓ **Modernized technology, networked environment** – ElectionWare leverages the power of new technology, methods and networked environments that enables a multiple-user application.

✓ **Security** – ElectionWare incorporates the very latest in election security, including heightened audit controls and change management processes that are built in to make sure your election data is safe and secure.

✓ **Compliant with the latest voting systems standards** – ElectionWare meets known requirements of the U.S. Election Assistance Commission (EAC) 2005 Voluntary Voting Systems Guidelines.

The following is a summary of the organization of the ElectionWare Groups and Modules:
Appendix A: ElectionWare Overview

**ELECTION DEFINITION – DEFINE GROUP**

- **Home** module enables users to create and manage elections. The **Import Election Data** option can be used to import election data into the new election or to re-import election data into an already-existing election.

- **Capture** module enables users to create the election database and manage elements such as wards, districts, poll places, contests and candidates. Using this information, the user can then generate ballot styles to be used in conjunction with other modules such as **Paper Ballot**.

- **Element Library** module provides management for screen and audio system elements, such as party logos, election header graphics, and instructional elements such as system prompt translations and system prompt audio files.

**BALLOT LAYOUT – DESIGN GROUP**

- **Paper Ballot** is a desktop publishing tool that allows users to design and print ES&S digital scan paper ballots for the ballot scanning systems. **Paper Ballot** uses ballot style information created in the Capture module to display the WYSIWYG ballots. Users can then apply typographic formatting (font, size, attributes, etc.) to individual components of the ballot using style sheets. Additionally, text and graphic frames can also be added to the ballot for the inclusion of political party graphics, or necessary election instructions.

- **Accessible Ballot** module provides the ability to format screen elements and create audio files for the ExpressVote device and the AutoMARK Voter Accessible Terminal. These screen and audio elements provide the accessible voter with privacy and security, ensuring an efficient voting experience.

**CONFIGURING EQUIPMENT AND PACKAGING DATA – DELIVER GROUP**

- **Configure** module sets up the parameters of how the election equipment (tabulators and/or ballot marking devices) will work. Here users can configure settings and security for the devices being used. Users can then generate the files and data that need to be placed on the tabulator or ballot marking device.

- **Package** module packages and transfers the election definition to the appropriate media devices. This module enables you to create media for all of your tabulators and ballot marking devices.

- **Print** module allows the user to print ballot on demand ballots at the election office and Advance Voting poll locations.
Appendix A: ElectionWare Overview

RESULTS REPORTING – RESULTS GROUP

Acquire module allows the user to load election results files, and view, print and export details about the loaded results. It can also be used to clear loaded results. Details about media storage devices encoded for the election can be viewed or exported to file. Election Properties and Acquire Status can be viewed in the Status tab. In addition, the Media Status and Machine Log Reports can be generated, viewed, saved to file and/or printed. If required, loaded results for a selected media storage device can be cleared from the database, or all loaded results can be cleared from the database.

Produce module enables the user to view and filter the list of ballot records included in loaded results, print ballot scan images and facsimiles, export the ballot records table or a set of ballot images and Cast Vote Records (CVRs); view, print and save ballot images and CVRs; view, print and save the Election Summary Results report in HTML or XML format.

CUSTOMER DEFINITION – MANAGE GROUP

Set Up module provides customer definition and profile management, as well as user access management. The user also has the ability to set election code security strength, add state and municipality jurisdictions, and view User Reports, Admin Audit Event Reports, Election Audit Events Reports and an Access Codes Report.

RESULTS REPORTING – ELECTION REPORTING MANAGER

Election Reporting Manager (ERM) is ES&S’ election results reporting program. ERM is used to generate paper and electronic reports for poll workers, candidates and the media.

ERM is designed to display updated election totals on a monitor as ballot data is tabulated. Report editing features enable the user to read data from a variety of ballot scanners, customize report formats, and generate accurate election results.

ERM is designed to support a wide range of ES&S ballot scanning equipment and can produce reports for both central count systems and poll-count systems. ERM also has the ability to output file formats for use in other systems.
Appendix A: ES&S Web Results

ElectionWare®, ES&S’ election management system (EMS), can support the display of real time election results through our web reporting application, Web Results™. Through an easy one-time set up procedure, Web Results can be set to publish the results automatically.

Web Results supports English and other languages and the display of diacritical marks. Web Results provides jurisdictions the ability to display election results for public viewing. Customizable options allow users to personalize how often results are updated and displayed on their jurisdictional website. This single web location keeps media, candidates, political parties and voters updated on the latest election results.

Web Results is fully integrated with Election Reporting Manager (ERM) and requires no additional coding. The administrative module ensures security, providing complete control to assign users, and determines permission-based roles. It is extremely easy to use with minimal setup required and very little training needed to get started.

Public web results provide updates in an organized, easy-to-read format using graphics that are simple to understand for all viewers. Web results are displayed by contest with two options: Listings and Charts/Graphs. The web interface can be customized to include logos, banners, title and election names for personalization of the web results page.

In addition to the summary results page, users of the Web Reporting Interface can look at results in two other graphic displays. Web results are displayed by contest with two options: Listings and Charts/Graphs.

Figure 1 Sample Public Website
ES&S Web Results Administrative features include:

**Keep results reporting process secure:** Secure administrative application allows clients the ability to assign and restrict user access and application rights.

**Preview results before they appear on the public site:** Double check and confirm results before publishing to the public site. This feature allows you to ensure that your data is correct before allowing the public to view the results.

**Flexibility to utilize in different scenarios:** Being flexible is key when it comes to election solutions, so we've provided options for how to deploy this application.

**Two options for updating results to the public site:** Jurisdictions can choose to manually or automatically upload results throughout election night. Frequency of automatic synchronization can be set by the administration.

**Post election reports:** PDF documents are created showing all information within the public site. This option allows users to easily print data for distribution or archiving purpose.
Appendix A: ES&S Web Results

Enhancing the Colorado Election Process
RFI for a Universal Voting System
April 1, 2013

Figure 3 Web Results Administration Application

Figure 4 Sample Results in Spanish
Appendix B: DS200 Overview

DS200® Precinct Scanner and Tabulator Overview

EQUIPMENT OVERVIEW

DS200 PRECINCT SCANNER

The DS200 – ES&S’ leading edge precinct-based paper ballot scanner – combines the security, auditability and voter confidence of paper ballot voting with the increased accuracy and flexibility of a digital image scanner. The result of more than 40 years experience designing precinct-based optical scanning technology, the DS200’s simple interface is supported by powerful digital image scan technology.

To cast an official ballot, the voter selects the language they desire for screen instructions, inserts their marked paper ballot (or activation card for the ExpressVote®), in any orientation, into the DS200 input slot, and follows the easy-to-read instructions, displayed in their language of choice, on the terminal’s large 12-inch LCD touch screen.

The terminal scans the entire ballot (front and back), interprets voter selections and either accepts the ballot, adding votes to the system tally; or identifies and alerts the voter to any exception condition (undervotes, overvotes, blanks) 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 and dramatically reducing the number of invalid ballots cast during your election.

DS200 — ADVANCED DIGITAL SCAN TECHNOLOGY

After a voter inserts a ballot, precise patented sensors simultaneously scan both sides of the ballot paper for the voter’s selection marks. As the DS200 tabulates ballot choices, the scanner stores the cast vote record and a high-resolution image of the entire ballot to the inserted USB flash drive.

With the most accurate and reliable digital scan technology available, the DS200:

✓ Safeguards voter intent — The system captures and retains digital images of every scanned ballot for auditing and adjudication.

✓ Ensures accurate results — Patented image scanning technology provides exceptional mark recognition capabilities.

✓ Accommodates flexible ballot design — Advanced image technology provides unprecedented freedom in ballot format, supporting more length, width, ballot target and ballot graphic customization options than ever before.
**DS200 — Security and Reliability**

Like all ES&S ballot tabulation equipment, the DS200 is constructed using rugged, durable materials designed to withstand the wear and tear of frequent shipping to and from polling places. The terminal includes physical security features such as locking panels and security seals to secure sensitive components and election files, and a key-locked case for transport and shipping.

From concept to construction, ES&S adheres to industry-leading standards for quality and security. Designed to meet the rigorous security standards of the U.S. Election Assistance Commission (EAC) 2005 Voluntary Voting System Guidelines, the DS200 operating system controls, limits and detects unauthorized access to all critical system components. The system also implements state-of-the-art safeguards against losses of system integrity, availability, confidentiality and accountability. In addition, ES&S encrypted all DS200 data and operating code to prevent malicious tampering.

Additional security features include:

- **Data and system validation** — The DS200 provides easy validation for all resident firmware against certified versions and generates detailed audit and event logs to support system vetting.

- **Strong physical access controls** — Uniquely shaped keyed locks, security seals, and security screws eliminate system tampering during storage, transport and use. The DS200 includes a counterfeit ballot detection feature to reject unauthorized ballots.

- **Cancelled ballot identification** — The system prints a cancellation stamp on valid, cast ballots, preventing poll workers from accidentally scanning the same ballot twice.
### DS200 — Features, Functions and Benefits

Table 1, following, provides key features and benefits of the DS200.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Function</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proven technology</td>
<td>• ES&amp;S based development of the DS200 on the Model 100 precinct-based ballot counter platform – a system with a 15-year record of proven, reliable operation and more than 33,000 Model 100 units in use around the world.</td>
<td>The DS200 is an intelligent, advanced, integrated solution. It features the latest digital image technology available on the market.</td>
</tr>
<tr>
<td>Security</td>
<td>• The DS200 carrying case (top portion of ballot box) can be sealed and locked with a key.</td>
<td>DS200 security features ensure that only authorized election personnel can access ballots and the unit’s USB memory stick, which is critical to the integrity of any voting system.</td>
</tr>
<tr>
<td></td>
<td>• The USB media access door can be locked and secured with tamper-evident seals.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The device cannot be powered up without the control key (controlled by election manager).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The ES&amp;S DS200 election definition is stored on a USB flash drive that is inside a locked compartment. The flash drive itself can employ a wire-type seal to add tamper evidence. The compartment door remains locked throughout the Election Day, and the flash drive will remain sealed in the DS200 until the time to download the encrypted and digitally signed results.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Both prior to and after use, additional seals can be used to secure the DS200 itself, as well as all ballot box compartments.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• All administrative menu functions are security code protected. Password strength is user configurable.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• System can print a cancellation stamp on valid cast ballots to prevent accidental/intentional dual scanning.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• All data is digitally signed and encrypted.</td>
<td></td>
</tr>
<tr>
<td>Second chance voting</td>
<td>• Detects and identifies blank, overvoted and undervoted ballots.</td>
<td>The DS200 includes ballot review functions designed to drastically reduce invalid ballots and ensure that every ballot represents the voter’s intent.</td>
</tr>
<tr>
<td></td>
<td>• Displays a warning message on the terminal’s large text 12-inch LCD display and plays an audible alerts.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Option to return ballot to voters when an error is detected is customizable during system configuration.</td>
<td></td>
</tr>
</tbody>
</table>
### Feature: Flexible ballot formatting

- Supports standard ballot sizes (11”, 14”, 17”, 19”). Also supports ExpressVote activation card sizes.
- Grants complete control of all ballot elements including fonts, text size and alignment.
- Accepts ballots in portrait and landscape format.
- DS200 ballot layout software develops camera-ready artwork directly from the application.
- Fully supports multiple ballot languages.
- Supports response target placement on either the right or left of selection text.

**Benefits:**
- The DS200 offers unprecedented freedom for ballot customization and formatting.

### Feature: Extensive reporting capability

- Produces a Configuration, Ballot Status Accounting, and Zero Report at the opening of polls.
- Produces a Results Report and Audit Log (if desired) at the poll closing.
- Supports the option to suppress poll-closing reports.

**Benefits:**
- The DS200 secures all vote totals before opening the polls, and generates extensive printed records of all system activity on Election Day.

### Feature: Internal thermal printer

- Integrated printer generates system printouts on 3.15-inch wide thermal paper.
- Drop-in paper rolls allow poll workers to change paper rolls in seconds.
- Thermal printing technology eliminates ink/ribbon costs, maintenance and downtime.

**Benefits:**
- The DS200 prints terminal-level vote totals and system audit reports directly from the terminal, enabling election officials to quickly report results to election central.

### Feature: Reliability

- Internal battery supplies a minimum of 2 hours continuous use in the event of power failure.
- Environmentally friendly, internal lithium ion battery requires no special maintenance.
- Seamless transition from AC to DC power.
- Check and charge batteries without turning the unit on.
- Stores all votes and election configuration files to an external USB flash drive (up to 8 GB). If a terminal fails, poll workers simply transfer the stick to a back up unit and seamlessly continue voting.
- Backup USB flash drive available to store all vote data from primary drive at poll closing.
- ES&S systems are designed to meet a target Mean Time Before Failure (MTBF) rate of 163 hours.

**Benefits:**
- The DS200 backup memory and power supply ensure that no votes are ever lost due to power loss or equipment failure. The battery obtains its charge automatically from the system’s power supply with no poll worker intervention required to switch from AC to DC power.
- Results storage to an external solid-state flash memory device (USB flash drive) prevents power surges or terminal malfunctions from effecting recorded results.
### Wireless Modem Technology

- Wireless transmission from the polling place from each DS200 after polls close.
- To initiate results transfer, a poll worker enters an assigned data transmission access code. All additional security executes automatically.
- The data transmission access code derives an encryption/decryption key used to decrypt the security bundle and later encrypt the results bundle that is transmitted to the central count location communication server.

- Provides greater public confidence in the election process.
- Reduces allegations of results tampering as the window between poll close and results availability is minimal.
- Error-free compared to verbally phoning in results in an attempt to speed up results reporting process.
- Reduces pressure on poll workers to rush through administrative processes after the polls close in order to manually transfer results to a central site and avoid errors.
- ONLY summary results are transmitted and ONLY after the polls are closed and a local results tape is printed. The amount of data is small and requires only a few seconds to transmit at a random time consistent with polling place work flow.
- Transmitted results are verifiable by reading from media during a canvassing process of results.
- Transmitted results provide a third level of auditability to the existing two levels, which are the printed results tape and the results read from the tabulator election media.

**Table 2** DS200 features, functions and benefits

### DS200 — Flexible Ballot — Ballot Size and Target Capabilities

Unlike other poll-based paper ballot counters, the DS200 supports a wide range of ballot styles and designs — allowing you to dictate the size and format of your ballot rather than your ballot scanning equipment. The following chart illustrates the benefits the DS200’s flexible ballot features.
Appendix B: DS200 Overview

**DS200 flexible ballot — supported features**

- Supports paper width of 8.5 inches
- Supports ballot page lengths of 11, 14, 17, and 19 inches (with 1 or 2 inch stubs)
- Accepts ballots formatted in portrait or landscape orientation.
- Supports target area with check marks, Xs, or slashes to the right or left of selection.

<table>
<thead>
<tr>
<th>DS200 — PHYSICAL DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DS200 unit dimensions</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Storage &amp; transport case dimensions</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Ballot box dimensions (operational)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Screen dimensions</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**DS200 — BATTERY SPECIFICATIONS**

The DS200 uses an environmentally friendly, internal lithium ion battery that requires no special maintenance. Batteries can be checked and charged without turning the unit on. The battery obtains its charge automatically from the system’s power supply, and no poll worker intervention required to switch from AC to DC power.

The DS200 is capable of operating on battery backup power for at least three hours and much longer depending upon the actual volume of usage in the polling place.

The unit’s backup memory and power supply ensure that no votes are ever lost due to power loss or equipment failure.

![Figure 2 DS200 backup battery](image)
EQUIPMENT OVERVIEW

DS850 CENTRAL SCANNER

The DS850 is the sixth-generation, industry-leading central count tabulator built from the knowledge gained from 40+ years of central count election experience. The DS850 combines high-speed digital imaging technology with configurable ballot sorting to deliver unmatched ballot throughput (300 14-inch ballots per minute) – even with sorted ballots. In addition, the DS850 was designed by Election Systems & Software, LLC (ES&S), the leader in election technology, to provide complete physical and system security, auditability and accuracy.

With a 15-inch LCD touch screen display and a clear, easy-to-use user interface, scanning ballots on the DS850 is as simple as placing the stack of ballots on the scanner and pressing START. The DS850 can be completely configured using ES&S’ ElectionWare® software, which downloads the scanner's configuration settings as part of the digitally signed and encrypted election definition. These settings can also be configured directly on the machine through access code-protected administration screens. Status and settings are clearly displayed on the large touch screen display, and the user interface prompts the operator at every step – greatly reducing learning time, as well as questions and errors.

SUPERIOR BALLOT HANDLING AND SORTING WITH TruGrip®

With three configurable output bins, the DS850 is capable of separating ballots based on multiple criteria – including overvotes, blanks, write-ins, and undervotes – all without any loss of throughput. In addition, ES&S’ TruGrip ballot handling system features:

✓ Motorized input tray — The motorized input tray provides constant pressure throughout the scanning of a large stack of ballots – even on folded ballots. This provides consistent ballot processing throughout the run.

✓ Advanced pick mechanism — Five pick rollers, along with counter-rotating belts, provide unparalleled reliability in processing even folded and damaged ballots and virtually eliminate double feeds.

✓ Motorized main output tray — Reliably outstacks even folded ballots, greatly reducing jams.

✓ S-curve design — With the patented (US Patent # 8,261,984) S-curve transport design, the DS850 provides the real-time sorting of ballots at speeds previously achieved only by non-
image-based OMR systems, while keeping the unit more compact and maneuverable. In addition, double rollers in the transport and triple rollers in the imaging area mean the ballots are fully controlled throughout the process, and are reliably imaged for later tabulation.

**DS850 — Accuracy and Security**

The DS850 Central Count Scanner and its partner, the DS200® Precinct Scanner, provide full image-based scanning with unparalleled accuracy by using ES&S’ patented Intelligent Mark Recognition (IMR).

From concept to construction, ES&S adheres to industry-leading standards for quality and security. Designed and federally certified to meet the rigorous security standards of the 2005 Voluntary Voting System Guidelines, the DS850 operating system controls, limits and detects unauthorized access to all critical system components. The system also implements state-of-the-art safeguards against losses of system integrity, availability, confidentiality and accountability.

Additional security features include:

- **Data and system validation** — The DS850 provides easy validation for all resident firmware against certified versions and generates detailed audit and event logs to support system vetting. In addition, it validates and accepts only data that contains the proper digital data encryption and signing.

- **Strong physical access controls** — The DS850 secures all data ports behind clear plastic lockable and sealable access doors. All critical hardware components can be locked and sealed as well. This level of physical security on a central counter scanner is unmatched in the industry.

- **Role-based access codes** — The DS850 provides access codes that allow access for operator and administrative roles.

- **Full logging for complete auditability** — The DS850 provides options for both real-time printed and electronic logging of all activity performed, with the ability to reprint logs on demand or export electronic logs for complete review.

**DS850 — Features, Functions and Benefits**

Table 1, following, provides key features and benefits of the DS850.
### Table 1 DS850 features, functions and benefits

<table>
<thead>
<tr>
<th>Feature</th>
<th>Function</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proven technology</strong></td>
<td>• The same industry-leading ballot processing technology that powers the DS200 is shared with the DS850, including our patented IMR technology, plus tabulation algorithms built over generations of ballot scanning systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The DS850 and its partner DS200 provide the highest level of accurate, consistent results across the family of ballot tabulators.</td>
</tr>
</tbody>
</table>
| **Flexible ballot formatting** | • Supports standard ballot sizes, including ExpressVote activation cards.  
• Grants complete control of all ballot elements including fonts, text size and alignment.  
• Accepts and scans ballots in all orientations.  
• Fully supports multiple ballot languages.  
• Supports target placement on either the right or left of selection text. | The DS850 offers unprecedented freedom for ballot customization and formatting with flexible options for scanning at the highest throughput in the industry. |
| **Extensive reporting capability** | • The DS850 laser printer is capable of generating a variety of results, status and system reports quickly.  
• The DS850 audit log printer satisfies requirements for log printing in real time. | The DS850 allows for simple, quick reporting directly from the machine. |
| **Reliability**              | • With the attached Uninterruptable Power Supply (UPS), the system is capable of finishing runs that are started and as needed, automatically shutting down without data corruption. Battery status is displayed at all times.  
• Long-life belts and rollers mean fewer failures and replacements over the life of the machine. | Designed specifically for elections, the DS850’s rugged, long-life construction and back-up power system allow for fewer problems during election night ballot counting. |
| **Throughput**               | • Industry-leading throughput of 235-19”, 258-17”, 303-14”, or 368-11” ballots per minute.  
• No stopping or slowdown with full sorting enabled.  
• Superior handling of folded and damaged ballots. | With unmatched speed and sorting, even with folded ballots, the DS850 will provide the highest throughput of any imaged-based election scanner on the market, meaning faster results on election night. |
| **Security**                 | • All data ports and critical system components secured behind lockable, sealable doors.  
• Configurable access code protection of all operations of the application.  
• Full logging capabilities with options for real-time printed audit log that can even be enabled to prevent operation if the audit printing fails.  
• Use of digital encryption and signing of key configuration and data files for complete integrity of the election and results. | DS850 security features ensure the highest level of physical and system-level security for the central count environment. |
| **Ease of use**              | • Large, adjustable, integrated 15” LCD touch screen display and a clear, simple, easy-to-use user interface provide for fewer mistakes and fewer questions, even in the stress of the busiest election night. | As easy as “load and press,” the DS850 continues ES&S’ long tradition of reliable, easy-to-use election systems. |
### DS850 — Physical Features

| DS850 unit dimensions                       | 37” H X 41” W X 21” D  
|                                          | 200 pounds |
| DS850 storage and transport cart          | 30” H X 48” W X 24” D  
|                                          | 190 pounds (empty weight) |
| Operation requirements                    | +50 to +95 degrees Fahrenheit.  
|                                          | Less than 95% non-condensing humidity. |
| Storage requirements                      | -4 to 140 degrees Fahrenheit.  
|                                          | 10% to 88% humidity. |

**Table 2** DS850 physical features
ExpressVote combines paper-based voting with touch screen to create a breakthrough in voting solutions. Used in early vote centers and on Election Day in precincts or in vote centers, the ExpressVote handles it all. No longer must election officials guess the number of ballots to print — instead, a Vote Session Activator™ is printed with a barcode which determines the ballot style presented on the touch screen.

Accommodating to various election needs, this system can serve all voters, even those with special needs, allowing voters to vote autonomously with tabulation done in the exact same manner. A feature-rich system, ExpressVote is for people with or without visual impairments, hearing issues, and physical accommodations.

**MULTIPURPOSE STATE-OF-THE-ART TECHNOLOGY**

ExpressVote is an early voting, Election Day and ADA solution. This device is built for high-volume in-person early voting, in addition to allowing people with disabilities to privately and independently cast their vote.

- **Vote session activator** — The voter receives a voting session activator card to begin the process. The ExpressVote reads a barcode indicating which ballot style is presented to the voter. Once all selections are made, a readable record is produced, which can be tabulated on the DS200 or DS850.

- **Easy to set up and use** — One-step start-up 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.

- **Innovative design** — Complete and total independence is maintained while the voter casts their own record. A voter’s selection changes will not spoil their voting session.

- **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 becomes easy with the ExpressVote.

**EXPRESSVOTE — ACCESSIBILITY**

The touch screen and navigational keypad buttons are interconnected and can be used to complete all required operations. On the touch screen interface, various colors and accessibility-enhancing effects have been chosen to prompt and guide the voter. These digital buttons meet all applicable guidelines regarding size and readability.
The navigational keypad has been tested and modified through consultation with special needs groups. The keys are arranged to allow for an intuitive voting session. Each key has both Braille and printed text labels designed to indicate function and a related shape to help the voter determine its use.

Regardless whether the voter uses the touch screen or audio interface, changes can easily be made throughout the voting process by simply navigating back to the appropriate screen and selecting the change.

ES&S has a strong development history of innovative solutions for people with disabilities. From concept to construction, ES&S adheres to industry-leading standards for quality and design. ExpressVote meets and exceeds the more rigorous 2005 Voluntary Voting Systems Guidelines for usability, accessibility and security requirements.
# ExpressVote — Features, Functions and Benefits

<table>
<thead>
<tr>
<th>Features</th>
<th>Functionality</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| Accessibility                  | • Multiple user interfaces including touch screen, Braille-embossed keypad, sip-and-puff tube, foot pedal or other two-way switch.  
• Audio voting session via text-to-speech or .wav files.  
• Voter selects speed, tone and volume.  
• High-visibility on-screen ballots.  
• Voter-selected font size and contrast settings. | The ExpressVote allows blind, low-vision, and limited-dexterity voters to privately listen to instructions and selections in a volume, tone and speed level comfortable to them, able to cast their vote unassisted, thereby maintaining their privacy and anonymity. |
| Verifiable vote record         | • Marks paper record used for tabulating by the DS200 digital precinct scanner or DS850 high-speed central count scanner.  
• More densely populated card (24 columns) vs. current 3 columns on a conventional ballot, saving time, pages and traditional ballot printing costs. | Allows jurisdictions to maintain hard copies of vote records marked on ADA-compliant systems.                                               |
| Internal thermal printer       | • Integrated printer generates vote record on 4 ½-inch x 11, 14, 17 and 19-inch paper.  
• Thermal printing technology eliminates ink/ribbon costs, maintenance and downtime. | Eliminates ink and toner expenses.                                                                                                         |
| Summary page verification process | • Presents voters with the option to review choices, modify/change selections, or fill in any skipped races prior to printing the record.  
• Unique software applications ensure that only the proper number of candidates is chosen for each race. | Reduces the risk of undervoting and prevents overvoting, marginally marked, and incorrectly marked selections.                          |
| Multilingual capability        | • Multiple languages can be stored on a single machine for use with both audio and visual voting sessions. | Ensures that all citizens in a diverse population exercise their privilege to vote in their native language.                                |
| Poll opening and closing       | • No special procedures required for opening or closing polls.  
• Audit logs provide operational information and time/date stamps for printed vote records. | Easy for poll workers to set up and close down.                                                                                          |
**EXPRESSVOTE — PHYSICAL FEATURES**

<table>
<thead>
<tr>
<th><strong>ES&amp;S ExpressVote</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage temperature range</strong></td>
<td>50° to 104° Fahrenheit</td>
</tr>
<tr>
<td><strong>Operational temperature range</strong></td>
<td>-4° to 140° Fahrenheit</td>
</tr>
</tbody>
</table>
| **Humidity levels** | Storage: between 10% and 85%  
Operation: between 10% and 50% |
| **System storage** | Designed to nest, units may be stacked four-high  
Unit dimensions (operational): 19” H x 5.5” W x 17” D  
ExpressVote weighs 20 lbs. with internal battery  
Unit dimensions (LCD stowed): 22.5” H x 17” W x 11” D |
| **Operation electrical requirements** | Contains a built-in power supply that operates from standard AC line voltages |
Appendix E:
Balotar® Print and Distribution System

The Balotar Ballot Printing System is a comprehensive solution that addresses the challenges of early and absentee voting by providing the technology and services to ensure accurate, efficient and secure production of ballots for absentee and walk-in absentee voting applications.

To meet jurisdiction volume and production requirements, Advanced Ballot Solutions (ABS), an ES&S company, offers a Balotar Absentee Production and Distribution System. The system is a comprehensive, flexible and scalable ballot production solution to help counties efficiently handle the growing absentee volumes and their various delivery channels. The components of the system include the following:

- Balotar Production Printing Systems.
- Absentee Command Module Server.
- Optional Automated Electronic Ballot Distribution Software (fax or email).
**Balotar Ballot Printing System**

The Balotar Ballot Printing System is a comprehensive solution that addresses the challenges of absentee voting by providing the technology and services to ensure accurate, efficient and secure production of ballots for absentee and walk-in absentee voting applications. It is an integrated, portable, highly secure printing system specifically designed to generate ballots on demand for governmental elections, eliminating the waste that typically occurs with absentee and early voting.

The Balotar combines commercially available printing components that are integrated with proprietary hardware and software modifications that enable it to meet the demanding ballot printing and audit needs of our election customers.

**Printer Unit**

The Balotar utilizes the OKI C9650dn printer. This unit was chosen due to its ability to maintain alignment within the specifications required by major vote tabulation vendors such as Election Systems & Software. It is designed to print volumes up to 150,000 pages per month, making it a robust and reliable choice for the time-sensitive printing needs of medium to large counties. It is capable of printing simplex or duplex ballots in sizes ranging from 8.5” X 11” up to 9.75” X 19”, and is capable of handling paper stock from 20# bond up to 110# index. OKI has developed specialized firmware on the C9650dn to address the integrity, audit and printing requirements of the Balotar. A smaller printer, the OKI C711dn, is also available to support smaller print volumes found in small counties.

**Integrated Feed Tray**

Production of a readable ballot is a critical and mandatory requirement of any ballot on demand system. Therefore, the ability for a printer to maintain alignment requires that the printer settings and adjustments remain constant over the course of the entire election cycle.

Our experience has shown that feeding ballot paper through a printer’s standard cassette or multi-purpose tray presents unacceptable risks to this requirement. The Balotar system is able to consistently achieve this requirement through our proprietary feeder tray. This patent-pending feeder device mitigates these risks by incorporating:

- Precise, multi-point adjustments that allow for exact setup and alignment of paper.
- Heavy-duty side guides along the entire length of the ballot to maintain accurate feeding.
- A locking adjustment mechanism that secures sides guides during paper loading or if accidentally bumped.

The combination of our support and technology provides the highest level of certainty that our printing units will produce accurate, readable ballots upon setup and during the entire walk-in absentee voting cycle. This eliminates the labor and time spent duplicating unreadable ballots due to inconsistent printing on existing systems.

**Optional Heavy-Duty Cart**

The Balotar is a free-standing system that can be placed on a customer-owned cart or table, or on a countertop. For those customers who need a portable system, we provide the option for a heavy-duty cart which can be used for the efficient use and transport of the Balotar in a mail and Early Voting environment.
Its heavy-gauge steel construction ensures it can handle the weight of the Balotar, and its large, 6-inch rubber wheels allow for easy transport while minimizing impact on the printer.

Locking cabinets provide for stocking of supplies as well as secure storage of the laptop at night, if desired. A built-in, heavy-duty power strip with surge protector simplifies installation.

**INTEGRATED SOFTWARE**

Balotar’s open architecture was designed to accept any type of text format.

Your jurisdiction provides ES&S with its production ballot PDFs and a correlation table identifying which PDFs are associated with each ballot style. As part of its election setup process, ABS creates a relational table, encrypts the PDFs, and loads them onto the Balotar printing system. The voter registration interface will be set up to recognize the specific fields and format of the VR system. When a request is sent from the VR system, the Balotar will automatically print the specified ballots based on the style or precinct and split. The integrated printer audit provides feedback regarding print output.

**OVERPRINTING**

The Balotar software has the ability to automatically overprint text or images onto a completed PDF. This overprint can be statically applied, generated based on system information or created by data received from the VR system. This information can be placed on the ballot or ballot stub, and can be customized based on the specific job being run. Examples of this include:

- Stub number assigned by the VR system.
- Precinct identifier.
- Ballot type (e.g. absentee, provisional, etc.)
- Page identification mark: Page 1 of 2, 2 of 2, etc.
- Color bar.
- Images.

**SYSTEM SECURITY AND AUDIT**

The Balotar incorporates several levels of access security and an integrated printer audit trail to provide jurisdictions with a means to validate and verify the accuracy and integrity of the ballot printing process. To accomplish this, our system includes:

**Access security**

- Password security at a Windows level.
- Three levels of password security to log into the Balotar application: operator, supervisor, administrator.
Note: There are currently pre-defined access levels for each of these categories. However, the system is designed to allow the customer to define the level of access for each category.

Ballot Security
Ballots can be encrypted to prevent printing of ballots from the raw PDF form. This protects against unauthorized printing even if the security or access to the PDFs are compromised.

Printer Audit
The Balotar software is integrated into the OKI printer, which enables us to receive feedback from the printer regarding all paper ballots printed against incoming requests. The Balotar software is updated based on feedback from the printer, which reports on actual output.

Balotar Benefit Summary
The Balotar Ballot Printing System improves efficiency and reduces the costs associated with printing of absentee balloting by eliminating these time-consuming and costly factors:

✓ Time to pre-order absentee ballots.
✓ Wasted cost associated with over ordering of ballots.
✓ Space required to stock ballots for picking.
✓ Labor required manually searching and picking ballots.
✓ Concern regarding accuracy of manual picking.
✓ Concern regarding accuracy of data entry.
✓ Voter inconveniences due to time required to manual pick and enter sequence number.
✓ Space required to house unused ballots at end of election.
**eBalotar**

This feature was designed in response to the MOVE (Military Overseas Voter Empowerment) Act, which requires counties to distribute ballots electronically to military and overseas voters upon request. This software is designed to either detect the delivery method the voter has requested for their absentee ballot or ingest a file of electronic absentee requests. In either event, the software will select the proper ballot for that voter, and then automatically route those requests to the proper distribution channel of email or fax. It will also append any additional documents required or desired by the county (certificate or affidavit document, instructions, etc.) with the ballot PDF. The audit system within the Balotar will record that these request has been processed and distributed electronically.

This solution will allow jurisdictions to efficiently and cost-effectively meet the growing demand and Federal requirement that it distribute ballots to its overseas voters for Federal elections.

**Absentee Request**

(Mail or Electronic)
**AUTOMATED BALLOT REMAKE/DUPLICATION MODULE**

The Ballot Duplication Module is a software/hardware solution that automates the process of reprinting blank ballots needed to duplicate ones that are non-scannable during tabulation due to damaged or mismarking by the voter.

Once the appropriate authority determines a ballot requires duplication, the typical process would be for an operator to manually request a ballot to be reprinted from a BOD system, which can be a time-consuming process.

The Ballot Duplication Module automates this process. Unreadable ballots are fed through the Ballot Duplicator Scanner, which automatically scans the precinct or style code for that specific ballot. The Ballot Duplicator software then queues up a batch of ballot requests to be printed automatically through the Balotar software. The system prints the exact number of blank ballots needed for duplication, eliminating the need for operators to manually enter the requests into the system.

It is important to note that the system reprints blank ballots only. The process of duplicating ballots (filling in the ovals) will follow the existing process.

The Balotar software can also print a control number on the blank ballot (if desired) to provide reconciliation and audit with the original, non-scannable ballot. Reports can then be generated from the Balotar showing specific ballots remade, by control number, style and operator.

- Non-scannable ballots
- Precinct or style ID is scanned to determine the ballot style
- Duplicator software queues the exact number of blank ballots needed for duplication/remake
- Black replacement ballots are printed for duplication
Appendix E: Balotar Print and Distribution System

BALLOT CONVERTER

The Ballot Converter Module is a software/hardware solution that automates the replication of ballots returned, either electronically or via paper, after completion of an on-line marking session. The Ballot Converter scans and decodes a barcode on the ballot (created and applied by the online marking vendor) containing all of the voter’s choices. A readable optical scan ballot is then created and printed based on the original voter choices. The system is capable of replicating typical election management system software.

Ballot Converter Functionality

- Automatically scans returned, web cast ballots containing a 2D or PDF 417 barcode at rates up to 40 cast ballots per minute.
- Capable of scanning and processing single-page or multiple-page web-cast ballots.
- Scan location of ballot barcode is user-defined. Therefore, there are no restrictions regarding barcode placement on the web-cast ballot.
- Automatically selects appropriate ballot style PDF for each voter based on barcode content of web-cast ballot.
- Automatically interprets voter’s choices, as embedded in the cast ballot barcode, for population onto an optical scan ballot PDF.
- Electronically populates voter choices onto the correct optical scan ballot PDF.
- Capable of filling in vote choices for Unity, GEMS, Sequoia and Hart ballots.
- Capable of adding write-in candidate names when so selected by the voter.
- Size, font type and color of print of write-ins are configurable.
- Electronically appends the ballot receipt/audit number (if included in the web-cast ballot barcode) onto to the populated optical scan ballot PDF.
- Size, font type, location and color of print are configurable.
- Automatically queues the populated optical scan ballot PDF to print for each web cast ballot scanned or is capable of merging multiple, populated optical scan ballots into a single PDF output file for batch printing on ballot on demand system.
- Output file is produced in the same sequence as the order of original scanned web-cast ballots to allow for audit and verification.
Appendix E: Balotar Print and Distribution System

- Allows user to define batch sizes of web-cast ballots scanned for batch management and reporting purposes.
- Provides option to populate/not populate optical scan ballot PDF in instances where duplicate scanning of a sequence/audit number is encountered.
- Stores image of each web-cast ballot scanned and populated optical scan ballot created for it.

**REPORTS**
- All reports include date, time and operator logged in at time web cast ballots were scanned.
- Batch Summary Report includes the total number of ballots scanned and auto populated by ballot style.
- Batch Detail Report includes detailed scan data for each individual web-cast ballot scanned.
- Batch Duplicate Report provides a listing of web-cast ballots whose ballot sequence number has been scanned more than once and whether that ballot was populated.

**SECURITY**
- Requires entry of user name and password for access to system.
- Includes three levels of user access: operator, supervisor, and administrator.
- Allows customer to assign roles and access capabilities for each of the user access levels.
INTEGRA-VOTE SOLUTION SUITE

The Integra-Vote product suite is a comprehensive, integrated set of hardware and software tools designed to help election officials save time, reduce cost, improve accuracy and enhance the transparency with their inbound mail processes. The suite provides for the automation of the following key inbound envelope steps:

- Inbound remittance and endorsement.
- Envelope and signature image capture.
- Signature verification (manual or ASR).
- Exception identification and reporting.
- Envelope opening.
- Fine level sortation.

We offer a wide range of solutions, from a tabletop solution providing only inbound remittance through a fully featured sorting system.

<table>
<thead>
<tr>
<th>Compact System</th>
<th>Production System</th>
<th>Mail Sort System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image/Endorse</td>
<td>All Compact features +</td>
<td>All Production features +</td>
</tr>
<tr>
<td>ASR capable</td>
<td>Thickness detection</td>
<td>Comprehensive sorting</td>
</tr>
<tr>
<td>VR interface</td>
<td>Basic sortation</td>
<td>In-line opening</td>
</tr>
<tr>
<td>Reporting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hardware Platform**

- **Compact System**: Table top scanner/verifier
- **Production System**: Production Scanner/verifier
- **Mail Sort System**: Mail Sort Scanner/verifier

**Software Platform**

- **Inbound VBM**: Envelope Image Capture Endorsement/Verification
- **Signature Verification**: Automated (ASR) or side by side
- **Sortation**: Basic good/reject Sort scheduling Predict sorts
**STANDARD PROCESS FLOW**

**Step 1- Inbound Receipt**

Return envelopes are fed through scanning system.

- Voter ID barcode is scanned.
- Each piece is logged as received.
- Piece is time/date stamped and endorsed.
- Image of envelope and signature are captured for further processing.

**Step 2 – Automated Signature Verification**

Signature images are processed through automated signature verification (ASR) software.

**Step 3 – Manual Signature Verification**

Pieces not automatically verified are exported to the existing VR system for manual verification.
SIGNATURE VERIFICATION

ASR software will automatically compare and verify the authenticity of the signatures on the return mail ballots. The ASR system compares an image of a voter’s signature scanned from the incoming mail piece against that voter’s corresponding reference image in the voter registration database.

Confidence values range from 1 to 99. The confidence value indicates how confident the verification process is about the match between the instance image presented for verification and the corresponding reference image. A high confidence value indicates a high probability that the reference image resembles the instance image.

The level of effectiveness for ASR varies based on several key considerations:

- Threshold level set.
- Quality of reference images.
- Amount of other graphics, text and/or noise in the signature block areas.

Upon completion of the ASR process, each envelope will have a status as Accepted or Challenged. Challenged pieces will be made available for a signature verification client to allow manual comparison and verification. Our ASR tool can be used with all available hardware platforms. We also have installations where our ASR product is used to verify signatures processed with other major manufacturers’ sorter systems.

SORTING SOLUTIONS

Step 4 - Separation and sortation of ballots

Upon completion of the signature verification process, any challenged pieces or exceptions can be sorted.
Final Sortation/ Opening

Sorters can be configured from 4 to 64 bins for more defined challenge or precinct/group sort. In-line opening automates this process during the final sortation of good envelopes.
Appendix F: ExpressPoll 5000® Overview

The ExpressPoll 5000 unit with EZRoster software is an electronic poll book solution that can be used to manage a computerized list of registered voters for a polling location, county or an entire state. The ExpressPoll tracks and updates voter registration data throughout the election lifecycle, from initial voter registration, to early and Election Day voting, to post-election VR system updating.

Voter information can be rapidly retrieved from the ExpressPoll 5000 unit by entering the letters of the voter’s name on the touch screen. If a barcode reader is used, voter information can be retrieved simply by scanning the voter’s driver’s license or voter ID card.

Voter lookup on the ExpressPoll is fast and efficient. When searching for a voter by last name, 96 percent of voters are immediately found after entering just three letters, and 99.99 percent of voters are found after entering just five letters. If the voter is not found in a precinct search, the poll worker can easily expand the search to the county, or to the entire state, simply by touching an icon on the screen.

The voter registration database can optionally be searched by voter address, voter ID, affidavit number, Social Security number and/or driver’s license number.

**Benefits and Features**

The ExpressPoll 5000 provides the following benefits of a secure, efficient, effective and user-friendly solution:

- Supports the scanning of barcode information on a driver’s license or voter ID card to automatically locate the voter’s information on the unit in seconds.
- Supports the use of a signature pad to capture a voter’s signature for comparison to a signature included in the voter’s voter registration record.
- The ExpressPoll units can be networked together via a local area network (LAN), allowing voter validation activity to be shared among the units.
- The ExpressPoll units can be connected to a central server via a Wide Area Network (WAN) for jurisdiction-wide data networking and monitoring.
- When a central server is used, voter status updates from your VR system can be easily imported, providing access to the most current voter records on all ExpressPoll units across the jurisdiction.
- Locates the correct polling place for any voter in seconds, without calling the registration office.
- For voters at the wrong poll, capable of displaying a map of the voter’s correct polling place and printing the poll’s address for the voter.
- Supports the ability to add voter records for new, eligible voters on ExpressPoll units at the polls.
Appendix F: ExpressPoll 5000 Overview

- Supports the ability to edit voter records on ExpressPoll units at the polls.
- Provides information that allows a poll worker to determine if a voter should be issued a provisional ballot.
- Allows poll workers to optionally specify a reason for issuing a voter a provisional ballot.
- Identifies voters who were issued standard or provisional ballots.
- Identifies voters who were issued absentee ballots.
- Identifies voters who may need assistance with voting and/or special needs voting apparatus.
- Identifies voters who must provide identification at the polling place.
- Records user activity and changes to voter records in the unit's log file. Changes to the log file on one unit are shared with all other units logged into the same consolidation, providing excellent unit redundancy for backup purposes.
- Can be configured to print voter receipts and reports on an optional USB printer.
- Capable of automatically assigning a provisional ballot ID number for provisional ballot tracking.
- Eliminates the cost of printing paper poll books.
- The data on the ExpressPoll, including audit logs, can be encrypted using one of four industry standard algorithms.

The ExpressPoll 5000 operates very successfully with optical scan and DRE-based tabulation systems. It is the only electronic poll book federally certified by the Election Assistance Commission (EAC) to program Voter Access Cards for the AccuVote-TSX touch screen tabulation machines.

**EXPRESS POLL 5000 BATTERY BACKUP**

The ExpressPoll 5000 has an integrated battery backup that provides up to 4 hours of backup power should a power outage occur. The unit's backup memory and power supply ensure that no information is ever lost due to power loss or equipment failure.

**POLL WORKERS AGREE**

Poll workers who were surveyed in Arlington County, Virginia, agreed that a poll book is a valuable tool to find voters and check them in quickly and efficiently. And 100 percent of the survey participants said that the ExpressPoll 5000 poll book was a fast and efficient tool for checking in the voters. The results of this survey follow.

Our studies indicate ExpressPoll moves people through the check-in process more than twice as fast as the traditional paper list of voters. Here's what the surveyed poll workers actually said:

- "I found ExpressPoll increased the efficiency of getting people through.”
- "It made it very fast to find the name. It is great!”
- "ExpressPoll was absolutely wonderful – it really sped up the process of checking voters in and voters themselves seemed to like it. This was a noteworthy step forward.”
- "Wonderful system. Easy to use and saved time not having to look up names in a book.”
- "Served the voters more efficiently and moved them through the process more quickly.”
- "It is faster and better than the books!”
• "I was very happy to have the new ExpressPoll. It made so much more sense. Expedited my voters and they were better served."
Poll Workers are Overwhelmingly Satisfied with the New ExpressPoll Voter Check-In System

Background
Arlington County is an urban county of about 206,800 residents in the Commonwealth of Virginia. It is located directly across the Potomac River from Washington, D.C. Formerly part of the District of Columbia, the land now comprising the county was retroceded to Virginia on July 9, 1846, in an act of Congress that took effect in 1847.

Despite being a county, it is considered a Central City of the Washington, D.C. area by the Census, along with neighboring Washington and Alexandria. At a land area of 26 square miles (67 km²), it is geographically the smallest self-governing county in the United States.

Arlington County manages 50 precincts and over 135,000 registered voters. Recently the county purchased 225 ExpressPoll 5000 units plus services at a price of approximately $770,000. The county rolled out the system this past June 17, 2008 for a special congressional election. The special election resulted in a low turnout, but the roll-out was considered a big success. After the election the County sent the following survey out to the poll workers via a link to www.surveymonkey.com. Here are the results of the survey.

Overall Satisfaction
Among the findings of a recent survey conducted by Arlington County Virginia, 88.7% of the poll workers believe that the features of the ExpressPoll 5000 unit were important or very important to the success of their election.

Overall, 90% of the poll workers were satisfied or very satisfied with the performance of the ExpressPoll unit on Election Day. The number one feature that gained the highest satisfaction rating from the poll workers was the “increase in efficiency and reduction of effort at the polls on Election Day”. Here’s what the poll workers actually said:

“I love, loved, loved the system....thank you”

“Overall, the electronic poll book was a Godsend.”

“All in all a great improvement over the old poll books”
Comments continued:

“Much better than the old books, by far.”

“I was EXTREMELY satisfied with ExpressPoll”

“This is a “dream come true...””

“The ExpressPoll system is Completely Awesome”

“The system is AMAZING!!!! It speeds up the process and will definitely reduce the number of human errors. And one of the top features is the ability to determine the correct precinct for voters not registered in your precinct.”

Set-up was Easy

Over 96% of the poll workers believed that any electronic poll book should be easy to set-up on Election Day, and the survey participants reported their overwhelming satisfaction with the ExpressPoll system. 95.6% of the survey respondents were satisfied or very satisfied with how easy the ExpressPoll unit was to set-up on the morning of the election. Here’s what the poll workers actually said:

“I was very worried that it would be a laptop, extremely hard to operate and was pleasantly surprised how easy it was to use.”

Finding Voters and checking them in to Vote

100% of those surveyed said that the user should be able to find voters and check them in quickly and efficiently, and every survey participant agreed that the ExpressPoll unit was a fast and efficient tool for checking in the voters. Our studies indicate ExpressPoll moves people through the check in process more than twice as fast as the traditional paper list of voters. Here’s what the poll workers actually said:

“I found ExpressPoll increased the efficiency of getting people through.”

“It made it very fast to find the name it is great”

“ExpressPoll was absolutely wonderful -- it really sped up the process of checking voters in and voters themselves seemed to like it. This was a noteworthy step forward.”

“Wonderful system. Easy to use and saved time not having to look up names in a book”

“Served the voters more efficiently and moved them through the process more quickly.”

“It is faster and better than the books!”

“I was very happy to have the new ExpressPoll. It made so much more sense. Expedited my voters and they were better served.”
High Turnout Elections

When the survey asked the poll workers to speculate on the high turnout expected in the coming November Election 99.1% of the poll workers were in favor of the ExpressPoll system. Most election officials agree that they will face long lines of voters at the polls in November 2008 and it is not too late to do something about the lines. Here’s what the poll workers actually said:

“‘The proof of the system will be in a larger election and I think it will be a great boost to efficiency all around.’

“I’m sure that it will be extremely helpful come this fall. I’m glad we have it.’

“it was clear that the system is properly positioned to be radical improvement to our election day experience.’

“The flexibility of the units and their full service because of the A-Z + database will make this a significant improvement for the major elections for voters and election officials alike.”

Getting Voters to the Correct Polling Place

When the survey asked, “Did you benefit from the ExpressPoll feature for directing voters outside of your precinct to their correct polling place?”, all of the responses were affirmative, and many of those surveyed indicated that this feature will be a terrific asset in the November 2008 Presidential Election. First time users of the ExpressPoll unit will note an immediate decrease in the number of phone calls to the central election office because these callers are given immediate directions out at the polls. Printer equipped ExpressPoll units can even print directions for the wayward voters. Here’s what the poll workers actually said:

“The ExpressPoll system was excellent. We were able to process voters much more efficiently. And we were able to redirect voters to the correct precinct. THANK YOU!!!”

“The small size of the unit will be very functional to assist voters uncertain of their correct precinct.”

Ease of Use

Over 96% of the poll workers thought that the ExpressPoll system was easy to use. And 80% of the poll workers thought that the ExpressPoll system made it easier to close the polls on Election Day. Most election officials worry about the age and capability of their poll workers; but it is clear that the poll workers in Arlington were ready and able to handle this technology. Here’s what the poll workers actually said:

“The old system of the paper list of registered voters and the numbered sheet that needed to be marked was always subject to human error. This system is so much better automatically numbering the voters as they check in. Even with distractions and interruptions during the process, the likelihood of error is significantly reduced!”
“Poll book vs. ExpressPoll
WOW!!!! What a HELP!”

“once we found the statistics
section it was very useful; hands on
practice was the best way to learn”

“ExpressPoll was very easy and
far more accurate than manual entries in
poll books. I am happy to have it in
November.”

“ExpressPoll was very helpful
and easy to use. Thanks”

“this poll book makes life in the
polling place very easy!”

**Keep your Poll Workers
Happy**

Nearly half (50%) of the poll workers said that the use of the ExpressPoll in their precinct was an important factor in the decision to continue to volunteer as a poll worker! Working at the polls is volunteer work. It makes good business sense to give these volunteers the best tools for completing their work. The efficiency and immediacy of voter information combine to give the poll workers a sense of self worth and satisfaction at the end of the day. Here’s what the poll workers actually said:

“I loved having the new
technology, will help provide stats to poll
watchers during the Presidential election.”

“It is physically taxing to use the
printed poll book. This is a vast
improvement in reduced effort and time. I
wouldn’t wish to return to paper book.”

“it will certainly make it less
stressful for voters and precinct
volunteers!”

“With the difficulties coming, this
tool may just make things manageable
enough.”

“The new poll book is definitely a
HUGE incentive to continue working the
polls”

“I would love to have it there
from now on”

“This raises the status of book
officers to efficient!”

Detailed Survey results appear below on
the following pages. Questions about
ExpressPoll can be directed to
info@PremierElections.com.
1. For each of the following items, please indicate both how important the item is to you, and how satisfied you are with the ExpressPoll or Premier’s support. Enter any comments or expand on any question below - your comments are greatly appreciated.

<table>
<thead>
<tr>
<th>Importance</th>
<th>Extremely Important</th>
<th>Important</th>
<th>Marginally Important</th>
<th>Not Important At All</th>
<th>No Opinion/Don’t Know</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the ExpressPoll easy to set up?</td>
<td>64.3% (72)</td>
<td>31.3% (35)</td>
<td>0.9% (1)</td>
<td>0.0% (0)</td>
<td>3.6% (4)</td>
<td>112</td>
</tr>
<tr>
<td>Could you find voters and check them in for voting quickly and efficiently?</td>
<td>90.2% (101)</td>
<td>9.8% (11)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>112</td>
</tr>
<tr>
<td>Did you benefit from the ExpressPoll feature for directing voters outside of your precinct to their correct polling place?</td>
<td>34.8% (39)</td>
<td>38.4% (43)</td>
<td>8.0% (9)</td>
<td>0.0% (0)</td>
<td>18.8% (21)</td>
<td>112</td>
</tr>
<tr>
<td>Will this system be of value in a high turnout election?</td>
<td>88.4% (99)</td>
<td>10.7% (12)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>0.9% (1)</td>
<td>112</td>
</tr>
<tr>
<td>Will the system reduce provisional ballots?</td>
<td>26.8% (30)</td>
<td>31.3% (35)</td>
<td>14.3% (16)</td>
<td>0.9% (1)</td>
<td>26.8% (30)</td>
<td>112</td>
</tr>
<tr>
<td>Did the system increase your efficiency and reduce your effort at the polls on Election Day?</td>
<td>75.9% (85)</td>
<td>21.4% (24)</td>
<td>0.9% (1)</td>
<td>0.0% (0)</td>
<td>1.8% (2)</td>
<td>112</td>
</tr>
<tr>
<td>Was the system easy to use?</td>
<td>81.3% (91)</td>
<td>18.8% (21)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>112</td>
</tr>
<tr>
<td>Did the system display meaningful statistics on voter turnout during the voting hours on Election Day?</td>
<td>38.4% (43)</td>
<td>38.4% (43)</td>
<td>17.0% (19)</td>
<td>0.0% (0)</td>
<td>6.3% (7)</td>
<td>112</td>
</tr>
<tr>
<td>Did the ExpressPoll system make it easier to close the polls on Election Day?</td>
<td>49.1% (55)</td>
<td>35.7% (40)</td>
<td>8.9% (10)</td>
<td>0.9% (1)</td>
<td>5.4% (6)</td>
<td>112</td>
</tr>
<tr>
<td>Was the training session effective?</td>
<td>58.0% (65)</td>
<td>40.2% (45)</td>
<td>0.9% (1)</td>
<td>0.0% (0)</td>
<td>0.9% (1)</td>
<td>112</td>
</tr>
<tr>
<td>Did you find the instructions and documentation helpful?</td>
<td>53.6% (60)</td>
<td>39.3% (44)</td>
<td>2.7% (3)</td>
<td>0.0% (0)</td>
<td>4.5% (5)</td>
<td>112</td>
</tr>
<tr>
<td>Question</td>
<td>Very Satisfied</td>
<td>Satisfied</td>
<td>Neutral</td>
<td>Dissatisfied</td>
<td>Very Dissatisfied</td>
<td>No Opinion/Don't Know</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------</td>
<td>-----------</td>
<td>---------</td>
<td>--------------</td>
<td>-------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Was the ExpressPoll easy to set up?</td>
<td>74.1% (83)</td>
<td>20.5% (23)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>5.4% (6)</td>
</tr>
<tr>
<td>Could you find voters and check them in for voting quickly and efficiently?</td>
<td>71.4% (80)</td>
<td>25.0% (28)</td>
<td>2.7% (3)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>0.9% (1)</td>
</tr>
<tr>
<td>Did you benefit from the ExpressPoll feature for directing voters outside of your precinct to their correct polling place?</td>
<td>42.9% (48)</td>
<td>23.2% (26)</td>
<td>5.4% (6)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>28.6% (32)</td>
</tr>
<tr>
<td>Will this system be of value in a high turnout election?</td>
<td>69.6% (78)</td>
<td>17.0% (19)</td>
<td>1.8% (2)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>11.6% (13)</td>
</tr>
<tr>
<td>Will the system reduce provisional ballots?</td>
<td>17.9% (20)</td>
<td>25.9% (29)</td>
<td>14.3% (16)</td>
<td>0.9% (1)</td>
<td>0.0% (0)</td>
<td>41.1% (46)</td>
</tr>
<tr>
<td>Did the system increase your efficiency and reduce your effort at the polls on Election Day?</td>
<td>74.1% (83)</td>
<td>17.9% (20)</td>
<td>2.7% (3)</td>
<td>0.9% (1)</td>
<td>0.0% (0)</td>
<td>4.5% (5)</td>
</tr>
<tr>
<td>Was the system easy to use?</td>
<td>73.2% (82)</td>
<td>22.3% (25)</td>
<td>3.6% (4)</td>
<td>0.9% (1)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td>Did the system display meaningful statistics on voter turnout during the voting hours on Election Day?</td>
<td>57.1% (64)</td>
<td>30.4% (34)</td>
<td>6.3% (7)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>6.3% (7)</td>
</tr>
<tr>
<td>Did the ExpressPoll system make it easier to close the polls on Election Day?</td>
<td>49.1% (55)</td>
<td>28.6% (32)</td>
<td>16.1% (18)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>6.3% (7)</td>
</tr>
<tr>
<td>Was the training session effective?</td>
<td>45.5% (51)</td>
<td>42.9% (48)</td>
<td>5.4% (6)</td>
<td>4.5% (5)</td>
<td>0.0% (0)</td>
<td>1.8% (2)</td>
</tr>
<tr>
<td>Did you find the instructions and documentation helpful?</td>
<td>43.8% (49)</td>
<td>40.2% (45)</td>
<td>8.9% (10)</td>
<td>1.8% (2)</td>
<td>0.0% (0)</td>
<td>5.4% (6)</td>
</tr>
</tbody>
</table>
2. Is the use of the ExpressPoll in your precinct an important factor in your decision to continue to volunteer as a poll worker?

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, absolutely</td>
<td>100.0% (25)</td>
</tr>
<tr>
<td>Very likely to</td>
<td>100.0% (17)</td>
</tr>
<tr>
<td>Maybe</td>
<td>100.0% (9)</td>
</tr>
<tr>
<td>Probably not</td>
<td>100.0% (36)</td>
</tr>
<tr>
<td>Absolutely not</td>
<td>100.0% (23)</td>
</tr>
<tr>
<td>No opinion/don't know</td>
<td>100.0% (3)</td>
</tr>
</tbody>
</table>

3. Overall, how satisfied are you with Premier Election Solutions' ExpressPoll system?

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>100.0% (88)</td>
</tr>
<tr>
<td>Satisfied</td>
<td>100.0% (22)</td>
</tr>
<tr>
<td>Neutral</td>
<td>100.0% (2)</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td>Very Dissatisfied</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td>No opinion/don't know</td>
<td>0.0% (0)</td>
</tr>
</tbody>
</table>
# Appendix G: Electronic Poll Book Technology Comparison

## Durability of Electronic Poll Book Enclosure

<table>
<thead>
<tr>
<th>Feature</th>
<th>ExpressPoll 5000® Dedicated Electronic Poll Book</th>
<th>Off-the-Shelf Laptop PC</th>
<th>Off-the-Shelf Tablet PC (iPad and ASUS tablets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ExpressPoll is housed in an industrial</td>
<td>The ExpressPoll is housed in an industrial</td>
<td>An off-the-shelf laptop</td>
<td>Tablet PCs are not designed to withstand any</td>
</tr>
<tr>
<td>enclosure designed to withstand rough</td>
<td>enclosure designed to withstand rough</td>
<td>computer is not designed</td>
<td>physical abuse or rough handling. Simply</td>
</tr>
<tr>
<td>handling that will occur during election</td>
<td>handling that will occur during election</td>
<td>for this type of rough</td>
<td>dropping the tablet PC unit from a limited</td>
</tr>
<tr>
<td>preparation, during transportation to and</td>
<td>preparation, during transportation to and</td>
<td>handling. The internal</td>
<td>height (tabletop) can cause the fragile screen</td>
</tr>
<tr>
<td>from precinct locations and while being used</td>
<td>from precinct locations and while being used</td>
<td>hard disk drive is</td>
<td>to break. A broken screen could injure a poll</td>
</tr>
<tr>
<td>by poll workers of all ages during election</td>
<td>by poll workers of all ages during election</td>
<td>vulnerable to vibration</td>
<td>worker. Expected life of a tablet PC is three</td>
</tr>
<tr>
<td>day. Extremely reliable solid state</td>
<td>day. Extremely reliable solid state</td>
<td>which will occur when</td>
<td>years or less.</td>
</tr>
<tr>
<td>redundant compact flash memory is used to</td>
<td>redundant compact flash memory is used to store</td>
<td>the unit is transported</td>
<td>iPad Tablet PC Drop Test:</td>
</tr>
<tr>
<td>store voter validation activity.</td>
<td>store voter validation activity.</td>
<td>to and from precinct</td>
<td><a href="http://www.youtube.com/watch?v=OfbMIM4upsw">http://www.youtube.com/watch?v=OfbMIM4upsw</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>locations, and when the</td>
<td>Asus Tablet PC Drop Test:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>unit is handled by poll</td>
<td><a href="http://www.youtube.com/watch?v=LkuDk8wcl48">http://www.youtube.com/watch?v=LkuDk8wcl48</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>workers in precinct</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>locations. Dropping</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the unit will probably</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>disable the use of a</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>laptop based unit.</td>
<td></td>
</tr>
</tbody>
</table>

"By far the most common cause of hard drive failure is vibration or movement of the case while the drive is running."

- (Slashdot)

"Choose from traditional spinning hard drives, or upgrade to solid-state drives for added durability."

- (From Dell Latitude 2100 website)
## Appendix G: Electronic Poll Book Technology Comparison

<table>
<thead>
<tr>
<th>How is voter validation information stored?</th>
<th>Poll worker user interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voter validation activity is redundantly stored in the ExpressPoll unit. Voter validation data is stored on the removable, physically secured compact flash card and on internal memory on the ExpressPoll motherboard. Voter validation data can be easily retrieved from the internal memory if necessary.</td>
<td>A touch screen is used to activate the ExpressPoll 5000. A poll worker can use their finger, a fingernail, a standard plastic stylus or other blunt object to use the touch screen. Poll workers of all ages can navigate through the ExpressPoll screens with ease.</td>
</tr>
<tr>
<td>Voter validation data is stored on a fragile hard disk drive. Most laptop computers are replaced every 3 to 4 years to avoid the risk of a hard drive crash. Usually, an exposed USB flash drive is used as a means to redundantly store data on a laptop computer. No major supplier uses hard disk drives in the design of their tabulation voting machines as they are very aware of the vulnerability of using this fragile technology in an environment where units will receive rough handling when transported to and from voting sites.</td>
<td>A keyboard may be required to operate the laptop-based electronic poll book. Many older poll workers have not used a computer and are not familiar with the use of a laptop keyboard. If a touch screen interface is used with a laptop, when the touch screen is touched, the entire laptop computer will tip backwards, inviting poll worker errors and maintenance issues.</td>
</tr>
<tr>
<td>Voter validation data is stored in flash memory and can be stored on a separate SD card.</td>
<td>Tablet PCs use a capacitive touch screen which limits a poll worker to using only the soft part of their finger or an expensive capacitive stylus. The poll worker cannot use their fingernail or an inexpensive plastic stylus to operate the tablet PC. The inability to use their fingernail will frustrate poll workers using the tablet PC based units.</td>
</tr>
<tr>
<td>Price of system</td>
<td>$2.20</td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Programming Voter Access Cards</strong></td>
<td>The ExpressPoll is designed to integrally program the ExpressVote Voter Access Card, automatically programming the correct ballot style on the Voter Access Card for each voter. The ExpressPoll's ability to automatically program the Voter Access Card eliminates the need to use the Encoder to program these cards. It also eliminates the risk of a poll worker manually programming an incorrect ballot style onto a voter's Voter Access Card. The ExpressPoll System has been <strong>Federally Certified</strong> by the Election Assistance Commission (EAC) to provide this capability. <em>No other electronic poll book system is Federally Certified to provide this capability.</em></td>
</tr>
<tr>
<td><strong>Chance of theft</strong></td>
<td>Currently, more than 17,000 ExpressPoll units are in use and we are not aware of any ExpressPoll units being stolen. The dedicated ExpressPoll design does not enable other standard software applications to be loaded onto the unit, so it is not a desirable target for theft.</td>
</tr>
<tr>
<td>📱iPhone, iPad thefts jump 40 percent in NYC</td>
<td>📱150 iPads stolen from Phillipsburg high school</td>
</tr>
<tr>
<td>Threat of external system hacking</td>
<td>The ExpressPoll uses an embedded operating system combined with an electronic poll book application. At no time does the poll worker have access to the underlying operating system. This increases both the security and reliability of the system. In addition, all applications running on the system must be compiled specifically for this operating system. This eliminates the possibility of any unauthorized code, malicious software, virus, or worm targeted for Windows, iOS or Android running on this system. You can be certain that only EZRoster and other ES&amp;S-approved applications will be running on the ExpressPoll during your election.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Capturing digital signatures</td>
<td>A separate high-quality digital signature pad is used to capture the digital signatures of all voters. Using a separate digital signature pad eliminates the need for an older poll worker to have to lift the electronic poll book over and over again in order to hand it to each voter to sign. Digital signatures are displayed next to the voter's archived digital signature from their file in the MCVR voter registration system. The signatures are easily compared and validated on a single screen. Digital signatures are displayed and captured for upload into the MCVR system with voter history data.</td>
</tr>
<tr>
<td>Battery replacement</td>
<td>The ExpressPoll backup battery is attached to the back of the ExpressPoll enclosure. Simply moving to clips to the side and pulling out the old battery makes room for the replacement battery. The entire process can be completed in 20 seconds by the local poll worker. This is especially important when a long power outage occurs or a battery fails on election day.</td>
</tr>
<tr>
<td>Average system life expectancy</td>
<td>The predecessor to the ExpressPoll 5000, the ExpressPoll 4000 has already been in use in many jurisdictions for more than nine years. The dedicated design of the ExpressPoll series enables it to provide reliable, very functional operation for many years. We expect the ExpressPoll 5000 to provide the same, if not better, longevity for our customers.</td>
</tr>
<tr>
<td>Future parts and service availability</td>
<td>Using a dedicated hardware enables ES&amp;S to service the ExpressPoll and provide replacement parts for many years to come. If electronic poll book federal certification is required for general electronic poll book operation in the future, identical part replacement will be required to continue the product’s certification status. ES&amp;S can provide this long-term support.</td>
</tr>
<tr>
<td>Size of Company</td>
<td>ES&amp;S has more than 400 employees, and a large, well-trained service and support organization. We are the largest electronic poll book manufacturer and offer the most proven electronic poll book in the marketplace.</td>
</tr>
</tbody>
</table>
Maintaining voter confidence.
Enhancing the voting experience.