Section 3

Solution Overview

BOULDER COUNTY SOLUTION OVERVIEW

Hart InterCivic's eSlate Electronic Voting System is a fully integrated voting and tabulation solution, with a DRE component for Early Voting and Election Day plus an optical scan component for absentee/ mail/provisional voting. The System meets federal and State certification requirements, as well as additional requirements of the Help America Vote Act. Just as important, Hart InterCivic offers Boulder County's election staff and voters a superior level of service and support, including project management, storage and deployment planning, staff and poll worker training, and voter education and outreach.

Like states and counties throughout the United States, the State of Colorado and Boulder County are in the process of implementing programs and procedures that will ensure compliance with the Help America Vote Act (HAVA) and related Federal and State election reforms. Colorado has a head start on the process, since many of the requirements of HAVA (e.g., provisional voting, statewide voter registration, voter accessibility) have already been enacted into law or are being studied through legislation such as the Blue Ribbon Election Bill and the Colorado Help America Vote Act. The Secretary of State's Office has recently issued the State of Colorado Preliminary State Plan, in response to Section 2532(b) of the Federal Act, detailing the State's HAVA plans.

Our Understanding of the Procurement

With the issuance of RFP # 4437-03 for a *New Voting Tabulation System*, Boulder County is moving forward on one of the key HAVA requirements and State Plan Program Performance Goals – replacement of the County's existing Datavote punch card voting system.

The RFP details the following minimum requirements that must be met by the replacement Direct Recording Electronic (DRE) system: The DRE system component shall, at a minimum,

- be easy for the voter to use
- the voting booth and voting device shall be easy to transport and easy for the poll workers to assemble and disassemble
- this system component shall operate independently and not be tied to a larger network, like the internet or the County's network
- it must receive both national and state certification prior to award of a contract and be secure and tamperproof

- the system shall provide the ballot in multiple languages and have audio/voice capabilities to serve those voters who are visually impaired.

The optical scan system component that will be used for absentee/mail/provisional balloting shall:

- be fully integrated (i.e., ballot layout, ballot generation, ballot tabulation and reporting) with the DRE system component
- be easy for the voters to use
- be secure and tamperproof
- provide the ballot in multiple languages.

Other requirements include:

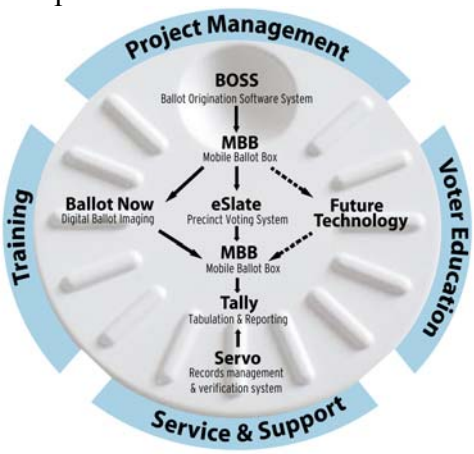
- Implementation of the new system must be complete in time for the August 2004 Colorado Primary Election.
- The voters of Boulder County will use the integrated system for Federal, State and local elections. The County conducts three major statewide elections: the State Primary and General Election in even-numbered years, and one major coordinated election in odd-numbered years.
- The system must support the County Clerk and Recorder's ability to serve 10 municipalities, 4 school districts and 75 special districts within the County. The Coordinated Election, referenced in the previous item, includes these entities' regular elections and/or special elections.
- The maximum number of polling places for an election is 250. The County is requesting 1250 DRE units, based on an average of 5 units per polling place.
- One unit per polling place, for a total of 250 units, will be equipped with Disabled Access Units to support private, unassisted voting by those with physical or literacy limitations.
- All units will be configured to present ballots in multiple languages, with the actual language of the ballot selected by the voter.
- The absentee/mail/provisional ballots system must be able to scan up to 200,000 ballots in a 12-hour period.

The eSlate Electronic Voting System: Responding to Boulder County's Requirements

In response to these requirements, Hart InterCivic proposes the eSlate Electronic Voting System.

Overview of the eSlate System

To assist in the County's understanding of the eSlate System, we provide the following introduction to the eSlate System components and how each is used in the eSlate System. These components and the System's functionality are discussed in greater detail throughout the responses to the RFP items. The Slate System components include:



eSlate 3000™ – The voting terminal used by the voter to cast votes.

Disability Access Unit™ (DAU) – The unit that modifies an eSlate 3000 to provide alternative access features for disabled and literacy-challenged voters, including an audio ballot reader.

Judge's Booth Controller™ (JBC) – The polling place control console that manages up to 12 eSlate voting terminals, prints Access Codes and voter receipts, and records Cast Vote Records (CVR) on the Mobile Ballot Box (MBB).

eSlate Voting Booth – The specially designed voting booth that assures private, comfortable voting and secure storage and handling for eSlate voting terminals.

Mobile Ballot Box™ (MBB) – The PC memory card that carries the election database and formatted ballots to the Judge's Booth Controller and stores Cast Vote Record and audit information.

Ballot Origination Software System™ (BOSS) – The software application that enables users to build election databases, format ballots and electronically write multiple ballot styles to the Mobile Ballot Boxes.

Tally™ – The software application that tabulates and reports cast votes from Mobile Ballot Boxes.

Ballot Now™ – A unique software solution for *on-demand, in-house printing* of absentee/mail/provisional ballots on standard paper that requires no preformatting; scanning and digitally imaging the voted ballots; resolving unclear ballots through an innovative on-screen resolution process; and capturing cast vote records.

SERVO™ – An election records and asset management system that maintains on-going equipment history and supplies election records as required.

Rally™ – An application that includes functionality for MBB verification, reading, election data storage and communication from a satellite facility to a central tabulation function.

The Proposed eSlate Solution for Boulder County

As requested by Boulder County Hart InterCivic will deliver, test, and install 1250 eSlate DREs, 250 Disabled Access Unit Modules with audio cards, 250 Judge's Booth Controllers with MBBs (the polling control unit), and necessary system supplies to support Early Voting locations and Election Day polling places.

Hart InterCivic offers an alternate solution based on installing one DRE unit per 300 voters. Based on Boulder County's estimate of 223,00 registered voters, this option includes 734 eSlate units. All other components and quantities remain the same, and no functionality is lost. Boulder County receives all the benefits of the eSlate System, and effectively serves the same number of registered voters at a lower total cost of ownership (purchase, storage, maintenance, etc. of the units). Pricing schedules for each of the quantity options are included in *Section 6, Pricing* of this proposal.

Ballot Formatting and Generation

At the Boulder County Clerk and Recorder's office, a Dell Optiplex GX260 will be installed as the Ballot Layout PC. This PC will run the Ballot Origination Software System (BOSS), eSlate's election data management and ballot generation application. The Ballot Layout PC will be standalone, not connected to any network internal or external to the County.

In addition, connected to the Ballot Layout PC will be a HP 2300 laser printer for ballot proofs, reports, and other printing requirements.

Elections staff will use the Ballot Layout PC to create a BOSS database containing all necessary data to generate DRE and absentee/mail/provisional ballots. From BOSS, the County will

write Mobile Ballot Box (MBB) PC cards that will enable precinct voting for Early Voting and Election Day. MBBs will also enable printing of absentee/mail/provisional paper ballots. From BOSS, the County will also produce FLASH cards with audio files to support voting by the hearing and literacy impaired.

Absentee/Mail/Provisional Voting

To support the requirement for an absentee/mail/provisional paper ballot system that can process up 200,000 ballots in a 12-hour period, we are including three Ballot Now stations, each consisting of

- A Dell Optiplex GX260 PC, running Ballot Now, eSlate's integrated absentee/mail/provisional paper ballot application. (Like the Ballot Layout PC, the Ballot Now PC will be standalone, not connected to any network internal or external to the County.)
- Connected to the Ballot Now PC will be an HP 9000dn laser printer for producing ballots on demand and a Kodak i830 scanner for scanning/imaging voted ballots.
- Supporting image processing for each station will be two Dell GX260 PCs with a small form factor chassis.

Tabulation and Reporting

An additional Dell Optiplex GX260 PC, also standalone, will be at the Central Count Site for Election Day tabulation (the "Tabulation PC"). This PC will run Tally, eSlate's tabulation and reporting application. Connected to the Tally PC will be an HP 2300 laser printer for printing reports, and an Epson LQ-570e impact printer for real-time printing of the audit trail during tabulation.

To support remote or regional tabulation reporting, Hart is proposing establishment of 5 satellite collection centers. Each satellite will be equipped with a Dell Latitude 640 laptop running Rally, the eSlate application that aggregates cast vote records and electronically transmits unofficial totals to the Tabulation PC at the Central Count Site.

Election Officials will deliver Judge's Booth Controllers, with MBBs still sealed in the JBC's MBB slot, to the satellites. There, election staff will remove and read the MBB; results will be electronically transmitted to the Central Count Site. This configuration will result in accelerated reporting of unofficial Election Day results.

Warehousing and Storage

An additional Dell Latitude C640 laptop will be used to support warehouse and maintenance requirements. SERVO, the eSlate data and asset management application will be installed on the laptop. For the first and second countywide elections, Hart will provide service and support to assist with the warehousing, storage, and maintenance process.

Service and Support

Hart will provide a comprehensive support program prior to the election, including a dedicated Account Manager, data support, integration support, testing (including acceptance testing and logic and accuracy testing), and other services necessary to fully prepare for initial use of the eSlate System.

Hart InterCivic Technical Specialists configure, install, and test the eSlate System software applications and the associated hardware purchased by the County as part of the purchase contract. Installation of hardware is defined as delivery and setup of computer equipment ordered by the County; installation, and checkout of software purchased; and installation of associated hardware (such as scanners and printers) purchased by the County.

Technical Specialists also support customer acceptance testing and deployment of eSlate components, equipment, and systems, as identified in the implementation plan. Additional technical support may be provided by the eSlate Customer Support Center on an as-needed basis. This includes on-site technical support the County may require; long-term assistance in meeting the demands for training Clerk and Recorder office staff, Election Officials and poll workers; or if necessary, system design and data migration assistance for an existing legacy system(s) interface.

Training

In addition, Clerk and Recorder's office, IT staff, Election Officials, and poll workers will be fully trained in all aspects of the System's operation relevant to their responsibilities. Hart InterCivic provides fully qualified training personnel to accomplish all training included in the implementation plan. All aspects of the training program have been carefully designed and selected, be it the training methods themselves, the types of trainers, or the training materials, to produce an outstanding educational system. Distinguishing features of the instructional program include the following:

- Specific courses are offered for each element in the eSlate electronic voting system.

- Instructors leading poll worker training classes reflect the ethnic and language diversity of the County.
- Professionals with education, training, and curriculum experience design the courses.
- Software courses are supplemented by operations and training manuals.
- Enrollees in poll worker courses receive Quick References and Desk Reference Job Aides that offer simple, easy-to-find procedural information.
- Lead Poll Workers also receive detailed training manuals.
- Courses employ multi-media instructional tools with a laboratory or "hands-on" approach, including simulation and problem solving exercises, examinations, and training evaluations.
- Instructors are trained in the special methods for instructing adult learners.
- Courses have low teacher/student ratios to insure that all trainees have hands-on experience and receive individualized instruction.
- A key component is our train-the-trainer program, which ensures the County is fully prepared to provide training independently.

Details of Hart InterCivic's training program are included in *Attachment 10, eSlate Comprehensive Training Program*.

Voter Education and Outreach

Introducing the new Boulder County eSlate™ Electronic Voting System to the Boulder County community will require a coordinated program of community outreach that recognizes the County's demographics and cultural diversity. The outreach program must be inclusive, seeking to deliver information about the new voting system and the importance of participating in the electoral process to all eligible voters in Boulder County. The program must assure that no one is left uninformed because the program failed to reach out to a particular segment of voters. The program must take into consideration race, ethnicity, age, gender, religion, lifestyle, socio-economic status, place of residence within the county, educational attainment, party affiliation or non-affiliation, or any other discriminator. Effectively executed, we believe that the introduction of the new voting system can contribute to a renewed enthusiasm in the democratic process and an increase in voter participation. Therefore, Hart InterCivic is

proposing that the Boulder County Clerk & Recorder's Office launch an ongoing program of community outreach and education.

Hart InterCivic leads the industry in the development of voter education programs that support the implementation of new electronic voting systems. For example, HarrisVotes!, the comprehensive voter education program developed by Hart InterCivic for Harris County, Texas, has received national recognition as PR Week Magazine's Community Relations Program of the Year for 2002 and recognition from NACRC for excellence in election practices.

In order to support the voter education and outreach program for Boulder County, Hart InterCivic has engaged the services of GBSM, a prestigious public affairs/communications firm based in Denver with experience in broad-based community outreach programs. For more than 15 years, GBSM has been involved in many of the region's most important projects, including the opening of Denver International Airport for United Airlines, the extension of E-470 from Southeast Denver to D.I.A., the siting of Coors Field and the community input process surrounding future uses of Boulder's Barker Reservoir.

The GBSM team includes men and women with extensive experience in the media, politics, political campaigns and community outreach in both Boulder and the greater metropolitan area. With the addition of GBSM, Hart InterCivic's voter education team has extensive expertise in marketing, public relations, government affairs and community relations. The team also has significant experience in implementing customized voter education and outreach programs of varying sizes for eSlate customers throughout the United States.

Voting with the eSlate System

The following discussion presents an overview of the election process using the eSlate System. It is not intended to be an exhaustive review of all possible procedures or activities. Rather, this overview is designed to produce a basic understanding of eSlate's operation in Boulder County.

Election Preparation

Preparing for an election begins by entering information into the Ballot Origination Software

System (BOSS). For Boulder County, BOSS will receive data through an automated import from the Integrity Election Management System.

Typically, jurisdictional information, such as precinct and polling place names, is entered prior to an election cycle. When an election cycle begins, election specific information is entered into BOSS by import from the Integrity Election Management System; data can also be manually entered when necessary.

The import will include links between contests, precincts, polling places, etc., as supported by the data in the Integrity System. Additional formatting and configuration is completed, and ballot styles are automatically generated. Ballot content is then proofed using the reports provided by BOSS.

Once the content is verified, ballot generation produces the electronic ballot data file that contains all the ballot styles necessary for the election. This file is copied to the Mobile Ballot Boxes (MBBs) that then are installed in the Judge's Booth Controllers and used with the Ballot Now absentee/mail application. At the option of the County, the MBBs may be installed and secured in the JBCs at the warehouse or, alternatively, the MBBs may be installed at the polls.

Because all possible ballot styles are stored in the Mobile Ballot Box (and not the voting units), each Judge's Booth Controller is identical until a polling place code is entered, either by County staff at the warehouse or by a poll worker in conjunction with opening the polls. Furthermore, since there is programming required for individual eSlate and Disabled Access Units, any unit may be used at any location, greatly simplifying the distribution and delivery of equipment, as well as the allocation of additional units in the event voter turnout exceeds expectations.

Equipment Distribution and Polling Place Setup

The eSlates, Disabled Access Units, Judge's Booth Controllers, and Mobile Ballot Boxes are either delivered by warehouse staff to the polling place or are transported to the polling place by the poll workers. The eSlate voting units are stored and transported in the specially designed eSlate voting booths.

The eSlate voting booth measures just 24.75" x 25.75" x 6.5" (when folded). It may be moved with ease through regular door openings into polling places and storage areas of various sizes. The lightweight

nature of the booth (i.e., 28 pounds with eSlate containing batteries inside) eliminates the need for wheels on any storage or transportation cases. Several eSlate booths, along with a JBC and necessary supplies, can be transported in most standard vehicles. The eSlate storage caddy can also serve as a transport carrier when used with a standard hand truck.

At the polling place, booths are set up and the JBC is located adjacent to the roster book. The JBC is the host for a closed network consisting of one JBC and from one (1) to twelve (12) eSlates (or DAUs), with the exact number to be used based upon the size of the precinct and the anticipated turnout of registered voters. Only one electrical outlet is required to connect the voting equipment.

Opening the Polls

As a first step after the equipment setup is complete, power is applied to the JBC. This causes the internal software to run a power-up self-test. Including diagnostics on each eSlate voting unit. In addition, a check is performed for the presence of the MBB. The JBC reads the MBB and verifies that it contains the proper election and ballot data.

Next, the poll workers, in accordance with directions on the JBC screen, input the polling location into the JBC and assign booth numbers to the eSlates. Assigning booths is accomplished merely by pressing the ENTER button on each connected eSlate. At this point, a Zero Tape Report is printed from the JBC, confirming that no votes have been cast on the equipment.

After the report is printed, the poll worker, again following the on-screen instructions, selects “Open Polls.” The polls then are open and each connected eSlate is available to receive voters.

At this time, the JBC creates an audit log of the time polls were opened. That audit log includes the serial numbers of all eSlates and DAUs connected to that specific Judge’s Booth Controller.

This entire process, from booth set up to opening polls, may be completed in minutes. A typical polling place, with 5 eSlate units, can be fully set up and ready for voters in 15 minutes or less.

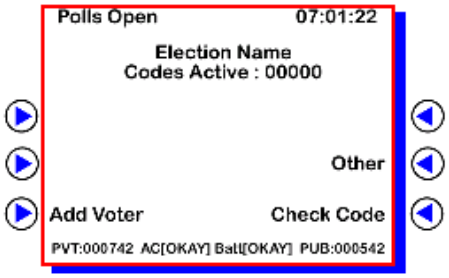
The eSlate System includes numerous features that support the management of the polling place. For example,

- When the polls are opened, the status lights across the top of the JBC indicate the status of each voting unit: Green indicates the unit is operational and ready to accept votes, red indicates that the unit is in use, flashing lights indicate a voter has requested assistance.

- To protect against operator error, only after the Zero Tape Report is produced does the JBC display the option to open the polls. As an added security feature, poll workers may be required to enter a password to open the polls.

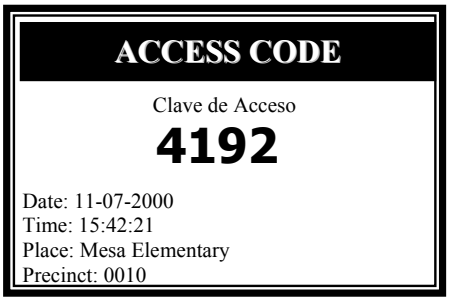
These and other polling place management features are discussed in detail in response to specific requirements in the RFP.

Obtaining Authorization to Vote



To begin the voting process, a voter presents the necessary identification to the poll worker for validation of eligibility to vote. The poll worker looks up the voter's name in the voter registration records, which generally associates an alphanumeric ballot style or precinct number with the voter. The appropriate ballot style or precinct number then may be input into the JBC directly by the poll worker or may be selected from a list provided by the JBC through a set of menu screens.

After the required data are entered, the JBC responds with a randomly generated four-digit Access Code that is displayed on the JBC screen and printed on a ticket by the JBC printer. The Access Code ticket is detached and given to the voter and he/she is directed to the next available voting booth by poll workers. The Access Code is linked to the ballot style that is correct for that voter. It only prompts the system to present the correct ballot on the screen. There is **no** link between the Access Code and the identity of the individual voter.



Hart InterCivic also has considerable experience with the integration of the eSlate System and electronic voter rosters. In this case, the voter's name is entered either manually, or by swiping a card with a magnetic stripe or bar code, and the voter registration data matched to the name. The voter's precinct is identified and automatically transmitted to the JBC, which produces the correct access code for the voter's ballot style.

Voting

Ballot Navigation Tools. The lower portion of the eSlate includes a set of distinctly shaped control buttons and the SELECT™ wheel. These features enable the voter to review the ballot and cast votes effortlessly and with absolute accuracy.

- SELECT– turning this wheel moves the "cursor" or "ballot focus" through the ballot;

- ENTER – when a selection is highlighted, pressing this button causes the highlighted selection to be recorded;
- NEXT – takes the voter to the next page of the ballot;
- PREV – takes the voter to the previous page of the ballot;
- HELP – provides the voter with context sensitive operating instructions (if pressed once) and signals a poll worker that assistance is requested (if pressed twice); and
- CAST BALLOT – used when the voter has completed his or her selections and wants to record his or her vote.

Assistance for Voters. At any time during the voting process, the voter may press the HELP button to receive on-screen instructions. Each Help window has options available in context with the type of action required by the voter. Pressing HELP twice will cause the status light on the JBC for that booth to flash red and green, indicating to the polling place officials that the voter in that booth has requested personal help.

Making Selections. The voter first selects language preference from the choices presented on the screen. The eSlate screen then instructs the voter to enter his or her Access Code. He/she does that by using the SELECT wheel and the ENTER button. When all four digits of the Access Code have been correctly entered, the eSlate voting terminal validates the Code with the JBC, loads the correct ballot style, and displays the first page of the ballot. Simultaneously, the booth status light on the JBC turns red, indicating that the booth is in use.

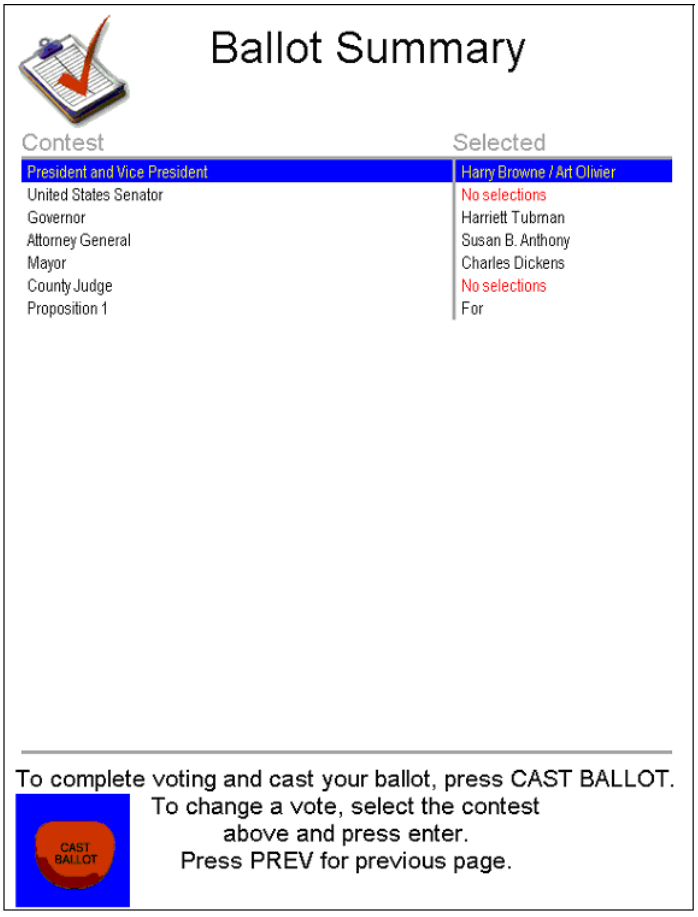


Exhibit 1: Ballot Summary Screen CAPTION

Confirming Selections. Each page of the ballot is displayed consecutively as the voter moves through the ballot. The eSlate will not accept a CAST BALLOT command until the voter has viewed all contests on the ballot as shown on the Ballot Summary.

The Ballot Summary is displayed to the voter after he/she votes in the last contest on the last page of the ballot, or presses NEXT after viewing the last page of the ballot. The Ballot Summary also will appear if the voter presses CAST BALLOT before having completed either of the above.

Upon entering the Ballot Summary, the voter is presented with a race-by-race/issue-by-issue list of ballot selections, including contests in which the voter has made no selection (i.e., undervoted). Those undervoted contests are indicated by the phrase "No Selections," which appears in red type. At that time, the voter is given the opportunity to select any contest(s) in which he or she wishes to make or change a selection. By scrolling the SELECT wheel to highlight the desired contest and then pressing

ENTER, the voter will go directly from the Summary to the specific contest or proposition to make a choice or a change in a previous selection.

When the voter is finished making his or her selections, he/she presses the CAST BALLOT button. At that instant, the ballot is electronically recorded as a Cast Vote Record (CVR) in three physically separate locations for security. Until the voter presses CAST BALLOT, he/she is free to make changes to previously recorded selections.

Protections Against Unauthorized Voting and Overvoting. A voter is prevented from voting twice in the same election by the normal methods to validate, process, and sign-in voters. In addition, once a voter uses an Access Code, it cannot be re-used as the JBC invalidates it. Security is further enhanced by the fact that the Access Code is valid for a limited time period. That time is set by elections officials and programmed in the Ballot Origination Software System, with the default being 30 minutes after it has been printed by the JBC.

A voter may not select more choices than allowed for each contest or ballot issue. If a voter attempts to overvote a contest, the eSlate System will, in a contest that requires a single vote, deselect the first selection, and replace it with the second selection the voter chooses. In a contest where the voter may vote for multiple candidates for an office (e.g., presidential electors), the eSlate System will not accept more votes than are allowed. The voter is required to delete a previous selection before adding one that would exceed the maximum allowed.

Private, Independent Voting for Voters with Disabilities

Voters with disabilities cast their ballots on units that are virtually indistinguishable from those used by voters with full physical capabilities. This is possible because regular eSlate units convert to Disabled Access Units (DAUs) simply by adding a special module that is virtually undetectable. Yet, it enables the DAU to accommodate even the most handicapped voters.

Visual Impairments. Voting on the eSlate is simple. The visually impaired voter is qualified to vote and receives an Access Code in a procedure identical to that for other voters. The voter then will be escorted to a voting booth by a poll worker. The poll worker will provide a brief overview of the eSlate System operation, help the voter understand how to operate the control buttons, and assist the

voter in positioning the headphones and adjusting the volume for the audio ballot reader, if necessary. The voter then may choose to have the poll worker read the four-digit Access Code to him/her to enter or to have other assistance in entering the number. From this point, the voter may cast an independent, secret ballot.

Once the Access Code is entered, ballot navigation is accomplished with the SELECT wheel. To assist the visually impaired or literacy challenged voter, the Disabled Access Units play a complete recording of all ballot instructions and ballot text. As the voter rotates the SELECT wheel, the text of highlighted boxes will be "read" to the voter through the headphones. The noticeable click of the wheel as it rotates further orients the visually impaired voter as he/she moves through the ballot.

Each time the ENTER button is pressed, the audio reader will confirm the choice recorded by the voter and the system will automatically advance to the next contest. As with the standard operation of the eSlate, the system will prevent the visually impaired voter from overvoting any race. The visually impaired voter will have the opportunity to review ballot choices as the audio reader confirms them on the Ballot Summary. He/she may return to the ballot and make or change choices as many times as desired.

The audio component utilizes a human voice (not a computer generated one) and is recorded at the direction of local elections officials. This permits the audio to reflect local pronunciation patterns and accents.

Other Physical Disabilities. The eSlate System provides additional features that allow voters with other physical disabilities to cast a secret ballot.

Each eSlate, when upgraded to a Disabled Access Unit, allows multiple means of auxiliary input by persons with physical disabilities. These include two large, externally mounted controls ("jelly switches") that permit operation of the unit by people lacking fine motor skills or digital dexterity.

The Disabled Access Unit also may be operated by any standard medical accessible switch (i.e., a "sip-and-puff" device often used by disabled voters to operate their wheelchairs). Once the disabled voter is qualified for voting, the sip-and-puff switch may be disconnected from the wheelchair and plugged into the Disabled Access Unit. The voter then may vote independently, using only breath control (and not manual controls) to navigate through the ballot.

Curbside Voting. The highly portable eSlate readily accommodates voters who cannot enter the polling place. Poll workers, regardless of age or physical strength, will be able to assist curbside voters, as the eSlate weighs less than eight pounds when fully equipped with the special access features for the disabled and the battery pack.

Procedures used for curbside voters follow those for other voters. Once a curbside voter's qualification to vote has been established, the voter will be assigned an Access Code in the prescribed manner. Next, an election official will enter that Code into an eSlate unit on the end of the daisy chain network, one that has a battery pack installed and is usually set up as a Disabled Access Unit. The official then will detach the network cable and take the eSlate to the voter, instruct the voter on the operation of the unit, and allow the voter to complete the voting process in the privacy of the vehicle.

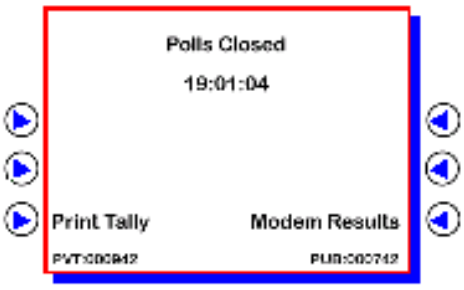
When the voter has cast the voted ballot, the official will return the voting unit to the polling place and re-connect the network cable. At that time, the voter's Cast Vote Record will be recorded in the Judge's Booth Controller and Mobile Ballot Box just like all the other ballots cast in the polling place.

Closing the Polls

Once voting is complete, the polls are closed using a two-step process to protect the integrity of the election information:

(1) The eSlates are shut down so that they cannot be accessed again for voting; and

(2) The final public and private counter of the JBC, time of closing, and the electronic serial numbers of all devices and ballot types are stored and copied to the MBB. After this action, the MBB is closed.



These two steps are performed automatically by the JBC. Once the polls are closed, they cannot be re-opened. In polls closed status, the JBC can print an unofficial tabulation and/or transfer results by modem to Tally. The MBB then may be removed and transported to a tabulation center or substation.

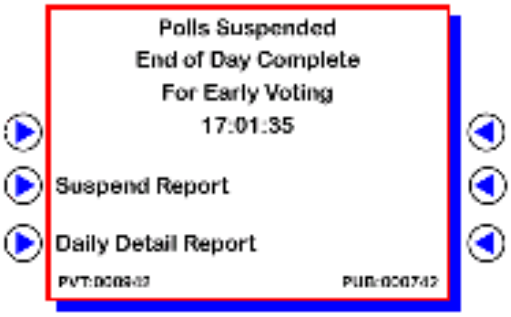
Multiple security features protect the balloting information. Once the MBB is removed from the JBC, a copy of the data remains intact in the JBC as a backup. The information also is stored separately on the individual eSlates to retain a record of all votes

cast on each device. During poll closing, the JBC also prints a tape showing a summary total accounting for all Access Codes issued by the JBC.

Early Voting

With the eSlate System, voters from any precinct in the County may vote at any voting site, because each Mobile Ballot Box produced for an election contains data for every precinct and ballot style in that election. A single Mobile Ballot Box can store up to 10,000 different ballot styles, thus providing a tremendous amount of flexibility to elections officials.

Voting activity throughout this period may be monitored easily, as, at the close of polls after each day of Early Voting, a suspend polls report will be printed. This report contains daily and cumulative summaries of Access Code activity and detailed precinct-by-precinct listings of how many voters from each precinct voted at that location.



Once Early Voting concludes, all units deployed to Early Voting locations may be converted easily and quickly for use on Election Day, if desired. To facilitate this, the Cast Vote Records and other data stored redundantly in the Judge's Booth Controllers and eSlate/DAU voting units may be backed up onto electronic storage media, such as a CD-ROM. This media then will be secured as a backup for the respective MBB, which remains the master record of voting.

Mobile Ballot Boxes will be removed from the Judge's Booth Controllers and secured for later use with Tally to tabulate election results at the appropriate time. The equipment then will be reset using SERVO so that all Cast Vote Records are removed from the voting units' and the JBCs' internal memories. A new MBB may then be inserted into each JBC to be used on Election Day. During subsequent poll opening procedures on Election Day, a new Zero Report Tape will be generated.

Backup and reset procedures may be accomplished in approximately 15 minutes. Multiple processes may be completed simultaneously.

Absentee/Mail/Provisional Voting

Ballot Now, the absentee/mail application, allows the elections staff to produce paper ballots in-house/on-demand, or to produce electronic files for off-site, commercial vendor printing. As a

result, it provides elections officials with a highly scalable solution, fully integrated with the eSlate electronic voting system.

The process begins when Ballot Now derives ballot information from the election data on the MBB created with the Ballot Origination Software System. Ballots, which are printed either in-house or by a commercial print facility. The ballots are printed on common sized papers, and mailed to voters in standard envelopes. The ballots printed by the Ballot Now system do not require the precise print registration necessary for optical scan systems.

When voters return the cast ballots, the ballots are digitally imaged using commercially available scanners. Scanning occurs without interruption as the Ballot Now system electronically queues ballots requiring review by an elections official; the imaging process need not be stopped each time a decision on voter intent is required. At that time, cast vote data are extracted and Cast Vote Records are delivered on the same election's MBB(s) to the Tally application for tabulation. To enhance the security of the voting process, the Cast Vote Records are recorded in two separate locations. In addition, the paper ballot may be retained.

When required, resolution of questions regarding voter intent occurs through Ballot Now's unique on-screen resolution feature. Undervotes and overvotes can also be automatically resolved, requiring no manual intervention. In the event of a challenge, an audit track captures all resolution actions, whether manual or automatic.

Accessibility for the disabled is a design feature of Ballot Now as well. When marking the paper Ballot Now ballots, voters with special needs may require assistance in marking their choices on the ballot. Because of Ballot Now's capability to detect and interpret a much wider range of voter markings than typical optical scan systems, the opportunity to vote a secret ballot is now available to voters with limited fine motor skills who previously required assistance.

Provisional Voting

The Ballot Now process for provisional ballots is generally the same as described above for other absentee and mail ballots. Upon return to the election office, voted provisional ballot packets are reviewed to determine voter eligibility. Packets from ineligible voters are "rejected" and set aside; "accepted" ballot packets from eligible voters are processed according to statutory requirements and local procedures for inclusion in the tabulation process.

Tabulating Votes and Reporting Results

The eSlate System tabulates the totals at the polling place level. It quickly transmits summarized, unofficial voting results directly from the JBC to a tabulation center or substation, using a standard, off-the-shelf modem and telephone (either land line or wireless) connection. This type of electronic transmission may be adapted or upgraded easily to utilize more advanced telecommunications technology as it becomes available. A summary report(s) of the tabulation may be printed from the Judge's Booth Controller as well.

Voting results also may be transmitted directly from the polling place to another location (after the polling place is closed) by simply removing the MBB from the JBC and transporting it to the assigned location. The MBB used in Ballot Now operations also may be transported in this manner. Official results are obtained by reading the MBBs into the Tally tabulation and reporting application.

Tally produces a variety of standard reports, any of which may be exported in PDF, HTML and other standard formats, for dissemination electronically or in paper copy.

As defined and required, Tally results reporting will include the functionality necessary to meet the Colorado Secretary of State's election reporting process.

Recount

The eSlate System readily meets the current requirements of Colorado Election Code for recounts. For votes cast on the eSlate DRE units, this is a simple process of reading the MBBs into a "fresh" Tally database. Reports from the recount process are easily compared to the original tabulation to verify results.

Recounts of absentee/mail/provisional ballots also duplicate the original process. A recount Ballot Now database is created. Ballots are scanned and resolved following the same procedures and resolution guidelines as the original process. The recount CVRs are tabulated via a Tally recount database, and results reports generated.

The eSlate System supports additional methods for recounts. To accomplish a manual recount, Cast Vote Records may be extracted from the eSlate and/or Judge's Booth Controller and viewed electronically. They also may be printed to reconstruct the election and count votes ballot-by-ballot. The random manner in which individual Cast Vote Records are recorded at the time each vote is

cast allows this detailed reconstruction to be accomplished while maintaining complete voter anonymity.

The eSlate System's SERVO application provides a tool for recount capability. Since each vote cast on the eSlate DRE is recorded in three separate memory locations (triplicate original Cast Vote Records), data from each JBC and individual eSlate memories can also be compared to the MBB results creating a distributed, closed-loop process that provides redundant cross verification of election results. This makes the ability to recount election results a seamless option for every election cycle, therefore increasing the confidence of election officials and voters.

Storage and Maintenance

When the election is complete, JBCs and eSlate units are returned to the warehouse to be reset and stored. The eSlate System requires no special environmental or power accommodations for storage, and most maintenance activities can be performed without opening the eSlate's voting booth/storage case.

At the warehouse, the eSlate System's SERVO application is used to archive data and create an equipment inventory record for the units used in the election. SERVO provides an election records and asset management system for the Hart InterCivic eSlate Electronic Voting System.

SERVO is a software application that tracks the eSlate System equipment maintained by the County and assists in Cast Votes Record archiving and election data management. SERVO is used to back up cast vote records and audit logs from eSlates and JBCs used in an election. The backed-up data can then be used to provide reports on Cast Vote Records, audit logs, and equipment used.

SERVO is also used to recover data from equipment in the case of a lost or damaged MBB, and to reset equipment as needed. SERVO uses the triple redundancy features of the Hart InterCivic eSlate Electronic Voting System to their fullest advantage. Election results are initially generated from the direct reading of MBBs into Tally. SERVO generated recount data from the JBC and eSlate memories can also be used to compare the MBB results creating a distributed, closed-loop process that provides redundant cross verification of election results. This makes the ability to recount election results a seamless option for every election cycle, therefore increasing the confidence of election officials and voters.