

CLEAR BALLOT

Colorado Pilot Election Review Committee
Request for Additional Information:
Uniform Voting System



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OVERVIEW

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Recommendations

As the State of Colorado moves forward with choosing voting technology for its 64 counties, we suggest that the focus should remain on maintaining choice and promoting healthy competition. The temptation will be to make decisions based on short-term conveniences or scheduling, or the needs of a few counties. These temptations should be resisted. We hope that the state will choose two or more vendors to go forward, promoting continually healthy competition so that the vendors remain responsive to the needs of the State and the counties.

Should the State choose Clear Ballot as one of the UVS vendors, we will adapt to whatever procurement cycle the counties want to go through. We are ready to meet this challenge.

Evaluating the vendor offerings presents interesting options for the PERC and for the Secretary of State's office. The future needs of the State cannot be predicted. Rather than merely attempting to enumerate a set of existing features, we suggest that the State use the certification process only to assess the presence of the base feature sets necessary to run an election. The more complex competitive features sets—those that demonstrate the vendor's vision, approach to support, their proven capacity to deliver, and their ability to obtain timely certification—are not tested in certification and remain to be evaluated by the committee. The opportunity to make such an assessment will serve Colorado voters and contribute to the nationwide assessment of voting systems that is currently underway.



The Case for Clear Ballot

The ClearVote voting system provides all the features required to conduct an efficient, transparent election and all the artifacts required to audit that election. In selecting the voting systems that will serve Colorado’s voters, the State and its counties should consider how each vendor it is evaluating plans for and incorporates improvements that will assist its potential customers to navigate the future landscape of elections.

Clear Ballot has maintained a relentless focus on how to position its customers to handle change in all its forms. How our thinking compares to that of our competitors is presented here.

User experience – browser based

Clear Ballot: We have selected the browser, the most widely user interface of any software in the world, which provides our customers with the easiest-to-use, most familiar user experience.

Key points:

- Familiar, easy-to-learn, easy-to-remember user interface
- Browser-supplied functionality—hyperlinks, bookmarks, tear-off tabs
- Accessibility features—Anywhere Ballot design, screen-reader support

Competitors: Not one of the competitors—Dominion, Hart, or ES&S—has adopted this universally understood interface.

Training and support – quick-start training / real-time support

Clear Ballot: We have invested in the development and adoption of technologies that give us the capacity to deliver real-time support. This gives us a 3-month head start on training.

Key points:

- Real-time software support delivered without a physical connection to the secure system via web-hosted product “sandboxes.” This is available to the State and counties immediately after Clear Ballot’s selection.
- Real-time, video-enabled, interactive hardware support, delivered via smartphones or tablets. This is available to each and every county, as an app on the already familiar, standard smart phone.
- In-person, on-site support is provided to every county during the Primary and on an as-contracted basis, for the General.

Competitors: With the competitors, contracting must be completed and hardware must be installed before live-training can commence. Hardware support is performed by county employees or by onsite technicians. Sandbox support is not available for any competitor ballot design system.



Hardware scalability / low-cost redundancy – networkable for added performance

Clear Ballot: We provide scanners and laptops sized to meet county needs; redundancy is delivered at low cost. We identify and incorporate new hardware models as they become available, to reduce cost and improve performance.

Key points:

- Low-end scanners capable of processing up to 1,000 ballots/hour at a cost of less than \$2,000 each
- High-end scanners capable of processing up to 6,000 ballots/hour at a cost of less than \$20,000 each

Competitors: All of the competitors continue to make large investments in the development of and carrying costs for proprietary hardware. Although some of our competitors have a few COTS elements, none of them have moved beyond the mindset of the expensive, purpose-built model.

Confidence-building features

Clear Ballot: The company provides a new class of tools that incorporates transparency, increases efficiency, and demonstrates accuracy.

Key Points:

- Visualization of Voter Intent / image-to-ballot traceability convinces activists and losing candidates of the validity of the tabulation.
- Scan-to-retention eliminates physical outstacking, which reduces ballot handling, ballot duplication, and human error.
- Integrated real-time results reporting. No extra step is needed to transfer data to EMS.
- Interactive ballot-proofing catches errors before counties send PDF files for printing.
- Real-time central-count reporting updates results as each ballot is scanned.
- High-performance reports simplify and speed election-night reporting and regulatory filing.

Competitors: One competitor outstacks ballots physically, which necessitates large-scale duplication of ballots. At least one competitor requires an extra step to transfer data to the EMS, which can introduce errors and always delays the delivery of results.

Certification speed

Clear Ballot: Three years ago, the company started to prepare for the rapid certification of every product in our line, and for frequent and responsive recertifications. As an example, the critical feedback we received from the pilot elections has already been implemented and passed the first stages of test lab approval, and will be ready for deployment in time for the June primary. Another certification campaign commences in mid-April and will incorporate recorded audio well in time for use in the November 2016 General election.



Key points:

- COTS software (for example, browser and scanning software) reduces code review.
- COTS hardware (for example, scanners, laptops, accessible devices, desktops) eliminates most hardware certification requirements.
- Small code base and COTS hardware mean faster, more frequent certifications.

Competitors: A system with a large code base takes longer to test and review, is more complicated to update, and difficult to take through quality assurance processes. Such a system is therefore more cumbersome to certify. Over time, competitors have demonstrated a reluctance to add features that their customers have requested because the time and expense of obtaining certification is daunting.

Built to be audited

Clear Ballot: ClearVote was built to be independently audited. All the artifacts necessary to conduct any type of audit are included--for risk-limiting audits, precinct audits, or tabulator audits.

Competitors: Customers of the competitor products usually resort to manual audits, which are time-consuming and expensive to complete.

Technical vision

The State has the opportunity to assess aspects of a voting system that the certification process cannot examine. For example, the technical vision of a vendor is most evident when the voting system is in use. Clear Ballot's technical vision is purposefully focused on continuous improvement of the elections process.

The technical vision of Clear Ballot is grounded in visualization, accessibility, and resilience.

Visualization is the communication of ideas through imagery, that "seeing is believing." In an election, everyone wants to see the evidence. Ballot images and tabulation reports provide the evidence that the results accurately reflect the collective intent of the voters. As far as possible, the tabulation in each contest report is linked to the set of ballot images that produced it, each of which can be displayed in the context of a tabulation. This Visualization of Voter Intent is unique to Clear Ballot and has been used to convince the losing candidates and their supporters in close elections that they truly and fairly lost, most recently in Adams County.

Accessibility, under HAVA, refers to the ability of voters to mark, verify, and cast their ballots privately and independently. Clear Ballot is the first voting system to fully incorporate the Anywhere Ballot design, which was created by university experts and designers working under an EAC grant. This team recognized two demographic trends. First, by 2020 the aging cohort of baby boomers will develop cognitive disabilities; unless a fresh approach were taken, the nation's most active cohort of voters would be increasingly disenfranchised. Second, this same cohort were already using assistive technology in the form of smartphones, tablets, and



laptops. It was a short leap to the Anywhere Ballot, which anyone can use, on hundreds of millions of devices capable of running a browser.

The Anywhere Ballot has also been endorsed by the Los Angeles County Voting Systems Assessment Project (VSAP) as its ballot. The Anywhere Ballot is a new approach to expanding universal usability, providing all voters with an easily understood and accessible ballot. Our ClearAccess ballot-marking system, which is built to use the Anywhere Ballot, will prepare the State for the future.

Resilience is the graceful recovery from, or the avoidance of, an error. For example, the ClearCount tabulation and reporting system avoids the potential for error that is present in every legacy manufacturer when tabulation results stored on memory sticks are uploaded for reporting. This method, using memory sticks for transferring results, is present in the systems proposed by Hart, Dominion, and ES&S. In contrast, the ClearCount system combines the tabulation and reporting functions so that results are available in real time without a series of time-consuming batch uploads which, for some manufacturers, can take hours at a critical time.

Approach to support

Consideration should be given to how each manufacturer has chosen to support county staff. Clear Ballot understands that a personal touch, combined with the use of current technologies for training and support, is the best way to respond to the reality of shrinking county budgets. In addition to our commitment to provide on-site support to every customer in the Primary, and on an as-contracted basis to provide ballot design services, Clear Ballot is the only company to implement and deliver real-time, sandbox-based training and support, and real-time, video-based hardware support.

With every new product, questions are naturally raised as to whether the vendor will be able to support it. Competitors will argue that the new vendor cannot possibly deliver, simply because they are new. This argument, when applied to Clear Ballot, is baseless. Not only does Clear Ballot's management have extensive experience in growing large software support organizations, but in the months since winning the vote-by-mail, central count contract for Multnomah County, Oregon, the company has grown by nearly 40%. We have delivered all equipment on time, all training in less time than was expected, and all support needed in live elections. As other Oregon counties watched the State's largest county make a very smooth transition they have become our customers. Clear Ballot displaced the long-time incumbent to become the State's No. 1 vendor in less than 6 months.

