



Elections: Electronic, Accurate and Uninterrupted

In Loudoun County, Virginia, digital election management solutions from Civix support fast, efficient, secure processes from the start of early voting until the returns come in.

IT systems that support elections must be accurate, efficient and secure, and they need to work without interruption. They should also give voters an easy, seamless experience. “The hallmark of a good election system is that the voters don’t notice it,” says Richard Keech, deputy director of the Office of Elections in Loudoun County, Virginia.

Loudoun County’s government and its voters have enjoyed all those benefits since 2008, when the county switched from paper-based pollbooks for voter check-in to electronic pollbooks powered by technology from DemTech and offered by Civix, a public sector software firm focused on government technology innovation. Additionally, over the past several years Loudoun has added DemTech/Civix technology for overseas and military voters and election night reporting.

The three solutions — e-Pollbook, e-Ballot and Precinct Reporting — streamline the voting process every step of the way, from absentee and early voting, through voting on Election Day, until election results are reported and verified. In the years since Loudoun County started using this technology, its elections have been running more smoothly than before, with faster, more intuitive processes and fewer opportunities for error, Keech says. “The solutions have helped us ensure accuracy on check-in when voters arrive, and they’ve helped us ensure the results we report on Election Night are accurate.”

The Civix solutions also meet Virginia’s stringent certification requirements, which help safeguard the security and integrity of elections. Virginia is one of only 12 states to require pollbook certification.

Checking voters in

The first area where the Civix solutions have brought improvements is in early voting, which in Virginia starts 45 days before Election Day. Each morning, Loudoun County’s poll workers need only about

15 minutes to set up e-Pollbook on their Windows laptops. Then throughout the day, as poll workers scan IDs and check voters in, the system’s Ballot on Demand feature quickly generates the correct ballot for each person.

“Rather than making a poll worker dig in a cabinet to find the right ballot, it just prints,” Keech says. Besides speeding up the voting process, that automated feature has increased voter confidence, according to Keech.

In the evening, it takes about 10 minutes to upload a voter credit file — a list of people who have voted that day — from e-Pollbook to the state voter registration system. The next morning, an updated locality file is downloaded from the state voter registration system and the county uses that data to update e-Pollbook, ensuring no one can check in to vote more than once. Loudoun County also networks its early voting sites via a secure VPN, so once a person casts a vote in one location, it’s impossible to cast a second ballot that day at a different location.

On Election Day, poll workers use e-Pollbook on Android tablets to check voters in. Civix election management solutions are hardware agnostic, so jurisdictions can deploy any end-user devices they want, in any combination, with no adjustments to the software.

The automated workflow built into e-Pollbook makes the check-in process especially simple. If a voter presents a special circumstance — for example, if they’ve moved to a new address, or they asked for an absentee ballot but now want to vote in person — the system flags that exception. It then displays a set of questions and instructions, walking the poll worker through the procedure to resolve the issue.

“The poll worker doesn’t have to go looking for a book or a flow chart,” Keech says. “The flow chart is built right into the system.”

The automated workflow also makes it easy to onboard new poll workers. The interface is so intuitive that most poll workers are

ready to get to work after just 15 minutes of training. And as check-in requirements evolve, there's no need for retraining: Election officials simply change the instructions that appear on the screens.

"In the political environment we're in, the rules and laws change constantly," Keech says. "We have the ability to build those changes into the system."

In addition, the automated workflow helps Loudoun County avoid check-in errors, making sure that only poll workers with advanced training handle difficult exceptions. "The system allows you to assign user privileges," Keech says. When a rank-and-file poll worker encounters a tough situation, the system tells that person to refer the matter to a precinct chief or help desk specialist, whose login provides access to advanced flowcharts.

"That ensures a voter can't be checked in unless they're in the hands of someone who can handle their situation appropriately," Keech says.

Reporting the results

For Loudoun County citizens who cast ballots from overseas or from military locations, the e-Ballot solution makes it easy to receive a ballot via email. When an overseas or military voter logs into a portal, e-Ballot identifies that person's home precinct and parses out the necessary information from a set of ballots stored in PDF format. The voter can then complete their ballot and mail it back via USPS or another delivery service of their choice.

"It looks at the parameters based on the voter, runs a query and pulls the correct ballot every time," Keech says.

After 7 p.m. on Election Day, when voting closes in Virginia, poll workers use Civix's Precinct Reporting solution to upload vote totals to Loudoun County's Election Central, where the figures are displayed on a dashboard.

Once they've verified a precinct's numbers, election officials publish the results to a county website. "We tend to publish precinct results within five minutes of when they're sent to us, which is much faster than previously," Keech says.

In the days before the Civix software, poll workers used to call in the results by phone. With many precincts trying to report at once, workers often faced long waits before getting through. "We would get our results finalized between 9:30 and 10 p.m.," Keech says. "Now 90% or more of the county is done before 8 p.m."

While helping Loudoun County publish election results quickly, Precinct Reporting also makes sure those numbers are as accurate as possible. The morning after each Election Day, a

team of canvassers examines the voting machine tapes to make sure the results recorded there match the numbers reported to the public. "Previously, about 10% to 20% of precincts would have very minor errors, off by one or two," Keech says. Now, thanks to the quality control built into the Civix software, usually fewer than 1% of preliminary precinct results need small corrections.

A highly flexible solution

Besides enjoying the many improvements electronic pollbooks bring to Loudoun County, Keech says he also appreciates that the software is highly customizable. "You can use the workflow feature or not," he says. "You can use a laptop, tablet or phone: We're not tied to particular hardware."

Not only can Loudoun County customize e-Pollbook, e-Ballot and Precinct Reporting for its needs, but individual precincts can make adjustments of their own. For example, thanks to certain quirks in the state districting process, a precinct might have 2,990 voters who require one ballot, and 10 voters who need a slightly different one, with some different local contests.

"We can customize things down to that level, where we can tell the system these people need special handling because we want to make sure they get the right ballot," Keech says.

Conclusion

Keech is pleased with the support the county gets from the system's developer. "The communication and responsiveness have been phenomenal," he says. "It's extremely rare for anything about the system to go wrong during an election, but in the rare instances where there has been a problem, we've been able to get it addressed quickly and keep things moving."

The electronic systems have served the county so well since 2008, officials have never felt the need to consider other solutions, Keech says.

Elections in the U.S. today face intense levels of scrutiny. That creates tremendous pressure to make the election process efficient, accurate, transparent and highly secure. For Loudoun County, the e-Pollbook, e-Ballot and Precinct Reporting solutions from Civix have been essential to maintaining those high standards.

This piece was written and produced by the Government Technology Content Studio, with information and input from Civix.

Produced by:



Government Technology is about solving problems in state and local government through the smart use of technology. Government Technology is a division of e.Republic, the nation's only media and research company focused exclusively on state and local government and education. www.govtech.com

Sponsored by:



Recognized as one of the top government software and service providers in the U.S., Civix is on a mission to transform the public sector. By adding DemTech's solutions to Civix's Election Management Platform, they aim to eliminate friction between county, jurisdiction, and state election systems. gocivix.com