VOTING SYSTEM TECHNOLOGY A 'TICKING TIME BOMB'

by Kamanzi Kalisa

Neal Kelley, registrar of voters in Orange County, Calif., knows what his 1.6 million registered voters want when it comes to casting ballots.

"They want technology that matches what they are using in their everyday lives. They want an interface that is comfortable and familiar," he said.

In fact, 60 percent of voters in Orange County vote by mail with a paper ballot.

"Electronic voting platforms are not the only game in town," Kelley said. He said package and mail delivery of ballots to households continues to grow.

"I predict that absentee mail ballots will play a large part in the voting process of the future," he said.

Kelley's observations are not unique to Orange County, or even to California. Technology is continually changing how elections are conducted across the country.

Help America Vote

The contested 2000 presidential election shone a light on the problems with technology in America's voting. In response, Congress in 2002 passed the Help America Vote Act—known as HAVA—and appropriated $3.8 billion for states and local jurisdictions to purchase new voting equipment using updated technology and to fund improvements in overall elections administration.

Much of that technology is now outdated, and state and local officials are looking at the next generation of election equipment. The new technology could help states and localities address a problem cited by the Presidential Commission on Election Administration. In a January report, the commission issued a scathing indictment of the U.S. elections administration process.

"The current standards and certification process must be reformed to allow for innovation in voting technologies, faster and less-costly certification of new products, and the certification of component (customizable and interchangeable) products in voting systems," the commission said in the report.

But rectifying the situation may be easier said than done.

"Currently, we have a conflict between cost, usability, security and access," said former Kentucky Secretary of State Trey Grayson, a member of the Presidential Commission on Election Administration and a 2004 CSG Toll Fellow.

While the federal government provided funding for upgrades through the Help America Vote Act, it isn't helping state and local governments replace old voting technology, Grayson said.

"State and local governments have tight budgets and, in the current climate, it is very difficult to find money for capital investments," he said.

In addition, Grayson said, the U.S. Election Assistance Commission doesn't have enough commissioners to push for new certification standards that would allow for cost-saving technology innovation. The voting system certification process is costly, he said, and only a small number of established voting system manufacturers can afford to do so.

"Most of the currently certified and marketed voting systems are end-to-end systems in a world where software now is transcendent," said Grayson.

Voting machines now are hardware-centric, and state and federal voting certification standards don't allow for software innovation that would allow for voters to cast ballots on laptops, smartphones and tablets using secure and safe software. Single purpose machines like those used in voting are contrary to innovation and probably increase costs, according to Grayson.

"In an ideal world, local governments would simply buy tablets and computers with elections software and then use those same

platforms for other purposes throughout the calendar year," he said.

That could be the direction voting system manufacturers are heading, according to Juan E. Gilbert, associate chair of research at the University of Florida. He's been researching voting technology for 12 years and is convinced future U.S. elections will center around software, much like computer manufacturer IBM has done.

"IBM's early days were successful because of their hardware centric manufacturing—mainframe computers. For many years, IBM stuck with that model though market and consumer preferences moved towards desktops, laptops, portable devices, phones, cloud computing, etc.," he said. "Today, IBM is more service- and software-oriented.

"I predict that we will witness the same evolution in the U.S. elections universe. Voting machine manufacturers will become software companies, focusing less on physical devices."

But Kathy Rogers, spokesperson for ES&S, one of the country's largest voting technology manufacturers, said new technology is coming onto the market that meets the goals of the presidential commission, as well as election administrators.

"The key to the future is the ability to provide multimodal voting that allows election administrators the flexibility to meet all of their voters' needs without sacrificing security and uniformity," she said.

Changes on the Horizon

Election administrators are looking for just such systems.

Dana DeBeauvoir, who oversees elections in Travis County, Texas, is seeking bids on a new system that would rely on open-source software that could be shared with other jurisdictions, according to an article in *Governing* magazine. That could make the process simpler and less expensive than the current systems.

"What's on the marketplace isn't very good and it's horrifically expensive," she told *Governing*.

Los Angeles County Registrar Dean Logan is also in the process of developing a voting system for use in his jurisdiction that will be able to take advantage of emerging technologies. The current voting system deployed in Los Angeles County has become costly and burdensome administratively, according to *Governing*.

With 4.8 million voters, Los Angeles County is the largest jurisdiction in the country. Logan said the county has 5,000 polling places and employs more than 25,000 poll workers each election.

"To scale the distribution of voting equipment over a large geographic area, to numerous locations, and to get those ballots back to a central location and have them counted and reported in a timely manner—the current systems that have been on the market just don't have that ability," he told *Governing*.

Current systems also didn't take into account the need to have voting materials in 11 different languages other than English for the county to meet requirements of the Voting Rights Act, he said.

Logan would like to leverage off-the-shelf hardware like laptops, tablet computers and printers that can be used for purposes other than voting.

Technology is playing a role in other aspects of voting. Connecticut Secretary of State Denise Merrill is particularly proud of what her office has done.

"Beginning in 2011, my office pushed a series of technology automation initiatives that were designed to improve the elections process," she said.

Connecticut voters can register to vote online, access pictures of their ballots and use various Web-based applications to find their polling place locations. But she knows that's just a start.

Connecticut's voter registration database is not fully centralized and synchronized with electronic poll books that are maintained at all the state's polling locations on election day and used to process a voter's identity. But that will take time and money. Merrill said state and federal funding is not available for Connecticut to make the necessary capital investments and improve their voter registration database.

A 'Ticking Time Bomb'

The lack of money is a big hurdle to cross as elections administration moves to more technology-based voting. But it's not the only one.

Current voting machines and the corresponding federal testing and certification system have become obsolete. Even if local election officials did have the money to upgrade, they face legal and market constraints that prevent the development of new voting technology.

"Our current voting system technology is a ticking time bomb," said Grayson.

VOTING TECH

Tennessee Election Commission employee Rick Kelly, top left, tested voting machines in Memphis, Tenn., in July. At right, a woman who identified herself as Dolores, left, looks for an election worker to help her with her voting machine while casting her ballot on Election Day in Las Vegas in 2012. Technology is changing in elections, but many jurisdictions are still using older voting machines.

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—FORMER KENTUCKY SECRETARY OF STATE TREY GRAYSON, 2004 CSG TOLL FELLOW | PRESIDENTIAL COMMISSION ON ELECTIONS ADMINISTRATION MEMBER