December 2, 2014

FROM: Chris Jerdonek
TO: Rules Committee

cc: San Francisco Board of Supervisors

SUBJECT: Three Documents re: Open Source Voting Systems Resolution (7 pages)

The purpose of this memo is to provide for the record certain information related to the resolution sponsored by Supervisor Wiener on the subject of "Open Source Voting Systems and New Models of Voting System Development."

I also wish to state my support for the resolution.

The information in this memo consists of one hyperlink and three documents.

Here is the link to the official web page of the Los Angeles County Voting Systems Assessment Project (VSAP):

- http://rrcc.lacounty.gov/VOTER/VSAP/

And here are three documents with additional information relevant to the resolution:

1. A brief interview with Los Angeles County Registrar Dean Logan re: VSAP (Governing magazine, "L.A. County Designs a Whole New Voting System," J.B. Wogan; July 7, 2014; 2 pages). Source link: http://www.governing.com/topics/politics/gov-why-los-angeles-county-wants-to-design-a-new-voting-system.html

2. An article re: open-source voting system efforts in California and Travis County, Texas (National Association of Counties – NACO, County News, "California, Texas serve as testing grounds for open-source voting technology," Charlie Ban; August 25, 2014; Vol. 46, No. 16, 3 pages). Source link: http://www.naco.org/newsroom/countynews/Current%20Issue/8-25-2014/Pages/California,-Texas-serve-as-testing-grounds-for-open-source-voting-technology.aspx

3. The text of a resolution passed by the San Francisco Elections Commission on May 16, 2007 re: "Transparency in Voting Systems Technologies" (1 page). Source link: http://www.sfgov2.org/index.aspx?page=1438

For convenience, I am also attaching the three documents after this page.

Thank you.

L.A. County Designs a Whole New Voting System

The nation's largest election jurisdiction is designing a voting system unlike any around the country. The administrator in charge of county elections explains why.

BY: J.B. Wogan | July 7, 2014

Local election administrators across the country say the hardware they're using is outdated and in need of either repairs or outright replacement. As *Governing* reported in the July issue, public officials are delaying the necessary updates due to cost, regulatory barriers and limited options on the marketplace.

But Los Angeles County is bucking that trend. Dean Logan, the registrar-recorder/county clerk, is overseeing a process to design a new voting system unlike anything currently being used around the country. *Governing* spoke by phone with Logan on May 20 to discuss the Los Angeles County project.

The conversation transcript has been edited for clarity and length.

Would you start by explaining a little about the existing elections model that you're trying to get away from?

The traditional model of voting systems procurement is that jurisdictions contract with a vendor for a system that has been designed, built and certified by that vendor. So there is a profit relationship. In many cases, the equipment remains owned by the vendor and it's serviced by the vendor, with oversight by the jurisdiction.

Los Angeles County is somewhat unique in that we have a very old voting system that was developed by L.A. County government back in the late 1960s with punch-card voting. We have different contracts for the components of our voting system, but we're not tied to a single relationship to one commercial vendor operating and supporting the whole voting system.

We see value in that. There isn't a voting system that meets our needs, so that takes us out of the market in the first place. But we also believe that it's important that the voting system be publically owned and operated and that it has transparency and security provisions to ensure that voters have confidence that their vote is being cast as intended and counted as intended.

Why are you taken out of the market right off the bat?

First of all, we are the largest jurisdiction in the country, so we have 4.8 million registered voters. We have 5,000 polling places and we employ over 25,000 poll workers on election day. 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. Add to that that we have to provide our voting materials in 11 different languages other than English under the Voting Rights Act. That's another requirement or design feature that none of current voting systems contemplated.

We also have a very diverse electorate and we are economically diverse. So we serve areas that are very affluent and conditioned to options with technology; we also serve areas that are dependent on public transportation. We have a homeless population that needs to be served in order to vote. It's just really a unique jurisdiction in terms of the combination of all of those elements.

Ok. Scalability and multiple languages are two features that you would like in a new system. Are there other features you would like to add as well? What about security features?

We've had by and large the same voting system for more than 40 years here. We're going to make a sizeable public investment in a new voting system and we want to be sure that is a modernized voting system, not just a rebuild of the previous model.

When you talk about security, we want to leverage off-the-shelf hardware. We want open-source software for the interface. We want to separate the process of marking the ballot from the process of counting the ballot. With the existing voting systems, that's an all-in-one system.

We want to build a ballot-marking process that has flexibility and is adaptable to the electorate we serve, for those voters who vote by mail, for those voters who might want to go to a vote center, or vote early or at neighborhood polling places. We want to give them a ballot to mark that is both intuitive and accessible. But then we want that to produce a uniform paper-based, human-readable ballot that is tabulated on an entirely different system that has no physical relationship to the device where the ballot was marked. That's a security feature that doesn't exist today.

Both you and Dana DeBeauvoir in Travis County have mentioned creating some kind of open-source election software. What are the main differences between what the two jurisdictions are doing?

We've worked closely with Dana and the project in Travis County. It's another model that I think will be useful in moving the nation toward the more modernized approach to voting systems. We're both still in development, so things are still undefined. I think the main distinctions between the L.A. County project and the Travis County project is that in L.A. County we started by designing around the voter experience rather than starting with designing a technological solution. We wanted to get the voter experience right and then to have the technology respond to what ends up being defined as the ideal voting experience. In Travis County, I think they started with a technology team that put together a technology solution. I think they put together something that will still be more a one-entity system from marking the ballot to tabulating the votes. It will be an all-in-one system. We're looking at separating those things. I think what's common to the two projects is the desire for transparency, looking at open-source code and looking at off-the-shelf hardware components.

When you say "off-the-shelf hardware components," what do you mean?

So, for instance, if the touch-screen interface is a tablet-based process and there's a commercially available tablet that meets those specifications, rather than have a company build customized tablets that are just for the voting system that will age out and have to be replaced over time, we could leverage the use of existing tablet components, printer components, all of that, and we would then load them with secure software interface and we would some disable features -- they would still require some customization -- but we don't need somebody to go out and develop a tablet or a touch screen. Those are components that exist on today's market and in fact are constantly being improved upon. We want to be sure that as those hardware components continue to advance and get better, that we have the ability to upgrade and integrate them into our voting system, rather than having to start over and build an entire new voting system every time there's new technology available.

Will you still make use of private contractors?

Our project does contemplate private contractor engagement. What we're trying to do is to develop the system and specifications for the system, separate from the manufacturing. So, instead of a vendor that will build the system, designing it around its business model and its ability to make a profit on it, we want to design it. We get the specifications and then we put it out to bid for a competitive process to determine who wants to build it, but according to the specifications that are already adopted.

[Article from: http://www.naco.org/newsroom/countynews/Current%20Issue/8-25-2014/Pages/California,-Texas-serve-as-testing-grounds-for-open-source-voting-technology.aspx]

California, Texas serve as testing grounds for open-source voting technology

By Charlie Ban
STAFF WRITER

With counties staring down eventual replacement of their election management systems, some in California and Texas are leading the charge for an alternative that could save counties a lot of money and change an industry.

Open-source voting would use software designed by counties, which could run on inexpensive computer terminals to design, print and count paper ballots. All of which purportedly increases transparency and security, Most of the savings would come from eliminating the software license fees charged for management system vendors' proprietary programs.

Twelve years after the Help America Vote Act (HAVA) mandated new voting technology, the machines and software are reaching the end of their usable lives in counties nationwide, and voting officials are feeling pressure.

Travis County, Texas' machines have generally been reliably operational — though a few have begun freezing — but County Clerk Dana DeBeauvoir said she is worried they won't remain in working order for long. HAVA's $3.5 billion that helped fund the new election management systems will likely not be replenished to help replace them.

"It's the same urgency we all feel in counties everywhere," she said. "We all bought new

voting systems at the same time and now we're all watching them approach their ends-of-life at the same time. Counties just don't have multi-millions to pay for new voting systems."

Inyo County, Calif., with fewer than 19,000 residents, doesn't have the money. Kammi Foote, the county's clerk-recorder and registrar of voters, serves as the president of the California Association of Voting Officials and National Association of Voting Officials, which advocate for the use of open source-voting systems in public elections. Inyo is partnering with several other small California counties to release a request for proposals to build an open-source system for their use.

"The voting machine vendors were helpful when every voting district in the country needed to buy new machines in a hurry, but election officials don't like to be rushed," she said. "We need options so that doesn't happen again."

The key to open-source voting systems' savings is that the software could be run on any computer, and Foote estimates that the $4,000 to $5,000 price tag for Inyo's voting machines, with the voting system license and terminal, could be cut to a $200 to $300 cost for a tablet computer. Likewise, DeBeauvoir compared wholesale replacement of Travis County's election management systems — cost $14 million — to an estimated $8 million to put an open-source system in place. Of that $8 million, $5 million would go toward software development, and $3 million would pay for computers and tablets.

"It's the most cost effective and sustainable solution," Foote said. "This could affect every voting jurisdiction in the United States, and many are little tiny counties like mine. They need to have a solution they can actually afford."

How this could happen varies by state. Travis County did not need any statutory changes to pursue its system in Texas, but the California Assembly had to pass Senate Bill 360 for Inyo and Los Angeles counties to pursue theirs. Now, only the secretary of state needs to approve new voting systems, eliminating required approval from state regulators and the U.S. Election Assistance Commission.

The secretary of state's requirements are similar to the federal approval process, so Foote said the change eliminated extra layers of bureaucracy while retaining attention to security.

The phrase "open source" raises questions about the method's security, but DeBeauvoir said the reality is more complicated than the term makes it seem.

"Most of the time people talk about 'open source,' it refers to the general public being able to improve a program, but with election software, it's a much smaller group that's involved, just election officials," she said. "There won't be any 13-year-old programmers at home tweaking the software."

Foote said the normal security measures common to county government systems — cryptography for example — could be added on top of the new election management system.

“The transparency that the system affords goes a long way to ensuring its accuracy,” she said. “Everyone who needs to know how the system works, does, because it’s not a proprietary system that’s a mystery to anyone besides the developer.”

All of this puts counties in a position to change an entire industry. As administrators of the country’s elections, the direction counties take will determine the fate of the election management system vendors.

Efrain Escobedo, manager of governmental and legislative affairs for Los Angeles County’s registrar-recorder, said the county’s election system has been subject to its vendor’s whims with little room for change.

“We spend $1.8 million annually on maintenance for our systems, and we can’t find another firm to do the work that’s cheaper,” he said. Los Angeles County is hoping to release an RFP for its open-source system in the next few months.

“It’s safe to say we’ll have more ability to negotiate savings by the sheer reality that we won’t be tied to a single vendor,” Escobedo added.

Though the county-vendor relationship would change as more counties adopt open-source voting systems, it would not necessarily end the relationship. Vendors aren’t expendable, DeBeauvior said, and she expected many of them to respond to various RFPs from different counties.

“We’ll still need someone to take over management of upgrades and testing,” she said. “You can’t just remove the vendor. We don’t want to throw away that base of knowledge.”

Foote said it rearranges the power dynamic in holding elections.

“There are only a few vendors that were selling voting machines when HAVA went into effect,” she said. “They were building systems and hoping election districts bought them, they were looking for a return on investment. Now we’ll be in a position where we’ll be part of a fee-for-service model and dictating what we need. Government can be in a leadership role in how those systems operate.”

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San Francisco Elections Commission Resolution

Re: Transparency in Voting Systems

[Passed by San Francisco Elections Commission on May 16, 2007.

Resolution text from: http://www.sfgov2.org/index.aspx?page=1438]

COMMISSION GENERAL POLICY STATEMENT REGARDING TRANSPARENCY IN VOTING SYSTEMS TECHNOLOGIES AS WELL AS PROVIDING FOR VOTING SYSTEMS SECURITY

Whereas California Secretary of State Debra Bowen has expressed strong support for a move towards open source election software;

Whereas members of the San Francisco Board of Supervisors have recently raised concerns about ratifying a contract for voting machines which did not allow for open source software;

Pursuant to Section 13.105.5, San Francisco Charter which authorizes the Election Commission to establish general policies for the Elections Department, the Elections Commission establishes the following general policies;

First, the Elections Commission endorses the policy of using voting system technologies and software that maximize voting system security while at the same time providing the maximum level of transparency possible to assure voters that their votes will be counted as cast.

Specifically, to ensure the integrity of our elections and to increase public confidence in our government, the Commission endorses the policy that the Department of Elections should make reasonable efforts to select and use voting systems technology, including hardware and software, that at a minimum, is publicly disclosed.

In this context, public disclosure means that members of the public should have at least the right to inspect, test, and comment on such technology in a procurement process and as configured for a specific election independent of the San Francisco Department of Elections or other government agency of the City and County of San Francisco,

Second, the Commission adopts as policy that the Election Department shall endeavor in contracting to prioritize and select if possible, voting systems and vendors which provide the maximum level of security and transparency possible consistent with the principles of public disclosure. This policy will enable the citizenry to understand the methodology involved in the election process, in a manner consistent with ensuring secret ballot protection and voting system security.

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