From: Commissioner Jerdonek
Date: November 10, 2022

SUBJECT: New Hampshire Open Source Voting Pilot

The purpose of this memo is to share information about the open-source voting pilot that New Hampshire (NH) conducted during the November 8, 2022 election.

Summary

The state of New Hampshire conducted a pilot of an open-source voting system during the November 2022 election. The pilot was conducted in three towns: Woodstock, Ashland, and Newington. About a thousand voters in each town were to use the machines. The machine counts by the open-source system would be checked by hand counts. (The population of New Hampshire is a little less than twice that of San Francisco, approximately 1,400,000 versus 800,000.)

The pilot used the open-source voting system developed by VotingWorks. VotingWorks is the nonprofit that approached San Francisco last September 2021 with an offer to do a similar pilot. VotingWorks' September 10, 2022 letter to San Francisco can be found in the agenda packet for the Commission's September 2021 meeting:
https://sfgov.org/electionscommission/commission-agenda-packet-september-22-2021
In January 2022, the SF Board of Supervisors unanimously adopted an ordinance to do the pilot, but the California Secretary of State rejected SF's application later in the year.

Contents

1. Article and Podcast from *The Record*

The news website *The Record* published an article by James Reddick and Dina Temple-Raston about the pilot on November 1, 2022. The article was titled, "New Hampshire set to pilot voting machines that use software everyone can see" and can be found here:
https://therecord.media/new-hampshire-set-to-pilot-voting-machines-that-use-software-everyone-can-see/

The article has an associated podcast produced by "Click Here" of *The Record*. The podcast can also be found here (22 minutes):
https://pca.st/ct9q1s45

Excerpt from Article

Here is an excerpt from the article with a quote by New Hampshire's Secretary of State David Scanlan:

> "There's a strong desire to see how ballot counting machines are actually counting the ballots," New Hampshire's Secretary of State, David Scanlan, told Click Here in an interview. "And open-source software really is the only way that you can do that effectively."
>
> The software that runs voting machines is typically distributed in a kind of black box – like a car with its hood sealed shut. Because the election industry in the U.S. is dominated by three companies – Dominion, Election Systems & Software and Hart InterCivic – the software that runs their machines is private.

Excerpt from Podcast

Here is a transcript of a portion of the podcast:

> [10:12] Ground zero for Ben Adida's new VotingWorks machines is New Hampshire. David Scanlan is the Secretary of State there, and he says they've been studying open source software as a solution for the black box of voting machines for more than fifteen years.
>
> Scanlan: "New Hampshire is a state that is always in election mode. Our electorate is tuned to this. It's a part of our culture, and our elections run pretty smoothly here."
>
> Which may be why Scanlan feels comfortable trying new things, like a VotingWorks pilot. Scanlan says people in New Hampshire have made clear they want more election transparency.
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> Scanlan: "There is a strong desire to see how ballot-counting machines are actually counting the ballots, and open-source software really is the only way that you can do that effectively." …
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> Scanlan: "Every voter will run their ballot through the device. At the end of the night, the state is going to bring the ballots to Concord, and in a public session, do a hand count of every single ballot and every single race on each of those ballots."
>
> Scanlan says he believes the only thing that should be secret about voting is who a specific individual voted for. Everything else should be transparent.
> ...

[12:02] Ben [Adida] said the pilot is a small test to build confidence.

Adida: "A real election at small scale so that if something goes wrong, you can address it, and it doesn't have a lot of impact because things can go wrong with new equipment. It happens. But this idea that in a real-world election, you are going to compare the machine counts to the hand counts. It's fantastic."

2. Pilot Timeline

Below is a timeline of the pilot in the months leading up to Election Day. This is based on information provided to me by Matt Roe of VotingWorks.

One interesting aspect of this timeline is that VotingWorks was able to work with the jurisdiction by iteratively updating their system in response to feedback from the various stakeholders — right up to the month before Election Day.

- **January – June 2022.** VotingWorks built custom software to scan New Hampshire's custom ballot design made for the AccuVote ballots used in NH. The software included support for on-screen write-in adjudication.
- **July 2022.** VotingWorks demonstrated their system to New Hampshire's Ballot Law Commission and Secretary of State.
- **August 2022.** The Ballot Law Commission approved the system for pilot use.
- **September 2022.**
    - VotingWorks updated their system in response to feedback from the Ballot Law Commission and Secretary of State. This included changing certain configurations for NH law, modifying reporting, and iterating on the write-in adjudication experience to match their state-specific process.
    - VotingWorks presented to the three towns participating in the pilot.
- **October 2022.**
    - VotingWorks made further changes to their system in response to feedback from the towns. This included changes to reporting, write-in adjudication, and manual tally entry (for overvoted ballots that must be counted by hand per NH law).
    - Logic and Accuracy testing (aka L&A testing) was conducted.
- **November 2022.** Election Day.