

Date: November 14, 2023

From: Commissioner Jerdonek

To: Elections Commission

RE: Meeting with SF Chief Information Security Officer (CISO) Michael Makstman

The purpose of this memo is to let the Commission know about a meeting Commissioner Bernholz and I had on November 8, 2023 with Michael Makstman, San Francisco's Chief Information Security Officer (CISO), about election security.

## **Background**

At the Commission's February 15, 2023 meeting<sup>1</sup> during agenda item #9, the Commission had Dr. J. Alex Halderman as an invited speaker to discuss a privacy flaw he had found in the Dominion voting system used by San Francisco and other jurisdictions across the country. Dr. Halderman is a Professor of Computer Science and Engineering at the University of Michigan and Director of Michigan's Center for Computer Security and Society. He and his team had discovered the privacy flaw in the summer of 2022 and named it "DVSorder."

In a January 9, 2023 letter to the Commission, Dr. Halderman wrote that he had notified the California Secretary of State's Office in early October 2022 about the vulnerability, specifically citing San Francisco as an example of an affected jurisdiction. Even earlier he had notified Dominion, the US Election Assistance Commission, and the US Cybersecurity & Infrastructure Security Agency, or CISA. On October 14, his team then shared information about the vulnerability publicly on the following website they made for this purpose: <https://dvsorder.org/>.

Shortly after the November 8 election, which was a month after notifying California about the problem, Dr. Halderman was surprised to find that San Francisco had published election data showing San Francisco was still vulnerable to the privacy flaw he had notified the Secretary of State's Office about. He then tried to notify San Francisco directly. From his letter:

I attempted to alert the Department of Elections to this issue immediately after the first preliminary dataset was published in November, both via the Department's online contact form and by Twitter direct messages to @sfvotes. I have yet to receive any response.

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<sup>1</sup> February 15, 2023 Elections Commission Meeting Agenda: <https://sf.gov/meeting/february-15-2023/elections-commission-regular-meeting>

Given that Dr. Halderman wasn't successful in establishing communication with the Department about an important security issue through its normal public channels, I asked him a question about this during the Q&A after his February 15 presentation to the Commission. I asked him if there were any recommended alternatives or best practices that could allow computer security researchers like himself to establish contact with jurisdictions more reliably. He said there were and mentioned the "security.txt" standard, which is described on this website: <https://securitytxt.org/>.

Briefly, the standard is to maintain a simple web page at a standard URL location (ending in "security.txt"), and to include instructions on that web page for how members of the public should communicate security issues. The instructions can be as simple as saying to email a dedicated email address like [security@sfgov.org](mailto:security@sfgov.org).

In the agenda packet of the Commission's March 15, 2023 meeting,<sup>2</sup> I included information about the "security.txt" standard. During that March meeting, I also mentioned the idea of reaching out to SF CISO Michael Makstman to suggest the idea of implementing security.txt on a citywide basis. The rest of the Commission seemed to agree this would be a good thing to do. However, I only got around to setting up the meeting last October, and I invited Commissioner Bernholz to participate as well. (Commissioner Bernholz and I had previously met with Mr. Makstman about election security about four years prior.)

### **November 8, 2023 Meeting with CISO Makstman**

During our November 8 meeting with Mr. Makstman, Commissioner Bernholz and I explained to Mr. Makstman the background of what happened with DVSorter and Dr. Halderman's attempt to contact the Department. We also mentioned how having a security.txt file would have helped. Mr. Makstman said that he and his team already knew about the security.txt standard and that they had already started working on implementing it for the City. He said it could be implemented as early as December 2023, and if not, then by early next year.

Once the standard is implemented, they can provide instructions to departments in the City that are using domains other than <https://sf.gov> (like the Department of Elections using <https://sfelections.sfgov.org> for election results). This way, all departments will be able to gain the benefits of having a security.txt file—even those not wholly on SF.gov.

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<sup>2</sup> March 15, 2023 Elections Commission Meeting Agenda: <https://sf.gov/meeting/march-15-2023/elections-commission-regular-meeting>