July 16, 2018

From: Chris Jerdonek

RE: Draft Responses to Civil Grand Jury Report

On the following pages are draft responses to the Civil Grand Jury Report that President Donaldson and I worked on together and agreed on for the Commission's consideration at the July 18, 2018 Commission meeting. Only the findings and recommendations that the Civil Grand Jury (CGJ) asked the Commission to respond to are included.

OSVTAC discussed the Civil Grand Jury report at its July 10 meeting, and BOPEC discussed the report at its July 13 meeting. President Donaldson incorporated suggestions from the BOPEC meeting, and I incorporated suggestions from the OSVTAC meeting.

Also, for the Commission's convenience, below are the allowed options for responding to each finding or recommendation (from the Civil Grand Jury's transmittal letter):

> California Penal Code §933 (c) requires a response to be submitted to the Presiding Judge no later than 60 days. California Penal Code §933.5 states that for each finding in the report, the responding person or entity shall indicate one of the following:
>
> 1. agree with the finding: or
> 2. disagree with it, wholly or partially, and explain why.
>
> Further, as to each recommendation, your response must either indicate:
>
> 1. That the recommendation has been implemented, with a summary of how it was implemented;
> 2. That the recommendation has not been, but will be, implemented in the future, with a timeframe for implementation;
> 3. That the recommendation requires further analysis, with an explanation of the scope of that analysis and a timeframe for discussion, not more than six months from the release of the report; or
> 4. That the recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

Findings

F1. There is not a clear project owner that is responsible for building an Open Source Voting System in San Francisco, which prevents the project from making any progress.

Disagree partially.

[General Note / Preamble: Regarding the report's references to the "project," progress on the project, and ownership of the project, until the City and County of San Francisco makes an official commitment to starting and funding the project (anticipated with the budget signing on August 1, 2018), there hasn't been an official project to own and make progress on. Rather, the project was a proposed project, and it was being considered and assessed. Questions around slow progress, then, would better be phrased as slowness to deciding to start a project.]

Regarding making progress, rather than the lack of an owner, the Commission believes that the lack of funding and a commitment from the City to start the project was the main reason for the lack of progress. In particular, there wasn't a project to own. This is in part why the Commission unanimously passed a resolution ("Open Source Voting Systems Resolution #2") at its June 20, 2018 meeting that said, in part (as well as reiterating its request for funding later in the resolution)—

> RESOLVED, That the Elections Commission calls on the Mayor and Board of Supervisors to state their commitment to effectively proceeding with San Francisco's open source voting system project, so that the Elections Commission, Department of Elections, and the rest of San Francisco can state publicly and unambiguously that San Francisco has decided to move forward….

Regarding ownership, and assuming the City has committed to starting the project, the Commission certainly agrees that the lack of an owner would hamper progress. This is in part why the Commission in its June resolution called for the Department of Elections to be named the owner of the project once it is started, and established a policy that the project "be led by a dedicated project director / project manager who reports to the Director of Elections."

Having said that, the lack of an owner technically does not prevent progress from happening. For example, the Commission's OSVTAC has been making progress even in the absence of funding, a project owner, and commitment from the City.

F2. Progress on the Open Source Voting project has been limited because responsibility has consistently and ambiguously been passed around between organizations without a clear source of funding or a mandate for completion.

Disagree partially.

The Commission would rephrase this by omitting the word "clear": "without a source of funding or …." There was no source of funding, clear or unclear. See also the response to F1 and its "General Note / Preamble" for the main reasons for the lack of progress.

F3. Progress on the Open Source Voting project has been slow because of the large number of stakeholders, and the dispersal of their expertise, and the uncertainty each party has about the overall project.

Disagree partially.

The Open Source Voting project has a relatively small number of stakeholders compared to other technology projects in the City. For example, unlike many other technology projects which may be used by many different departments, the Department of Elections is the only Department that would even need to use the resulting system. See also the response to F1 and its "General Note / Preamble" for the main reasons for the lack of progress.

F4. Progress on the Open Source Voting project has been slow because all parties are appropriately concerned about security, and few within San Francisco government have the technical background to accurately evaluate security concerns.

Disagree wholly.

While all parties may be concerned about security, this is not a reason for progress being slow. See also the response to F1 and its "General Note / Preamble" for the main reasons for the slow progress.

Regarding security, the Commission believes that there are a number of people within San Francisco government with the technical background to accurately evaluate security concerns. These include OSVTAC members, the Office of the CISO, and people within the Department of Technology.

F7. The California counties that use Ranked Choice Voting are in the same financial predicament as San Francisco when it comes to procuring their voting system software. This makes them ideal partnership candidates, as they face the same set of challenges under the same regulatory authority.

Disagree partially.

Ranked Choice Voting is a relatively small portion of the system, but not insignificant, and so should not be the sole determining factor in deciding partners. There are other factors to consider.

F8. Too many variables remain unresolved to draw confident analysis about completion cost or timeline of the OSV project.

Agree.

F10. The security of an Open Source Voting System would reflect the ratio of the number of good actors to bad actors that are looking at it to find vulnerabilities, which makes getting the attention of external security experts a top level priority for the OSV project.

Disagree partially.

The Commission believes that the security of the system is a function primarily of the quality of the system and the processes around its use rather than the number of people "looking at it." The number of people looking at it is secondary. For example, if the system is designed well, has high quality, and has good processes around it, the number of people looking at the code will have little or no bearing. Also, looking only at the number of actors is an oversimplification. For example, if the "good actors" are small in number and highly skilled, it wouldn't necessarily help to throw dozens or hundreds of unskilled "bad actors" at it.

Having said that, the Commission does believe that involving skilled security experts should be a priority of the project. Also, getting the attention of volunteers is only one way of involving experts. Experts can also be hired or procured. A proper development plan would include security as part of the project plan, and security would be included as part of the certification process.

F11. If an Open Source Voting system is going to be used only by San Francisco, it is unlikely to attract the requisite attention of security experts and white-hat engineers necessary to be confident in its security.

Disagree wholly.

Given that the project is the only open source voting project in the United States and can be designed with potential future use by other jurisdictions in mind, the Commission believes that it would attract significant attention. Moreover, even if it doesn't attract attention, this shouldn't matter. The City should draw its confidence from the experts that it involves in the project directly and not rely on volunteers that may or may not materialize.

F12. The ability to efficiently patch vulnerabilities in open source software is a foundational property of successful and secure open source projects, and certification by the Secretary of State poses an unscoped period of delay to any patch to an OSVS system.

Disagree partially.

For starters, this finding is true for proprietary software (including proprietary voting systems) just as much as it is true for open source software. For voting systems, the physical processes around their use is just as, if not more important than, the security of the software itself, and can be used to address both hardware and software issues. Physical processes include but are not limited to things like – securing the machines, securing ballots, doing adequate audits by hand-checking the paper ballots against the computer-generated results, having trained poll workers, etc.

F13. Although patches to open source systems are common, any patch of an election system will necessitate recertification by the California Secretary of State. The timeline and cost of this recertification can vary wildly depending on the size of the fix, and its urgency. There is some evidence that modular certification can be supported by the Secretary of State.

Disagree partially.

Small changes can be added through an administrative approval without full recertification.

F14. There are a large number of non-profit organizations that are willing and eager to help develop an OSV system, as both developers and advisors.

Disagree partially.

While it seems like there should be a large number of such organizations, we haven't yet seen them come forward with concrete help. Also, the Civil Grand Jury Report only mentions three organizations – none of which has volunteered and one of which (18F) is not even a non-profit.

F15. Federal agencies specializing in developing reusable Open Source Technologies, such as the USDS and 18F, are ideal partnership candidates for an OSV project, but their involvement would require that some federal funds be used for the project.

Disagree partially.

The Commission agrees that federal agencies are a potential source of partners, but not necessarily ideal.

F16. No organization within San Francisco government has formed formal partnerships with non-profit organizations to develop, test, or to advise on OSVS best practices.

Agree.

F17. No organization within San Francisco government has begun formal discussions with the Secretary of State about the potential for partnership.

Agree.

F19. Developing Election Systems is currently outside of the mandate for San Francisco's Department of Elections.

Disagree wholly.

While the law does not name "developing election systems" as a requirement of the Department of Elections, it is certainly in the scope of the Department's responsibilities. For example, San Francisco's Charter says in Section 13.104 ("Department of Elections") that, "The department shall be administered by the Director of Elections, who shall be vested with the day-to-day conduct and management of the Department and of voter registration and <u>matters pertaining to elections in the City and County</u>." Developing an election system is certainly a matter pertaining to elections in the City and County, since the goal would be for the resulting system to be used in elections in the City and County.

F20. San Francisco's Department of Elections has no experience developing critical software.

Agree.

Recommendations

R3. Recommends the Election Commission's OSVTAC should organize and maintain a website to serve as an informational portal on the OSV project. This should include links to (and summaries of) all reports written on the subject (including by the SoS, EC, OSVTAC, CGJ, Slalom, BoS). This resource should be completed by October, 1 2018, and be updated consistently. (F2, F3)

[Response option 1] This recommendation will be implemented in the recommended timeframe. The Commission will ask OSVTAC to do it. Eventually, however, such a website should be maintained by full-time staff under the Department of Elections.

R4. Recommends publishing a quarterly summary of the state of the OSV project. The report should include: an estimate of the completion date, current cost projections, and highlight emerging issues. Until a Program Manager is hired, the reports should be authored by the EC, and afterwards, the report should be authored by the program manager. Reports should

commence October 1, 2018, and continue at the start of each quarter until project completion. (F2, F3)

[Response option 4] The recommendation will not be implemented (as stated).

The Commission believes that such quarterly reports should be published. However, they should be authored and published by the Department as the owner. The Commission does not have a budget for staffing beyond a Secretary.

R9. Recommends that San Francisco's Elections Commission conduct a systematic evaluation of partner interest in using the OSV system developed in SF. This evaluation should reach out to all Departments of Elections in all counties within California, focusing on potential use and cost sharing. This analysis and reporting should be completed by April 1st, 2019. (F7, F9, F10, F11)

[Response option 4] The recommendation will not be implemented (as stated).

The Commission believes that such an evaluation should be conducted. However, it should be conducted by the Department as the owner (e.g. by the project director). The Commission does not have a budget for staffing beyond a Secretary.

R11. Recommends that the Department of Elections, along with the Election Commission, reach out to 18F and the USDS to evaluate a possible partnership to build the OSV system with them. These communications should be issued by October 1st, 2018, and the results of those inquiries should be made publicly available after discussion concludes. (F14, F15)

[Response option 1] This recommendation will be implemented in the recommended timeframe.

R12. Recommends that the Elections Commission establish a coalition of supportive non-profit organizations in a formal structure to support the project. This list of collaborators and contacts should be constructed and published by January 1st, 2019. (F14, F16)

[Response option 4] The recommendation will not be implemented (as stated).

The Commission believes that such a coalition should be established. However, it should be established and managed by the Department as the owner (e.g. by the project director). The Commission does not have a budget for staffing beyond a Secretary.

The Department already manages similar bodies, including the Voting Accessibility Advisory Committee (VAAC), Language Accessibility Advisory Committee (LAAC), and Poll Worker Advisory Network.

R13. Recommends that the Department of Elections, working with the Elections Commission, establish a Memorandum of Understanding with the California Secretary of State that addresses how the California certification process will accommodate modular development and vulnerability patches, to align the SoS's process with open source best practices. The discussion of this memo should begin by January 1st, 2019. (F7, F12, F13, F17, F18)

This recommendation will be implemented in the recommended timeframe.