BOARD of SUPERVISORS



City Hall
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco 94102-4689
Tel. No. 554-5184
Fax No. 554-5163
TDD/TTY No. 554-5227

DATE:

August 31, 2018

TO:

Members of the Board of Supervisors

FROM:

MAngela Calvillo, Clerk of the Board

SUBJECT:

2017-2018 Civil Grand Jury report, entitled "Open Source Voting in San Francisco"

We are in receipt of the following required responses to the San Francisco Civil Grand Jury report released June 29, 2018, entitled: "Open Source Voting in San Francisco." Pursuant to California Penal Code, Sections 933 and 933.05, named City Departments shall respond to the report within 60 days of receipt, or no later than August 28, 2018.

For each finding the Department response shall:

- 1) agree with the finding; or
- 2) disagree with it, wholly or partially, and explain why.

As to each recommendation the Department shall report that:

- 1) the recommendation has been implemented, with a summary explanation; or
- 2) the recommendation has not been implemented but will be within a set timeframe as provided; or
- 3) the recommendation requires further analysis. The officer or agency head must define what additional study is needed. The Grand Jury expects a progress report within six months; or
- 4) the recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

The Civil Grand Jury Report identified the following City Departments to submit responses (attached):

- Office of the Controller: Received August 17, 2018 for Recommendation Nos. R5 and R6.
- Office of the Mayor: Received August 28, 2018 for Finding Nos. F1, F2, F3, F4, F5, F6, F7, and F8; and Recommendation Nos. R1, and R2.

Open Source Voting in San Francisco Office of the Clerk of the Board 60-Day Receipt August 31, 2018 Page 2

- Department of Elections:
 Received August 28, 2018 for
 Finding Nos. F1; F2, F3, F4, F5, F6, F7, F8, F9, F10,
 F11, F12, F13, F14, F15, F16, F17, F18, F19, and F20; and
 Recommendation Nos. R8, R10, R11, and R13.
- Department of Technology: Received August 28, 2018 for Finding Nos. F10, F12; F21, and F22; and Recommendation No. R7.
- Elections Commission:
 Received August 30, 2018, for
 Finding Nos. F1, F2, F3, F4, F7, F8, F10, F11, F12,
 F13, F14, F15, F16, F17, F19, and F20; and
 Recommendation Nos. R3, R4, R9, R11, R12, and R13.

These departmental responses are being provided for your information, as received, and may not conform to the parameters stated in California Penal Code, Section 933.05 et seq. The Government Audit and Oversight Committee will consider the subject report, along with the responses, at an upcoming hearing.

c:
Honorable Teri L. Jackson, Presiding Judge
Kanishka Karunaratne Cheng, Mayor's Office
Mawuli Tugbenyoh, Mayor's Office
Andres Power, Mayor's Office
Marie Valdez, Mayor's Office
John Arntz, Director, Department of Elections
Roger Donaldson, President, Elections
Commission
Don Chan, Elections Commission
Ben Rosenfield, City Controller
Todd Rydstrom, Office of the Controller
Peg Stevenson, Office of the Controller

Natasha Mihal, Office of the Controller
Tonia Lediju, Office of the Controller
Linda Gerull, Executive Director, Department of
Technology
David German, Department of Technology
Jon Givner, Office of the City Attorney
Alisa Somera, Office of the Clerk of the Board
Debra Newman, Budget and Legislative Analyst
Severin Campbell, Budget and Legislative
Analyst
Ashley Clark, Budget and Legislative Analyst
Lori Campbell, Foreperson, San Francisco Civil
Grand Jury

Elections Commission City and County of San Francisco

Roger Donaldson, President Viva Mogi, Vice President Christopher Jerdonek Charles Jung Jill Rowe Charlotte Hill



Don Chan, Secretary

City Hall 1 Dr. Carlton B. Goodlett Place, Room 48 San Francisco, CA 94102

August 29, 2018

To: Hon. Teri L. Jackson
Presiding Judge of the Superior Court
400 McAllister Street, Room 008

San Francisco, CA 94102-4512

RE: Election Commission Response to the 2017-2018 Civil Grand Jury report entitled, "Open Source Voting in San Francisco"

Dear Honorable Judge Jackson,

Please find attached the San Francisco Elections Commission responses to the Civil Grand Jury report entitled, "Open Source Voting in San Francisco" as instructed by the Lori Campbell, Foreperson in her letter dated 27 June 2018.

Roger D. Donaldson, President San Francisco Election Commission

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 partially.

While section 13.104 of the San Francisco Charter does not enumerate "developing an election system" as a specific requirement of the Department of Elections, it is certainly within the scope of the Department's authority. 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 matters pertaining to 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 3 - Further Analysis Required

This recommendation will be implemented in the recommended timeframe. In the short term, the Commission will ask OSVTAC to do it.

The Elections Commission does not have adequate resources to implement this recommendation on an ongoing basis. Further analysis will be required to determine the responsibility and resourcing. The Elections Commission will provide an update for this recommendation no later than 28 December 2018.

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 3 - Further Analysis Required

The Elections Commission does not have adequate resources to implement this recommendation. Further analysis will be required to determine responsibility and resourcing. The Elections Commission will provide an update for this recommendation no later than 28 December 2018.

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 3 - Further Analysis Required

The Elections Commission does not have adequate resources to implement this recommendation. Further analysis will be required to determine responsibility and resourcing. The Elections Commission will provide an update for this recommendation no later than 28 December 2018.

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 4 – Will not be implemented

Due to resourcing and subject matter expertise, neither the Department of Elections nor Elections Commission will perform direct outreach and evaluation of possible partnership with 18F and USDS. Alternatively, the Department of Elections Director will send a letter by October 1, 2018 to 18F and USDS to introduce the CCSF Department of Technology for these discussions.

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 3 – Further Analysis Required

The Elections Commission does not have adequate resources to implement this recommendation. Further analysis will be required to determine responsibility and resourcing. The Elections Commission will provide an update for this recommendation no later than 28 December 2018.

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).

Response option 1 – Recommendation has been implemented

The Department of Elections Director has agreed to implement this recommendation by stated date of January 1, 2019.

OFFICE OF THE MAYOR SAN FRANCISCO



LONDON N. BREED MAYOR

August 28, 2018

The Honorable Teri L. Jackson Presiding Judge, Superior Court of California, County of San Francisco 400 McAllister Street, Room 008 San Francisco, CA 94102

Dear Judge Jackson:

Pursuant to Penal Code sections 933 and 933.05, the following is in reply to the 2017-18 Civil Grand Jury report, *Open Source Voting in San Francisco*. We would like to thank the members of the Civil Grand Jury for their interest in the City's efforts to develop an open source voting system.

The City has been engaged in discussions regarding open source voting for several years. In 2014, the Board of Supervisors passed a resolution committing the City to work with other jurisdictions to create new voting systems, including systems using open source software. Since then, the City has dedicated resources toward assessing the feasibility of developing an open source voting system. The FY 2016-17 budget included \$300,000 to hire a third party consultant to conduct a business case to investigate the feasibility of the City developing an open source voting system. This report was released in March 2018, and outlined multiple options for the City to consider in the development of this system, along with estimated costs, timelines, and key next steps. Informed by this report, the recently signed FY 2018-19 and FY 2019-20 budget included \$1.6 million over the two years to conduct a more in-depth discovery phase, which would provide additional clarity around the requirements, cost, and timeline of developing this system.

The Civil Grand Jury's report focused on the delays in moving the project forward, providing a number of findings and recommendations to streamline the project toward completion. Given that the City and County has a core responsibility to administer accurate elections, the open source voting system project has proceeded at a pace to ensure that any final product support its core function in conducting elections. We welcome the Civil Grand Jury's findings and recommendations, and will seek to incorporate them into the next steps of the project, as appropriate.

A detailed response from the Mayor's Office, Department of Elections, and Department of Technology to the Civil Grand Jury's findings and recommendations are attached.

Thank you again for the opportunity to comment on this Civil Grand Jury report.

Sincerely,

London N. Breed

Mayor

John Arntz Director, Department of

Elections

Linda Gerull

Executive Director, Department

of Technology

Report Title	F#	Finding	Respondent Assigned by	Finding Response	Finding Response Text	R#	Recommendation	Respondent Assigned by	Recommendation	Recommendation Response Text
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		multiple respondent effects)	[Response Due Date]	(0, 0,			multiple respondent effects)	[Response Due Date]	(Implementation)	
Open Source Voting	F1	There is not a clear project owner that is	Department of Elections	Disagree, wholly	The Open Source Voting Project has had clear					
in San Francisco		responsible for building an Open Source Voting	[Response due: August 28,		leaders, owning discreet aspects of the project.					
[Published: June 29,		System in San Francisco, which prevents the	2018]		As the project has been funded through the					
2018]		project from making any progress.			Committee on Information Technology (COIT)					
					under the City Administrators Office, the City					
					Administrator has thus far owned the effort to					
					explore the development of a voting system. The					
					Department of Elections has provided support					
					and technical requirements for election					
					processes, and the Department of Technology					
					has owned the technical aspect of the project.					
Open Source Voting	F1	There is not a clear project owner that is	Mayor	Disagree, wholly	The Open Source Voting Project has had clear	R1	Recommends that the Mayor include funding in	Mayor	Has been	The final FY 2018-19 and FY 2019-20 budget
in San Francisco		responsible for building an Open Source Voting	[Response due: August 28,	, , , ,	leaders, owning discreet aspects of the project.		their next budgeting cycle to hire a "Program	[Response due: August 28,	implemented	includes a total of \$1.6 million over the two
[Published: June 29,		System in San Francisco, which prevents the	2018]		As the project has been funded through the	F8]	Manager" dedicated to shepherd the project	2018]		years for the Open Source Voting System
2018]		project from making any progress.	,		Committee on Information Technology (COIT)		forward and own the project. Regardless of the			project. These funds are a combination of COIT
' '		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			under the City Administrators Office, the City		department they report to, the Program			funding included in the Mayor's proposed
					Administrator has thus far owned the effort to		Manager will be responsible for communicating			budget and other General Fund dollars added by
					explore the development of a voting system. The		with collaborating jurisdictions, engaging			the Board of Supervisors. This funding will, in
					Department of Elections has provided support		experts, managing and tracking project risks, and			part, be used to hire a Project Manager
					and technical requirements for election		establishing cost and timeline targets. The			responsible for communicating with
					processes, and the Department of Technology		Program Manager would need qualifications in			collaborating jurisdictions, engaging experts,
					has owned the technical aspect of the project.		technology management, design thinking, and			managing and tracking project risks, and
							procurement. Funding should be allocated for			establishing cost and timeline targets.
							this process in the next budget cycle.			g
							, ,			
Open Source Voting	F2	Progress on the Open Source Voting project has	Department of Elections	Disagree, wholly	The City Administrator and the City's Committee					
in San Francisco		been limited because responsibility has	[Response due: August 28,	, , , ,	on Information Technology (COIT) have provided					
[Published: June 29,			2018]		funding towards the City's efforts to develop a					
2018]		around between organizations without a clear	,		voting system. COIT serves as the central IT					
' '		source of funding or a mandate for completion.			policy and funding body for the City, in order to					
					ensure cross-departmental coordination. First,					
					COIT allocated funds for a contractor to prepare					
					a business case on the feasibility of the City					
					developing a voting system. Second, COIT					
					allocated funds for a project manager position					
					who will identify the requirements to apply to					
					developing a voting system.					
					developing a voting system.					
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Open Source Voting in San Francisco Page 1 of 10

Report Title	F#	Finding	Respondent Assigned by	Finding Response	Finding Response Text	R#	Recommendation	Respondent Assigned by	Recommendation	Recommendation Response Text
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Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Mayor [Response due: August 28, 2018]	Disagree, wholly	The Open Source Voting project is a complex, multi-faceted project which has required buy-in and ownership from multiple city stakeholders including the City Administrator, Department of Elections, and Department of Technology. The FY 2016-17 budget included \$300,000 to conduct a feasibility study to assess the development, costs, and risks of an Open Source Voting System. The study was completed by Slalom Consulting in March 2018, and identified important next steps in the development of a system. As a result of this report, the final FY 2018-19 and FY 2019-20 budget included \$1.6 million over the two years to move forward with the project, including hiring a Project Manager who will centrally own and manage this project moving forward.	R1 [F1, F2, F3, F8]	Recommends that the Mayor include funding in their next budgeting cycle to hire a "Program Manager" dedicated to shepherd the project forward and own the project. Regardless of the department they report to, the Program Manager will be responsible for communicating with collaborating jurisdictions, engaging experts, managing and tracking project risks, and establishing cost and timeline targets. The Program Manager would need qualifications in technology management, design thinking, and procurement. Funding should be allocated for this process in the next budget cycle.	Mayor [Response due: August 28, 2018]	Has been implemented	The final FY 2018-19 and FY 2019-20 budget includes a total of \$1.6 million over the two years for the Open Source Voting System project. These funds are a combination of COIT funding included in the Mayor's proposed budget and other General Fund dollars added by the Board of Supervisors. This funding will, in part, be used to hire a Project Manager responsible for communicating with collaborating jurisdictions, engaging experts, managing and tracking project risks, and establishing cost and timeline targets.
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Mayor [Response due: August 28, 2018]	Disagree, wholly	The Open Source Voting project is a complex, multi-faceted project which has required buy-in and ownership from multiple city stakeholders including the City Administrator, Department of Elections, and Department of Technology. The FY 2016-17 budget included \$300,000 to conduct a feasibility study to assess the development, costs, and risks of an Open Source Voting System. The study was completed by Slalom Consulting in March 2018, and identified important next steps in the development of a system. As a result of this report, the final FY 2018-19 and FY 2019-20 budget included \$1.6 million over the two years to move forward with the project, including hiring a Project Manager who will centrally own and manage this project moving forward.	R2 [F2, F3, F4]	Recommends the Mayor's Office set up a working group responsible to centralize the expertise relevant for the OSV project and approve structural decisions made by the Program Manager. The working group should contain (at minimum) a representative from the Mayor's office, DoE, OSVTAC, COIT, and DoT. After planning completes, funding requests for the OSVS would be recommended to the working group by the Program Manager, and would then be recommended to the Mayor for inclusion in the city budget. This group should be formally constructed by October 1, 2018, and should begin a hiring process for a Program Manager as soon as funding is allocated.	Mayor [Response due: August 28, 2018]	Will not be implemented because it is not warranted or reasonable	The FY 2018-19 and FY 2019-20 budget includes a total of \$1.6 million over the two year budget for the Open Source Voting System project. This funding will, in part, be used to hire a Project Manager. Collaboration is key for project of this nature, and the Project Manager will work to engage with stakeholders as the project moves forward. The goal of collaboration is a shared priority, this recommendation will not be implemented at this time due to process needs of hiring a project manager first to develop and oversee project tasks, resources, risks and schedule. Then the Mayor's office will consider setting up a working group to advise the DoE and DoT on the OSV project. The working group could include representatives from OSVTAC, COIT, leading security experts, open source partners, election specialists, hardware designers, and other jurisdictions who are willing to support the project with their expertise.
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Disagree, wholly	The City has continually taken steps to assess the tasks involved in developing a voting system. Each action the City has taken towards developing an open source voting system has been based on previous steps to determine the scope of such a project.					

Open Source Voting in San Francisco Page 2 of 10

Report Title	F#	Finding	Respondent Assigned by	Finding Response	Finding Response Text	R#	Recommendation	Respondent Assigned by	Recommendation	Recommendation Response Text
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		multiple respondent effects)	[Response Due Date]	, , , , ,			multiple respondent effects)	[Response Due Date]	(Implementation)	
Open Source Voting in San Francisco [Published: June 29, 2018]	F3	multiple respondent effects) 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.	Response Due Datel Mayor [Response due: August 28, 2018]	Disagree, wholly	An Open Source Voting System that could support the election needs of the City has not been built in the US. It is a complex project that requires in-depth analysis and design of the security, reliability, performance and sustainability of the system. Work on this project has proceeded in logical order with the completion of a Feasibility Study and soon, the hiring of a Project Manager to oversee project tasks, resources, risks and schedule.	R1 [F1, F2, F3, F8]		Response Due Datel Mayor [Response due: August 28, 2018]	(Implementation) Has been implemented	The final FY 2018-19 and FY 2019-20 budget includes a total of \$1.6 million over the two years for the Open Source Voting System project. These funds are a combination of COIT funding included in the Mayor's proposed budget and other General Fund dollars added by the Board of Supervisors. This funding will, in part, be used to hire a Project Manager responsible for communicating with collaborating jurisdictions, engaging experts, managing and tracking project risks, and establishing cost and timeline targets.
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Mayor [Response due: August 28, 2018]	Disagree, wholly	An Open Source Voting System that could support the election needs of the City has not been built in the US. It is a complex project that requires in-depth analysis and design of the security, reliability, performance and sustainability of the system. Work on this project has proceeded logically with the completion of a Feasibility Study and soon, the hiring of a Project Manager to oversee project tasks, resources, risks and schedule.	R2 [F2, F3, F4]	Recommends the Mayor's Office set up a working group responsible to centralize the expertise relevant for the OSV project and approve structural decisions made by the Program Manager. The working group should contain (at minimum) a representative from the Mayor's office, DoE, OSVTAC, COIT, and DoT. After planning completes, funding requests for the OSVS would be recommended to the working group by the Program Manager, and would then be recommended to the Mayor for inclusion in the city budget. This group should be formally constructed by October 1, 2018, and should begin a hiring process for a Program Manager as soon as funding is allocated.	Mayor [Response due: August 28, 2018]	Will not be implemented because it is not warranted or reasonable	The FY 2018-19 and FY 2019-20 budget includes a total of \$1.6 million over the two year budget for the Open Source Voting System project. This funding will, in part, be used to hire a Project Manager. Collaboration is key for project of this nature, and the Project Manager will work to engage with stakeholders as the project moves forward. The goal of collaboration is a shared priority, this recommendation will not be implemented at this time due to process needs of hiring a project manager first to develop and oversee project tasks, resources, risks and schedule. Then the Mayor's office will consider setting up a working group to advise the DoE and DoT on the OSV project. The working group could include representatives from OSVTAC, COIT, leading security experts, open source partners, election specialists, hardware designers, and other jurisdictions who are willing to support the project with their expertise.
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Disagree, partially	The City has appropriately sought to better understand the security risks associated with developing a voting system. Security is one of many elements involved in a project to develop a voting system which has required the City's consideration and attention.					

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Report Title	F#	Finding	Respondent Assigned by	Finding Response	Finding Response Text	R#	Recommendation	Respondent Assigned by	Recommendation	Recommendation Response Text
[Publication Date]	.,,	(text may be duplicated due to spanning and	CGJ	(Agree/Disagree)	Tillang Response Text	[for F#]	(text may be duplicated due to spanning and	CGJ	Response	Recommendation response rext
		multiple respondent effects)	[Response Due Date]	(0, 0,			multiple respondent effects)	[Response Due Date]	(Implementation)	
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	IKesoonse Due Date!	Disagree, partially	The City has appropriately sought to better understand the security risks associated with developing a voting system. Security is one of many elements involved in a project to develop a voting system which has required the City's consideration and attention.	R2 [F2, F3, F4]	Recommends the Mayor's Office set up a working group responsible to centralize the expertise relevant for the OSV project and approve structural decisions made by the Program Manager. The working group should contain (at minimum) a representative from the Mayor's office, DoE, OSVTAC, COIT, and DoT. After planning completes, funding requests for the OSVS would be recommended to the working group by the Program Manager, and would then be recommended to the Mayor for inclusion in the city budget. This group should be formally constructed by October 1, 2018, and should begin a hiring process for a Program Manager as soon as funding is allocated.		Mill not be implementation! Will not be implemented because it is not warranted or reasonable	The FY 2018-19 and FY 2019-20 budget includes a total of \$1.6 million over the two year budget for the Open Source Voting System project. This funding will, in part, be used to hire a Project Manager. Collaboration is key for project of this nature, and the Project Manager will work to engage with stakeholders as the project moves forward. The goal of collaboration is a shared priority, this recommendation will not be implemented at this time due to process needs of hiring a project manager first to develop and oversee project tasks, resources, risks and schedule. Then the Mayor's office will consider setting up a working group to advise the DoE and DoT on the OSV project. The working group could include representatives from OSVTAC, COIT, leading security experts, open source partners, election specialists, hardware designers, and other jurisdictions who are willing to support the project with their expertise.
Open Source Voting in San Francisco [Published: June 29, 2018]	F5	certified Ranked Choice Voting Elections -	Department of Elections (Response due: August 28, 2018]	Disagree, wholly	The City does not have a continuing legal obligation to use a voting system provided by Dominion Voting Systems (DVS). However, legally-mandated factors can limit the City's options to obtain or use voting systems provided by a vendor. Currently, only Dominion provides a voting system that is approved by the California Secretary of State for conducting ranked-choice voting elections.					
Open Source Voting in San Francisco [Published: June 29, 2018]	F5	certified Ranked Choice Voting Elections -	Mayor [Response due: August 28, 2018]	Disagree, wholly	The City does not have a continuing legal obligation to use a voting system provided by Dominion Voting Systems (DVS). However, legally-mandated factors can limit the City's options to obtain or use voting systems provided by a vendor.					
Open Source Voting in San Francisco [Published: June 29, 2018]	F5	Today, only one company can operate California certified Ranked Choice Voting Elections - Dominion Election Systems. San Francisco has a continuing legal obligation to purchase systems from Dominion, regardless of cost or competitiveness, due to county RCV rules, restrictions on procurement due to LGBT discrimination in other states, and state certification requirements.				R5 [F5, F6]	Recommends the Office of the Controller set up a process to trigger review of city RFPs that only receive one bidder, and, when feasible, perform a market analysis to determine why the procurement process has not induced participation of additional vendors. This process should be in place by April 1, 2019.			

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Report Title	F#	Finding	Respondent Assigned by	Finding Response	Finding Response Text	R#	Recommendation	Respondent Assigned by	Recommendation	Recommendation Response Text
[Publication Date]		(text may be duplicated due to spanning and	CGJ	(Agree/Disagree)		[for F#]	(text may be duplicated due to spanning and	CGJ	Response	
		multiple respondent effects)	[Response Due Date]				multiple respondent effects)	[Response Due Date]	(Implementation)	
Open Source Voting	F5	Today, only one company can operate California				R6	Recommends the Office of the Controller			
in San Francisco		certified Ranked Choice Voting Elections -				[F5, F6]	evaluate the premium San Francisco pays for its			
[Published: June 29,		Dominion Election Systems. San Francisco has a					Voting System compared to (1) the price paid by			
2018]		continuing legal obligation to purchase systems					other California counties that use Ranked Choice			
		from Dominion, regardless of cost or					Voting, and (2) the price paid by California			
		competitiveness, due to county RCV rules,					counties that do not use RCV, and (3) the price			
		restrictions on procurement due to LGBT					paid by cities/counties outside of California who			
		discrimination in other states, and state					use RCV. This analysis should be published by			
		certification requirements.					April 1, 2019.			
Open Source Voting	F6	The operational cost charged by Dominion	Department of Elections	Disagree, wholly	Relative to the current contract, operational					
in San Francisco		Systems increased from 1.1 million per year to 2	[Response due: August 28,		costs will decrease under the next agreement.					
[Published: June 29,		million per year between the contracts from	2018]		Although the contract with Dominion is not final,					
2018]		2006 to 2018 and 2018 onward. San Francisco			the expected annual cost associated with the					
		did not have a viable alternative to accepting			agreement is \$2 million. The annual cost will be					
		this price increase.			comprised of both election-related services and					
					the leasing of all equipment for voting at both					
					polling places and vote-by-mail. Additionally,					
					the City most likely will be able to apply funds					
					allocated under the current State budget for					
					counties to update voting technologies, which					
					will further reduce costs associated with the					
					next system.					
Open Source Voting	F6	The operational cost charged by Dominion	Mayor	Disagree, wholly	Although the contract with Dominion is not final,					
in San Francisco		Systems increased from 1.1 million per year to 2	[Response due: August 28,		the FY 2018-19 and FY 2019-20 budget					
[Published: June 29,		million per year between the contracts from	2018]		anticipates a total annual cost of \$2.0 million.					
2018]		2006 to 2018 and 2018 onward. San Francisco			However, the annual cost of the new leased					
		did not have a viable alternative to accepting			system will be comprised of both election-					
		this price increase.			related services and the leasing of all voting					
					equipment. As the Department transitions away					
					from its current voting system to the new leased					
					system, the Department will no longer need to					
					incur the annual operating costs associated with					
					the old system.					
Open Source Voting	F6	The operational cost charged by Dominion				R6	Recommends the Office of the Controller			
in San Francisco		Systems increased from 1.1 million per year to 2				[F5, F6]	evaluate the premium San Francisco pays for its			
[Published: June 29,		million per year between the contracts from					Voting System compared to (1) the price paid by			
2018]		2006 to 2018 and 2018 onward. San Francisco					other California counties that use Ranked Choice			
		did not have a viable alternative to accepting					Voting, and (2) the price paid by California			
		this price increase.					counties that do not use RCV, and (3) the price			
							paid by cities/counties outside of California who			
							use RCV. This analysis should be published by			
							April 1, 2019.			

Open Source Voting in San Francisco Page 5 of 10

Report Title [Publication Date]	F#	Finding (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/Disagree)	Finding Response Text	R# [for F#]	Recommendation (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Disagree, partially	There has been no indication that the one other California county that currently conducts elections using the ranked-choice voting method seeks to develop a voting system or partnering with the City to develop a system.	R13 [F7, F12, F13, F17, F18]		Department of Elections [Response due: August 28,	Will not be implemented because it is not warranted or reasonable	This recommendation is unwarranted, especially in consideration of the January 1, 2019 deadline, because the City must still identify a person with the appropriate skills to fill the project manager role. The project manager will need to lead efforts to define the specifications of a voting system, and the City must determine the manner by which it will develop a voting system before engaging the Secretary of State to possibly enter a Memorandum of Understanding. The City does not currently have accurate descriptions of a voting system, a modular development of a voting system, the patching regimen associated with an open source voting system, or how open source best practices in regards to developing a voting system would align with the SOS' processes.
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Mayor [Response due: August 28, 2018]	Disagree, partially	The Mayor's Office does not have insight into the financing of voting system software in other California counties. However, the Mayor's Office would be open to discussing partnership opportunities with other counties if appropriate and in the best interest of the City.					
Open Source Voting in San Francisco [Published: June 29, 2018]	F8	Too many variables remain unresolved to draw confident analysis about completion cost or timeline of the OSV project.	Department of Elections [Response due: August 28, 2018]	Agree with the finding	The City needs to set the specifications for a voting system before projecting potential costs or timeframes associated with developing a voting system.					
Open Source Voting in San Francisco [Published: June 29, 2018]	F8	Too many variables remain unresolved to draw confident analysis about completion cost or timeline of the OSV project.		Agree with the finding	The Mayor's Office funded a Feasibility Study to assess the development, costs and risks of an Open Source Voting System in 2017. The study was completed by Slalom Consulting and a range of costs and timelines were documented. The City needs to set the specifications for a voting system before projecting potential costs or timeframes associated with developing a voting system.	F8]	Recommends that the Mayor include funding in their next budgeting cycle to hire a "Program Manager" dedicated to shepherd the project forward and own the project. Regardless of the department they report to, the Program Manager will be responsible for communicating with collaborating jurisdictions, engaging experts, managing and tracking project risks, and establishing cost and timeline targets. The Program Manager would need qualifications in technology management, design thinking, and procurement. Funding should be allocated for this process in the next budget cycle.		Has been implemented	The final FY 2018-19 and FY 2019-20 budget includes a total of \$1.6 million over the two years for the Open Source Voting System project. These funds are a combination of COIT funding included in the Mayor's proposed budget and other General Fund dollars added by the Board of Supervisors. This funding will, in part, be used to hire a Project Manager responsible for communicating with collaborating jurisdictions, engaging experts, managing and tracking project risks, and establishing cost and timeline targets.

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Report Title	F#	Finding	Decreased and Assistanced by	Finding Description	Finding Decrease Test	D#	Dansaman dakina	Decreasions Assistant by	Recommendation	December debies December Took
[Publication Date]	F#	Finding (text may be duplicated due to spanning and	Respondent Assigned by CGJ	Finding Response (Agree/Disagree)	Finding Response Text	R# [for F#]	Recommendation (text may be duplicated due to spanning and	Respondent Assigned by CGJ	Response	Recommendation Response Text
[Fublication Date]				(Agree/Disagree)		[IUI F#]			•	
Open Source Voting in San Francisco [Published: June 29, 2018]	F9	multiple respondent effects) Though certification by the California Secretary of State is an indication that an election system is reasonably secure, certification does not guarantee election system security.	IResponse Due Datel Department of Elections [Response due: August 28, 2018]	Disagree, partially	The California Secretary of State conducts assessments of all voting systems before their use in California. The SOS's assessments include reviews of a system's hardware, firmware, and software. Further, the SOS places all proposed voting systems under stress testing and user testing to measure whether a voting system meets existing requirements and usability standards. The intent of the SOS's thorough review of voting systems is to assess whether existing requirements are met regarding security rather than to guarantee system security from all		multiple respondent effects)	[Response Due Date]	(Implementation)	
Open Source Voting in San Francisco [Published: June 29, 2018]	F9	Though certification by the California Secretary of State is an indication that an election system is reasonably secure, certification does not guarantee election system security.			possible factors.	R9 [F7, F9,	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.			
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Disagree, partially	Any voting system development will benefit from obtaining the attention of external security experts during development. However, the City meeting a certain ratio of good to bad actors does not of itself ensure the identifying of vulnerabilities in a City-developed voting system.					
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Technology [Response due: August 28, 2018]	Disagree, partially	The security of an Open Source Voting system is not a reflection on the ratio of the number of good actors to bad actors that are looking at it to find vulnerabilities. This statement assumes all actors are equal and that is not the case with security. Technology security is not a function of numbers but a function of the software and hardware engineering and risk assessment. It is true that external security experts will be required to advise the City on the OSV project.					
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Disagree, partially	While one principle of using open source software is that security increases according to the greater number of users of open source software, the City could contract with multiple consultants or firms expert in security matters to increase confidence in the security of a voting system.					

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Report Title	F#	Finding	Respondent Assigned by	Finding Response	Finding Response Text	R#	Recommendation	Respondent Assigned by	Recommendation	Recommendation Response Text
[Publication Date]		(text may be duplicated due to spanning and	CGJ	(Agree/Disagree)		[for F#]	(text may be duplicated due to spanning and	CGJ	Response	•
		multiple respondent effects)	[Response Due Date]				multiple respondent effects)	[Response Due Date]	(Implementation)	
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Agree with the finding	The ability to patch vulnerabilities is a foundational property.	R13 [F7, F12, F13, F17, F18]	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.	Department of Elections [Response due: August 28, 2018]	Will not be implemented because it is not warranted or reasonable	This recommendation is unwarranted, especially in consideration of the January 1, 2019 deadline, because the City must still identify a person with the appropriate skills to fill the project manager role. The project manager will need to lead efforts to define the specifications of a voting system, and the City must determine the manner by which it will develop a voting system before engaging the Secretary of State to possibly enter a Memorandum of Understanding. The City does not currently have accurate descriptions of a voting system, a modular development of a voting system, the patching regimen associated with an open source voting system, or how open source best practices in regards to developing a voting system would align with the SOS' processes.
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Technology [Response due: August 28, 2018]	Agree with the finding	Open Source software tools and platform require timely patching for security, performance and functional additions. The City will discuss with the Secretary of State how to meet the certification schedule and avoid a period of delay to any patch to an OSV system.					
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Disagree, partially	The Department cannot agree that patches to open source systems are common since the Department does not currently operate many open source systems and does not have knowledge or experience regarding the frequency such systems require patches. However, the Department agrees that any patch requires the noticing of the Secretary of State and most likely will require the SOS' review and approval. The timeline and cost associated with the SOS review of patches cannot be projected. The evidence that the SOS supports modular certification is inconclusive and seems to be an incorrect statement.	R13 [F7, F12, F13, F17, F18]	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.	Department of Elections [Response due: August 28, 2018]	Will not be implemented because it is not warranted or reasonable	This recommendation is unwarranted, especially in consideration of the January 1, 2019 deadline, because the City must still identify a person with the appropriate skills to fill the project manager role. The project manager will need to lead efforts to define the specifications of a voting system, and the City must determine the manner by which it will develop a voting system before engaging the Secretary of State to possibly enter a Memorandum of Understanding. The City does not currently have accurate descriptions of a voting system, a modular development of a voting system, the patching regimen associated with an open source voting system, or how open source best practices in regards to developing a voting system would align with the SOS' processes.
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Disagree, partially	The Department agrees that there are non-profit organizations that are willing to help the City develop an open source voting system. The Department does not have experience in this field to know whether the total count of such organizations represents a "large number."	R11 [F14, F15]	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.	Department of Elections [Response due: August 28, 2018]	Will be implemented	In conjunction with the Department of Technology, the Department of Elections will contact 18F and the USDS by October 1, 2018, regarding the evaluation of a possible partnership to build an open source voting system.

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Report Title	F#	Finding	Respondent Assigned by	Finding Response	Finding Response Text	R#	Recommendation	Respondent Assigned by	Recommendation	Recommendation Response Text
[Publication Date]		(text may be duplicated due to spanning and	CGJ	(Agree/Disagree)		[for F#]	(text may be duplicated due to spanning and	CGJ	Response	
		multiple respondent effects)	[Response Due Date]				multiple respondent effects)	[Response Due Date]	(Implementation)	
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Disagree, partially	The Department cannot agree with this finding since the Department has no previous interactions with these federal agencies. The Department believes the finding is accurate regarding the City needing to utilize federal funds to meet the criteria associated with partnering with these agencies.	R10 [F15]	Recommends that the Department of Elections evaluate the possibility of incorporating 2018 HAVA funding into the development of the OSV system, so that federal technology agencies have jurisdiction to help develop the project. The feasibility of this should be formally evaluated and published by the Department of Elections by January 1st, 2019.	Department of Elections [Response due: August 28, 2018]	Will be implemented	The Department will evaluate whether federal grant monies are available under the Help America Vote Act which, if possible, would allow federal agencies to assist in developing an open source voting system. The Department can determine whether HAVA funding exists by January 1, 2019.
Open Source Voting in San Francisco [Published: June 29, 2018]	F15	reusable Open Source Technologies, such as the	Department of Elections [Response due: August 28, 2018]	Disagree, partially	The Department cannot agree with this finding since the Department has no previous interactions with these federal agencies. The Department believes the finding is accurate regarding the City needing to utilize federal funds to meet the criteria associated with partnering with these agencies.		along with the Election Commission, reach out	Department of Elections [Response due: August 28, 2018]	Will be implemented	In conjunction with the Department of Technology, the Department of Elections will contact 18F and the USDS by October 1, 2018, regarding the evaluation of a possible partnership to build an open source voting system.
Open Source Voting in San Francisco [Published: June 29, 2018]	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.	Department of Elections [Response due: August 28, 2018]	Agree with the finding	The Department has not formally organized partnerships with organizations in relation to the City developing an open source voting system.					
Open Source Voting in San Francisco [Published: June 29, 2018]	F17	No organization within San Francisco government has begun formal discussions with the Secretary of State about the potential for partnership.	Department of Elections [Response due: August 28, 2018]	Agree with the finding	The Department has not formally commenced discussions with the Secretary of State regarding that office partnering with the City in developing a voting system.	R13 [F7, F12, F13, F17, F18]	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.	[Response due: August 28,	Will not be implemented because it is not warranted or reasonable	This recommendation is unwarranted, especially in consideration of the January 1, 2019 deadline, because the City must still identify a person with the appropriate skills to fill the project manager role. The project manager will need to lead efforts to define the specifications of a voting system, and the City must determine the manner by which it will develop a voting system before engaging the Secretary of State to possibly enter a Memorandum of Understanding. The City does not currently have accurate descriptions of a voting system, a modular development of a voting system, the patching regimen associated with an open source voting system, or how open source best practices in regards to developing a voting system would align with the SOS' processes.

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Report Title	F#	Finding	Respondent Assigned by	Finding Response	Finding Response Text	R#	Recommendation	Respondent Assigned by	Recommendation	Recommendation Response Text
[Publication Date]		(text may be duplicated due to spanning and	ceı	(Agree/Disagree)	3	[for F#]	(text may be duplicated due to spanning and	cei	Response	
Open Source Voting in San Francisco [Published: June 29, 2018]	F18	multiple respondent effects) The Department of Elections has familiarity with the election system certification process, as most recently demonstrated by their work with Dominion in 2017 to get a patch for the "spectre/meltdown" bugs certified by the California Secretary of State.	Response Due Datel Department of Elections [Response due: August 28, 2018]	Disagree, partially	The Department agrees that it does have experience with the SOS' approval process in relation to voting systems and applying software patches. However, the Department's experience is situational and is gained by responding to the SOS' requests for information or access to equipment. The Department has no recent experience in the SOS' election system certification processes and would need to seek guidance on these processes from the SOS in relation to the City developing its own voting system.	R13 [F7, F12, F13, F17, F18]	multiple respondent effects) 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.	Response Due Datel Department of Elections [Response due: August 28, 2018]	(Implementation) Will not be implemented because it is not warranted or reasonable	This recommendation is unwarranted, especially in consideration of the January 1, 2019 deadline, because the City must still identify a person with the appropriate skills to fill the project manager role. The project manager will need to lead efforts to define the specifications of a voting system, and the City must determine the manner by which it will develop a voting system before engaging the Secretary of State to possibly enter a Memorandum of Understanding. The City does not currently have accurate descriptions of a voting system, a modular development of a voting system, the patching regimen associated with an open source voting system, or how open source best practices in regards to developing a voting system would align with the SOS' processes.
Open Source Voting in San Francisco [Published: June 29, 2018]	F19	Developing Election Systems is currently outside of the mandate for San Francisco's Department of Elections.	Department of Elections [Response due: August 28, 2018]	Agree with the finding	The Department's mandate is to administer the processes necessary to conduct elections such as nomination filings, petition reviews, locating polling places, etc., rather than to create or develop large technical systems. The City's Department of Technology has responsibility for technology projects.	R8 [F19, F20]	Recommends that the DoE not directly build the software for an Open Source Voting system in the near future, because they lack in-house critical faculties and experience in software development.	Department of Elections [Response due: August 28, 2018]	Will be implemented	The Department agrees that it may not directly build the software for developing an open source voting system and will choose the most effective and efficient method to implement any Open Source Voting Software. The City's Department of Technology is responsible for the City's technology.
Open Source Voting in San Francisco [Published: June 29, 2018]	F20	San Francisco's Department of Elections has no experience developing critical software.	Department of Elections [Response due: August 28, 2018]	Agree with the finding	The Department has no experience developing critical software. The City's Department of Technology has responsibility for technology projects.	R8 [F19, F20]	Recommends that the DoE not directly build the software for an Open Source Voting system in the near future, because they lack in-house critical faculties and experience in software development.	Department of Elections [Response due: August 28, 2018]	Will be implemented	The Department agrees that it not directly build the software for developing an open source voting system. The reason the Department agrees with this recommendation is the Department does not currently have the expertise to build the software for a voting system. Further, the City's Department of Technology is responsible for the City's
Open Source Voting in San Francisco [Published: June 29, 2018]	F21	San Francisco's Department of Technology has demonstrated willingness to undertake open source projects.	Department of Technology [Response due: August 28, 2018]	Agree with the finding	San Francisco's Department of Technology engineers, builds, maintains and supports open source platforms and tools for the City's business systems.	R7 [F21, F22]	Recommends that the DoT not directly build the software for an Open Source Voting system in the near future, because they have not demonstrated the in-house capacity to tackle a software development task of this magnitude.	Department of Technology [Response due: August 28, 2018]	Requires further analysis	There are many phases, components and environments for an Open Source Voting system development. These include the hardware, software, database, integrations, testing platform, community support system, code management, project management, deployment packets, and many others. The Department of Technology will use the most cost effective and expert resource for the system planning, design, build, finance, support and maintenance.
Open Source Voting in San Francisco [Published: June 29, 2018]	F22	San Francisco's Department of Technology does not have extensive experience developing open source technology that is in use beyond San Francisco.	Department of Technology [Response due: August 28, 2018]	Disagree, partially	While the Department of Technology does not have "extensive experience" developing open source technology, but the Department does have experience in building and using open source platforms and tools.	R7 [F21, F22]	Recommends that the DoT not directly build the software for an Open Source Voting system in the near future, because they have not demonstrated the in-house capacity to tackle a software development task of this magnitude.	Department of Technology [Response due: August 28, 2018]	Requires further analysis	There are many phases, components and environments for an Open Source Voting system development. These include the hardware, software, database, integrations, testing platform, community support system, code management, project management, deployment packets, and many others. The Department of Technology will use the most cost effective and expert resource for the system planning, design, build, finance, support and maintenance.

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OFFICE OF THE CONTROLLER

CITY AND COUNTY OF SAN FRANCISCO

Ben Rosenfield Controller Todd Rydstrom Deputy Controller

August 17, 2018

The Honorable Terri L. Jackson Presiding Judge, Superior Court of California, County of San Francisco 400 McAllister Street, Room 008 San Francisco, CA 94102

Dear Judge Jackson:

Pursuant to Penal Code sections 933 and 933.05, the following is in reply to the 2017-18 San Francisco Civil Grand Jury reports, *Open Source Voting in San Francisco* and *Accessory Dwelling Units and Modular Housing*. We would like to thank the Civil Grand Jury for their work.

The Civil Grand Jury's reports provided important findings and recommendations on each of the topics reported on in this session. We will use this work to inform future audit and project planning and communication with leadership, stakeholders, and the public on these issues.

If you have any questions about this response, please contact me or Deputy Controller Todd Rydstrom at 415-554-7500.

Respectfully submitted,

Ben Rosenfield Controller

cc: Todd Rydstrom

Civil Grand Jury Report: Open Source Voting in San Francisco

Required Responses to Recommendations 5 and 6:

Recommendation 5

R5. Recommends the Office of the Controller set up a process to trigger review of city RFPs that only receive one bidder, and, when feasible, perform a market analysis to determine why the procurement process has not induced participation of additional vendors. This process should be in place by April 1, 2019. (F5, F6)

Response

Will not be implemented; Not warranted or reasonable.

The San Francisco Administrative Code Chapter 21, *Acquisition of Commodities and Services*, already requires the City's Contracting Officers to "review solicitations to determine whether the solicitation could be altered and reissued in a manner that would be likely to attract responsive offers". Also, Administrative Code Chapter 6 provides guidance for construction and professional services contracting. Specifically, Section 6.23 (c), *Procedure Upon Rejection or Failure of Bids*, provides guidance to Department Heads on appropriate actions to take for no or one bid. Further, the Office of the Controller already conducts audits and investigations of the City's contracting procedures, including those relating to the Requests for Proposals process in fulfillment of the San Francisco Charter, Appendix F, Section F.1.106.

Recommendation 6

R6. Recommends the Office of the Controller evaluate the premium San Francisco pays for its Voting System compared to (1) the price paid by other California counties that use Ranked Choice Voting, and (2) the price paid by California counties that do not use RCV, and (3) the price paid by cities/counties outside of California who use RCV. This analysis should be published by April 1, 2019. (F5, F6)

Response

Requires further analysis.

Based on the Office of Controller's preliminary analysis, there are no California counties using Ranked Choice Voting at this time. Moreover, Secretary of State has only approved Dominion's voting system for conducting ranked-choice voting elections. The Office of Controller's Office has identified the following non-California jurisdictions that currently use Ranked Choice Voting and could be used for future analysis, if needed:

- Basalt, CO
- Cambridge, MA
- Minneapolis, MN
- State of Maine
- Portland, ME
- Santa Fe, NM
- St. Louis Park, MN
- St. Paul, MN
- Takoma Park, MD
- Telluride, CO