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

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| Open Source Voting in San Francisco [Published: June 29, 2018] | 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. | Department of Elections [Response due: August 28, 2018] | Disagree, wholly | The Open Source Voting Project has had clear leaders, owning discreet aspects of the project. As the project has been funded through the 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 in San Francisco [Published: June 29, 2018] | 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. | Mayor [Response due: August 28, 2018] | Disagree, wholly | The Open Source Voting Project has had clear leaders, owning discreet aspects of the project. As the project has been funded through the 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. | 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. | Department of Elections [Response due: August 28, 2018] | Disagree, wholly | The City Administrator and the City's Committee on Information Technology (COIT) have provided funding towards the City's efforts to develop a voting system. COIT serves as the central IT 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. | | | | | |

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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. | | | | | |

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| 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 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] | 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] | 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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| 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. | | 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. | | 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 | 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. | 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 | 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. | 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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| 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. | | | | R6 [F5, F6] | 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. | | | |
| Open Source Voting in San Francisco [Published: June 29, 2018] | F6 | The operational cost charged by Dominion Systems increased from 1.1 million per year to 2 million per year between the contracts from 2006 to 2018 and 2018 onward. San Francisco did not have a viable alternative to accepting this price increase. | Department of Elections [Response due: August 28, 2018] | Disagree, wholly | Relative to the current contract, operational costs will decrease under the next agreement. Although the contract with Dominion is not final, the expected annual cost associated with the agreement is $2 million. The annual cost will be 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 in San Francisco [Published: June 29, 2018] | F6 | The operational cost charged by Dominion Systems increased from 1.1 million per year to 2 million per year between the contracts from 2006 to 2018 and 2018 onward. San Francisco did not have a viable alternative to accepting this price increase. | Mayor [Response due: August 28, 2018] | Disagree, wholly | Although the contract with Dominion is not final, the FY 2018-19 and FY 2019-20 budget anticipates a total annual cost of $2.0 million. However, the annual cost of the new leased system will be comprised of both election-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 in San Francisco [Published: June 29, 2018] | F6 | The operational cost charged by Dominion Systems increased from 1.1 million per year to 2 million per year between the contracts from 2006 to 2018 and 2018 onward. San Francisco did not have a viable alternative to accepting this price increase. | | | | R6 [F5, F6] | 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. | | | |

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| 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] | 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] | 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. | 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. | | 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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| 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. | 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 possible factors. | | | | | |
| 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. | | | | R9 [F7, F9, F10, F11] | 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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| 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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| 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 | 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. | 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. |
| 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. | 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. |

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| Open Source Voting in San Francisco [Published: June 29, 2018] | F18 | 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. | 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] | 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] | 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. |