

This is my (Brandon Philips) response to Director Linda Gerull's [questions to the OSVTAC](#).

1. Define Open Source voting: what is it and what is its value?

Open Source Voting is a complete voting system for use by San Francisco that uses software development best practices from the open source community, runs easily on consumer off the shelf hardware, and is licensed for collaboration, audibility, and free use.

The value to the city of such a system includes:

1. Long term voting system maintenance with costs controlled via vendor competition
2. Acquire/replace voting hardware without single vendor dependence or markup
3. Engage citizens with the ability to inspect the software and re-run elections for themselves
4. Opportunity to share the cost of software, hardware orders, training, and regulatory costs with other municipalities

2. Set a vision for OSV: what does success look like?

A successful OSV project has:

1. An ecosystem of motivated vendors with a profit motive; kept in check with competition around a shared platform
2. Incentivized core maintainers who are recruited by vendors for influence in the project and velocity to attract customers
3. Citizen engaged through easily operated deployments for system testing and auditing
4. Production deployments in-use across multiple municipalities

Items 1-3 are properties of most successful open source ecosystem projects. This includes things like the Linux Kernel, the Android mobile operating system, PostgreSQL and Kubernetes. If the incentives aren't considered and the project engagement metrics aren't carefully tracked there is a risk of over investment in a failed project and/or a project that is only viable for a limited period of time.

3. Key Considerations: who or what must be considered as we work to achieve our vision?

1. Who will be the core maintainers and how will they be incentivized? Will they work for the vendor? How is the vendor motivated to maintain the software long term?
2. Creating a new successful open source project is an expensive and long term effort. How much of the startup cost will San Francisco bear in the short run and long run? What opportunities exist to pool resources with other municipalities to create a market for multiple vendors?
3. What technology choices can we make early to entice motivated engineers to participate and reduce the cost to maintain the system? e.g. language choice, database choice, test automation choice. Further, how do we reduce complexity to a minimum? e.g. use familiar SQL products, choose at most two languages for the entire system

4. What are the potential benefits of open source voting?

- Vendor independence: if a vendor is not providing the City with timely software development, quality training, or meeting SLOs we can select another vendor to provide the service without changing familiar systems
- Auditability: citizens, regulators, and vendors can audit the code for bugs or vulnerabilities
- Shared Platform: multiple municipalities can share file formats, code, training materials, and best practices
- Easier Operations: as OSV becomes widely used automation for deploying and maintaining systems will become better understood, documented, and tested. This should reduce costs, improve uptime, and encourage wider adoption.