

#SFOpenVoting

San Francisco's Open Source Voting System Project

2nd Annual Take Back the Vote! Conference

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About Me

Chris Jerdonek, PhD

- SF Elections Commission, President
- SF Open Source Voting Technical Advisory Committee, Chair
- Software developer (10+ years)
- Open source contributor (mainly Python)

What is a voting system?

(Assume paper-ballot optical scan)

Hardware

- Accessible voting device
- Precinct ballot scanner
- Central ballot scanner (for vote-by-mail)

What is a voting system?

Software

- Central storage (e.g. database)
- Ballot layout
- Ballot adjudication (e.g. write-ins)
- Tabulation
- Results Reporting
- Etc.

Problems with voting systems today

1. Systems are expensive

- \$22 million for SF from 2008 to 2018
 - \$10 million up-front + \$1 million / year
- Equipment same as 10 years ago
- \$450 million proposed bond measure in CA
 - \$600-675 million including county funds

Problems with voting systems today

2. Systems not transparent

- Source code secret

3. Systems lack features

- One example: better auditing
- Can't make even simple changes
- No ability to experiment / innovate / improve

Problems with voting systems today

4. Not many options

- 3 major vendors
- Hard for new entrants to break in

5. Vendor lock-in

- Only one company can service / support
- Replacing often requires totally new system

Solution

Make voting systems a part of our public infrastructure.

- Shared public resource rather than commercial product

What is open source software?

Technical definition: Software with an "OSI-approved" software license.

Two examples

- Firefox browser
- Linux operating system

What is open source software?

Non-technical definition: Anyone can—

1. **View** the code for free
2. **Use** the code for free
3. Copy and **change** the code for free

Even better is a "copyleft" license like GPL

- Changed copies must also have the **same** license
- Means later versions "stay" open source

Don't just want open source software

- Hardware should be **easily available & affordable**
 - E.g. Commercial-off-the-shelf (COTS)
- Supporting materials should be **openly licensed**
 - Design documents
 - User manuals
 - Test scripts
 - Etc.

Where are we in SF?

- 2005 - Activists first introduce idea
- 2008 - BoS creates Voting Systems Task Force (VSTF)
- 2011 - VSTF recommends open source
- 2014 - Unanimous BoS Resolution
- 2015 - Unanimous Elections Commission Resolution

(Some) Supporters



(GitHub)



CODE FOR
SAN FRANCISCO



(Open Source Initiative)



(SF Tech Dems)



Where are we in SF? (continued)

- 2016 - Mayor & BoS budget \$300K for planning phase
- 2017 - Commission forms Tech Advisory Committee (OSVTAC)
- 2017 - Planning RFP issued; consulting firm Slalom selected

Next Steps in SF

- Commission / OSVTAC meeting each month
- Report from Slalom due January 2018
- Budget season starts early 2018
- (Also need "interim" system)

How to help

- Ask Mayor & BoS to support / fund the project
- Provide tech feedback to OSVTAC: <https://osvtac.github.io>
- Spread the word
- Build interest in your community / pass a resolution?

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SF Elections Commission

- <http://sfgov.org/electionscommission>
- [@SFElectionsComm](#)

SF Open Source Voting Tech Advisory Committee

- <https://osvtac.github.io>