Overview of CDF Development

1. Election Results CDF V1 published (SP 1500-100).
   - Used in OH, NC, LA County, other states in progress.
   - V2 under development with Google/VIP.
2. Election Log Export CDF vetted with Cyber-Security PWG, in publishing (SP 1500-101).
3. Voter Records Interchange CDF under review with Interoperability PWG (draft SP 1500-103).
   - Initial use in OH.
4. Cast Vote Records CDF in final development (draft SP 1500-103).
5. Continued development and documentation of election process business models.
Additional CDF Development

- Migration of all spec development to GitHub software repositories and more accessible web-based documentation.
- Development of additional JSON formats to reduce file sizes and support vendors and states.
- Development of validation tools to assist in initial adoption.
- Trial use in states and other organizations.
- New CDF specs on ballot definition and epollbook exchanges forthcoming.
Improving U.S. Voting Systems

Election Process Modeling

Voting Devices Addressed by CDFs

- EPollbook Exchanges
- NVRA, FPCA registration
- CVRs
- EPollbook exchanges

Election Setup & Management

- Ballot Definition
- Tabulation
- Adjudication
- Auditing
- Election Setup
- Results
- CVRs
- Candidate Filing Data

Results Reporting

- Election Results Reporting
- Pew/Google VIP

2015 - Election Results Reporting
2016 - Election Event Logging
2017 - Voter Records Interchange
2017 - Cast Vote Records
2018 - Ballot Definition
2018 - EPollbook Exchanges

Precinct Data
Political Offices
CDF Specs and VVSG 2.0

- The CDF specs will be required in the VVSG 2.0.
- The specs imply certain VVSG requirements, e.g., if spec requires certain data to be included, it must be required in the VVSG.
  - Certain data in a spec may be optional, e.g., RCV results reporting, but if voting device supports RCV, the CDF format must be used.
- Decisions as to which devices will be required to use the CDF specs will be made as next VVSG is developed.
How States Can Use CDF Specs

- Use of CDFs will increase flexibility in purchases and updates and will lower operational costs.
- States can join the Interoperability PWG and add their requirements to CDF development.
- Can require use of CDFs in RFP language for future purchases.
- Can contact NIST to learn more and discuss implementation.
- NIST welcomes your involvement.
Assistance from Democracy Fund

- To assist development/deployment of CDF materials.
- Initial development focus is Election Process Modeling.
  - Shows election processes at detailed levels.
  - John Dziurlaj primary lead (formerly of OH SoS).
- Initial deployment focus is improved outreach to and participation from states.
  - Improved introductory/overview material targeted towards EO audiences and needs.
  - Outreach to States upgrading or purchasing new systems and could employ/require CDF specs.
  - Better communication and understanding of State needs.
  - Language for use in RFPs, contracts.
  - Katy Owens-Hubler primary lead.
Election Business Process Modeling

- Create a common basis of understanding of election processes and a learning tool.
- Derive use cases for future CDF development.
- Serve to derive requirements for state/federal guidelines, e.g., VVSG 2.0.
- Working group meets weekly, see
  - https://pages.nist.gov/ElectionModeling