NIST
**National Institute of
Standards and Technology**
U.S. Department of Commerce

Interoperability Principles & Guidelines

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Principles

Interoperability

Transparency

Interoperability

- The voting system is designed to support interoperability in its interfaces to external systems, its interfaces to internal components, its data, and its peripherals.
  - Voting system data that is imported, exported, or otherwise reported, is in an interoperable format.
  - Standard, publicly-available formats for other types of data are used, where available.
  - Widely-used hardware interfaces and communications protocols are used.
  - Commercial-off-the-shelf (COTS) devices can be used when their usage meets applicable requirements.

Interoperability is a Goal

- Approach is to make it feasible and desirable as opposed to something that is mandated.

- Should be possible to make voting systems that allow easier integration of new components.

- CDFs should make data imports/exports fully interoperable.

- Interoperability leads to greater transparency.

Transparency in Voting Systems

- A voting system is more transparent to its users and inspires more confidence and trust in its operations if:
  - It is designed with the goal of being simple and easily understood.
  - It has well-written, well-organized, usable and accurate documentation.
  - Its operations are easily explained during public testing and inspections.
  - Its correct or non-correct operation is easily determined via pre-election testing, informational and error messages, and post-election audits.

Transparency (from Wikipedia)

- Transparency, as used in science, engineering, business, the humanities and in other social contexts, implies openness, communication, and accountability.

- Transparency is operating in such a way that it is easy for others to see what actions are performed. It has been defined simply as **"the perceived quality of intentionally shared information from a sender"**.

- Transparency is practiced in companies, organizations, administrations, and communities.

- It guides an organization's decisions and policies on the disclosure of information to its employees and the public, or simply the intended recipient of the information.

- For example, a cashier making change after a point of sale transaction by offering a record of the items purchased (e.g., a receipt) as well as counting out the customer's change on the counter demonstrates one type of transparency.

Transparency

- The voting system and voting processes are designed to provide transparency.

  - The documentation describing the voting system design, operation, accessibility features, security measures, and other aspects of the voting system can be easily read and understood by election officials, testing labs, and independent auditors.

  - The processes and transactions, both physical and digital, associated with the voting system are readily available for inspection.

  - The operations of the voting system are easy for the public to understand and verify during pre-election setup and post-election audits.