Technical Guidelines Development Committee
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Paper Rolls

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Dan Schutzer

Paper Rolls

- Used in VVPAT systems to record the vote
- Used for voting system reports (zero report, end of day)
- Generally problematic:
  - Small, narrow, difficult to read
  - Violate privacy by storing ballot sequentially
  - Difficult to handle and use in audits
  - Many reports of problems with printers

Paper Rolls and VVSG 2005

- TGDC effectively voted against them in VVSG 1 by requiring that privacy be maintained:
  - *The electronic and paper records shall be created and stored in ways that preserve the privacy and anonymity of the voter.*

- VVSG 2005 allows paper rolls but requires a voting official procedure:
  - *VVPAT records can be printed and stored by two different methods: Printed and stored on a continuous spool-to-spool paper roll where the voter views the paper record in a window... When a VVPAT with a spool-to-spool continuous paper record is used, a means shall be provided to preserve the secrecy of the paper record of voter selections ... no record shall be maintained of which voters used which voting machine or the order in which they voted.*

Paper Rolls and the next VVSG

- Banning them outright not necessarily a good idea
- Better to encourage approaches in future systems that improve upon today's paper roll approaches
- TGDC to develop requirements for more usable approaches
- Since none are readily available to require today, paper rolls are acceptable but discouraged

Proposed Resolution

The TGDC recognizes that paper rolls can be a challenge for voters, poll workers, and audits:

- They can be difficult to handle in an audit or recount,

- The voting order preserved on the roll can be a danger to ballot secrecy if good election management processes are not followed, and

- It can be difficult to make them accessible for blind, low vision, low literacy, second language, or non-written language voters.

The TGDC also recognizes that no alternative, currently available solution exists that meets the need to provide a paper record for a DRE system.

Therefore, the TGDC has determined that the current paper roll solution is acceptable until an alternative, new technology becomes available, and

The TGDC directs NIST to develop more demanding requirements for future paper audit trails that can solve the problems posed by today's paper rolls.