

P1583  
IEEE Voting System Standard

**What Is It?**

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# Scope of Standard

- Includes polling place equipment used by voters
  - Paper type ballot tabulators
  - DRE voting units
  - Ancillary equipment at polling place for use with target equipment
  - Firmware/software used in target equipment
- Evaluation Standard



## Scope of Standard *(Continued)*

- Excludes
  - Central site ballot tabulators
  - Front end software for ballot preparation
  - Front end hardware/software for programming memory devices used with target equipment
  - Back end hardware/software for results accumulation and reporting
  - Host or regional site communications hardware/software



# Requirements Addressed

- Security & Confidentiality
- Reliability & Accuracy
- Usability & Accessibility
- Environmental
- Electromagnetic Compatibility
- Software & Functionality



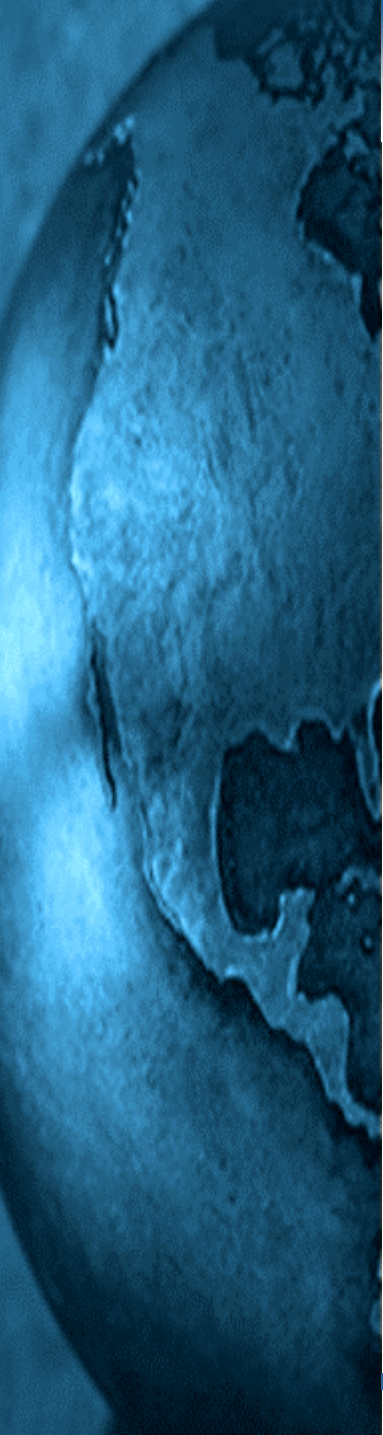
# Encompassed Election Processes

- Pre-Election Preparation
  - Loading election definition
  - Logic & Accuracy testing
  - Transport of equipment to polling place
- Election Day
  - Opening of polls
  - Voting process
  - Closing polls
  - Getting results
- Post Election
  - Collection of equipment
  - Storing equipment



## Evolution of the Standard

- First committee meeting September 2001
- Task Groups formed by technical section with subject matter experts appointed as leaders
- Technical sections extracted from FEC 2002 (Requirements/Testing)
- Task Group members enhanced sections
- Sections put out for interest group balloting
- Comments resolved and section updated until balloting passed
- Full document created from approved sections
- Full document put out for committee balloting
- Ballot failed and over 1000 comments received



Vendor Perspective on VSS  
and  
Certification Testing

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# Benefits of Voting System Standards

- Standards necessary to establish baseline requirements/testing
- Sets requirements for new development
- ITA process assures all vendors equally treated
- Promotes vendor viability for long term support
- Assures adequate documentation for continued support without vendor





# Areas of Concern and Decision Impact

- New system versus upgrade
- Tabulator versus supporting software
- Equipment choice – Custom versus COTS
- Software choice – Custom versus COTS
- Ability to rapidly deploy upgrades for bug corrections & usability enhancements
- Standards changes should be evolutionary not revolutionary



# Enhanced Requirements Impact Cost/Benefit/Risk Tradeoffs

- Development
  - Time & dollars spent to implement
  - Risk of breaking working system
- Equipment – Additional cost vs benefit/risk
- Testing – Additional cost/time vs benefit/risk
- Usage – Additional complexity impacting training, testing, operation