Voting Systems Priorities and Strategy

March 9, 2005 TGDC Plenary
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National Institute of Standards and Technology
Background

- TGDC passed 31 resolutions at January plenary
- Resolutions requested NIST’s technical assistance
- In order to be responsive to voting community, resolutions need to be prioritized
Strategy for Determining Priorities

• States need guidance for the 2006 election cycle
• In order to affect the 2006 election cycle, guidance and requirements are needed ASAP
• Thus, highest priority resolutions are addressed in the April work products that impact the 2006 election cycle and focus on:
  – Improving the 2002 VSS by filling in gaps (VVPAT, wireless, human factors, and others)
  – Correcting errors in the 2002 VSS
  – Issues facing the states (e.g., helping to ensure that installed voting system software is the software that has been tested)
How Will the Strategy be Implemented?

- Highest priority items will be packaged into an addendum, or incorporated in-line, that augments and corrects the 2002 VSS
- A draft of the new redesigned voting systems standard will be developed in parallel
Grouping the Priorities

• **Group 1**
  – Work targets the highest priority resolutions
  – Work augments and corrects the 2002 VSS
  – Guidance and requirements in April

• **Group 2**
  – Work targets the second highest priority resolutions
  – Work develops a new standard
  – Builds upon the 2002 VSS but enhances security, human factors and the precision and testability of requirements
  – Initial work products in April
  – Plans for completion in November

• **Group 3**
  – Work targets the remainder of the resolutions
  – They will be addressed after April
  – Plans for completion in November
Group 1

- Requirements for VVPAT, including DREs with attached printers
  - Resolution: 12-05 and TGDC/EAC requests
- Accessibility and usability requirements based on current technology
  - Resolutions: 2-05, 3-05, 4-05, 9-05
- Software distribution and setup validation procedures, including use of the NSRL
  - Resolutions: 15-05, 16-05
- Use of wireless technology
  - Resolution: 35-05
- Interim conformance clause
  - Resolution: 24-05
- Revised glossary
  - Resolution: 33-05
Group 2

- Analysis of 2002 VSS
  - Resolutions: 25-05, 29-05
- Analysis of voter verifiability
  - Resolution: 12-05
- Additional requirements and test methods for human factors and accessibility
  - Resolutions: 2-05, 3-05, 4-05, 5-05, 6-05, 8-05, 9-05
- Test strategies and analysis, addressing COTS software, documentation requirements, non-conformant voting systems, and publicly available test suites and test reports
  - Resolutions: 14-05, 17-05, 18-05, 25-05, 26-05, 27-05, 28-05
- Strategy for addressing multiple representation of ballots
  - Resolution: 21-05
- Analysis of federal and consensus standards for applicability to voting
  - Resolution: 22-05
- Draft of next version of the VSS
  - Resolutions: 24-05, 25-05, 29-05, 33-05
Group 3

- Usability of the Standards  
  – *Resolution: 10-05*
- Common ballot format specifications  
  – *Resolution: 23-05*
- Quality management standards  
  – *Resolution: 30-05*
- Maintenance of the VSS  
  – *Resolution: 31-05*
- Sharing information and de-qualification of voting systems  
  – *Resolution: 32-05*
- Assessment papers on recommendation for future work  
  – *Resolution: 34-05*
<table>
<thead>
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<th>Doc. ID</th>
<th>Committee</th>
<th>Document Name</th>
<th>Resolution number</th>
<th>Priority Group</th>
<th>Disposition</th>
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These documents are not being presented, but are available in your Workbooks

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Issues for Discussion

• Packaging of April work product that augments and corrects the VSS 2002. Two alternatives:
  – Addendum to the 2002 VSS
  – New version of the 2002 VSS with changes in-line
  – Due to the magnitude of changes, we recommend including the changes in-line and highlighting them
  – In parallel we will be developing the new redesigned voting standard

• What do we call the augmented VSS 2002 and new redesigned standard?
  – Version 2.1 and Version 3.0? VSS 2002 Revision 1?

• Both standards will have requirements for voting officials as well as for voting systems and testing labs
  – Should voting official requirements be in a separate section/volume?