CRT Documents: Analysis, Revision of VSS

March 9, 2005 TGDC Plenary

Alan Goldfine
National Institute of Standards and Technology

Disposition of VSS Requirements Volume I (as of 2/22/05)

- Complete first draft of table extracting requirements from the 2002 VSS
- Proposes disposition of each requirement
  - **E** Requirement can be extracted as is, no need to rewrite
  - **R** Requirement not precise, clear or testable. Needs to be rewritten
  - **M** Testing requirement. Move to Volume II
  - **D** Delete, remove the requirement
- Comments column
  - Currently, initial observations and questions
  - Will incorporate comments received and answers to questions

Disposition of VSS Requirements Volume II (as of 3/3/05)

- On web site, not on distribution CD
- First draft of Volume II requirements table, contains sections 2-6

Process Model 20050223
Process Model Text 20050223

- Election process modeled with activities, objects and flows
- Reference for organizing and cross-referencing compliance points

CRT Rationale Pieces 20050301

- Discussion and explanation of issues impacting CRT subgroup
  - Architecture of a revised VSS
  - Testing issues
  - Coding conventions and code reviews
  - Quality assurance and configuration management
  - Procedural requirements -- scoping and necessity

CRT Product Standard Pieces 20050301

- Compliance points related to "Accumulate, Count, and Report“
- Ongoing work to extract and identify precise, testable compliance points, clarify, remove redundancy, organize coherently
- Accuracy of terms in vote data reports defined by reference to logic model

CRT Testing Pieces 20050301

- Formal logic model of voting systems
  - Terms and definitions
  - Logic verification applied to source code
- Examples of abstract test cases (functional, capacity,...)

v1s4 20050301

v2s5 20050301

- Proposed rewrite of 2002 VSS sections on software standards
  - Recommends changes to coding conventions for voting system source code
  - Retains and expands conventions addressing software integrity
  - Retains size limit on modules (needed for logic verification)
  - Purges outdated, optional stylistic conventions
  - Defines criteria for "published, credible coding conventions" to encourage adoption of current best practices
  - Requires structured exception handling