Testimony
Public Hearing of the
Election Assistance Commission

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Kennesaw State University (KSU) has accepted the task of providing technical support to the Election Assistance Commission (EAC) in the management of public comments regarding the Voluntary Voting System Guidelines (VVSG) and the subsequent editing of the VVSG to reflect the incorporation of these comments. In addition, KSU has been asked to assist by making recommendations that relate to improving the readability of the VVSG in regards to format, style, and clarity as well as correction of typographical errors.

In my comments, I will address the following issues as they relate to the comments received: the quantity of comments received by section; challenges in resolving comments; and a proposed procedure for resolving the use of comments in the editing of the VVSG

Comments are posted directly to the website (www.eac.gov) by the author, or may be submitted to the email address: votingsystemsguidelines@eac.gov. Comment may also be delivered by FAX or regular mail to the Commission. Comments submitted to the email address are posted to website by KSU staff. This requires the KSU staff to analyze the email contents and post the comment to the appropriate section at the website. Hardcopy documents are processed in similar fashion to the email. By placing all comments online, regardless of their form of submission, the public is able to 1) confirm their comment has been received and posted; and 2) review comments about the VVSG as well as comments about other comments.

Each comment, regardless of how it is received and/or posted, is assigned a tracking number within our comment system. This tracking system enables us to account for every comment received and its eventual resolution. In addition to a twice-daily backup of the online system, hardcopies of all comments are made and kept on file within our facility.

After a comment is uploaded to the website, it is reviewed and assigned the status of "Accepted" or "Rejected". As of September 22, 432 comments have been uploaded and posted to the website. Of these, 406 have been "Accepted" for display and 26 have been "Rejected". A breakdown of these comments reveals the following:

Comments Received, Accepted and Rejected, by Category

Category	Received	Accepted	Rejected	Reason(s) for rejection
Sections	244	234	10	6: tests of the system 2: reference to document format 2: multiple submissions
General	101	88	13	2: tests of the system 11: comments unrelated to guidelines
Glossary	87	84	3	1: test of the system 1: typographical error by staff; resubmitted 1: multiple submission
Total	**432**	**406**	**26**	

Table 1.

Comments rejected as test-comments are those entered by staff at the EAC and at KSU to test a feature of the system as it was being prototyped. Rather than delete these comments, we elected to retain them so that we would have a complete, end-to-end accounting of all comments entered into the system.

The eleven (11) comments rejected in the General category did not address the voting system guidelines or voting technologies. They tended to be broadly focused statements regarding election outcomes and were not directed toward the VVSG document.

The multiple submissions were those in which the author submitted the same comment twice.

All comments are retained within the database, but only those that are "Accepted" are displayed to an online reviewer.

Of the 432 comments accepted, not all are discrete, single topic submissions, nor are they all posted by their authors in the appropriate category. Occasionally the author will bundle several comments into a single submission. This complex comment may address multiple sections of VVSG. The decomposition of these complex comments results in a total number of comments to be analyzed greater than the total number submitted. To this end, we have 442 discrete, accepted comments to be analyzed and processed. (468 total comments – 26 rejected = 442).

The 442 discrete comments are not uniformly distributed over the contents of the VVSG:

Distribution of Comments – High Level Analysis

Category	Comments
Section	
Volume I	242
Volume II	47
General	69
Glossary	84

Table 2.

Distribution of Comments – Detailed Analysis

Category	Comments
Vol. I, Section 1 - Introduction	5
Section 2 - VS Functional Capabilities	54
Section 3 – Hardware Req'ts.	11
Section 4 – Software Req'ts.	3
Section 5 – Telecommunication Req'ts.	17
Section 6 – Security	120
Section 7 – Quality Assurance Req'ts.	2
Section 8 – Configuration Mgt. Req'ts.	1
Appendix A – Glossary	84
Appendix B – References	3
Appendix C – Best Practices for Ele. Off.	10
Appendix D – Ind. Dual Verification	14
Appendix E – NASED Tech. Guideline #1	1
Vol. II, Section 1 – National Cert. Test. Guidelines	22
Section 2 – Technical Data Package	3
Section 3 – Functionality Testing	1
Section 4 – Hardware Testing	6
Section 5 – Software Testing	3
Section 6 – Systems Integration Testing	2
Section 7 – Vend. Config. Mgmt. and QA	1
Appendix A – National Certification Plan	6
Appendix B – National Cert. Test Report	1
Appendix C – Nat. Cert. Test Des. Criteria	2

Table 3.

The section receiving the most comments is Vol. I, Section 6, Security. Of these, 82 are related to Section 6.8 Requirements for Voter Verified Paper Audit Trail (Optional), and many of those are redundant.

The majority of comments related to Vol. I, Appendix A – Glossary, are from two reviewers, one who is on the staff at KSU. EAC has requested KSU to further develop the Glossary by ensuring that all keys terms in the body of the document are included. In addition, we have been asked to identify and document terms whose definitions vary somewhat by jurisdiction, e.g., absentee voting, and to ensure that all definitions are in conformance with HAVA and other authoritative sources. Posting these proposed changes in the form of comments allows the public to review and comment on them.

To support the efficient resolution and disposition of the comments, we have proposed a broad classification scheme that identifies a comment as Non-extensive or Extensive, based on the degree of effort required for resolution. Non-extensive indicates that the comment can be resolved by inspection or with little effort, as opposed to those that require more significant analysis or effort to resolve (Extensive). Of the Accepted Comments posted, 192 are judged to be Non-extensive, with the remaining 250 assessed as Extensive.

Examples of Non-extensive comments include:
- Spelling and typographical errors
- Formatting errors (indentation, numbering, etc.)
- Pagination
- Conforming glossary definitions to authoritative sources (HAVA, NIST, etc.)
- Affirming the currency and correctness of references to other sources

Extensive comments are those that will require more thorough research and may extend into the areas of law and policy. Examples include:
- Change "should" to "shall" or "shall" to "should"
- Alteration of scope of the subject under consideration
- Technical specifications
- Changes in performance of a component of a Voting System

Resolving these comments will require some research and perhaps multiple passes through different reviewers.

To control the process of resolving and incorporating comments into the final version of the VVSG, we have developed an online system to enable designated reviewers access to the comments as well as recommendations for resolution. The EAC will determine who the reviewers will be. Our prototype assumes the reviewers will be: KSU staff, NIST personnel, and the staff of the EAC. Each change to the VVSG that is the result of processing a comment will be tracked and include the appropriate signoffs, with the final signoff being that of the EAC.

In summary, we have implemented a system that tracks every comment from its origin through its resolution. This resolution will be: incorporation into the VVSG as submitted, incorporation into the VVSG after modification, or unused.

We are aware that there are organizations, including vendors, that are still preparing their comments for submission. We do not expect these comments to be posted until right before the closing of the public comment period (September 30). We are prepared to process a last-minute high volume of submissions. It would not be surprising to see the number of comments double in the time remaining before September 30.