California Secretary of State Debra Bowen's Comments on the Draft Voluntary Voting System Guidelines Version 1.1

Volume – Section – Title	Suggested Change or Request for Explanation
I & II – *passim*	Every acronym used in the text or in the glossary should have a glossary definition. E.g., App. A, p. A-10, "MMPB" is not defined.
Comments on Volume I	
I – 1.5.2 – Implementation Statement	Add "and accessibility capabilities" to section a.v. following the word "supported" so that it reads "List of languages supported and accessibility capabilities; and" The second paragraph of the "Discussion" on page 15 of 1.5.2 begins: "A keyboard, mouse or printer connected to a programmed voting device...." This sentence should be revised by inserting ", accessibility device" after "keyboard, mouse" so it reads in full: "A keyboard, mouse, accessibility device or printer connected to a programmed voting device, as well as any optical drive, hard drive or similar component installed within it, are considered components of the voting device, not separate devices." This change will make the voting device "responsible" for any accessibility device connected to it.
I – 2.1 – Functional Requirements – Overall System Capabilities	Delete "2.1.9 Telecommunications" and re-number the following items. 2.1.9 would make telecommunications capabilities a required feature for all voting systems, even though the following paragraph says the system "may" include telecommunications and Section 6 – Telecommunications Requirements, uses discretionary, optional terminology when describing various telecommunications capabilities that may, but are not required to be, incorporated in a voting system.
I – 3.3.4 – Accessibility – Dexterity	Delete 3.3.4(c): "If Acc-VS supports ballot submission or vote verification for non-disabled voters, then it shall also provide features that enable voters who lack fine motor control or the use of their hands to perform these actions." AutoMARK hardware does not meet this requirement. One of the EAC's criteria for identifying candidate v.1.1 requirements from the TGDC recommendations included "would not require hardware changes to current voting systems." (See Vol. I – Background – p. 3.) Addition of this provision violates the criterion that version 1.1 revisions may not require hardware changes to current voting systems.

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I – 4.1.5.1 – Hardware Requirements – Ballot Handling	Delete "and EBMs" from the first sentence in the un-numbered paragraph following 4.1.5.1(e) in Volume I at page 113. That sentence now states: "All paper-base tabulators and EBMs shall achieve a misfeed rate of no more than 0.002 (1/500)." The draft states that "multiple feeds, misfeeds (jams), and rejections of ballots that meet all manufacturer specifications are all treated collectively as 'misfeeds' for benchmarking purposes; i.e., only a single count is maintained." Reasons to make this change: First, the current language injects EBMs into a 2005 VVSG standard, 4.1.5.1(e), which was meant to apply only to tabulating precinct, and central optical scanners, not non-tabulating assistive ballot marking devices. In the 2005 VVSG, 4.1.5.1(e) states that "Ballot <u>readers</u> shall prevent <u>multiple feed</u> or detect and provide an alarm indicating multiple feed." EBMs are not susceptible to multiple feeds since they are used by only one voter at a time. In addition, 4.1.5.1(e) as drafted conflicts with the opening paragraph of Chapter 4, "Hardware Requirements." There, "ballot marking devices" are included in a list of "voting devices." "Ballot readers" are listed as a separate category of hardware. Second, including EBMs here would require them to meet a misfeed standard of no more than 0.2% [1 in 500 ballots], exactly the same as the standard for precinct optical scanners and central count optical scanners, even though those devices handle a far higher volume of ballots in each election. To apply a single standard to all three classes of devices is to use a blunt instrument where a scalpel is needed. Finally, California's volume testing of the most widely used EBM, the AutoMARK, showed that the AutoMARK cannot meet the 0.2% standard. Misfeeds occurred with approximately 2%, or one in 50, of the AutoMARK ballots, failing at least 10 times the rate permitted by the proposed standard. Yet one of the EAC's criteria for identifying candidate v.1.1 requirements from the TGDC recommendations included "would not require hardware changes to current voting systems." (See Vol. I – Background – p. 3.) Applying the 1 in 500 standard to EBMs would require just that, however, because when any modification to any part of a voting system is submitted for EAC certification after the effective date of the VVSG v.1.1, the draft states that "every component of the modified system will be tested against the VVSG v.1.1." (See Vol. I – Overview – p. vi.)

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I – 4.3.3 – Hardware Requirements – Reliability	Information should be provided on how the various failure rate benchmarks on page 119 were chosen and who had input with respect to each of the benchmarks. Finally, a justification for each benchmark should be provided. Suggestion: Add a "1 in x" translation to each of the decimal benchmarks.
Comments on Volume II	
II – 1.8.2.6 – Certification	The phrase "logic defect" is utilized repeatedly in this section; however the glossary does not have a definition for either "logic" or "logic defect." Does the term or phrase refer to all types of logic (i.e. "application logic," "border logic," etc.) or does the term or phrase have a stand-alone definition?
II – 2.6.1 – Access Control	2.6.1 includes the following statement: "Manufacturer shall provide descriptions and specifications of all access control mechanisms of the voting system including management capabilities of authentication, authorization, and passwords in the TDP." Is this statement referring to the minimum requirements for passwords (i.e. at least 8-digits including one number, one letter upper and lowercase, one special character, etc.), or is this statement asking for hardcoded passwords to be included in the TDP, or a combination of the two? Recommendation: Minimum specifications for passwords should be included in the TDP; however, hardcoded passwords should not be included in the TDP.
II – 2.6.4 – Description of the Technical Data Package – Equipment and Data Security – System Event Logging	After the following sentence "Manufacturers shall provide a technical data package that describes system event logging design and implementation," insert: "The technical data package shall provide the location (i.e. full path name or memory address) where each log is saved." Based on California's review of voting audit log issues following the Humboldt County, CA General Election in November 2008, this information is lacking in the TDPs of several voting systems.
II – 4.5 – Hardware Testing – Test Fixtures	4.5 includes the following statement: "The test lab may bypass the user interface of an interactive device in the case of environmental tests that (a) would require subjecting test 'voters' to unsafe or unhealthy conditions." Is this sentence included because actual voters are used as test subjects, or is it directed at particular testing techniques that involve conditions not present in actual voting, or both?

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II – Appendix A.2 – National Certification Test Plan – Pre-Certification and Testing Issues	The sentence "The VSTL shall include the reasons for testing, results, and listings of modifications from the previous to current systems," should also include the following: "reasons for modification from previous to current version (i.e. bug fix, coding error, enhancement, etc.) and when and where the issue was discovered (i.e. during R&D, state testing, VSTL testing, manufacturing, etc.)."
II – Appendix A.2 – National Certification Test Plan – Proprietary Data	Appendix A includes the following statement at the bottom of page A-8: "Attempts to indiscriminately label all materials as proprietary will render the markings moot." What does "render[ed] ... moot" mean in practice? Would it require the vendor to re-submit after removing the unsupported labeling?
II – Appendix B.2 – Required Content of Test Report – Certification Test Background	After the following sentence: "For modifications to previously tested voting systems, the VSTL shall include references to the test reports that are precedential to the current testing engagement", insert: "The VSTL shall also include a list of modifications from the previous to current systems, reasons for modification from previous to current version and when and where the issue was discovered."