"Connor Howard"
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10/20/2005 08:12 PM

To cpaquette@eac.gov

cc "Merle King" <mking@kennesaw.edu>

bcc

Subject Comment Summary

Carol,

I have attached a spreadsheet with as much of the information that you requested as I was able to compile. At present I do not have a count of the number of comments received by the website or the EAC boards.

Connor

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CommentSummaryAsOf 10-20-2005.xls

Section	Comment
	Comments on Appendices As of 10-20-2005
Section	**Comment**
APP 1A	p 4, spacing at "5. Public Comment Process" [too much space] Volume I, Appendix A comments Try not to split definition and sources between two pages. This also applies to all sections that are numbered, use bullet points, etc.
APP 1A	Volume I, Section 1 p 4, spacing at "5. Public Comment Process" [too much space] Volume I, Appendix A comments Try not to split definition and sources between two pages. This also applies to all sections that are numbered, use bullet points, etc.
APP 1A	[Volume 1 Voluntary Voting Systems Guidelines Overview] p 4, spacing at "5. Public Comment Process" [too much space] Volume I, Appendix A comments Try not to split definition and sources between two pages. This also applies to all sections that are
APP 1A	75 I App A A-21 6 Grammar Change "Voters are also may be" to Voters also may be". Correct typographical errors to improve understanding.
APP 1A	76 I App A A-29 41 Incomplete definition Change "from a single political party" to "from a single political party in contests linked to straight party voting". Correct typographical errors to improve understanding.
APP 1B	[Appendix B] The reference to Mil-Std-498 is in several places. It should logically only be insection B.1.

Section	Comment
APP 1B	[Volume I, Appendix B] Volume 1, appendix b no problems with this!
APP 1B	[Volume 1, Appendix B] Although the VVSG references the OASIS EML (section 6.8.6.6), it is not listed in the references.
APP 1B	Volume Appendix B No comments.
APP 1B	77 I App B No comments.
APP 1C	[Volume I, Appendix C] 2.2.7□Human Factors The area (or some other word) of Human factors is concerned with the understanding of interactions among humans and (Note: human factors doesn't agree with verb is...)
APP 1C	[Volume I, Appendix C] 2.2.7□Human Factors Page 3 doesn't list for what the Best Practices are. In gray it says for election officials but on the list, it's just best practices. Just before "C2 Best Practices for Security"
APP 1C	[Volume I, Appendix C] 6.0.2.2 Usability There is a spacing error, too much space, just above this
APP 1C	[Volume 1, Appendix C] 1.- Paragraph with "no practical means ..." should be rewritten. Volume 1, Appendix C Best Practices for Election Officials; Pg 3; under Best Practices, the fourth point reads: "Appropriate procedures are needed to ensure that th
APP 1C	[Volume 1, Appendix C] 3.- Paragraph with "ballot and input controls are visible only to the voter" should be rewritten Volume 1, Appendix C Best Practices for Election Officials; Pg 3; under Best Practices, the first point reads: "The ballot and any

Section	Comment
APP 1C	[Volume 1, Appendix C] 4.- Paragraph with "audio interface is audible only to the voter" should be rewritten Volume 1, Appendix C Best Practices for Election Officials; Pg 3; under Best Practices, the second point reads: "The audio interface is audib
APP 1C	Appendix C Best Practices for Election Officials; Pg 3; under Best Practices, a fifth point shall read (or something to that effect): (See Attached)
APP 1C	Appendix C The section references are out of sync beginning with C2.
APP 1C	Volume I Appendix C 78 App C.1.2.2.7.1 Comment: Voters with cognitive disabilities? Recommended change: This needs to be bounded in some fashion. Rationale: Without bounds the statement doesn't mean anything.
APP 1C	78 I App C.1 2.2.7.1 2 Last bullet Voters with cognitive disabilities? This needs to be bounded in some fashion. Without bounds the statement doesn't mean anything.
APP 1C	Volume 1, Appendix C Best Practices for Election Officials; Pg 3 VVSG is non-compliant with HAVA for assuming that there isn't a practical mean for counting millions of overseas votes which are currently unaccounted for in each election
APP 1D	[Volume I, Appendix D] Receipt-based systems operate as follows (the description is identical to the one in the Guidelines with the exception of a change in point 2): 1. A voter uses a voting station such as a DRE to make ballot choices. 2. The voting

Section	Comment
APP 1D	[Voume I, Appendix D] Comments on Section 1.2.4 Direct IDV Systems These systems are defined (page D-6, lines 15-16) as those that "...produce a record for voter verification that the voter may verify directly with voter's sense...". In the glossary of ter
APP 1D	[Volume I, Appendix D] Comments on Section 1.2.2 End to End Cryptographic IDV Systems The general description of End to End Cryptographic IDV systems included in Appendix D is based on a specific implementation of these systems: the receipt-based syste
APP 1D	[Volume I, Appendix D] Section D.5 End to End (Cryptographic) IDV Systems Comments on End to End IDV Systems Characteristics In Section 3.1.2 of this document, we proposed to divide the End to End IDV systems in two subcategories: receipt-based system
APP 1D	[Volume I, Appendix D] (Note* Actually section 2.1, not 1.1) 1.1i An independent dual verification voting system produces two distinct sets of records of ballot choices via interactions with the voter such that one set of records can be compared agai
APP 1D	[Volume 1, Appendix D, 1.2.4] Section 1.2.4, first paragraph, last sentence/second paragraph. These two sentences are duplicates.
APP 1D	[Volume I, Appendix D] Appendix D contains an informative classification of the current Independent Dual Verification (IDV) systems. In the sections below, we propose some changes to the description and classification of some of these systems. As disc
APP 1D	[Volume I, Appendix D] The definition of direct IDV systems should include all those systems that allow voters to directly verify the correctness of their votes using a record that represents exactly their votes. This record (e.g., paper, an electronic
APP 1D	[Volume I, Appendix D] Section D.2 Core characteristics for Independent Verification Systems
APP 1D	[Volume I, Appendix D] Comments on Cryptographic Characteristics 2.1.10 The cryptographic software in independent verification voting systems is approved by the U.S. Government's Cryptographic Module Validation Program (CMVP) as applicable. We strongl

Section	Comment
APP 1D	[Volume 1, Appendix D] (Note* Actually 2.1.1, not 1.1.1) 1.1.1y The voter verifies the content of each record and either (a) verifies at least one of the records directly or (b) verifies both records indirectly if the records are each under the contr
APP 1D	[Volume 1, Appendix D, 1.2.1] Although this type of system may be more secure, it will be less usable to a voter. After the voter has waited in line, the voter needs to stop at three stations, first to check in with a poll worker and get a token, then m
APP 1D	I-D.1.1 bullet 3 " ... different systems produced by different vendors." Comment: I-Appendix D.1.1 bullet 3 seeks to require jurisdictions to purchase devices from multiple vendors. This would not need to happen to produce the desired results, req
APP 1D	I-D.1.2.1 para 5 discussion of trust Comment: I-Appendix D.1.2.1 paragraph 5 discusses the subject of trust and claims the verification station's software is a trusted computing base. Independent dual verification systems operate from the concept
APP 1D	I-D.1.2.3 para 4 "... the suitability of the records for manual or automated auditing ..." Comment: I-Appendix D.1.2.3 paragraph 4 discusses the suitability of the witness system records for use in auditing. The capture of a single page from a multi
APP 1D	I-D.1.2.4 This section has a part A and a part B but chains them together without any split in format. Comment: I-Appendix D.1.2.4 the two separate segments in this section should be split into a 1.2.4.a and a 1.2.4.b, to aid in flow and understa

Section	Comment
APP 1D	I-D.2.1 subsections 2.1.6 through 2.1.9 are content requirements that are not required for IDV. They may be required for other reasons but do not belong in this section as requirements of IDV. Comment: I-Appendix D.2.1 this section contains some
APP 1D	I-D.2.1.10 Cryptographic Module Validation Program requirement Comment: I-Appendix D.2.1.10 indicates a requirement for cryptographic module validation but does not specify the level to which a system must correspond.
APP 1D	I-D.3.2.3 "... distributed in an authenticated way to auditing system." Comment: I-Appendix D.3.2.3 the verification station also needs access to the public key. It must have it in order to read and display the content for the verification process
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) "used in audits" should be "used in independent audits" where independent means independent of insiders within the voting system and independent of the
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) Cryptographic audit schemes merely verify that the individual voter voted, but not that all the votes were correctly counted. ALL voters could verify t
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) Please explain how such video capture systems would be practical to audit, would not require expensive equipment and hard disk space, would not add to
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) This lumps two entirely different types of voting systems together. Please differentiate between voting systems that record the ballot of record on a d
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) This is a test that the two records match, but it is not an "independent" audit of the accuracy of vote counts as intended by voters because it does no

Section	Comment
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) Both records are electronic and not directly verifiable by the voter. According to your own standards, they would have to be programmed by different ve
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) It is conceivable that the capture station could be misprogrammed (in error or deliberately) to write incorrect votes to the toke and store incorrect
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) It isn't practical to inspect and test to try to ensure the integrity of the vote counting programs because: (a.) many voting systems use microsoft w
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) But if the total sum of ballots cannot be demonstrated to have been counted correctly, this encryption scheme does not solve the right problem. i.e. It
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) Please explain how the voter, after an election, can use his receipt to verify that his choices were recorded correctly but yet prevent that same voter
APP 1D	It is Appendix D that I am commenting on. Verification needs to be EXTERNAL and MANUAL. Your suggested Dual Verification by INSIDERS does nothing to prevent ELCTION FRAUD. THe only verification is a system that is transparent to EVERY VOTER - We
APP 1D	The form was a little hard to use..had but I had to use Section "1" because the form did not permit Appendix D or D-1 to be used as sections. Please forward them to the right authors. Appendix D regarding "Independent Dual Verification" contains log
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) The primary purpose should instead be to verify that the vote counts are an accurate reflection of how voters voted. All these measures could be effec
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) It is inadequate for records to be merely "verifiable". Research has shown that fewer than 1/3 of voters verify their ballots in systems which require

Section	Comment
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) This is an inadequate definition of "independent" for voting systems because in case (b) both records could be incorrect if neither has been verified d
	Appendix D: If one is trying to ensure the accuracy of vote counts by auditing, then one needs to have permanent records to audit that are independent of the electronic system, not records that are independent of each other.
APP 1D	Appendix D: In banking, a
APP 1D	In reference to: Volume I, Appendix D D.1 Independant Dual Verification Systems While IDV systems address two primary security issues as stated in bullet points in this section, they do NOT address the problem of access to the systems from the inside.
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) Explain how using such identifiers could be applied without risking revealing the identities of the voters.
APP 1D	Appendix D regarding "Independent Dual Verification" To ensure the accuracy of vote counts by auditing, then one needs to have records to audit that are independent of insiders within the system.
APP 1D	Regarding Section D: It is completely absurd to assume that a machine can check itself. Just like spammers can always find a way to get their spam through, people with intent and enough money will find their way to subvert any system to preserve a true
APP 1D	regarding appendix D: Please do not rely solely on machines for something so important as our COUNTRY election! They can be hacked, pre-set, manipulated, break down, malfunction. Only randomly selected Voter Verified Paper Ballots with a 5% recount can
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) This process would only verify that the two records agree with each other, but not that either record reflected how the voter intended to cast his/her
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) If both records are electronically recorded by the same vote-casting process, both could easily be compromised or recorded incorrectly, unless one reco
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) What is to prevent someone else from standing over the voter and likewise checking the choices of the voter so encourage vote-buying? If another p

Section	Comment
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) What prevents the hands, clothing or hair of the voter from being caught in the picture and possibly revealing the voters' identity? What prevents the
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) Why "(albeit loosely)"? Optical scan voting systems most definitely "produce a record that the voter verifies directly with the voter's senses whic
APP 1D	RE: Appendix D (your comment form does not permit Section: Appendix D or Section: D-1 to be entered) Great system if the counts are done via the barcodes, the paper ballots are used for independent audits and the scanned images of the paper ballots are
APP 1D	Regarding Appendix D: When elections are contested, the voter verified paper ballots MUST be used. Anything done on an electronic machine can always be hacked.
APP 1D	Volume I Appendix D: Witness IDV Systems will have twice the amount of testing because there are two devices to test. [Statements submitted at EAC public hearing, June 30, 2005, New York]
APP 1D	81 Vol. I Appendix D Comment: States a primary objective for using electronic voting systems is the production of voting records that are highly precise. Recommended change: Change to"...production of election results that are highly precise and
APP 1D	Vol. I App. D 88 Comment: If the creation and verification system are two independent processes, different media is not required.
APP 1D	Vol. I App. D 89 Comment: What are "multiple" records? Recommended change: Change to "dual" records

Section	Comment
APP 1D	Vol. I App. D 90 Comment: Calls for one-to-one record comparison. The accumulated results can be used. Any single error causes the whole system to be suspect.
APP 1D	Vol. I App. D 91 Comment: The objective is to be able to audit the election, not the device. What threat does a one-to-one relationship mitigate?
APP 1D	Vol. I App. D 92 Comment: Calls for identification of "ballot style" Recommended change: Change "ballot style" to "precinct" Rationale: Ballot style can represent many precincts.
APP 1D	Vol. I App. D 93 Comment: States "whether electronic voting systems are accurately recording ballot choices."
APP 1D	Vol. I App. D 94 Comment: Notes "voting session identifier" Recommended change: Define "voting session identifier" Rationale:

Section	Comment
APP 1D	Vol. I App. D 95 Comment: Requires CMVP approval. What support is provided for Real-Time-Operating-Systems (RTOS) (very limited) Recommended change: Must support implementation for Real-Time-Operating- Systems
APP 1D	Vol. I App. D 96 Comment: Reads "....verification station log...." Recommended change: Change to " verification station shall log..."
APP 1D	Vol. I App. D 97 Comment: Allows the voter to reject his/her ballot at the verification station. How is the voter enabled to cast another ballot? Procedurally? The capture station has no knowledge of the rejection so it records can no longer be
APP 1D	Vol. I App. D 98 Comment: This level of verification requires the verification station to have knowledge of the election. Recommended change: Add allowance for data to be supplied to the verification station from the same election management

Section	Comment
APP 1D	Vol. I App. D 99 Comment: This is not required if the token is a 'write-once' media and can't be changed. Recommended change: Add allowance for a token to be a write-once media and not require cryptographic authentication.
APP 1D	Vol. I App. D 100 Comment: Requires a one-to-one relationship between records. Rationale: A summation of the records is sufficient to compare. A 1% audit is irrelevant. If the summation of the records don't match, a crime has been committed
APP 1D	Vol. I App. D 101 Comment: States "...from accepted memory devices..." defining tokens as memory devices. A token is not required to be a memory device. Recommended change: Change to "...from accepted tokens...."
APP 1D	Vol. I App. D 102 Comment: Why can't the tokens or capture system be used to determine if records are missing or substituted?

Section	Comment
APP 1D	Vol. I App. D 103 Comment: Why is this acceptable? It is not acceptable to subject DREs to extensive and stringent testing and yet witness systems can be approved under these conditions.
APP 1D	Vol. I App. D 104 Comment: However, In order to prove that the choices were NOT recorded correctly, the voter would need to surrender his or her privacy.
APP 1D	Vol. I App. D 105 Comment: Why are cryptographic solutions able to be verified and DREs are not?
APP 1D	81 I App D D-1 10 States a primary objective for using electronic voting systems is the production of voting records that are highly precise. Change to"...production of election results that are highly precise and produced expeditiously." Acc
APP 1D	82 App D D-1 25 Use of "ballot records" limits the scope of auditability. Change to "election results" The objective is to be able to audit an election, not just ballot records
APP 1D	83 App D D-2 17 How is the threat of vendor collusion addressed?

Section	Comment
	84 App D D-5 18
APP 1D	Witness systems are not accessible
	85 App D D-6 27
	If OCR is being used for "marks recognition", it should be specifically outlawed for counting ballots. When OCR is used for "marks recognition", the OCR engine makes an assumption that the mark in
APP 1D	filled in.
	86 D-7 4
	Bad assumption -- optical scanning processes are notoriously inaccurate, that's why jurisdiction created the 1% re-count. If this is referring to "digital imaging", the distinction
APP 1D	must be made clear.
	87 App D D-7 32-35
	Why isn't the accessibility question addressed in the other
APP 1D	system discussions?
	88 App D D-10 6
	If the creation and verification system are two independent processes, different media is
APP 1D	not required.
	89 App D D-10 19
	What are "multiple" records?
APP 1D	Change to "dual" records
	90 App D D-11 4
	Calls for one-to-one record comparison. The accumulated results can be used. Any single error causes the whole
APP 1D	system to be suspect.
	91 App D D-11 15
	The objective is to be able to audit the election, not the device. What threat does a one-to-one relationship
APP 1D	mitigate?

Section	Comment
APP 1D	92 App D D-11 29 Calls for identification of "ballot style" Change "ballot style" to "precinct" Ballot style can represent many precincts.
APP 1D	93 App D D-1 28 States "whether electronic voting systems are accurately recording ballot choices."
APP 1D	94 App D D-12 1 Notes "voting session identifier" Define "voting session identifier"
APP 1D	Appendix D: D.1.1 (your webpage form would not accept this section number) The concept of "independent dual verification", verifying one electronic record with another electronic record, will do nothing to ensure honest elections. Auditing elections wi
APP 1E	[Volume 1, Appendix E] Vol 1, appendix e Page 2, spacing error between 1 & 2
APP 1E	Appendix E The appendix needs to be revised to draw upon the proper sections of the 2005 VVSG rather than the 2002 VSS.
APP 1E	Vol. I App. E-3 107 Comment: This appears to be just further clarification of previous sections. No additional standards information is provided. Recommended change: Specifically state that Appendix E is provided for informational purposes an

Section	Comment
APP 1E	Vol. I App. E-4 108 Comment: Color: "The use of the 16-color pallet or a larger color pallet is required, when voter adjustment of color is provided." Page 1, a. 2) "Adjust color settings, when color is used." None of the examples provided in E.
APP 1E	Vol. I App. E 106 Comment: Overall comment: Appx. E is written broadly, with a variety of options meant to assist vendors in meeting the guideline with relative ease, while seeming to require voter control to meet visual needs related to text si
APP 1E	107 I Appx. E.3 2 All This appears to be just further clarification of previous sections. No additional standards information is provided. Specifically state that Appendix E is provided for informational purposes and provides no speecific sta
APP 2A	[Note* Actually Volume II, Appendix A] Vol 25, appendix a A.1.1. references The test lab shall list all documents that contain material used in preparing the test plan. This list shall include specific references to applicable portions of the **
APP 2A	[Volume II, Section A] Page A 8 •☐Stress tests: These tests investigate the system's response to transient overload conditions. Polling place devices shall be subjected to ballot processing at the high volume rates at which the equipment can be oper

Section	Comment
APP 2A	[Volume II, Section A] a.5.1 data recording The test lab shall identify all data recording requirements (e.g.; what is to be measured, how tests and results are to be recorded). The test lab shall also design or approve the Wrong punctuation e.g.
APP 2A	[Volume II, Appendix A] A.4.3.1 The test lab shall review the results, submitted by the vendor, of any previous examinations of the equipment to be tested. The results of these examinations shall be compared to the performance characteristics specif
APP 2A	[Volume II, Section A] A.6.4 In this section, the test lab shall also identify all test operations personnel, and their respective duties. In the event that the operator procedure is not defined in the vendor's Don't believe a comma should be betwe
APP 2A	[Volume II, Appendix A] A.4.3.2. Should a time be given for the environmental tests Most machines will be in storage for 11 months a year Temperature and humidity could be causes for major problems
APP 2A	Vol. II, Appendix A (Second Paragraph) Current: It is intended that the test lab use this Appendix as a guide in preparing a detailed test plan, and that the scope and detail of the requirements for certification be tailored to the type of hardware,
APP 2A	136 II App A.3 A-2 First sentence "be" missing from sentence Add "be" between "must" and "presented" typo

Section	Comment
APP 2A	Vol. II App. A First sentence Comment: "be" missing from sentence Recommended change: Add "be" between "must" and "presented" Rationale: typo
APP 2B	[Volume 2, Appendix B] [Note* Actually at the end of section 2.B.1.2] Vol 2, appendix b A more extensive report is prepared, for changes that have extensive impact on the system design and/or operations. Why the "," ?
APP 2B	Vol. II, Appendix B Current: B.5 Qualification Test Results and Recommendation Change: Vol II, Appendix B B.5 Certification Test Results and Recommendation Nature of Change: Deprecated term
APP 2B	137 II App B All All No comments.
APP 2B	137 Vol. II Appendix B No comments.
APP 2C	[Volume II, Appendix C] On your page, there are spacing errors between 4-7 lines [Note* comment included chart that cannot be displayed here. Correction is for extra lines below lines 4,5,6 of the chart.]

Section	Comment
APP 2C	[Vol II, Appendix C] Vol 2, appendix c T of C C1 misaligned at right margin
APP 2C	138 II App C All All No comments.
APP 2C	140b G All All All Cost: Vol II, App C, section C1, page C-1 "...the need to achieve a meaningful test at a reasonable cost, and cost varies with the difficulty of simulating expected real-world operating conditions and with test duration." The
APP 2C	79 App C.2.6.0.2.2 Comment: Preventing a race from spanning two columns or pages is not practical. There are phyiscal limitations that can not be ignored. Recommended change: Present guideline for navigation aids when this does occur or devel
APP 2C	80 App C.2.6.0.4.1 Comment: Voting software can be obtained by "an EAC accredited test authority"? Recommended change: The testing authorities can provide measures to ensure the software provided by the vendor is that which they tested but th
APP 2C	138 Vol. II App. C No comments.

Section	Comment
	140-2 Vol II, App C, section C1, page C-1 Comment: "...the need to achieve a meaningful test at a reasonable cost, and cost varies with the difficulty of simulating expected real-world operating conditions and with test duration."
APP 2C	Recomme