

**EAC Manufacturer Roundtable Discussion of TGDC Draft VVSG  
February 29, 2008  
9:00am – 2:00pm**

**U.S. Election Assistance Commission  
1225 New York Ave., NW, Suite 150  
Washington, DC 20005**

**Discussion Questions**

Voting systems manufacturers today must design their products to fulfill a broad and ever-expanding list of requirements to meet the needs of an increasingly diverse voting public, while at the same time attempting to provide an efficient and cost effective product for election officials. Election administrators place additional value on other attributes of a voting system including ease of system setup, operation, and maintenance; configuration simplicity; reliability of operation; processing accuracy; ability to audit entire process; and high polling place throughput. The demographic makeup of the voting public itself also dictates voting system design to a great extent. These demographic factors include age, educational level, language proficiency, manual dexterity, physical mobility, sensory functioning, and commuting distance from polling place. Finally, and perhaps most importantly, voting system design must also mitigate a variety of potential threats to the voting process.

The voting system design process needs to take all these factors into consideration and strive to strike an optimum balance. This is a difficult task because many of these factors conflict with each other. As the scope of requirements increases, satisfactory solutions become harder to define. This is an environment where the design process must be open to innovative approaches and unbound by technological constraints so the very best solutions can be implemented in a timely manner.

The next iteration of the VVSG will dictate the direction of voting system design for the next generation of voting systems. The challenge for this next iteration of standards is how to properly balance the need for improved security, auditability and accessibility while also creating standards that are not so prescriptive that they stand in the way of innovation. Technology in and of itself has a neutral value scale and can only be evaluated in the context of its application. A voting system is an information processing system. The historical trend in information systems technology has been to supply ever greater capabilities with simpler configurations at lower cost. Information processing has moved from paper and electro-mechanical devices to fully electronic processing and from a host of special purpose devices to general purpose devices.

As the issuer of these standards the EAC has a duty to examine these proposed standards and decide what the next generation of voting systems must be capable of. Two of the driving forces behind the suggested security requirements in the TGDC draft VVSG are concerns about the integrity and trustworthiness of electronic voting systems and the

difficulty of verifying that software only does what it is intended to do and does not harbor malicious code.

The 2007 VVSG recommendations introduce a number of design requirements and validation concepts for the purpose of improving the security of voting systems. These recommendations constitute a radical change from previous voting system standards. These concepts include Software Independence (SI), Independent Voter-Verifiable Paper Records (IVVR) and Open Ended Vulnerability Testing (OEVT). Each of these will introduce additional complexity to system design and development and therefore increase the cost and risk for vendors. And all except OEVT will impact voters through changes in the voting process itself. The concepts of Software Independence and IVVR offer additional security but also lead to concerns as to the accessibility and usability of the voting systems.

Before imposing these changes on the election community, it is EAC's responsibility to determine the best means for providing a sufficient level of voting system security without requiring disproportionate tradeoffs against other highly desirable voting system features. To this end EAC is convening roundtable discussions for the purpose of carefully considering the VVSG recommendations. This discussion will be conducted in seven segments:

1. What do you think will be the dominant business model for voting system vendors in the coming decade? Will vendors be technology innovators or service providers? Both or neither?
2. Is the proposed Innovation Class section of the 2007 VVSG Draft a viable approach to certification testing? As written, how would it impact your firm's strategy for developing and marketing systems?
3. What is the value of the open-ended vulnerability testing model? What are the risks? Do you conduct a form of this testing as part of your development process?
4. How could the processes of the VVSG be modified to incorporate minor revisions without incurring the costs (time and money) of a total system test, and still maintain the integrity of the standard?
5. Does the current draft of the VVSG create functional standards which permit vendors appropriate design freedom to innovate and implement, or is it a design standards that specifies how to build and implement voting, limiting design options?
6. Are there any changes to the VVSG, in either scope or depth, which would significantly reduce the cost (time and/or expense) of compliance without adversely affecting the integrity of the VVSG or the systems that are derived from its implementation?
7. How would the proposed VVSG impact the time-to-market of a new voting system? Can you identify specific requirements and associated processes within the standard that

would significantly impede timely development and deployment of a voting system?  
What recommendations would you suggest for modifying the standard to address these impediments?