

Following are notes on our telecon of Monday, July 15th. These notes will be posted on our twiki at:

<https://collaborate.nist.gov/voting/bin/view/Voting/Testing>

Attendees:

McDermot Coutts

John Dziurlaj

Jim Halter

Mary Hatfield

Ben Long

Dan Lowen

Tavis Lawrenson

Steve Pierson

Mike Santos

We started out with introductions and some overview of goals and strategy. We then went on to discuss briefly the existing framework for testing voting systems and then had more specific discussion about the performance metric requirements that need to be developed for the next CVS. Attached are the slides John Wack presented at the telecon.

The goals of the group include to ensure that every requirement associated with the next VVSG is testable and testable across different labs. Thus, the group may be developing test assertions, which provide further explanation of how a requirement must be tested but that do not go into the actual testing procedures, which are contained in test methods that the labs each develop. It is not the goal of the group to tell the labs exactly how a requirement should be tested but more to ensure that the requirement is testable and useful.

John Wack deemed it advisable to start with a brief overview of the existing testing and certification process. This is important to understand in that it can help members of the group work more effectively within that framework. John noted that it is at sometimes useful to discuss improvements in the framework that relate to testing, but at the same time the overall testing framework is under the jurisdiction of the EAC and this group should focus mainly on VVSG-related requirements.

John also emphasized that not everyone in the group will always be happy with decisions in that we have a diverse group of people including testing labs, manufacturers, and other experts in voting. Everyone should feel a right to have their opinion heard but at the same time be respectful of other opinions.

While the scope of the group includes all VVSG-related requirements, the immediate action items are to address the performance metric requirements for accuracy and reliability, so that these can be presented to the TGDC at their September meeting. There are three sets of these

requirements that are available to work with: VVSG 1.0, 1.1, and the 2007 TGDC Recommendations. The consensus opinion appeared to be that the VVSG 1.0 requirements were superior to the other two sets, in that the power and temperature tests required a voting system to be tested for a 168 hour duration and that the specified error rate, 1 in 10,000,000 votes, was deemed testable and within reason. McDermot felt that testing of marginal marks should be in a separate test and not part of the benchmark testing.

There was further discussion about including some penetration-type requirements whose purpose would be to better ensure accuracy and reliability, but that these requirements would have to be carefully scoped and possibly may be better located before and after the VVSG testing. McDermot discussed factoring some aspects of a risk limiting audit into the testing.

Before concluding, McDermot discussed whether other areas of requirements, e.g., accessibility, are inherently subjective and that as a result the testing itself will be also subjective. These requirements will be examined further after the benchmark requirements are addressed.

The next meeting will focus specifically on the VVSG 1.0 benchmarks and how exactly they should be modified for the next VVSG. The goal is to arrive at a set of draft requirements for continued discussion during the remaining meetings in August.