

NIST Issues Open and Transparent Methods for Testing Electronic Voting Systems

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The U.S. Department of Commerce's National Institute of Standards and Technology today opened for public comment detailed new methods for testing future electronic voting systems' compliance with voluntary federal standards. Touch screens, optical scanners and other kinds of electronic voting systems now appear at polls across the nation.

The new draft tests can be viewed at vote.nist.gov/voting-system-test-suites.htm .

The new tests will replace multiple proprietary laboratory testing techniques with a single transparent set of tests that will help give voters and governments confidence that the systems operate in a reliable fashion. Manufacturers also will have a better understanding of how their systems must perform to comply with federal standards.

“These new tests will ensure that everyone is on the same page for testing [electronic voting](#) systems,” said Lynne Rosenthal, manager of the NIST voting project. “This will not only benefit the general public and the government, but also they will help manufacturers build voting systems that meet federal standards.”

Under the Help America Vote Act of 2002, NIST assists the U.S. Election Assistance Commission (EAC) in developing voluntary standards for voting systems. In order to receive federal certification from the EAC, new voting systems must meet the Voluntary Voting System Guidelines (VVSG). The current version of the guidelines is

known as VVSG 2005; the draft test suites apply to the VVSG Next Iteration (VVSG-NI), intended to address the next generation of voting systems. Ultimately, state or [local governments](#) determine whether their voting systems must meet federal standards.

The VVSG-NI calls for the testing of electronic voting systems using a prescribed set of test methods. The draft test suites—a series of documents, scripts and software programs—address various aspects of voting systems, such as hardware, usability and security. Each test suite lists the relevant VVSG requirement alongside a detailed method for testing compliance.

For example, in the hardware section, voting machines are required to operate properly in temperatures ranging from 5 °C to 40 °C (41 °F to 104 °F) and relative humidity from 5 percent to 85 percent. While there are potentially many possible ways to test this, the draft standards specify a specific series of steps to be followed by every test lab, such as enclosing the voting system in a test chamber and checking for defects or malfunctions at specific temperature and humidity values in this range.

NIST requests public comments on the draft by July 1. Once the EAC finalizes the VVSG-NI, the test suites are expected to become required for testing future generations of electronic voting systems.

Provided by National Institute of Standards and Technology ([news](#) : [web](#))

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