

Electronic Voting Systems

1 Irregularities in the conduct of elections (including the malfunction of voting equipment)
2 have created a crisis of confidence in the U.S. electoral system. The U.S. electoral system
3 is a process that begins with voter registration and ends with final certification of election
4 results. There are many components of this process, voting being one of them. This
5 policy addresses only voting, which is a discrete system within the electoral process.

6 In many U.S. jurisdictions, elections authorities have installed electronic voting systems
7 that are based on Direct Recording Electronic machines (“DREs”)¹. These systems have
8 been purchased (sometimes in response to legislative mandates) in an effort to address
9 election irregularities while increasing participation by voters who have disabilities or
10 who are not proficient in English. In order to maximize electoral participation through
11 increased voter confidence, while at the same time minimizing the risks of security
12 breaches, fraud, inaccuracies, and malfunctions, jurisdictions that adopt electronic voting
13 systems must adhere to the following principles:

14 Accuracy and Fairness: To ensure fair elections, a voting system must accurately record
15 votes as cast by the voters, and it must accurately count, tabulate and report them to the
16 election authorities and the general public. Officials must be especially alert to system

¹ A Direct Recording Electronic (DRE) machine interacts with the voter and records votes directly in electronic form. A touchscreen machine is one where the voter indicates her vote to the machine via a touchscreen interface. Today, many DREs are touchscreen machines. However, not all DREs use a touchscreen, and not all touchscreen machines are DREs. For instance, ballot marking devices, where the voter uses a touchscreen to indicate her choice and then a paper ballot is printed, provide one example of a touchscreen system that is not a DRE. These ballots may be counted using optical scan equipment.

17 design flaws, inaccuracies, or other conditions that have the purpose or effect of
18 excluding categories of voters, for instance, racial minorities, low income persons, or
19 felons who have been be re-enfranchised. Voting systems must prevent overvoting and
20 must provide notice to the voter of undervoting.

21 Verifiability: Every voting system must have a means by which the vote can be reliably
22 recounted in order to verify the accuracy of the electronic vote record and, if necessary,
23 re-tabulate the vote. Any true independent recount system must do more than merely re-
24 examine the same electronic records that were tabulated in the initial count. To ensure
25 verifiability, it must be a system that operates independently of the initial count, so that
26 any problems in the initial count are not duplicated in a recount².

27 Accessibility: Older voting technologies generally have not provided adequate
28 accessibility for voters with disabilities and members of language minorities. New
29 electronic technologies which can provide such access should be implemented as soon as
30 possible. Voting systems must be fully accessible to every eligible voter. Voting systems
31 must not disenfranchise any class of voter. Accommodations must be made to allow
32 voters such as those with disabilities, language barriers, or low literacy levels to vote
33 privately and independently. Likewise, voting systems must not be so complicated,
34 confusing, or time consuming that they deter or intimidate any voters, particularly voters

² For example the system should, at a minimum:

- a. Produce an independent record of the final feedback the voter sensed (saw heard and/or felt) indicating the independent vote at the time the vote was cast;
- b. Maintain that record securely against alteration;
- c. Prevent the addition or subtraction of any language;
- d. Allow multiple and accurate counts to be made of such records.

35 from any minority group which would face cultural barriers to using a particular voting
36 system.

37 Anonymity: The right to cast a secret ballot is a basic civil liberty. The ability to vote
38 anonymously is essential to protect the privacy of the voter, and to prevent fraud related
39 to vote buying or coercion. Voting systems must be designed in ways that do not
40 compromise anonymity of voting.

41 Security: A voting system must be designed and operated so as to prevent, to the greatest
42 extent possible, negligent programming errors, negligent operational errors, or malicious
43 tampering which could lead to election fraud. In addition electronic voting equipment
44 should be maintained secure from external conditions such as weather, electrical
45 fluctuations, or other environmental conditions which could impair accuracy.

46 Standards and Oversight: Voting systems must be subject to independent testing,
47 certification and verification of their operational soundness. The ACLU calls for the
48 creation of truly independent election oversight bodies to develop these standards and
49 monitor their implementation. We also encourage civic groups to participate in this
50 process. More effective public oversight of an electronic voting system's accuracy,
51 security, and verifiability should be achieved by, at a minimum, adopting some version of
52 "open source code" software. This means that a voting system's computer programming
53 should be made available to the public for analysis and testing.