Ten of the Main Requirements that Made a New Voting System Design Necessary

1. Voting system must provide rapid and accurate vote counts and also provide a paper record of each ballot that can be verified by the voter and can be used in the event of a recount, a contest, or equipment failure. Voting system must produce a paper record that is voter verifiable and archivable for 22 months or more. These records must be produced using printers that are reliable, fast, low cost to operate, have simple methods for replenishing consumables, and are easy to replace.

2. Voting system must efficiently and cost-effectively manage the use of early voting, mega-voting sites, and election day vote centers.

3. Voting system must provide a variety of methods for routinely auditing the accuracy and security of the system as a routine part of each election. Methods should verify that the software accurately recorded the ballot content and performed a correct count.

4. Voting system must eliminate voter intent questions on paper ballots before the ballot is placed into the ballot box. Voter must know how their vote is being recorded without relying on how a system might be interpreting their hand marks.

5. Voting system must have a secure and transparent method for ensuring voters are given the correct ballot format.

6. Voting system must provide a system for giving maximum flexibility to voters with disabilities so that they can cast a secret ballot. When possible, the voting experience should allow adaptability with new technologies available for persons with sight, hearing, and/or mobility challenges.

7. Voting system must utilize hardware and components that are comparably priced to (or are) off-the-shelf, durable, reliable, fast, lightweight, and easy to replace. Warranty and maintenance costs on these products should be minimal. Ideally, the system will incorporate equipment that is available on state contract (or similar structure) thereby allowing greater price savings.

8. Voting system must use software that is well designed, robust, and utilizes best security practices. It must provide functionality and flexibility to meet the needs of the administrator while being easy to use so that vendor involvement is not necessary in ballot creation, tallying, auditing, reporting, etc. Vendor must allow some type of review by a "red team" throughout development and when upgrades are offered to ensure quality and security requirements are being met. Software must be structured in modules with standard interfaces – for example, different modules for creating the ballot, tallying the ballot, creating reports, etc. (Modularity will give counties greater variety in selecting options best for their area and reduce the cost and time it takes to certify upgrades.) A plan for routinely and timely upgrading the software (for example, to fix bugs, improve functionality, and keep current with newer technology and operating systems) must be part of the proposal.

9. Voting system must have the ability to rapidly and easily produce reports that can be used by a wide variety of customers. Reports must be easily formatted (and reformatted) so that election night results can meet standard requirements for direct transmission to the media and agencies collecting data for a large number of jurisdictions. For example, hand re-entry of data should not be necessary for local, state, or national media or agencies for rapidly collecting election results.

10. Voting system must have reasonable purchase, maintenance, and support costs. Costs for the upgrade of software should be minimal or part of the maintenance agreement. Costs for replacing or adding hardware should be reasonable. Support services must have variety, depth, and reasonable costs. Current cost models on the market are not acceptable.