

From: [REDACTED]
To: votingsystemguidelines@eac.gov
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Comments of the UOCAVA Grant program.

The challenge is to design a system to include overseas votes in the initial count on election day.

The approach described in the invitation is an approach which retrofits these new requirements into a system which has many serious design shortcomings in that it is unverifiable, unaccountable, non transparent and insecure.

By taking a piecemeal approach this new program foregoes an excellent opportunity.

A better approach might be to take the problem and the requirements of the Overseas Voter on a clean sheet; and then use that as the model and pilot for a new generation of electronic Voting Systems.

There are a number of important principles which are relevant in all scenarios, domestic and foreign. These are

1. Preserve the vote's identity so that the voter can verify that his vote was counted as cast.
2. Publish all the votes in a form where the voter can verify his vote in the context of substantiating the result
3. Maintain the secrecy of the ballot
4. Preserve the election record so that it can be analyzed by all the stakeholders
5. Engage the voter's participation as a integral participant in verifying the integrity of the vote

These requirements lead naturally to a Transaction Architecture as the foundation of the solution.

The grants program invites a response to many details of the implementation. Without getting the fundamental Objectives and Architecture in place first, this approach simply compounds the existing problems of Electronic Voting and foregoes an excellent opportunity to design to a set of requirements which include - verifiability, accountability, transparency, and security.

The security issues are quite different if there is a permanent public record of how each vote was counted and that the overseas population (or the whole voting population) can participate in identifying and correcting any errors in the count. This would make suppliers the servants of the public process not, as at present, the secretive masters. It would also provide them with important diagnostic evidence of any errors in their systems.

The different approach to security issues illustrates the importance of choosing the Architecture before the details of the implementation.

Peter Oliver

[REDACTED]
Tel [REDACTED]
Cell [REDACTED]
[REDACTED]

PS. I submitted a response to the November invitation to a grants program for pre-election Logic and Post Election Audits. In that I described in greater detail the way in which changing the Electronic Voting Software model to a Transaction Based Architecture would solve those problems, the Overseas problem and a whole raft of other Accessibility problems.

The solution is the same in each case so maybe the search for a series of palliatives to individual problems is not the right way to go