Computer Scientists Statement on Research for Remote Electronic Voting to Support Military Voting Rights

Those that protect our freedom by placing themselves in harm's way should be the first in line to cast their ballots to elect our country's leaders. Unfortunately, military voters have been unacceptably disenfranchised throughout United States history. Worse yet, there is little sponsored research effort currently devoted to solving this problem. It is time to devote the deserved resources to scientific research that can solve the military voter problem.

In a perfect world, military members would be first class voters that have the same electoral rights and privileges as any other citizen in their voting district. For example:

1. There would be no delay between marking the ballot and casting the ballot
2. The voting system would provide error checking to the voter
3. Voters could obtain one or more replacement ballots without delay
4. Voters could verify that their ballot was cast when it was cast
5. Where state law allows, the voter could register and vote on election day

To date, due to the nature of elections and limitations in technology, it has not been possible to provide first class voter status to military voters. Military voters are subjected to a complex, rigorous absentee voting system, with study after study showing that military voters are disproportionately disenfranchised because their ballots do not arrive in time. Many efforts have incrementally improved military voting access, such as The Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA, 1986), the Help America Vote Act (HAVA, 2002), and the Military and Overseas Voter Empowerment Act (MOVE, 2010). Still, voting access for military members is dramatically more complicated and less successful than for their civilian counterparts.

The lack of improvement resulting from these considerable, well-intentioned efforts demonstrates that the only foreseeable option to allow military members to achieve first class voter status is through remote electronic voting that provides for electronic delivery of military members' voted ballots.

Many computer scientists have opposed adoption or pilots of remote electronic voting because of security risks. Specifically, an Internet voting election would be susceptible to attack by sophisticated intruders from virtually any place in the world, possibly leveraging complex software properties to conduct difficult-to-detect malware attacks.

While many of the security concerns are valid, we believe that a focused research effort could lead to reasonable solutions that are sufficiently secure for use by the military voting community. We see promise through a number of technological advances and trends -- e.g., developments in cryptographic end-to-end voting systems, the opportunities enabled by existing electronic military identification systems, strongly protected military networks, and more.

We are also encouraged by the ability to manage electoral risk by limiting these systems only to military voters and focusing on this narrow voting constituency. We take note of the significant scientific improvements made to date in this area and believe that, with stronger support and funding, even greater advances are likely. These scientific advances can enfranchise military voters who are currently poorly served and accordingly, we call for support for open, scientific research in this area.

We note that many that oppose broadly applied Internet voting acknowledge that the security concerns may be mitigated for military voters, but their greater concern is for "the slippery slope". That is, some are willing to deter research efforts that can improve military voting opportunity due to the risk that successful, safe remote electronic voting employed for military voters would lead to broad, unsafe proliferation of Internet voting. We strongly reject this premise as a basis for undermining efforts to help military voters.

Throughout its history, the U. S. military has functioned outside societal norms, operating dangerous equipment and weapons on a daily basis, using private radio and satellite networks and a self-contained military postal service, subsisting on freeze-dried meals, and even establishing a legal system that is separate from that governing all other U.S. citizens. Military voting should receive no less consideration.

Regardless of the existing security limitations, perceived threat of the slippery slope, or the concerted efforts made to improve military voting to date, nothing less than first class voter status is satisfactory for military personnel. The scientific community must redouble its efforts to achieve this goal.

We collectively and enthusiastically encourage federal and state agencies to immediately identify resources to apply to this problem, solicit proposals from the scientific community, and promote and award scientific research that can assist military voters to attain first class voter status.

January 23, 2013

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January 23, 2013