

Proven Innovation Solves Problems Surrounding Military, Overseas Voters' Ability to Fully Participation in Elections

By Paul DeGregorio

What if only one in six eligible Americans attempted to vote in a general election? And then what if only one-third of those who attempted actually had their ballots cast or counted? Why didn't the other 83% even try? How can an election be fair when nearly 95% of voters are unable to participate and have their votes counted?¹

*This is currently the case for America's military and overseas voters.*²

But the USA is not alone in this regard. Nearly 250 million people throughout the world reside outside of their regular electoral constituencies.³ And over 100 countries require their election officials to serve these remote voters while they are outside the country.⁴

Increasingly, many officials are recognizing that the continued use of 100-year old voting methods won't work to solve these issues.⁵

In countries outside of the United States, tried, tested, and transparent online voting channels are now bringing the reach of democracy to the millions of overseas and disabled voters who have until now, been unable to participate.

Online voting is now accepted for a wide range of high integrity private elections such as shareholder votes and labor union ballots, with demand increasing each year. Use in binding public elections, which have typically been subject to controlled pilots, is also increasing worldwide.⁶

The earliest pilot to serve military voters was deployed by the U.S. Department of Defense in 2000 in a very limited trial. Since then, pilots have continued throughout the world: Intensive government pilots of online voting have run for more than 8 years in the UK, an ex-patriot voting system has been deployed in the Netherlands, online local voting is ongoing in Switzerland and Canada, and in 2007 the national election in Estonia included an online voting channel for any and all registered voters, including disabled voters, and in Australia, military voters serving in Iraq and Afghanistan were able to vote via the Internet in a hotly-contested national Parliamentary election. In addition, political parties in the USA, UK and Canada

have been utilizing online voting to increase participation of their members since 2000.

The U.S. remains behind, with only one attempt at implementation since the success of 2000. In 2004 the Secure Electronic Registration and Voting Experiment (SERVE), sought to provide true remote Internet voting for military serving abroad. However, the contracted system was questioned close to the deployment date in 2004 and the system shelved.⁷

Some of those questions involved the security of online voting. In fact, while some electronic voting devices and traditional ballot boxes can be attractive targets for fraud, given that each collects hundreds of votes, a remote voter's PC is a far less attractive target for fraud. One remote PC is likely to collect only one or two votes. Further, an attacker has no way of accurately knowing which PCs will be used for remote voting.

However, like DRE systems, online voting applications can benefit voters by increasing accuracy. Computer-based voting prevents over-votes and under-votes and can use multiple languages and even pictures and audio to assist with illiteracy.⁸ Unlike DREs, however, remote online voting also provides for very strong receipting.

This paper highlights two case studies that demonstrate how proven channels of voting are being used abroad to decrease barriers and increase participation of the groups most disenfranchised by current voting systems.

Australia: Increasing Access for Military Voters

Australia is a parliamentary democracy whose elections are often called just 30 days or so before polling day. This makes it difficult—if not impossible—for ballots to be mailed to voters overseas and even more difficult for their ballots to be returned in time to be counted. Because of this, while voting is compulsory for most Australians, it is not for military personnel. To verify the magnitude of the problem, a study was completed after the 2004 Federal Election by the Australian Electoral Commission (AEC). The study showed a problem similar to that in the United States: postal ballots were received for the election

from only 22.8% of military personnel deployed overseas to operational areas.

Recognizing the seriousness of such a high disenfranchisement rate, the AEC brought the issue to the attention of the Australian parliament, who took decisive action to rectify the problem. They set a plan in motion to ensure that when the next parliamentary election was called, the AEC would be ready to enfranchise their military voters through secured online voting.

And ready they were.⁹

In 2006, the AEC set into motion a project that would involve a partnership between its office, military representatives in the Department of Defence, and Everyone Counts, Inc., a company with extensive experience in providing secure innovative solutions utilizing online and telephone voting systems.¹⁰

The system provided by Everyone Counts had to meet stringent audit requirements before it could be used and installed on a specially purposed array of servers within the DoD that would be controlled by the Australian Electoral Commission. A test lab contracted by the AEC performed an independent deep audit of the source code. It was required to prove that the source code was resistant to any malicious tampering, presented an accurate representation of votes cast in the printed record and was unable to allow the association of a voter with the vote cast.

In addition, the AEC observed builds of the software and any changes to the code that were requested. Access to the voting servers was highly restricted.

Cryptography and encryption ensured votes remained secret and protected. Voter authentication took place via the server (not the voting applet) using a technique where non-identifying credentials form the basis of uniqueness and sparseness and identifying credentials (such as DOB, SSN or similar) were strongly hashed by the applet. All votes were authenticated at least twice.

To increase security and prevent the potential for internal security breaches, decryption took place on an off-line system using a private key that was protected by a thresholding system.

The net result of this very successful online voting pilot was a system that increased military voter participation in the November 2007 parliamentary

election four-fold. It was universally praised by voters and election officials. Not a single vote was challenged or contested and the system was given very high marks.

Increasing Access for US Voters Abroad in 2008

Democrats Abroad (DA) is an official body of the U.S. Democratic National Committee, representing thousands of U.S. voters affiliated with the Democratic Party. Clearly aware of the difficulty that Americans living abroad have in obtaining and returning a ballot in time to be counted in U.S. elections, Democrats Abroad researched options to facilitate participation in the DA presidential primary scheduled for February 2008. Observing that online voting had been utilized successfully by political parties in other countries, they announced the first-ever multi-channel “Global” primary election.

Democrats Abroad offered their members the ability to vote in one of four ways. Once registered with DA, overseas Democrats could choose to vote in person at one of 100 designated caucus sites located 30 countries; receive and mail a ballot to their DA country representative; receive and send their ballot by fax; or cast their ballot online. Internet voting was offered through a secured system developed by Everyone Counts, Inc.

DA designated the period of February 5-12, 2008 for the balloting, with a deadline of January 31 for voters to join and sign up at their website, www.votefromabroad.com. Once registration closed, a voting list was developed and qualified voters were sent authentication and voting information.

The Internet voting mechanism was web-based and utilized a secure server that was continually monitored for attacks (none occurred).

The voting applet gave voters the opportunity to vote for any one of the Democratic Party candidates. The system allowed for voters to print a copy of their voted ballot and also have their online ballot cancelled before close of voting if they received and voted an absentee ballot from their home state (they were asked to vote in either one or the other).

Adding an online voting channel resulted in a seven-fold increase in participation, with military and civilian Americans casting their online ballots from 164 countries, including Antarctica. Voters chose voting by Internet more than 2 to 1 over voting in person, by mail and by fax, combined!

Like the Australian military voting project, the first-ever Democrats Abroad online Global Presidential Primary was a tremendous success. Many voters who have been disenfranchised before were able to vote.

These case studies, along with successful Internet voting projects elsewhere, prove that the time is now for policymakers and election officials to offer more – not fewer – opportunities for voters to have their voices heard – and have their votes counted.

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ENDNOTES

¹ See EAC UOCAVA Report on 2006 election; Tables 21c and 22.

http://www.eac.gov/News/docs/uocava-report-final-4-printing.pdf/attachment_download/file

² See “ Sam Wright: Another Election Decided by Disenfranchised Military Personnel” http://www.military.com/Opinions/0,,Wright_122704,00.html

³ See Jeremy Grace: *Challenging the Norms and Standards of Election Administration: External and Absentee Voting* (IFES, 2007), p. 35-58

⁴ International Institute for Democracy and Electoral Assistance (International IDEA) www.coe.int/.../democracy/EVoting/IDEA%20-%20Gratschew%20-%20ExV%20Strasbourg%20November%202006.ppt

⁵ See “Military Voting and the Law: Procedural and Technological Solutions to the Ballot Transit Problem” found at: www.vote.caltech.edu/media/documents/wps/vtp_wp53.pdf and Medill Reports: “Military voting riddled with complications, inconsistencies” 3/08. <http://news.medill.northwestern.edu/washington/news.aspx?id=80819> and “Despite Laws, Disabled Voters Face Barriers at Polls” 10/06 <http://newstandardnews.net/content/index.cfm/items/3822>

⁶ See “Online Voting Clicks in Estonia” Wired, 3/07 www.wired.com/politics/security/news/2007/03/72846?currentPage=all

⁷ See ““Point, Click, and Vote: the Future of Internet Voting,” R. Michael Alvarez and Thad E. Hall. Brookings Institution Press. 2004. Washington, DC. <http://www.brookings.edu/press/Books/2004/pointclickandvote.aspx>

⁸ See “*Electronic Elections: The Perils and Promises of Digital Democracy*” by R. Michael Alvarez & Thad E. Hall; Princeton University Press 2008.

⁹ See: Remote Overseas Voting for Australian Defence Force Personnel http://www.aec.gov.au/Voting/e_voting/adf.htm

¹⁰ See <http://www.everyonecounts.com/index.php/news/34/37>

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