End-to-End Verifiable Internet Voting Project Announcement

Overseas Vote Foundation to Launch Remote Voting Technology Research Project

New Study Will Team Scientists with Election Officials to Examine Feasibility of End-to-End, Verifiable, Secure Internet Voting Using Transparently Auditable Encryption Methodology

Washington, D.C., December 19, 2013 – Overseas Vote Foundation (OVF), a nonpartisan, nonprofit organization dedicated to overseas, military, and domestic absentee voter participation has received a grant from the Democracy Fund in support of a research-based approach to the unanswered question of whether remote absentee voting can be conducted securely online.

The project is called *End-to-End Verifiable Internet Voting: Specification and Feasibility Assessment Study (E2E VIV Project)* and will examine a form of remote voting that enables a so-called "end-to-end verifiability" (E2E) property. A unique team of experts in computer science, usability, and auditing together with a selection of local election officials from key counties around the U.S. will assemble for this study.

Their efforts aim to produce a system specification and set of testing scenarios, which if they meet the requirements for security, auditability, and usability, will then be placed in the public domain. At the same time, they intend to demonstrate that confidence in a voting system is built on a willingness to verify its security through testing and transparency.

"The secure, tested, certified remote voting systems that election officials envision aren't even for sale. Available online ballot return systems are not considered secure by the scientific community, nor are they certified. As a result, email has become the default stopgap method for moving ballots online. Email is especially weak on security, yet it is being used regularly by election officials because viable alternatives are not available," says Susan Dzieduszycka-Suinat, President and CEO of Overseas Vote Foundation, who spearheaded this project.

"The term E2E is often used casually without precision. E2E-verifiability is considered a *property* of an election and for the purposes of this study, an E2E-verifiable election has two important components: first, that voters can individually check that their ballots are cast as they intend; and second, that anyone can check that all of the cast ballots have been accurately tallied,"explained Dr. Josh Benaloh, Senior Cryptographer at Microsoft Research, a scientist who will take a major role in the study.

"There is a historical misunderstanding in the U.S. election community that this project aims to correct. Our country's best scientists are not against technology advancements, nor are they inherently at odds with the election officials who seek technology improvements to meet their administrative challenges. What the U.S. scientific community takes issue with are the unproven claims of security regarding existing systems that are not publicly tested or vetted. This study aims to recalibrate this situation. This group of scientific leaders has often pointed out security vulnerabilities in past systems, however they do agree on one thing: that if IV does happen, it should be in a system that takes advantage of end-to-end verifiability and auditability," said Ms. Dzieduszycka-Suinat.

"Our goal is to specify and define a system and its testing scenarios for an online voting method that can provide both security and confidence to voters that their selections are accurately recorded and counted. Our assertion is that E2E-verifiability negates many, although not all, of the risks of voting via the Internet while introducing substantial new benefits that are not found in currently-deployed voting systems," said Dr. Benaloh.

While systems of this nature have been developed in the past, none have been broadly used or successfully commercialized, This study will be informed by these past efforts and build upon them as appropriate. Usability factors will also be considered from the outset of the study to address the significant challenges faced by remote and disabled voters when using such systems to participate. A viable outcome of this study with respect to security, auditability, and usability will enable development efforts to ensue.

"The significance of this project will be in its ability to break open the conversation from its current stalemate and include all sides in a constructive project to openly examine and research what is really needed by voters and election officials, and to determine whether this form of voting can meet those needs and still guarantee security of the election. Equally important, it will identify potential tradeoffs and shortcomings that represent the diverse range of values we hold dear in our elections," stated Joe Goldman, Director, Democracy Fund.
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About Overseas Vote Foundation (OVF)
Overseas Vote Foundation helps overseas and military U.S. voters participate in federal elections by providing public access to innovative voter registration tools and services. It is a nonpartisan 501(c)(3) nonprofit organization. More information is available on our website (www.overseasvotefoundation.org), Twitter (@overseasvote), Facebook (Overseas Vote Foundation) and YouTube (www.youtube.com/overseasvote).

About U.S. Vote Foundation (US Vote)
U.S. Vote Foundation (US Vote) provides domestic U.S. voters with public access to innovative voter registration tools and absentee ballot request services. It is a trademarked initiative of the nonpartisan, nonprofit Overseas Vote Foundation. More information is available at www.usvotefoundation.org, Twitter (@us_vote), Facebook (US Vote), and Youtube (usvotefoundation).