End-To-End Verifiable Internet Voting:    
Specification And Feasibility Assessment Study

Tech and LEO Team Update – February 18, 2014

**Dear E2E VIV Tech and LEO Team members,**

Since I saw you last in DC, I have tallied a significant number of airline miles and was been able to hold a number of additional meetings concerning our project, in particular with David Jefferson, who so patiently joined us through Skype for much of the workshop, David Wagner and Philip Stark, as well as calls with Poorvi and Candice.

**Project Goals**

It is our goal to be a central part of any discussion concerning Internet Voting in our country, and to be consulted as the ones that know best how to approach it. The means we have chosen through this project is that by setting an example, setting the bar, making a constructive effort to attempt to reach the objective of specifying and examining the feasibility of a secure online voting system which allows voters to verify that their vote was counted as cast and the public to tally the votes cast, documenting its successes and failures, our recommendations and advice, we can reassert ourselves as a positive force in the development of election systems and be the ones to guide the public debate.

This project provides opportunities to:

* Offer specific guidance to the election community regarding online voting
* Become more closely involved with related projects around the country
* Cast our group in a highly constructive light
* Drive the public relations/messaging aspects of the question concerning Internet voting.

Currently, it appears there is general agreement that online voting is not secure enough for public elections. Yet this view is not stopping the advance of voting systems that are not secure. It is within this environment that our opportunity to transform and shift the debate concerning Internet voting lies.

To that end, if Internet voting were to occur, we agree it should be which allows voters to verify that their vote was counted as cast and the public to tally the votes cast.

**Overall Project and Project Segments**

We all know that we are tasked with delineation / specification to the below list. In order to kickstart our efforts, I would like to ask each of you to coordinate a response to a certain particular area. I have suggested your names alongside the item and would recommend also that you recruit one other person from the team to assist you on your area. That way each person is part of a team of two, and each person is a lead in one area and a collaborator in another.

The list\* includes, but is not limited to the following:

* Use Case Definition/System Requirements Study (Duncan)
* Usability (Keith)
* Accessibility (TBD)
* System security – requirements and specifications (David J.)
* Encryption/E2E-specific specifications (Josh)
* Encryption process protocol (Poorvi)
* Voter authentication / credentials (David W.)
* Data security (Doug)
* Intrusion detection and response (Aggelos)
* Coercion detection and response (Olivier)
* Ballot integrity, verifiability, auditability (Philip)
* Trust (Dan)
* Testing requirements and scenarios (Andrew and Duncan)

\*Subcategories: this is not the entire list of what we will examine, as there will be subcategories and possibly even sub-sub lists to some of these categories, however, it is a starting point.

If you feel that you are not the right person to take responsibility for our response and recommendations in the suggested area, please let me know and if possible, recommend a colleague.

I suggest that the LEOs are considered consultant/clients to you – and that you run ideas that may affect process and protocol against them. They will not have time to sink into any deeply complex area, but I would imagine they are able to provide feedback on an ad hoc basis, and will offer us all some realistic sounding boards when needed.

**Focused Charge-Ahead Projects**

The kick-off meeting breakouts took us forward in a number of areas and since then a few more ideas have developed about how we might take some swift steps forward and advance in key areas.

The Focused Charge-Ahead Project ideas with suggested teams are:

1. **Helios – Usability Review/Testing** – as Helios has been the most broadly used of the known E2E systems, the idea is to delve into its usability aspects. Really give it a good test – and see what can be garnered from this. Suggested people to work on this project: *(Suggested Team: Keith, Mike, Josh)*
2. **History and Summary of E2E Voting System Development** – imagine you are writing for the introduction/background section of the final report. What is the story we want to tell about E2E voting, how it came about, the reasons for its development, the need and interest to pursue, etc. *(Suggested Team: Poorvi, Doug)*
3. **Definition and SWOT Analysis of E2E System Models**: 1) E2E with paper; 2) E2E with electronic second channel; 3) E2E with no second channel.\* *(Suggested Team: David W., David J., Dan W.)*

**Project Management Updates**

Judy and I are currently setting the project up in a non-frilly, online project management system. This will allow us to track the various team members, subgroups and their activities. Looking forward to generating reports!

**CMU/Heinz Pre-Workshop Activity – Comparative Analysis of Existing E2E Systems**

The Capstone Project Team may contact you directly with questions/requests. They are working on a very tight timeline and under quite some pressure to complete what will be a first of its kind analysis. Please sign up to view the Wiki and begin to provide your expert input.

**Project Participant Updates**

* Usability: we continue to seek additional support in the area of Usability. If you have recommendations/contacts, please contact both Keith and me.
* Accessibility: an additional team member who is a specialist in the area of voting system accessibility is needed. If you have recommendations/contacts, please let both Keith and me know.
* Tech Writer: recommendations, contact details welcome.

**Actions Requested**

Your swift reply to this email will be appreciated – please let me know if you agree with your suggested area of responsibility, the project suggestions and teaming, and any other suggestions you may have.

Please copy Judy in your reply.

Thank you all for your continued work and support of the project,

Susan