Barriers to Effective Internet Voting for UOCAVA voters

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How to make Internet Voting Difficult

- Use a single service point
- To serve over 7000 local election offices
- With around 100,000 ballot styles
- Without using a standard identity framework

In the United States

This is Exactly What We Are Doing

Some Good Ideas from Elsewhere

Internet Voting has been used in:

• Estonia

• Geneva

• The Netherlands

The constraints in each of these countries are different from those in the US.

Estonia

Uses a national ID card

- Smart card

- Basis of national Public Key Infrastructure

- Used for broad range of public and private services

Estonian Internet Voting System

- Rests on this framework

Barriers to Use of the Estonian Model

We have trouble with National ID Cards but

• Uniform smart military ID cards are accepted.

• Uniform smart passports are accepted.

A possible basis of secure UOCAVA voting but:

• PCs for UOCAVA voting don't work with them!

• The problem: Each is deliberately limited use.

• Passports are routinely turned over to others.

The Netherlands

Only One Ballot Style Nationwide

• Parties free to run different lists in different regions,
  but they don't!

All Expatriate Voters Register in One District

• The election office in The Hague

Short-term Expats can Vote by Proxy

• Sign over voting card to trusted proxy before travel

RIES System worked pretty well in this context

The Netherlands

Parallel testing of Internet Voting

- During the election, vote test ballots
- Test ballots indistinguishable from real ballots
    - All E-ballots have authorization codes
    - Codes assigned to test ballots are pre-invalidated
- At poll closing, audit test ballots from ballot box

    Ideally, test ballots should be voted from random locations on the Internet, to identify attacks on ballot delivery or content.

Barriers to Use of the Dutch Model

Just one Ballot Style?

• UOCAVA voters vote on their "home ballot"

A Modest Proposal

Constitutional Amendment:

• UOCAVA voters vote in DC.

• New DC congressional districts for expats.

• Full voting rights for DC

Thinking (way) Outside the Box

Geneva

All Voters May Vote by:

- Postal ballot

- In person at a polling place

- By Internet

State mails postal ballots to all voters

- Lottery scratch-game technology used

    Scratch off the paint, ballot becomes provisional, only to be counted if validation number not used by internet.

Geneva

An interesting post-election audit model:

Phone a random sample of voters

- Did you receive your ballot/authorization?

- Did you vote?

- If so, by post, by polling place, or by Internet.

- If by Internet, was there a problem?

A key observation:

- Election observers need access to training

- Election observers need access to manuals

Geneva and The Netherlands

Expat needs were primary motive for Internet vote

In both countries:

• Postal delivery of internet voting authorization

For Expats:

• File Change of Address, typically by post

• Await postal delivery of authorization

• Vote by Internet

Geneva and The Netherlands

Unanswered question:

Internet voting in these countries
- Eliminated just one of 3 postal transactions
- Relied on paper authorization document

Therefore, it should be compared with

- Internet ballot belivery

- Internet filing of change of address/ballot request

Is there any good paperless model?