Some Key ways to Make Elections More Trustworthy

ElectionSec.org

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- I am the founder of ElectionSec.org.
- Researcher since 2005.
- Developer of threat models
- Co-developer of SOBA
- Honored to advise Conservative Republican Alliance of NY

Some questions

- Tell me about freedom515.com and your own goals

VOTERS BILL OF RIGHTS

Indelible Record of the Voters' Choices

- Hand marked paper ballots are a great technology:
  - Counted/recounted
  - If machines break, people can still vote on them
- Disabled people have other needs

Public and Transparent Post Election Audits

- All election contests (i.e., races) must be audited in a statistically, valid, public, transparent way so that American voters are not forced to trust technology to capture and tabulate the vote. Instead, we should trust human eyes and witnesses.
- These audits should be carried out in a participative way.

Secure and Transparent Ballot Handling

- The security of those ballots and the transparency with which they are handled and stored, must be treated as a national security priority.
- For example, it is generally good practice for pairs of poll workers to transport the voted ballots from the polling places to the election warehouse.
- It is not as good, to have police come and pick up ballots from many polling places.

Transparency of Election Operation Processes

- Manual published in advance
- Numbered vests and hats
- Make observation meaningful

The Security of Absentee Ballots

- Intelligence mail bar codes
- Exploring an app / one-time password (OTP)

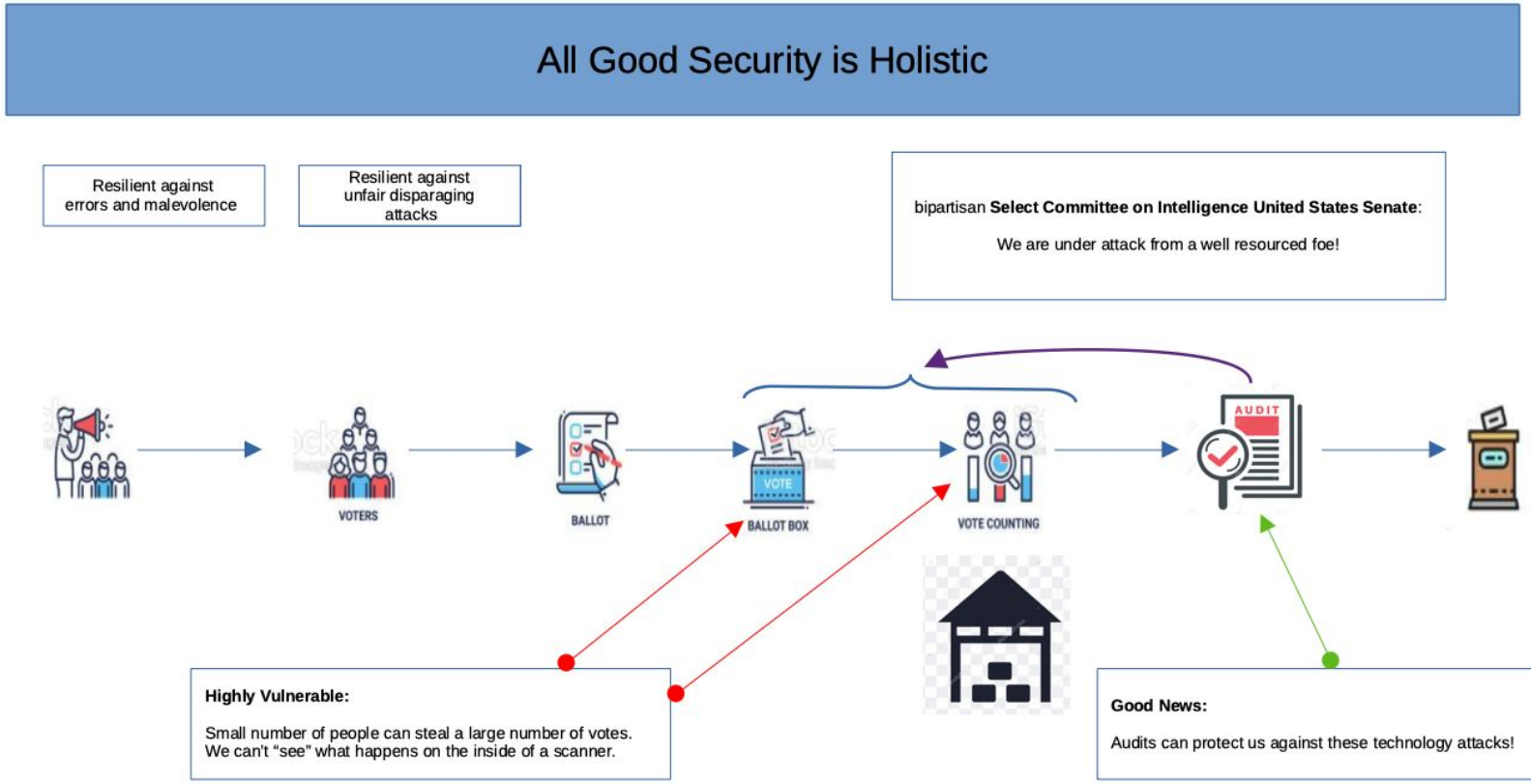
freedom515.com could join with Conservative Republican Alliance of NY

Conservative Republican Alliance of NY

- Working on a Voter's Bill of Rights and looking to work across the isle.

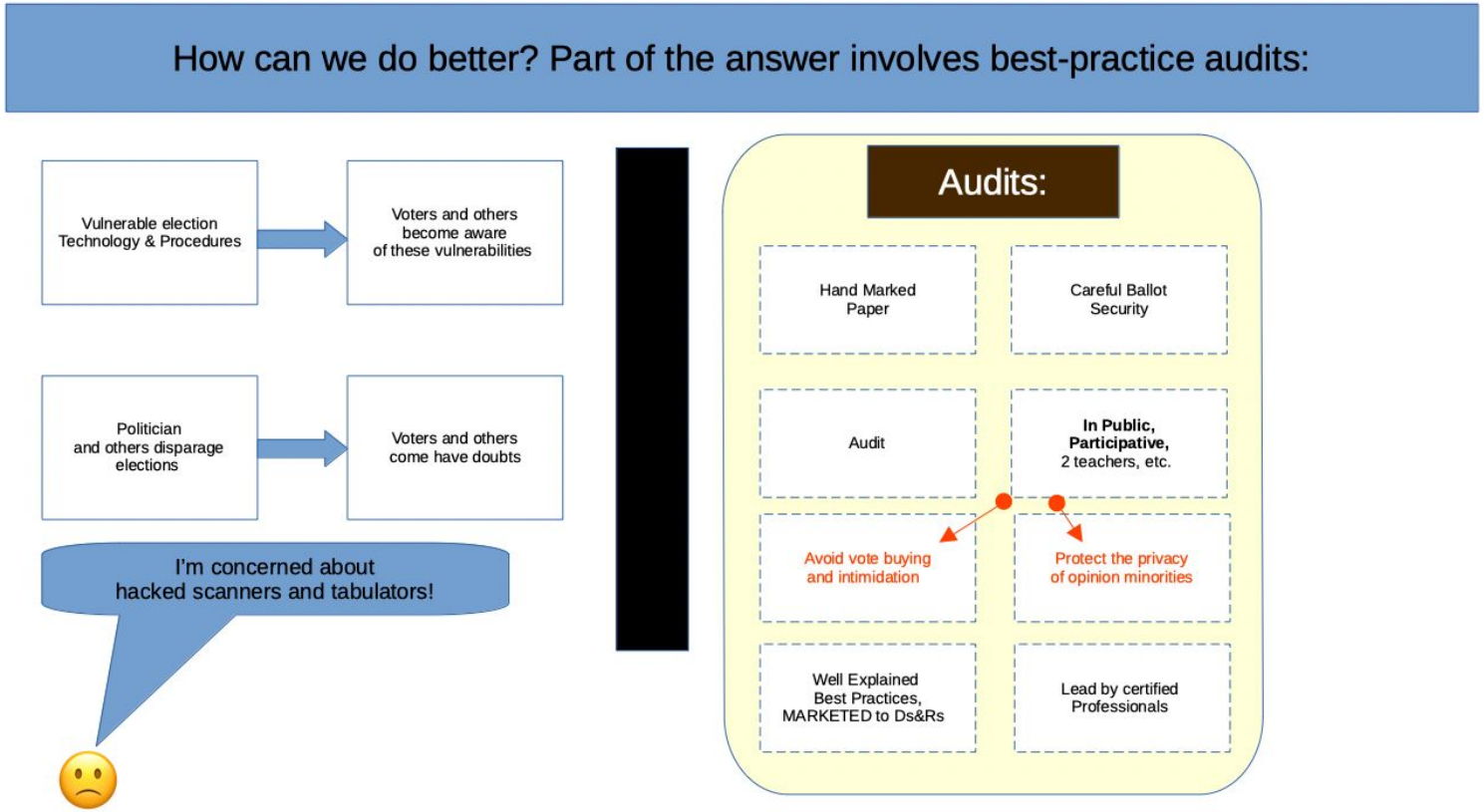
WHAT IS SOBA?

We know what to do about attacks on voting machines!



Attacks on voting terminals and tabulators are scary but we know what to do about them.

A Best Practice Audit should block both



A best-practices audit blocks inaccuracy and, we hope, the perception of inaccuracy.

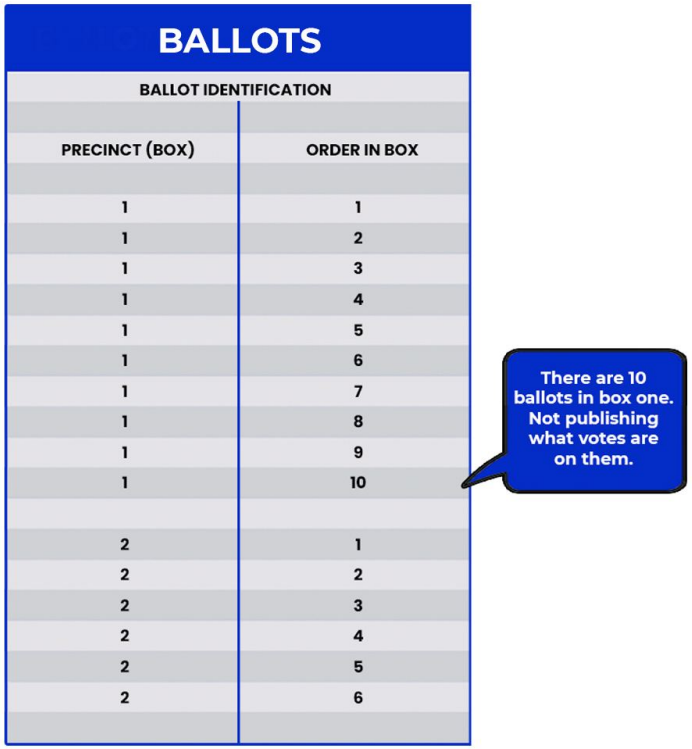
Thought Experiment: “The Audit Game”

BALLOT IDENTIFICATION		CONTEST	
PRECINCT (BOX)	ORDER IN BOX	GOVERNOR	MAYOR
1	1	BUGS BUNNY	MINNIE MOUSE
1	2	PORKY PIG	WILE E. COYOTE
1	3	BUGS BUNNY	WILE E. COYOTE
1	4	BUGS BUNNY	WILE E. COYOTE
1	5	PORKY PIG	MINNIE MOUSE
1	6	BUGS BUNNY	WILE E. COYOTE
1	7	BUGS BUNNY	WILE E. COYOTE
1	8	PORKY PIG	MINNIE MOUSE
1	9	BUGS BUNNY	WILE E. COYOTE
1	10	BUGS BUNNY	WILE E. COYOTE
2	1	BUGS BUNNY	WILE E. COYOTE
2	2	BUGS BUNNY	WILE E. COYOTE
2	3	BUGS BUNNY	MINNIE MOUSE
2	4	BUGS BUNNY	WILE E. COYOTE
2	5	PORKY PIG	MINNIE MOUSE
2	6	BUGS BUNNY	WILE E. COYOTE
2	7	BUGS BUNNY	MINNIE MOUSE
2	8	PORKY PIG	MINNIE MOUSE
2	9	BUGS BUNNY	WILE E. COYOTE
2	10	BUGS BUNNY	WILE E. COYOTE

The tabulator is saying that box2, Ballot 3 has a vote for bugs and Mini. But is it True?

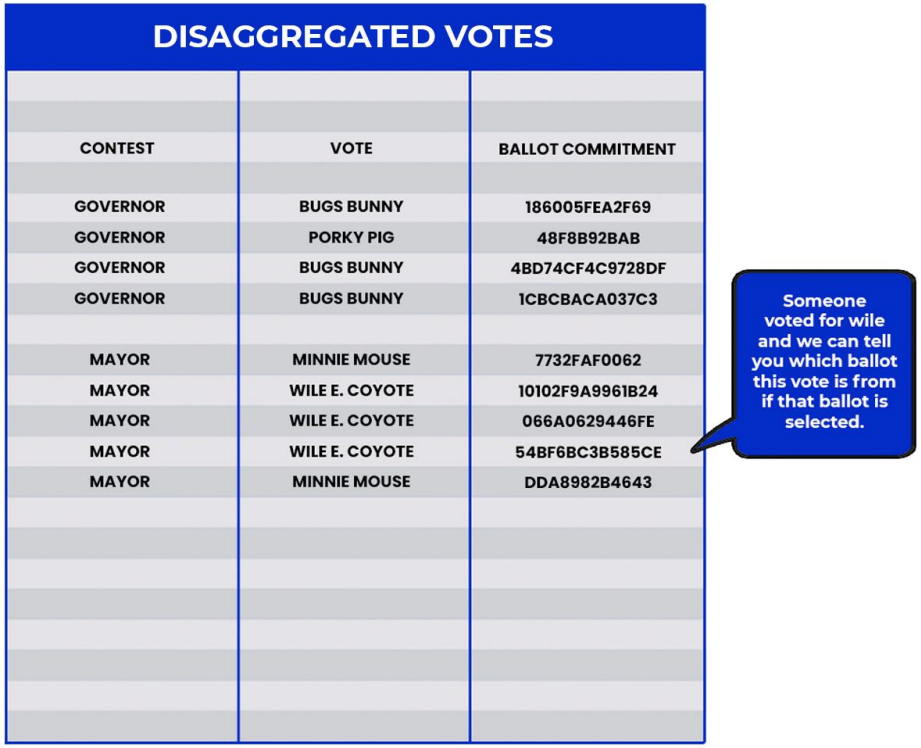
What a player gets in the “Audit Game”, full “Cast Vote Records” designed to be loaded into a spreadsheet or the like.

SOBA



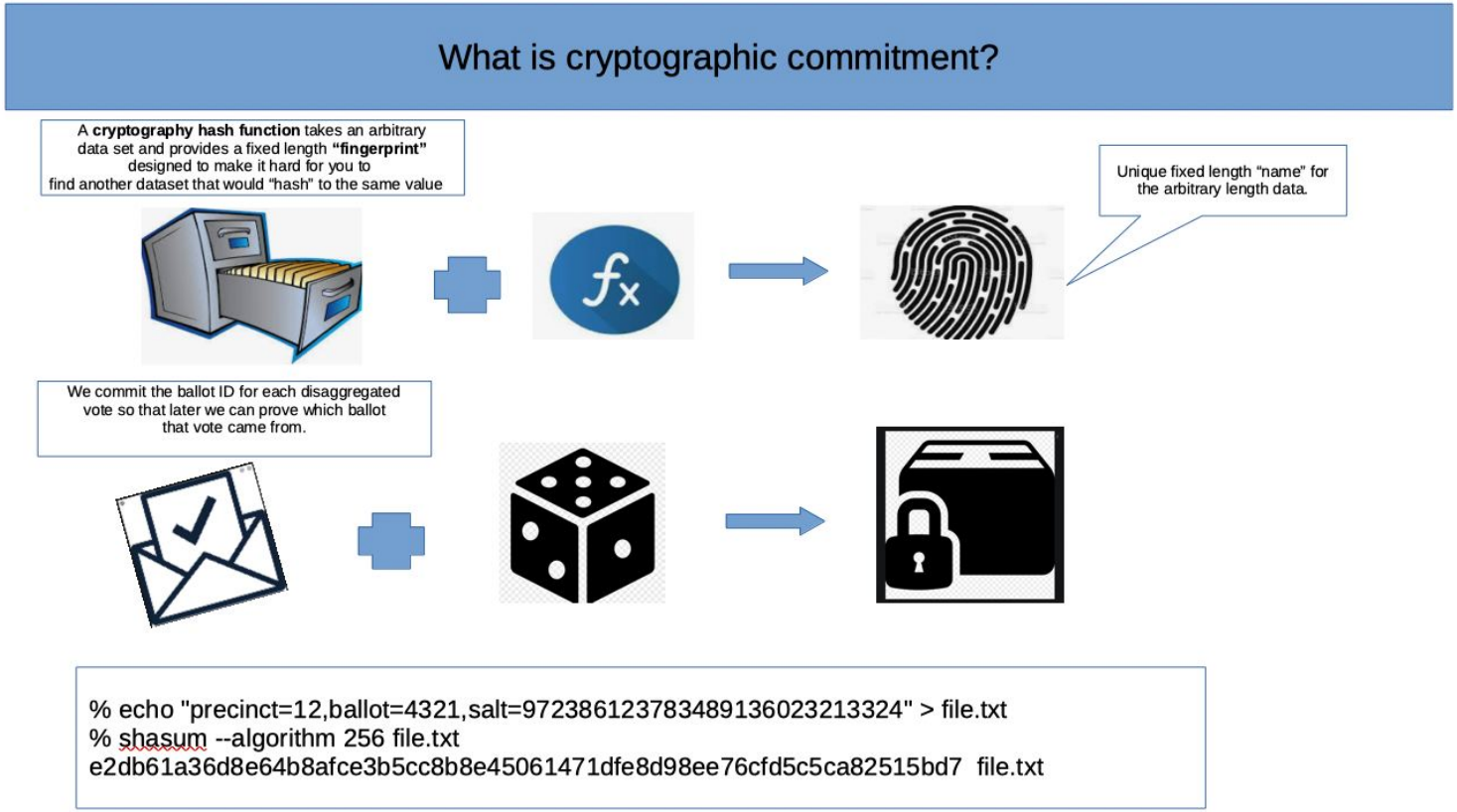
Ballots, as an Audit Participant gets in a SOBA Audit.

SOBA



Disaggregated votes, as an Audit Participant gets in a SOBA Audit.

SOBA



What is Cryptographic Commitment?

CONCLUSION

SOBA Shows us:

- It is possible to make an auditing process that is public and privacy preserving
- Is it what you want?