

# CN414 Computer Network Security

Week 13:- Electronic Voting

By

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## Electronic Voting

- **Overview of E-Voting**
- Analyze of E-Voting
- Future of E-Voting

## Electronic Voting

Direct recording voting machine developed in Brazil  
and used in 100% of Brazilian elections



## Electronic Voting

- Electronic Voting (e-Voting) can be in different type.
  - Telephone
  - Internet
  - Direct-Record Electronic Voting
- Example, using in US, UK, Switzerland, ... etc.

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## Electronic Voting

- Cryptography involved
  - Signed by Digital Signature
  - However, system must be able to prove that person is voting.
  - But not allow to track that person vote for whom.

## Electronic Voting

- Physical Protection
  - Must be safe from tampering
  - Man in the middle attack
- Source Code
  - Must be transparency.
  - Must be prove and verified.

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## Electronic Voting

- Problems in the United States general elections, 2006:
  - During early voting in Miami, Hollywood and Fort Lauderdale, Florida in October 2006 three votes intended to be recorded for Democratic candidates were displaying as cast for Republican. Election officials attributed it to calibration errors in the touch screen of the voting system.
  - In Pennsylvania, a computer programming error forced some to cast paper ballots. In Indiana, 175 precincts also resorted to paper. Counties in those states also extended poll hours to make up for delays.

## Electronic Voting

- It needs
  - 100% Reliability
  - 100% Accuracy
  - 100% Authentication + convenient

## Reference

- [http://en.wikipedia.org/wiki/File:Urna\\_eletr%C3%B4nica.jpeg](http://en.wikipedia.org/wiki/File:Urna_eletr%C3%B4nica.jpeg)

Q & A