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Voting Systems in Los Angeles County

Assessing Critical Factors

Topics

- Evolution of Current County Voting System

- Critical Implementation Factors

- Additional Considerations

Evolution of Current Voting System

1960's-   IBM Mainframe Technology

1990's-   MTS on DOS Computers

2000-   Touchscreen Early Voting

2003-   InkaVote

2006-   InkaVote Plus

1960's IBM mainframe technology

1990's: Microcomputer Tally System on DOS Personal Computers

2000: Touchscreen Early Voting

2003: InkaVote Optical Scan Voting System

2006: InkaVote Plus PBR and ABB

Critical Implementation Factors

- Ballot Format

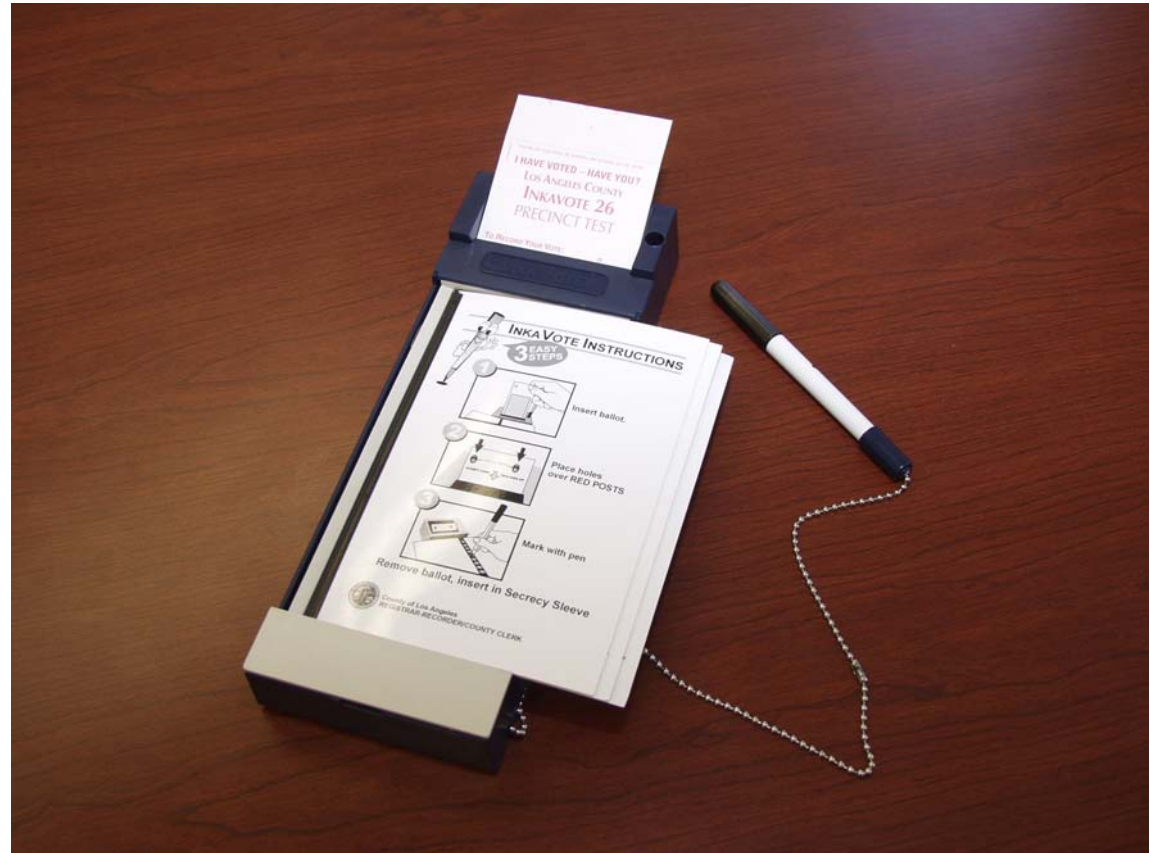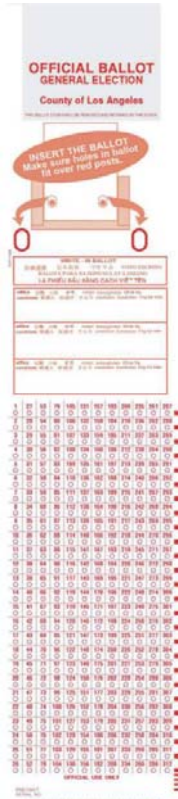- Tally Location & Method

- Logistics, Handling, and Security

Ballot Format

- Small Format Ballot Card

- Large Format Full Face Ballot Sheet

- Electronic Ballots

Small Format Ballot Card

Small Format Ballot Card

- Considerations
  - All ballot responses recorded on one ballot
  - One ballot per voter
  - Light weight for easier handling
  - Compact for efficient storage and distribution

- Operational Challenges
  - Limited support for "name on ballot" layouts
  - Requires additional vote recorder device or ballot guide
  - No vote recording device for VBM voting
  - Non-intuitive voting interface

Large Format Full-Face Ballot

Large Format Full-Face Ballot

- Considerations
  - Intuitive interface, easy to use
  - Vote recording device not necessary
  - Most widely used (consistency)

- Operational Challenges
  - Limited contest capacity
  - Unwieldy handling, more workspace needed
  - Volume and weight
  - Does not resolve voter intent interpretation issue

Electronic Ballots

Electronic Ballot

- ## Considerations
  - Avoids paper ballot procurement process
  - Unlimited contest capacity
  - Integrated support for accessibility (zoom, contrast, audio, foreign languages) and second-chance voting
  - Better support for primary elections
  - Touchscreen technology becoming mainstream, intuitive

- ## Operational Challenges
  - Lack of true paper ballots for audit/recount
  - Cannot be used for VBM voting
  - Computer hardware dependent (30,000 – 40,000 devices needed for major election)
  - Limited demonstrated transparency and security

Tally Location

- ## Central Tally
  - Ballots are transported back to a central tally facility for tabulation and reporting

- ## Precinct Tally
  - Ballots are tabulated at precincts, only precinct results are submitted to election headquarters for election night compilation and reporting

Tally Method

- ## Hand-Count
  - Paper ballots are tallied by pollworkers, volunteers and election staff

- ## Optical Scan
  - Paper ballots are scanned through a machine that reads the markings on the ballot to tally

- ## Electronic
  - Votes are tallied electronically after voters mark selection on a device such as a touchscreen or keyboard

Logistics, Handling, and Security

- Voting Materials Delivery Model

- Equipment Handling Features

- Security and Chain of Custody

Voting Materials Delivery Model

- Truck Route and Stop
  - Complex process
  - Resource intensive, costly
  - Challenging route and stop planning
  - Delivery and materials control issues

- Inspector Supply Pick Up
  - Easier to implement, better materials control
  - Motivated inspectors, high delivery success rate
  - Constraints on weight and dimension of materials

Constraints of ISPU Delivery Model

Equipment Handling Features

- Dimension and Weight
  - Light and compact
- Portage Amenities
  - Hand grips, extending handles, straps, wheels
  - Stability during transport, durability
- Storage and Maintenance
  - Efficient stacking
  - In situ maintenance and election configuration
- Connectivity
  - Power requirements at polling place
  - Requirements for system programming

Security and Chain of Custody

- Number of units per polling place
  - Increases complexity of custody control
- Physical security vulnerabilities
  - More serialized security seals and locks
- Timelines and span of control
  - Deadlines, time needed for distribution
  - Sleepover issue

Additional Considerations

- Regulatory Environment

- Market

- Development and Implementation Timeline

- Future Needs and Trends