2009 Professional Practices Program

Ohio Elections Security
Ohio Secretary of State

Submitted by:

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Ohio Elections Security

In the spring of 2008, the Ohio Secretary of State (SOS) convened a work group of elections officials to develop the state’s first elections security procedures and best practices. The goal of the work group was to produce recommendations for a directive to guide boards in developing and implementing security plans for the historic 2008 elections.

In developing the work group model for Ohio’s first elections security plans, special attention was paid to the following:

- Creating a model that was strong enough to protect elections security, yet flexible enough to meet the diverse needs of urban, suburban, exurban and rural counties;
- Starting with a firm knowledge base of existing best practices, as presented by front-line elections administrators; and
- Mirroring the diversity of Ohio’s elections administrators, as well as the bipartisan makeup of elections administration in the state.

The work group process culminated with Secretary of State Jennifer Brunner’s issuance of Directive 2008-25 – Polling Place Security and Voting Equipment, Supplies and/or Ballots chain of Custody Form in time for the March 2008 Primary Election which carries the weight of law and must be followed by all 88 county boards of elections.

The initial meeting of the SOS/OAEO Work Group on election related security issues was held on April 16, 2008 at the Ohio Secretary of State’s office. The first work group meeting included the following:

**Members of the Ohio Association of Elections Officials:**
- Shannon Leininger (D) - OAEO President - Ashland County - Premier DRE & ADA
- Rokey Suleman (D) - OAEO 2nd Vice President - Trumbull County - Premier DRE & ADA
- Marilyn Jacobcik (R) - OAEO 1st Vice President - Lorain County - Premier DRE & ADA
- Jeff Mathews (R) - OAEO Legislative member - Stark County - Premier DRE & ADA
- Lynn Wylds (D) - Mercer County - Premier OS -CC
- Peter Kukla (D) - Fairfield County - Premier DRE & ADA
- Betty Rousenburg (R) - Monroe County - ES & S - OS Model 100 - ADA - ES & S Automark
- Lynn Edward Kinkaid (R) - Butler County - Premier DRE & ADA

**Secretary of State Officials:**
- Jennifer Brunner – Ohio Secretary of State
- Chris Nance - Assistant Secretary of State
- David Farrell - Deputy Assistant Secretary of State and Director of Elections
- Pat Wolfe- Elections Administrator
- Jacqueline Rothschuh - Elections Assistant Administrator
- Brian Shinn - Assistant General Council/Elections Council
- Gretchen Quinn - Elections Council

The elections officials in attendance not only mirrored the diversity of Ohio’s regions; they also represented the county board of elections sizes, ranges of experience and operations seen across
Ohio. Equally important, the work group mirrored the bipartisan makeup of Ohio’s county boards of elections.

To gain a firm understanding of what already took place, each elections official presented a brief overview of their county’s office structure and security systems. The officials also presented the number of registered voters, precincts and polling locations in the county; the primary precinct-based voting system used; and the security measures typically implemented for ballots and voting equipment before, during and after each election.

As one might expect, security of the board offices ranged from having the general public walk through the board of elections office with little or no restrictions for access, to requiring board of elections personnel to use an ID swipe card and codes to enter the office.

Despite the varied nature of security protocol from county to county, the work group quickly outlined minimum security procedures based upon the elections official’s responses. These minimum security procedures were distributed prior to the next scheduled meeting of the work group, which was held Monday May 5, 2008, at the Secretary of State’s office.

At the final meeting of the work group, it was agreed upon by all members to provide a DRAFT version of all the suggested security implementations to the Ohio Association of Elections Officials members at the Ohio Secretary of State’s Summer Conference in June 2008. At that time, the OAEQ members gave their thoughts and ideas as well as asked questions.

After receiving final feedback from the entire elections community in Ohio, the Secretary of State’s office issued final minimum security standards for all boards, including the first requirement in Ohio’s history that boards develop an official security plan to protect the elections process from boards office to ballot box and back again.

In addition to Directive 2008-25, The Ohio Secretary of State issued five more directives that ensure all voting equipment, supplies, ballots, and personnel are secure at all times. The directives are:

- **Directive 2008-57** – Minimum Security, Access, Inventory Control, Storage and Preservation Requirements for Ballots and Election Data Media
- **Directive 2008-73** – Minimum Security Requirements of Vote Tabulation Servers
- **Directive 2008-74** – County Board of Elections Security and Risk Mitigation Plan

By working together with the OAEQ and having them provide their valued insight and input, the implementation of the security directives was successful. In 2008, Ohio voters could be assured that their votes are stored, maintained, and controlled with diligent security measures, and that each county board of elections is continually seeking to mitigate risk before, during and after each election.
DIRECTIVE 2008-56
July 21, 2008

TO: ALL COUNTY BOARDS OF ELECTIONS
   Members, Directors and Deputy Directors

RE: Security of Boards of Elections Offices as well as the Minimum Storage, Security, Access
    and Inventory Control Requirements for Voting Systems Equipment at the Board of
    Elections Office

This directive outlines the required minimum security measures for each of the 88 county
boards of elections offices, as well as the requirements for all voting systems equipment that is
maintained at the boards of elections offices and/or storage or other staging facilities.

Board of Elections Office Security

Boards of elections shall protect against natural and environmental hazards, tampering,
vandalism, and theft.

The following are minimum security measures that shall be taken to ensure security of the board
of elections offices:

- Employees with identification badges shall wear their badges at all times in a
  visible location.
- Do not lend office keys or identification badges to anyone.
- Do not prop secured doors open.
- Lock office doors while absent.
- Don’t leave confidential data at a printer, fax or other equipment.
- When absent from a desk with a desktop computer, require employees to lock
  their keyboards.
- Maintain and keep in a safe place a list of all pertinent contact names and phone
  numbers, such as employee cellular and home telephone numbers and
  emergency personnel contact information.
- Prevent access of unauthorized visitors, which can occur when an unauthorized
  person enters by following closely behind an authorized office employee, or
  when an authorized person allows others to follow by holding open a secured
  door.
- Maintain a counter area at the entrance of the office to separate visitors from
  staff.
- Have visitors who traverse behind the counter in the office sign in and out of the
  office.
- Escort visitors both to and from the office.
- Report any security violation to the supervisor(s).
DIRECTIVE 2008-57
July 21, 2008

TO: All County Board of Elections
    Members, Directors and Deputy Directors

RE: Minimum Security, Access, Inventory Control, Storage and Preservation Requirements for Ballots and Election Data Media

To ensure the integrity of the election process in Ohio, boards of elections must maintain minimum security best practices to ensure the security and preservation of all Optical Scan Paper Ballots (OSPBs), which include those provided by a vendor or outside printing source, and those provided in house by ballot on demand (BOD) equipment; Voter Verifiable Paper Audit Trails (VVPATs); Memory Cards (PCMCIA); Personal Electronic Ballot cartridges (PEBs); Mobile Ballot Boxes (MBBs) and eCM tokens; and Election Data Media (CD-R and/or USB flash drives).

Minimum Security, Access, Inventory Control, Storage and Preservation Requirements for Ballots and Election Data Media

All references to ballots and election data media include, but are not limited to the following: Optical Scan Paper Ballots (OSPBs), which include those provided by a vendor or outside printing source, and those provided in house by ballot on demand (BOD) equipment; Voter Verifiable Paper Audit Trails (VVPATs); Memory Cards (PCMCIA); Personal Electronic Ballot cartridges (PEBs); Mobile Ballot Boxes (MBBs) and eCM tokens; and Election Data Media (CD-R and/or USB flash drives).

Minimum Security Requirements

Ballot and election data media shall be placed in a secure room where access is kept to the least number of privileged personnel possible.

- Protective cases, sleeves, and other containers that are used in maintaining the segregation and security of ballots and election data media shall be labeled as such.
- All ballots and election data media, when not in use on Election Day, shall be stored in a locked room or storage unit that is designated for such purpose.

Minimum Access Control Requirements

Access to the ballot and election data media development, accounting/reconciliation, processing and storage areas shall be restricted to authorized personnel only.
DIRECTIVE 2008-68
August 19, 2008

TO: ALL COUNTY BOARDS OF ELECTIONS
    MEMBERS, DIRECTORS, AND DEPUTY DIRECTORS

RE: Voting Machine Delivery Requirements

The purpose of this directive is to help ensure the security of all voting equipment, memory cards and/or ballots used on Election Day, and to bring all Ohio counties in line with these secure transport guidelines.

Delivery of Voting Equipment

To ensure accountability and election integrity, all county boards of elections should place emphasis on their responsibility to provide for the security and safe storage of voting equipment, including optical ballot scanners, and memory cards before, on and after Election Day. Security and safe storage should take into account manufacturer’s specifications for recommended temperature when in storage or use, as well as handling and setup of voting machines that will enable the machines to be operated as intended and for optimum performance of the machines.

The storage of voting machines for any period of time at a poll worker’s home, place of work or automobile does not assure the voters of Ohio of the accountability that meets requisite standards of security and safe storage of voting machines. Therefore, boards of elections must provide for the delivery and safe storage of voting machines to polling places prior to or on Election Day. The Secretary of State’s office has available funds to compensate for additional costs incurred for the November 4, 2008 election as a result of implementing this directive for the delivery of voting machines to polling places.

Minimum Storage Requirements

Boards of elections should ensure minimum storage requirements for voting equipment such as those outlined in Directive 2008-56 (Minimum Storage, Security, Access and Inventory Control Requirements for Voting Systems Equipment) for voting machine equipment that is delivered to a polling place, to a regional location designated and staffed by the board or at board offices or board operated storage facilities.

Minimum storage requirements for voting equipment include the following:

- Voting system equipment should be stored in a climate-controlled space. Temperature levels shall not be lower than 50 degrees nor higher than 90 degrees. Relative humidity
DIRECTIVE 2008-73
August 26, 2008

TO: ALL COUNTY BOARDS OF ELECTIONS
MEMBERS, DIRECTORS AND DEPUTY DIRECTORS

RE: Minimum Security Requirements of Vote Tabulation Servers

To further enhance the integrity of the election process in Ohio, the Secretary of State’s office is directing all boards of elections to maintain minimum requirements concerning the security of vote tabulation servers.

Each board of elections shall develop and/or maintain a policy for account and password management for granting access to the server and access to related workstations, if any, for its election system. Each board of elections shall have a policy for maintaining sign-in documentation of server activity and related workstation activity, if any. The board shall also have a policy for monitoring election system activity through the use of audit logs and other security practices as may be established by the board or the Secretary of State.

All policies shall be based, at a minimum, on the requirements set forth in this directive. The policy must be reviewed at least annually and updated to conform to changes in board organization, structure, personnel, state law, Secretary of State directives and advisories, equipment, certification activity by the Board of Voting Machine Examiners, and other occurrences or changes that will affect the implementation of the board’s policy.

The board of elections shall enforce all policies and procedures relating to the security of the vote tabulation server and related workstations.

PASSWORD MANAGEMENT

BIOS Passwords

A BIOS (Basic Input/Output System/Basic Integrated Operating System) password shall be required for all vote tabulation server systems, forcing users to enter a correct BIOS password in order to boot the machine. It is recommended that the password be split with authorized Republican personnel possessing half of the password and authorized Democratic personnel possessing the other half of the password. Each half of the password must be distinct (e.g. “vote1-vote2” is not acceptable) and shall not be known to anyone other than the authorized user.

Account Passwords

The password to the Election Management System must consist of a split password as described and recommended for the BIOS.
DIRECTIVE 2008-74
August 26, 2008

TO: ALL COUNTY BOARDS OF ELECTIONS
MEMBERS, DIRECTORS AND DEPUTY DIRECTORS

RE: County Board of Elections Security and Risk Mitigation Plan

With the recommendation of the Ohio Association of Election Officials (OAEO), the Secretary of State is hereby directing all boards of elections to submit a Security and Risk Mitigation Plan not later than Monday, September 22, 2008, which is 45 days in advance of the November 4, 2008, general election.

The Security and Risk Mitigation Plan ("plan") shall be based on minimum security requirements established in the following directives and must also be consistent with the guidelines established by the U.S. Election Assistance Commission (EAC):

- Directive 2008-25 (Polling Place Security and Voting Equipment Supplies and/or Ballots Chain of Custody Form)
- Directive 2008-56 (Security of Boards of Elections Offices, as well as Minimum Storage, Security, Access and Inventory Control Requirements for Voting Systems Equipment at the Board of Elections Office)
- Directive 2008-57 (Minimum Security, Access, Inventory Control, Storage, and Preservation Requirements for Ballots and Election Data Media)

These directives and guidelines set forth minimum requirements and best practices elections officials have identified as being effective, fairly easy to implement, and having the least cost.

The plan shall contain the following security and risk mitigation elements, as well as contingency planning in the event of an interruption, including natural disasters, attacks or acts of war, or degradation of service:

- polling place security
- board of elections office security
- storage, security, access and inventory control requirements for voting systems equipment at the board of elections office
- storage requirements for voting equipment
- security requirements for voting equipment, including delivery of voting equipment
- minimum access control requirements
- inventory control requirements