MARK S. SWANN
METROPOLITAN AUDITOR

**METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY**

OFFICE OF INTERNAL AUDIT
222 THIRD AVENUE NORTH, SUITE 401
NASHVILLE, TN 37201
(615) 862-6110

June 17, 2008

Members of Metropolitan Audit Committee

The Division of County Audit for the State of Tennessee has completed a limited review of selected computer general and application controls over the information system at the Metropolitan Government of Nashville and Davidson County Election Commission. Please find enclosed a copy of the report issued on June 9, 2008 for your review.

Sincerely,

Mark S. Swann, CPA - Texas, CIA, CISA

Enclosure

cc: Councilman Craddock
Councilman Gotto
Margaret Darby, Law Department
Talia Lomax-O'dneal, Deputy Director of Finance

STATE OF TENNESSEE
**COMPTROLLER OF THE TREASURY**
DEPARTMENT OF AUDIT
DIVISION OF COUNTY AUDIT
SUITE 1500
JAMES K. POLK STATE OFFICE BUILDING
NASHVILLE, TENNESSEE 37243-0269
PHONE (615) 401-7841

June 9, 2008

To the Metropolitan Government of Nashville and Davidson County
Mayor, Election Commission Chair, and Administrator of Elections

Gentlemen:

We have performed a limited review of selected general and application controls over the information system at the Metropolitan Government of Nashville and Davidson County Election Commission as of March 2008. This letter transmits the results of our review. The responses of the Administrator of Elections and the Information Technology Services Director are also included.

Please contact Penny Austin, Assistant Director, if you have any questions regarding our review.

Sincerely,

James R. Arnette
Director of County Audit

JA: pa

Attachment

cc: Ms. Sandy Cole, Information Technology Services Director
Mr. Richard Riebeling, Director of Finance
Mr. Mark Swann, Internal Auditor
Mr. Richard Norment, Assistant to the Comptroller
Mr. Brook Thompson, Coordinator of Elections

# Limited Review of Information System Controls

## The Election Commission of the Metropolitan Government of Nashville and Davidson County, Tennessee

May 2008

TENNESSEE
COMPTROLLER
OF THE TREASURY

## Background

A robbery occurred in the office of the Election Commission of the Metropolitan Government of Nashville and Davidson County in December 2007. Among the items stolen were two laptop computers containing the names, addresses, and social security numbers of registered voters. After this security breach, measures were taken by the election commission to better protect sensitive information from being compromised. Social security numbers are no longer stored on mobile devices such as laptop computers and removable storage media. Election commission workers who are assigned laptop computers now use unique logins and are required to attend security awareness training.

The Comptroller of the Treasury, Division of County Audit has performed a limited review of the procedures in place to safeguard sensitive electronic information at the election commission. Other selected general and application controls were also reviewed. It should be noted that the metropolitan government's internal auditors are currently performing a review of security management at Metro Information Technology Services (ITS). The mayor has also retained a consultant to perform a Metro-wide information security review. Also, physical controls over the government's office buildings will be reviewed.

## Scope

Selected general and application controls were reviewed at the election commission. Areas examined included implementation of policies and procedures, disaster recovery planning, application security practices, and asset management. The review was based on procedures in place at the election commission as of March 2008.

## Recommendations

Based on the review of policies and procedures in place, the following recommendations were made to management:

- An application login of an employee of Information Technology Services (ITS) allowed him access to all functions of the voter application used by the election commission. Because this employee only performs limited services to the election commission, this login should be restricted to only the functions needed to perform those services.

  Administrator of Elections' Response

  This problem has been corrected. As suggested, no supervisor login rights are present. This login is restricted to only entry level rights needed to perform specific functions within the database as deemed necessary by the administrator.

- A formal disaster recovery plan has been developed for the office. All employees should be made aware of this plan and the importance of keeping all contact information up to date should be communicated.

  Administrator of Elections' Response
  The existing formal disaster recovery plan will be more clearly communicated to all employees. The need to maintain current contact information will be emphasized.

- The office recently adopted a security policy that addresses logical access security, virus protection, back-up procedures, and encryption of confidential data. Management should ensure that all employees are aware of these policies and procedures. It should be made clear which procedures the election commission performs and which procedures are the responsibility of ITS, who manages the data center where the voter software is housed. Management should also document policies and procedures specific to the voter registration application.

  Administrator of Elections' Response
  The Commission fully agrees that Metro ITS should set and enforce computer policies for the office. To ensure the success of this concept, the Commission is conducting discussions and meetings between the appropriate personnel to develop clear understandings of respective roles.

- Management should implement procedures to ensure that media containing sensitive information is properly disposed of when it is removed from service. Hard drives and other media should be wiped using appropriate software or should be physically destroyed.

  Administrator of Elections' Response
  The Commission is developing a procedure to ensure that media containing sensitive information is properly protected and disposed of. The utilization of a wiping software will be a substantial improvement. Designated staff employees who are involved with sensitive material will receive specific disposal training and guidelines that they will be required to follow.

- All employees are required to sign an acceptable use policy that addresses the use of Internet and email. Management should expand this policy to address use of all network resources and the responsibilities of protecting confidential information stored on these resources.

  Administrator of Elections' Response
  The Commission is developing a specific policy statement addressing the use of Internet and e mail. While generally following the existing Metro guidelines, this policy statement will be specific to the Election Commission. Each employee will sign a form acknowledging that they have received, read and understand the policy statement.

- Management did not appear to have a clear understanding of the services and responsibilities of ITS as they relate to the information system resources used by the election commission. ITS bills the election commission for services provided, and the commission should have a formal understanding with ITS documenting the scope of these services.

  Administrator of Elections' Response
  The Commission is developing a better understanding as to the services and responsibilities provided by Metro ITS. A clearer degree of communication with Metro ITS is an important procedure that is being implemented by the Commission.

## Additional Comments

- Metro ITS has developed policies and procedures related to computer operations and security. We recommend that any office to which ITS provides services be required to follow these policies and procedures.

  Information Technology Services Director's Response
  ITS supports and encourages efforts by other departments to adopt our active policies. The policies are available for departments' review on Metro's Intranet site. The anticipated security plan under development by the Mayor's security consultant is expected to result in new Executive Orders regarding critical security requirements. Several orders have already been released, including Internet and Mail use, employee security training, and the formation of separate advisory boards for IT security and Information Technology.

- In addition, we recommend that procedures for returning surplus property back into service be improved. If a computer or related asset that has been placed in surplus is removed from surplus for use by a Metro entity, the status of the asset should be changed to active in the inventory system.

  Administrator of Elections' Response
  The Commission has implemented a clear procedure for dealing with surplus property. A senior employee will have the responsibility for overseeing and maintaining the inventory control system and communicating with the appropriate Metro authorities.

  Information Technology Services Director's Response
  General Services implemented a policy earlier this year to require that no computer equipment be released from Surplus without written ITS director approval on a case by case basis. Only under extenuating circumstances in the best interests of Metro will I approve any surplus equipment to be temporarily placed back in service and with strict controls and agreements in place.