IT Inventory Audit

Audit Report # 13-18
November 18, 2013

Office of Auditing and Consulting Services

"Committed to Service, Independence and Quality"
November 18, 2013
Dr. Diana Natalicio
President, University of Texas at El Paso
Administration Building, Suite 500
El Paso, Texas 79968

Dear Dr. Natalicio:

The Office of Auditing and Consulting Services has completed a limited-scope audit of the University's information technology (IT) asset management process. The main audit objective was to determine whether the IT asset management of laptops is effective, complete, accurate and current.

We appreciate the cooperation and assistance provided by the management and staff of the Inventory Department, Technology Support, and Information Security Office.

Sincerely,

William A. Peters, CPA, CIA
Director

Administration Bldg.
Fourth Floor
El Paso, Texas
79968-0586
(915) 747-5191
Fax (915) 747-8913
Report Distribution:

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Auditors Assigned to the Audit:

Lorenzo Canales (Engagement Manager)

Jerry Montes (IT Auditor)

Paulina Kura (Internal Auditor)
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EXECUTIVE SUMMARY

The audit of the information technology (IT) asset management process at The University of Texas at El Paso was conducted at the request of The University of Texas System. The purpose of the audit was to review the University’s IT inventory processes for laptops. Specifically, the objectives were to:

- determine whether laptop inventory records for University-owned laptops used to conduct University business are complete, accurate and up-to-date, and
- gain an understanding of key internal controls over the information technology (IT) asset management process to determine whether they are adequate to track and record IT inventory.

During the audit, we noted:

- computer laptop purchasing and receiving reports were not reconciled to the BIS inventory management system,
- inventory records were not updated, and
- control weaknesses in missing laptop inventory procedures.

We conclude that the University should improve the IT asset management process by reconciling asset reports and department inventory records to BIS. In addition, missing inventory procedures should be strengthened by requiring Technology Support to review BIS inventory records for each laptop service call, and for the Inventory Department to provide sufficient information to assign liability for missing/stolen laptops.
BACKGROUND

In August 2012, many Information Technology (IT) departments struggled to provide complete and accurate lists of laptop computers. This highlighted several weakness related to the IT asset management processes. As a result, for fiscal year 2013, the University of Texas System Audit Office asked each institution to conduct an audit to determine the status of laptop encryption and the adequacy of IT inventory controls to identify all University-owned laptops used to conduct University business.

AUDIT OBJECTIVE

The objectives of this audit were to evaluate University IT asset management processes to:

- determine whether laptop inventory records for University-owned laptops used to conduct university business are complete, accurate and up-to-date, and
- gain an understanding of key internal controls over the IT asset management process to determine whether they are adequate to track and record laptop inventory.

SCOPE AND METHODOLOGY

The audit scope was limited to laptop asset management processes from September 1, 2011, to March 15, 2013. Audit procedures included interviewing key personnel, reviewing applicable regulations, testing of inventory records and verifying the existence of appropriate institutional policies and procedures.

The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors.

AUDIT RESULTS

To gain a better understanding of the processes and controls the Office of Auditing and Consulting Services (OACS) conducted a process mapping session and invited campus subject matter experts (SME) to assist in the development of a laptop inventory process flow chart. Attendees included SMEs from:

- Inventory
- Technology Support
- Central Receiving
- Purchasing and General Services
- Information Security Office
The asset management processes specific to laptop computers was mapped involving personnel from cross functional departments that have a stake in the management of University laptops. The process map began with the actual purchase request of computer equipment, through receiving and recording in BIS inventory records, and finally to the updating of inventory records. Inventory control points were identified during the process mapping session, and the control points were tested to determine whether they are functioning as intended.

**University-owned Laptops Missing in BIS Inventory**
The University purchases laptop computers from both Dell Inc. and Apple Inc. Dell computer purchases are processed through Checkpoint Services, Inc., one of Dell’s El Paso distributors. Checkpoint provides a list of Dell laptops purchased by and shipped to the University, but Apple does not currently follow this same process. Using Miner Mall purchasing reports and the Dell asset reports, we identified five laptops that were purchased during the audit period, received by the Central Receiving Department and delivered by Central Receiving to end users without the tag numbers having been recorded in BIS by the Inventory Department.

**Recommendation:** Dell asset reports should be received by the Inventory Department and reconciled with BIS inventory on a monthly basis. Reconciling will ensure laptops purchased through Checkpoint Services are included in BIS inventory.

The Purchasing and General Services Department should determine whether Apple Inc. can provide a similar list of computer equipment purchases and shipments to assist in the reconciliation of Apple hardware purchases as well.

**Management Response:** We concur. The reconciliation of Dell equipment can be easily done, and we believe new procedures to be put in place as part of the PeopleSoft implementation will further enhance tracking of Dell inventory. Purchasing and General Services has already been contacted about similar review of Apple equipment, although Apple, Inc. does not provide as detailed information to the University as Checkpoint. As with Dell equipment, we believe new procedures put in place as part of the PeopleSoft implementation will provide better tracking.

**Responsible Party:** March Guevara, Assistant Director for General Accounting Services

**Implementation Date:** December 1, 2013 for Dell equipment.

**Check Status of Laptops**
A meeting was conducted with the Director of Technology Support and the Helpdesk Manager to gain an understanding of Technology Support and the procedures for identifying University-owned laptops before servicing. We were informed that Technology Support personnel are not authorized to perform any work on laptops which have not been assigned a tag number. The helpdesk verifies that a tag number has been entered into the service request ticket; however, Technology Support does not verify that the tag number is not on the missing/stolen list or active in the BIS inventory management System. Verification of the tag number would help identify missing equipment and/or errors in BIS inventory records.
**Recommendation:** Technology Support should ensure every service request for a laptop has a tag number assigned. The number should be verified with current BIS inventory records. If the tag number is not on the inventory, or if it is recorded as a missing/stolen laptop, Technology Support should inform the user that he or she must contact the Inventory Department to update the inventory records. The Inventory Department should then notify Technology Support and the user department once the inventory records have been updated. If the laptop has been recorded as a missing item the Information Security Office should also be notified.

**Management Response:** Technology Support will notify UTEP inventory when a tag number is not found in BIS or when it is marked as missing/stolen. Additionally, we will also notify ISO for the latter case.

**Responsible Party:** Francisco Poblano, Assistant Director for Information Resources & Planning Administration

**Implementation Date:** October 25, 2013

**Joining Computers to the Domain**
Technology Implementation Managers (TIMs) are hired by various departments and colleges to perform network administration duties. The TIMs also have MINERS domain administrative privileges. This gives the TIMs the ability to join laptops to the MINERS domain without UTEP Technology Support approval and without verifying that the laptops are University-owned inventory.

**Recommendation:** TIMs should be required to use the Help Desk Service Request system and create service tickets every time a laptop needs to be joined to the MINERS domain. They should also verify that all laptops are recorded appropriately in the BIS inventory system. Technology Support should help establish a policy requiring TIMs to use the Help Desk Service Request system to ensure only University-owned laptops are serviced or added to the MINERS domain.

**Management Response:** Technology Support will provide ServiceDesk technician account access and training to TIMs. If necessary, BIS access and training will be provided as well. Technology Support will assist ISO in creating the policy and will request acknowledgement of the policy by anyone who has a technician account in Service Desk.

**Responsible Party:** Francisco Poblano, Assistant Director for Information Resources & Planning Administration

**Implementation Date:** April 1, 2014

**Missing Laptops Procedures Should Be Strengthened**
During our audit, we identified 243 laptops valued at $404,022 which were labeled as missing. The Inventory Department does not provide sufficient information to assign liability for loss of these laptops as required by state law. Texas Government Code Chapter 403, Subchapter L,
Section 403.275(1) states that individual employees can be held liable of loss of property if “agency property disappears, as a result of the failure of the head of an agency, property manager, or agency employee entrusted with the property to exercise reasonable care for its safekeeping...”

Due to inadequate procedures to identify individuals directly responsible for laptops, the University is often unable to recover the cost of missing/stolen laptops. Also, the Information Security Office does not receive notification of missing laptops identified during the annual inventory process to determine whether an incident report is required.

**Recommendation:** Laptops should be assigned to individuals in order to better track responsible parties. The inventory department should develop procedures which require notification of information security office immediately after identifying a University-owned laptop as missing. Missing/stolen laptop procedures should also require a thorough review and documentation to provide notification to the ISO whenever confidential or sensitive information may have been compromised. Based on this review a determination should be made with regard to liability for the loss and recovery of replacement cost in order to comply with state regulations. This determination should be made prior to removing the item from the inventory list.

**Management Response:** We concur; however, we do not currently have an efficient method to assign laptops to individuals. Equipment, including laptops, are assigned and tracked by Unit Codes. Each Unit Code holder is responsible for equipment assigned to the Unit, and may delegate responsibility further to subordinates within the unit. Currently, there is not a mechanism within Define to assign and track equipment to individuals. As far as notification to ISO when computers or laptops are reported missing, this can be easily done by the Inventory Department.

**Responsible Party:** March Guevara, Assistant Director for General Accounting Services

**Implementation Date:** December 1, 2013 for notification of missing inventory to ISO.

**CONCLUSION**

Based on the results of audit procedures performed, we conclude that the IT asset management processes and controls should be strengthened by implementing the recommendations in this report.

We wish to thank the Inventory Department, the Purchasing and General Services Department, the Information Security Office and Technology Support for their assistance and cooperation provided during the audit.