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FINAL REPORT TRANSMITTAL LETTER

Honorable Wayne County Commissioners:

Enclosed is our final copy of the Office of the Legislative Auditor General's Performance Audit for Controls Over Computer Equipment Inventory, Department of Technology. The report is dated February 12, 2015; DAP No. 2014-57-010. The report was accepted by the Audit Committee on March 11, 2015, and formally received by the Wayne County Commission on March 19, 2015.

If you have any questions, concerns, or desire to discuss the report in greater detail, we would be happy to do so at your convenience. The report is intended for your information and should not be used for any other purpose. Copies of all Office of Legislative Auditor General's final reports can be found on our website at: http://www.waynecounty.com/commission//743.htm

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County of Wayne, Michigan

Department of Technology

CONTROLS OVER COMPUTER EQUIPMENT INVENTORY

Performance Audit

February 12, 2015

EXECUTIVE SUMMARY

Type of Engagement, Scope, and Methodology

The Office of Legislative Auditor General conducted a performance audit of the Department of Technology (DoT) Controls over Computer Equipment Inventory. This type of engagement provides an objective analysis to assist management and those charged with governance and oversight. Our objective for this engagement was to assess the effectiveness of DoT's efforts to ensure the accuracy of computer equipment inventory.

The fieldwork was substantially completed on February 12, 2015, and the scope of our engagement was for fiscal year ending September 30, 2014 through report date. The principal methodology used for this engagement was limited to interviews with key members of management, inquiries, examination of documents, observations, analytical procedures, and on-site visits.

Introduction

The Department of Technology provides technology services to all elected officials and county departments. This includes maintaining and supporting the county's computer hardware and software as well as data and communication systems. The DoT is also responsible for maintaining and ensuring the accuracy of the county's computer equipment inventory.

Summary of Issues

We determined there are five (5) areas of concern and recommendations to strengthen DoT's computer equipment inventory management.

Four (4) of the recommendations are classified as significant deficiencies which are deemed to be medium risk; and one (1) is considered to be an operational control deficiency which is classified as relatively low risk. See the appendix for a definition of the various types of internal control deficiencies.

We discussed the issues and corresponding recommendations with DoT management and they agreed with all five (5) recommendations (See Report Details).

Areas of controls within DoT asset management we identified that could be strengthened include:

- Maintaining a more accurate inventory of computer equipment countywide.
- Inadequate tracking of monitors and other types of equipment that are not connected to the county's network.
- A need to perform an annual verification of inventory within the various departments or divisions.
- Maintaining a comprehensive set of policies and procedures for acquiring, recording, reporting, safeguarding, and disposal of computer equipment inventory.

Views of Responsible Officials

We shared the results of our review with DoT management officials and provided findings and recommendations based on our review. Based on discussion with management, they agreed with all five (5) of our findings. Management also indicated that they plan to take action to address the areas noted in our report.

Noteworthy Accomplishments

- DoT has worked with Management & Budget (M&B) to implement a new methodology to allocate chargebacks. Rather than allocating based on the number of devices connected to the network, the allocation is based on the number of user logins which is more equitable to the various functions within the county.
- Recent Windows 7 upgrade and PC rollouts allowed DoT to do some manual inventory confirmation with various departments and elected officials.
- Continuing Cyber Security initiatives have resulted in increased asset protection and reinforced the need to have an accurate asset management process and tools. This has been a key driver in the ongoing efforts to upgrade their asset management system.

Corrective Action Plan

A Corrective Action Plan (CAP) will be requested approximately 30 days after this report is formally received and filed by the Wayne County Commission. If sufficient corrective action is not taken, a follow-up review may be necessary.

REPORT DETAILS

PURPOSE / OBJECTIVE

The Office of Legislative Auditor General conducted a performance audit of the Department of Technology (DoT) Controls Over Computer Equipment Inventory. This type of engagement provides an objective analysis to assist management and those charged with governance and oversight. The information provided can help improve program performance and operations, reduce costs, facilitate decision making by parties with responsibility to oversee or initiate corrective action and contribute to public accountability.

Our objective for this engagement was to assess the effectiveness of DoT efforts to ensure the accuracy of computer equipment inventory.

SCOPE

We conducted this performance audit in accordance with Generally Accepted Governmental Auditing Standards (GAGAS) issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides reasonable basis for our conclusions based on our audit objectives.

The scope of our work primarily covered the period of October 1, 2013 through our report date. The fieldwork for this engagement was substantially completed on January 26, 2015.

METHODOLOGY

To address the objectives outlined for this engagement and obtain an understanding of DoT's control environment, we reviewed policies and procedures for the Department of Technology, made inquiries and interviewed management officials to obtain an understanding of the county's processes related to the inventory of computer equipment. We conducted walkthroughs of the various key functions related to computer inventory management within DoT. In addition, we performed analytical procedures and sampled some asset management records to determine if the process is administered as intended.

Finally, we met with management officials to discuss our findings, obtain their input, and their concurrence and/or disagreement with the report's conclusions, findings and recommendations.

BACKGROUND

The Department of Technology provides technology services to all elected officials and county departments. This includes maintaining and supporting the county's computer hardware and software as well as data and communication systems. DoT seeks to align with industry best practices to maintain and ensure the accuracy of the county's computer equipment inventory.

In today's business climate, nearly all areas of business and governmental entities are reliant upon technology to carry out their day to day operations. Additionally, DoT is responsible for providing services and support to its customers to meet their business and technical needs, objectives and goals. Services and support include: Project Management, Desktop Services, Call Center, Service Request Processing, and Procurement and Maintenance of County Hardware and Software.

The costs of services that DoT provides are accumulated in Internal Service Fund 635, Business Units 25805 and 25806. The majority of DoT costs are shared among all county business units per M&B chargeback methodology. The costs of certain technology related services are charged directly to the benefitting business unit based on actual cost.

Prior to Fiscal Year 2014, the Department of Technology chargeback methodology for shared costs was allocated based on the number of devices in each business unit that were connected to the county's network. However, starting in FY 2014, the allocation of technology chargeback costs was changed and is now based on the number of network user login ids in the business unit. These numbers are provided to M&B on an annual basis in order to calculate the shared costs to the various business units.

DoT manages various types of computer equipment including computers, laptops, printers, and scanners. Currently, there are approximately 2,900 active devices connected to the county's network. The list of end users devices includes PC's, printers, and scanners. The equipment purchases originated from various county funding sources including, but not limited to, General Funds, Federal and State Grants, etc.

ACCURACY OF COMPUTER EQUIPMENT INVENTORY

Objective No. 1- Assess the effectiveness of the county's efforts to ensure the accuracy of computer equipment inventory.

Conclusion

Based on our review, we determined that DoT's efforts to ensure the accuracy of computer equipment inventory was somewhat effective in that a system is in place to maintain the computer equipment inventory listing. However, we determined that DoT did not have comprehensive policies and procedures to manage computer equipment inventory. In addition, DoT did not have one comprehensive computer equipment inventory and there was no annual county-wide inventory verification taking place to ensure the listing is accurate. We also noted that not all computer equipment such as monitors was included within the inventory nor was the inventory system updated as needed.

Comprehensive Policy and Procedures for Inventory Management

Condition

The Department of Technology does not have comprehensive policies and procedures for acquiring, recording, reporting, safeguarding, and disposal of computer equipment inventory. More specifically, we were not able to review documented procedures to determine how: new computer equipment is received; when asset tags are attached; and, other pertinent information recorded into the county's inventory system. There also does not appear to be policies and procedures for safeguarding computer equipment, nor what to do in case of a lost or stolen piece of equipment, and finally the process for disposal and removal from inventory.

Criteria

An effective inventory control management process over computer equipment includes standard policies and procedures for recording equipment upon receipt, establishing who will be using the equipment, where it will be located, how the equipment is safeguarded, and procedures for removal and/or disposal from inventory. The policy should include procedures for establishing inventory tagging requirements and specify the information that should be included in the inventory listing.

Cause

According to DoT staff, there are existing procedures and processes in place but there is no comprehensive written set of policies and procedures for the entire computer inventory process.

Consequences

Not having comprehensive policies and procedures could result in the county having a piecemeal approach to the acquiring, recording, safeguarding, and disposal of county computer equipment.

Recommendation 2014-01 – Control Deficiency

We recommend DoT develop written comprehensive policies and procedures for all aspects of managing the county's computer equipment including acquiring, tagging, reporting, safeguarding, and disposal of the equipment.

Views of Responsible Officials

DoT officials acknowledge this recommendation and will work to implement comprehensive policies and procedures that align with the County's existing procurement policies relating to acquiring technology assets. It is important to note that DoT performs a technical review of requested technology purchases, assists in the selection of requested technology and tags and deploys purchased technology. Once equipment is deployed, departments and elected offices who have procured the equipment assume physical and financial ownership.

Comprehensive Inventory List

Condition

Wayne County does not fully maintain an accurate inventory of computer equipment. During our review of the equipment inventory listing within the Department of Technology, we found the equipment/devices are not compiled on one comprehensive listing but actually within two (2) listings. One (1) list is of all active and recognized equipment/devices by the electronic inventory system.

Specifically, on the "Active Inventory Listing", there are 2,902 devices, of which 500 are laptops, 1,666 are desktops, and 736 devices are listed as printers. Of the 2,902 devices, while all devices have a cost center assigned 684, or 24 percent, of the devices are not assigned to a specific employee. In fact, two (2) of the devices listed as being assigned to the Commission are in fact printers that were assigned to the Office of Auditor General (OAG). However, these printers were returned over two (2) years ago but are still on the inventory listing as in service.

The second listing is an unidentified list of equipment/devices where the system finds an active IP address but cannot get information on the device. There were 272 devices on this listing; however, there was no description for any of the 272 devices, nor do they identify who the end user is. In addition, only 14 of the 272 devices actually had a serial number listed.

We also noted equipment such as computer monitors are not captured on the inventory listing nor is equipment that is not connected to the network, such as stand-alone printers.

Criteria

Best practices for effective computer inventory management requires a comprehensive listing of computer equipment inventory be maintained that includes a description of the property, serial number or other identification number, location, condition, and ultimate disposition of equipment. The listing should account for all equipment/devices.

Cause

Management stated the current electronic inventory system can only recognize computer equipment connected to the network. Also, the system cannot recognize all equipment on the network for several reasons, including the fact that the inventory program has not been updated since 2010.

Consequences

The inventory listing maintained by the County is incomplete. Without an accurate inventory of computer equipment, the County cannot ensure that computer equipment which may have confidential and sensitive data, has not been lost or stolen.

Recommendation 2014-02 – Significant Deficiency

To effectively monitor and keep track of Wayne County equipment/devices, DoT should obtain an electronic inventory system that can be used to record and track all equipment/devices including those not attached to the network. The system should include all pertinent information on the device including who assigned to and/or business unit.

Views of Responsible Officials

DoT is in the process of upgrading our current Asset Management system. There is no electronic system that will track devices not connected to a network and a manual process will be considered.

Annual Countywide Inventory Verification

Condition

During our review, we noted that DoT tracks the computer inventory using two (2) listings, one that tracks the equipment that is connected to the network and another listing for inventory not connected to the network, such as computer monitors. However, DoT is not performing an annual verification with the various departments or divisions. Specifically, DoT does not periodically send a listing of the computer inventory assigned to an area to ensure that the listing is accurate and complete, and only contains computer equipment that is being utilized by the area assigned.

Criteria

Best practices require recording all equipment on a comprehensive inventory listing, along with proper monitoring, to mitigate the risk of misplaced and stolen items. In addition, to ensure inventory records are accurate, they should be periodically reconciled to reflect actual conditions.

Cause

DoT relies on the electronic asset management system to track inventory. It was stated that an annual physical inventory of all county assets would be costly.

Consequences

Not ensuring that the electronic inventory database goes through a periodic verification process by the areas in which the computer equipment is assigned, could result in the county's computer equipment inventory not being accurate or reliable.

Recommendation 2014-03 – Significant Deficiency

We recommend that DoT perform a reconciliation and verification of the inventory recorded on the inventory listings to the computer equipment actually assigned to an area at least annually.

For those instances where the computer equipment inventory on the listing does not reconcile to the computer equipment actually assigned, determine the reasons for the difference and either add or remove the equipment from the listing. Also, ensure that all removal of any physical equipment receives the proper authorization.

Views of Responsible Officials

DoT agrees that a manual reconciliation process would be valuable and will work to improve verification of the inventory of computer assets. Due to individual department/elected offices ownership and oversight of computer equipment, past reconciliation efforts have shown that it is difficult to determine reasons for differences.

Properly Track Monitors and Other Computer Related Equipment

Condition

During our review, we noted that DoT is not consistent in the type of computer equipment that is being tracked. Although asset tags are being attached to all computers and monitors, some monitors are not being tracked and do not appear on an inventory listing.

Criteria

Best business practices indicate that there should be a consistent practice with regard to the tracking of all computer equipment, including monitors.

Cause

The current system will not track monitors due to the fact they are not connected to the network and the system is out of date.

Consequences

By not tracking monitors and any other related equipment, this increases the risk that some assets will be unaccounted for when conducting an inventory and lead to possible cases of misappropriation of county assets.

Recommendation 2014-04 – Significant Deficiency

We recommend that DoT develop a system to properly track monitors and other types of equipment that are not connected to the system.

Views of Responsible Officials

DoT is in the process of upgrading our current Asset Management system. There is no electronic system that will track devices not connected to a network and a manual process will be considered.

System Updates

Condition

During our review of the systems associated with asset control within the Department of Technology, we discovered that the HEAT system, which handles service requests, is outdated and has not had updates within the past two (2) years. Moreover, the xAssets system, which is the electronic asset management system, has not been updated since 2010.

Criteria

According to best practices, the primary reason for keeping software up-to-date is to ensure systems are stable by fixing bugs, closing security holes, and leveraging product enhancements which may add extra functionality and allow applications to run more efficiently.

Cause

Both the HEAT and xAssets systems are customized specifically for use by Wayne County, which makes it difficult to implement updates. Management stated they are in the process of upgrading the xAssets system and reviewing options for improving the HEAT system.

Consequences

Not ensuring critical software is up-to-date could result in security issues or the program not running efficiently and effectively. In addition, not having up-to-date systems to properly track and monitor the county's equipment decreases management's ability to properly monitor county equipment.

Recommendation-2014-05 – Significant Deficiency

We recommend DoT ensure that the county's inventory management computer equipment systems are updated with the latest software releases to ensure optimum functionality and effectiveness in meeting its intended objectives.

Views of Responsible Officials

DoT is in the process of upgrading our current Asset Management system and evaluating an upgrade of HEAT.

OAG OVERALL CONCLUSION

Without adequate controls over computer equipment, an inaccurate inventory of computer equipment would not allow the county to ensure that computer equipment, which may have confidential and sensitive data, has not been lost or stolen.

There are five (5) findings and recommendations related to this report. One of the recommendations is considered to be a control deficiency, which is classified as relatively low risk, four (4) are significant deficiencies which are deemed medium risk. Officials within DoT agreed in principle with all five (5) recommendations and have started to address the recommendations.

A Corrective Action Plan will be requested approximately 30 days after this report is formally received and filed by the Wayne County Commission. If sufficient corrective action is not taken, a follow-up review may be necessary.

This report is intended solely for the information and use of the Department of Technology officials and is not intended to be and should not be used by another other than these specified parties. This restriction is not intended to limit the distribution of the report, which is a matter of public record.

Sincerely,

Marcella Cora, CPA, CIA, CICA, CGMA
Auditor General

Appendix

Control Deficiency (low risk)
A control deficiency exists when the internal control design or operation does not allow management or employees, in the normal course of performing their assigned functions, to prevent, detect or correct errors in assertions made by management on a timely basis. A deficiency in design exists when (1) a control necessary to meet the control objective is missing or (2) an existing control is not properly designed so that, even if the control operates as designed, the control objective is not met.

A deficiency in operation exists when a properly designed control does not operate as intended, or when the person(s) performing the control does not possess the necessary authority or qualifications to perform the control effectively.

Significant Deficiency (medium risk)
A matter that, in the auditor's judgment, represents either an opportunity for improvement or significant deficiency in management's ability to operate a program or department in an effective and efficient manner. A significant deficiency in internal control, or combination of deficiences, that adversely affects the organization's ability to initiate, authorize, record, process or report data reliably in accordance with applicable criteria or framework such that it is more than a remote likelihood that a misstatement of the subject matter that is more than inconsequential will not be prevented or detected.

Material Weakness Deficiency (high risk)
A significant deficiency that could impair the ability of management to operate the department in an effective and efficient manner and/or affect the judgment of an interested person concerning the effectiveness and efficiency of the department. A significant or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of subject matter will not be prevented or detected.