

Information Technology Inventory Management March 2016

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City Auditor's Office

March 23, 2016

Honorable Mayor and Members of the City Council,

I am pleased to present the City Auditor's Office's report on Information Technology Inventory Management. The purpose of the audit was to verify the existence of information technology hardware deployed throughout City departments.

Management's response to our audit findings and recommendations, as well as target implementation dates and responsibilities, are included following the report.

We would like to thank the Information Technology Department for their cooperation and assistance during this project.

Lori Brooks

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City Auditor

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Executive Summary

As part of the 2015 Annual Audit Plan, the City Auditor's Office conducted an audit of information technology inventory management. We conducted this performance audit in accordance with generally accepted government auditing standards. 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 that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. The audit objective was to verify the existence of information technology hardware deployed throughout City departments.

The City Auditor's Office noted the following:

- The Information Technology Department (IT) has documented policies and procedures related to IT asset management.
- The IT Department has segregated the duties of acquiring, receiving, recording, deploying, and tracking information technology assets.
- The IT Department tracks all city owned/leased computers using various electronic tools.
- Destruction of hardware containing sensitive data is witnessed by city staff and a certificate of destruction is received.

Opportunities for improvement include the following:

- Departments are not required to report computer name changes and/or relocations to the IT Department when they occur.
- The IT Department does not maintain one master inventory. Three systems must be reconciled to produce a master inventory.
- Asset tags are not always replaced timely when loaner computers are used to replace departmental computers.

The findings and recommendations are discussed in the Detailed Audit Findings section of this report.

Audit Scope and Methodology

The audit was conducted in accordance with generally accepted government auditing standards. The following methodology was used in completing the audit:

- Interviewed personnel knowledgeable of information technology inventory management operations to gain an understanding of the processes.
- Reviewed Information Technology Department Policies and Procedures related to asset management.
- Using statistical sampling methodology, selected a random sample of computers recorded on the inventory master list and physically verified the existence and location of the equipment.
- Selected a judgmental sample of computers located in various City departments and traced the computers to the master inventory listing.

Background

The Information Technology Department is responsible for managing the City's IT related assets. The focus of this audit was specifically on information technology hardware, including laptops, desktop computers, and tablets. These assets are located in departments throughout the City. Most of the computers are leased through Dell and are replaced every 3 years. At the time of this audit, the lease replacement was recently completed, and the master inventory list was in the process of being updated.

The IT Department uses three different software products to assist in tracking inventory. The first product is Altiris, which is a software deployment tool related to inventory and license management. The second tool is Computrace, which is used for system tracking and theft recovery for laptops and tablets, and the final tool used is McAfee which is used for virus and malware protection. The Information Technology Department's goal is to make Computrace the single inventory system of record.

Library, Water and Fire Dispatch have their own technical staff that deploys and manages their systems. However, the IT Department is still responsible for managing the IT inventory for these departments. All inventory items have Computrace software, which can view IP addresses, last login activity, serial number and other methods to track inventory.

Audit Results

With the three different systems used, the IT Department created a master inventory list containing all of the City of Arlington's laptops, desktops, and tablets. Using statistical sampling methodology, Internal Audit selected a random sample of 51 items from the master inventory list and located 46 of the 51 inventory items without issue. The 5 remaining items were missing key pieces of information on the master inventory list, such as a serial number, or had been renamed, such that the name of the computer was recorded incorrectly. All of these items were eventually located with the assistance of the various departments and the IT department.

Additionally, Internal Audit selected a judgmental sample of 30 computers located in various departments during field testing and traced them to the master inventory list to assure that they were recorded correctly in the inventory system. Internal Audit was able to trace 28 of the computers without issue. The two remaining items did not fully match the inventory list because one had been renamed and one was a loaner computer from the IT Department.

Detailed Audit Findings

Inaccurate Computer Names on Inventory List

For 4 computers sampled, it was noted that the master inventory list did not reflect the correct name for the computer. This was the result of departments renaming the computers subsequent to the IT Department's deployment. Additionally, some of these computers had been relocated. Departments are not required to report these name changes and relocations to the IT Department. Thus, the inventory list managed by the IT Department has incorrect names and associated locations of computers. This can make it challenging to locate computers during an inventory verification and lease replacement. These computers must be identified using other identification numbers.

Recommendation:

- 1. The City Auditor's Office recommends that the Director of Information Technology require departments to notify the Information Technology Department when a computer is renamed and/or relocated.***

Lack of Timeliness in Updating of Master Inventory List

During the testing of the inventory, it was noted that the Master Inventory List was not updated in a timely manner during the recent computer lease replacement, resulting in erroneous entries. During lease replacement, the current process is to use information from three different systems (Altiris, McAfee, and Computrace) in order to create a full inventory list. Gathering information from three different systems is a time consuming process, which increases the likelihood of errors and creates inefficiencies.

Recommendation:

- 2. The City Auditor's Office recommends that the Director of Information Technology consider using a single system to create the master inventory list, which would make updating the master inventory list more efficient and streamlined during lease replacement.***

Inventory Tag not Replaced Timely

Audit testing identified inappropriate asset tagging. A sampled computer had previously been an IT loaner computer that replaced one of the department's computers. The computer's name had been updated in the inventory system from IT Loaner to the name associated with the department; however, the tag was not permanently replaced. The computer had a temporary (sticky note) tag covering the IT Loaner tag. When computer tags do not match the inventory list, it makes it more difficult to locate inventory.

According to the IT Department, computers are normally tagged before deployment. If the tag is not updated prior to deployment, the computer is tagged at the next onsite visit. This varies based on necessity; visits are not scheduled solely to tag a computer.

Recommendation:

- 3. The City Auditor's Office recommends that the Director of Information Technology ensure inventory tags on equipment are replaced immediately when items are renamed, as a result of a loaner computer becoming a replacement computer.***

**CITY OF ARLINGTON
INFORMATION TECHNOLOGY INVENTORY MANAGEMENT
MANAGEMENT RESPONSE AND ACTION PLAN**

AUDIT RECOMMENDATION	CONCUR/DO NOT CONCUR	MANAGEMENT RESPONSE	RESPONSIBLE PARTY	DUE DATE
<p>1. <i>The City Auditor's Office recommends that the Director of Information Technology require departments to notify the Information Technology Department when a computer is renamed and/or relocated.</i></p>	<p>Concur</p>	<p>The CIO will work with departments to ensure IT is notified of equipment moved. IT will also investigate methods for automatic notification through software installed on the equipment.</p>	<p>CIO</p>	<p>1-1-2017</p>
<p>2. <i>The City Auditor's Office recommends that the Director of Information Technology consider using a single system to create the master inventory list, which would make updating the master inventory list more efficient and streamlined during lease replacement.</i></p>	<p>Concur</p>	<p>The CIO will ensure that a single inventory system is implemented.</p>	<p>CIO</p>	<p>10-1-2016</p>
<p>3. <i>The City Auditor's Office recommends that the Director of Information Technology ensure inventory tags on equipment are replaced immediately when items are renamed, as a result of a loaner computer becoming a replacement computer.</i></p>	<p>Concur</p>	<p>The CIO will ensure that all technicians have a mechanism for labeling equipment in the field.</p>	<p>CIO</p>	<p>10-1-2016</p>