Office of the City Auditor

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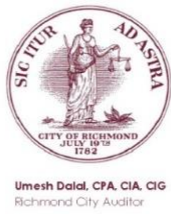
Department of Information Technology

Citywide Electronic Equipment Audit
Report#: 2017-06

CITY HALL

Issue Date: January 10, 2017

Table of Contents

Richmond City Council

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Richmond, Virginia

Office of the City Auditor

Umesh Dalal, CPA, CIA, CIG
Richmond City Auditor

Executive Summary

January 10, 2017

Ms. Selena Cuffee-Glenn, CAO

Subject: Citywide Electronic Equipment Audit

Within the City of Richmond, electronic equipment and mobile devices are essential to the daily activities of City personnel. During FY15, the City had electronic equipment purchases associated with all DIT commodity codes that totaled approximately $6.9 million. In addition, during the audit period, the City had 1,602 mobile devices that had mobile services at an estimated cost of approximately $835,000. The City Auditor's Office has completed and audit of electronic equipment purchases.

The salient findings of the audit are as follows:

- The City lacks a citywide process to document proper collection of City equipment upon termination of employees. Overall, a consistent citywide process is not in place to ensure that departments turn in mobile devices for terminated employees to DIT prior to their departure. Without a consistent process, service may remain active longer than necessary resulting in extra cost to the City. Also, if devices for terminated employees are not identified in a timely manner, the City may not recoup any cost associated with the equipment from the employee's final paycheck.

- The City is not properly capitalizing fixed asset purchases of electronic equipment. Additional training to departmental representatives on the Fixed Assets Policy may prevent this type of control weakness. In addition, the Department of Finance did not have proper oversight to ensure compliance with the Policy. Without proper controls in place to

accurately report fixed assets, the City's financial statements may be misstated and the life of the asset may not be extended over its useful life.

- A complete inventory of Electronic Equipment is not maintained in the City. Without complete recordkeeping, it may not be possible to detect any missing electronic equipment.

- Controls over the City's electronic equipment purchases process are lacking. Currently, all relevant documentation related to electronic equipment purchases is not loaded into the City's financial system. Electronic equipment is not delivered to DIT, as required. Auditors identified equipment purchased that is not approved by DIT. Currently, there is a risk of unnecessary purchases or misappropriation of City assets.

Overall, the auditors concluded that internal controls in the electronic equipment purchasing process need improvement. The City Auditor's Office appreciates cooperation of the City departments during this audit. Responses made to the recommendations are enclosed in Appendix B.

Sincerely,

Umesh Dalal

Umesh Dalal, CPA, CIA, CIG
City Auditor

cc: City of Richmond Audit Committee Members
            Mr. Charles Todd, Interim DIT Director
            Ms. Lenora Reid, DCAO
            Mr. John Wack, Director of Finance

Comprehensive List of Recommendations

#		PAGE
1	**DCAO over Finance and Administration needs to ensure enforcement and monitoring of compliance with the City's Fixed Asset Policy.**	6
2	**The CAO needs to require all City departments to maintain an accurate and complete inventory as required by City policy.**	7
3	**The CAO needs to mandate compliance with the Information Technology purchasing process from all City Departments.**	12
4	**The CAO needs to require the DIT Director to implement periodic training sessions to communicate policies and procedures related to the acquisition, tracking, and disposal of electronic equipment.**	12

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SUMMARY

Within the City of Richmond, electronic equipment and mobile devices are essential to the daily activities of City personnel. During FY15, the City had electronic equipment purchases associated with all DIT commodity codes that totaled approximately $6.9 million. In addition, during the scope of the audit, the City had 1,602 mobile devices that had mobile services at an estimated cost of approximately $835,000. This includes hotspots, cellular devices, and tablet lines. The acquisition and safeguarding of the City's equipment is integral to the efficiency of City operations. The Department of Information Technology (DIT) has an established electronic equipment and cellular device acquisition process to aid City departments in obtaining the items necessary to perform their job functions. In addition to DIT, the following departments also maintain an Information Technology function:
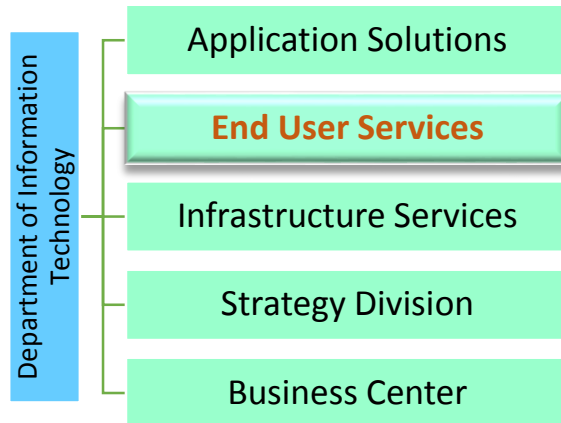
- Police
- Social Services
- Fire
- Emergency Communications
- Department of Public Utilities
- Sheriff

The above entities are expected to adhere to the electronic equipment and cellular device acquisition process established by DIT.

BACKGROUND

DIT provides citywide information technology services. DIT staff are responsible for ordering electronic equipment, printers, and cellular devices needed by departments, as well as installing, imaging, and servicing the purchased electronic equipment.

DIT consists of five divisions as follows:

	Application Solutions
Department of Information Technology	**End User Services**
	Infrastructure Services
	Strategy Division
	Business Center

Note: the division highlighted in orange was the subject of this audit

The End User Services Division provides oversight for deployment services coordination.

Automation Coordinators

Each City department has assigned employees who serve as automation coordinators. They act as a liaison between the department and the End User Services Division in DIT. Some of their responsibilities include:

- Attending automation coordination meetings;

- Processing System Access Privilege Request (SAPR) forms, which grant network access;

- Maintaining electronic equipment inventory; and

- Managing and approving conversions and deactivation of cellular devices and peripherals.

MANAGEMENT RESPONSIBILITY

City management is responsible for ensuring resources are managed properly and used in compliance with laws and regulations; programs are achieving their objectives; and services are being provided efficiently, effectively, and economically.

FINDINGS & RECOMMENDATIONS

Section 1:   Collection of Electronic Equipment/Cellular Devices from Terminated
Employees

Finding No. 1: The City lacks a citywide process to document proper collection of City
equipment upon termination of employees.

- Currently it is the responsibility of individual departments to obtain the equipment
and return it.
- DIT is unaware when employees leave and have no idea when devices should be
returned.
- Although all of the devices were properly collected, the City incurred charges of
$4,038 for devices that remained active beyond employee's termination date.
- There is a need for a consistent citywide collection process for devices assigned to
terminated employees.

Policy: Electronic devices specifically assigned to an individual must be turned back in upon leaving
employment with the City.

City employees are assigned various types of electronic equipment depending on their roles and
responsibilities. The automation coordinators are responsible for tracking their respective
departments' equipment, managing conversions and deactivations, and coordinating office moves
and transfers. The process for each type of electronic equipment is outlined as follows:

Cellular Devices

Upon separation from the City, departments are required to notify DIT by submitting a SAPR.
Cellular devices are to be collected by the departing employee's department prior to separation
with the City. Once collected, the departments are expected to return the devices to DIT in order
to discontinue the service charges. If requested by a department, the service can be suspended
for 90 days and then be reinstated. If the device still has useful life when returned, it is redeployed,
as needed.

The auditors compared the listing of all cellular devices to the list of former employees and
requested documentation to validate that the electronic equipment was returned and

deactivated. Auditors reviewed the documentation for 21 former employees who had a device and noted the following:

- 19 devices were properly documented for deactivation. Although the documentation was obtained to demonstrate the devices were deactivated, the auditor found 14 devices remained active, with monthly service charges incurred beyond one month past the termination date. The total charges incurred was approximately $4,038. The departments could not provide sufficient justification for the devices remaining active.
  - At the time of the audit, two cellular devices were still active for former employees. One of the devices was active for over a year and the other approximately five months beyond employment. One of the devices was retained by the department and transferred to another employee. The second device was retained by the department to retrieve information. However, the City incurred costs for keeping these devices active.
  - Seven cellular devices were documented as returned to DIT.
  - Eighteen cellular devices were not transferred to DIT. However, documentation was provided to demonstrate that they were collected by the department prior to the employees' last day.

Overall, a consistent citywide process is not in place to ensure that departments turn in mobile devices for terminated employees to DIT prior to their termination. Without a consistent process, service may remain active longer than necessary resulting in extra cost to the City. Also, if devices for terminated employees are not identified in a timely manner, the City may not recoup any cost associated with the equipment from the employee's final paycheck.

Electronic Equipment

Upon an employee's separation, it is the responsibility of the department to notify DIT to terminate network access. The departments are also responsible for collecting the equipment (i.e. laptops, desktops, and tablets) prior to separation and document receipt.

Auditors selected a sample of 30 out of 805 former employees and noted the following:

- Departments provided documentation to support that 14 of the 30 employees' devices were retrieved upon termination.

  o Of the remaining 16 employees, 12 employees either shared their device within the department or were not assigned electronic equipment. The remaining four devices did not have documentation to support that they were turned in by the user.

There is a need for a consistent citywide collection process for devices assigned to terminated employees. Consistency is necessary to ensure receipt of all city equipment assigned to an employee. The City has the ability to withhold the cost of unreturned equipment from the employees' paychecks. In accordance with the City Attorney's advice, the City can withhold the cost of unreturned equipment as long as it is above the workweek minimum wage. It is the responsibility of the departments and the Human Resources Liaisons to withhold funds from the final paycheck for equipment not returned upon departure.

Section 2:   Capitalization of Electronic Equipment

> Finding No. 2: The City is not properly capitalizing fixed asset purchases of electronic equipment.
> - The City departments are not providing the Department of Finance with the required annual purchasing information for eligible items to key into the system.
> - Current training on the Fixed Assets Policy is lacking, since there is not a Fixed Asset Accountant on staff.
> - The Department of Finance did not have proper oversight to ensure compliance with the Fixed Assets Policy.

Policy: Specific types of electronic equipment that are purchased with an amount greater than $5,000 with a useful life extending beyond a single reporting period must be capitalized.

The auditors could identify only 10 electronic equipment purchases during FY15. Further analysis revealed:

- Three equipment purchases should have been capitalized.

- Three equipment purchases were properly excluded from capitalization.

- Four of the items identified in the electronic equipment purchases were leases. The auditors compared the lease with the four qualifications outlined in the City's fixed asset policy that would qualify the lease to be capitalized. Two lease agreements were not provided. Therefore, auditor could not conclude if these leases were properly recorded. The remaining two leases were appropriately recorded.

It appears that additional training to departmental representatives on the Fixed Assets Policy may prevent the types of control weakness described above. The auditors also noted that the Department of Finance did not have proper oversight to ensure compliance with the Policy. Without proper controls in place to accurately report fixed assets, the City's financial statements may be misstated and the life of the asset may not be extended over its useful life.

Recommendation:

1. *The DCAO over Finance and Administration needs to ensure enforcement and monitoring of compliance with the City's Fixed Asset Policy.*

Section 3:   Inventory Listings are Not Maintained

Finding No. 3: A complete inventory of Electronic Equipment is not maintained in the City.
- DIT did not maintain a complete listing of the City's Electronic Equipment.
- Automation Coordinators for departments are required to maintain an inventory, however, many were incomplete.
- Without complete recordkeeping, it may not be possible to detect any missing electronic equipment.

Policy: Automation coordinators are responsible for tracking their departments' electronic equipment inventory.

The auditors requested the inventory listings from 31 departments. Seven of those departments (Emergency Management, Human Services, Office of Minority Business, Planning and Development, Sheriff, Budget and Strategic Planning, Circuit Court) did not provide an inventory listing. The City's Emergency Management Department indicated they did not maintain an internal inventory of their equipment and were under the impression that DIT was responsible for tracking all City electronic equipment. Circuit Court staff indicated that the majority of the equipment they maintain is provided by the State, thus they do not track the few City electronic equipment they have.

Auditor noted DIT did not maintain a complete inventory listing prior to 2015. The DIT listing excluded the departments that had an IT function. However, in April 2015 DIT started maintaining a complete inventory listing. Some devices were identified on the Information Technology Asset Management (ITAM) listing (DPU, Fire, Sheriff), however others were not – (RPD, DSS). Auditors matched the inventory listing from the departments that did not have an IT function to the DIT listing. Only eight of the 31 departments provided an accurate inventory listing. The auditors couldn't determine if proper recordkeeping related to electronic equipment existed in the remaining 23 departments. Without complete recordkeeping, it may not be possible to detect any missing electronic equipment.

Recommendations:

2. *The CAO needs to require all City departments to maintain an accurate and complete inventory as required by City policy.*

Section 4:   Electronic Equipment and Cellular Device Acquisition Processes

Finding No. 4:   Controls over the City's electronic equipment purchases process are lacking.
- Documentation is not loaded into the City's financial system for purchases.
- Equipment is not delivered to DIT, as required.
- Equipment purchased that is not approved by DIT.
- Currently, there is a risk of unnecessary purchases or misappropriation of City assets.

The lack of controls and monitoring over the electronic equipment purchases could result in unnecessary purchases or abuse of City funds.

Electronic Equipment Acquisition Process

Electronic equipment purchases include laptops, desktops, tablets, and printers. It does not include monitors and other peripherals as outlined in the City's policies. The electronic equipment acquisition process is depicted below:

EXHIBIT 1: Electronic Equipment Acquisition Process
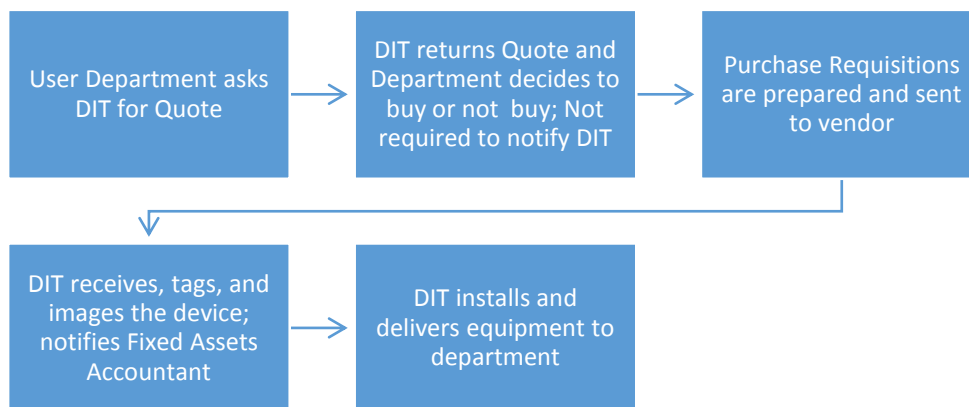
Auditors selected a sample of 50 out of 451 electronic equipment purchases during FY15 that could be identified, to determine if City departments followed the IT Purchase Process. One of the

sample items were later determined not to be an electronic equipment purchase and was eliminated from the sample. Auditors reviewed each purchase to determine whether it included:

- IT purchase request form

- Documentation to support purchase loaded into the financial system

- Delivery to DIT

- Accounted for in the department's inventory listing

Testing results revealed:

- An IT Purchase Request Form was not provided for 12 items;

- Purchasing documentation for 24 items were not loaded into the financial system;

- Equipment was not delivered to DIT for 37 purchases.

- Equipment was not identified on DIT's inventory for 21 of the purchases. Also, thirteen of the purchases could not be identified on the corresponding inventory listings maintained by the departments.

City electronic equipment (cellular or other electronic devices) is not properly justified or approved, which may result in unnecessary purchases or misappropriation of City assets.

Commodity Codes

Commodity codes identify the goods and services acquired by the City. This allows the City to track the money spent on specific items, such as printers, computers, and peripherals. DIT has a set of commodity codes to identify the type of purchases. The auditors compared commodity codes on the IT Purchase Request Form to those keyed in the financial system. Testing for the 49 items above revealed:

- Nine commodity codes matched exactly.

- Could not conclude on 15 items due to missing or incomplete IT Purchase Request Forms.

- Twenty-five did not match the IT Purchase Request Form exactly. For example, the departments used a general IT commodity code rather than the specific commodity code. The lack of accurate commodity codes can result in inaccurate reporting to management on the goods and services acquired by the City. According to DIT's Computer Purchase and

Replacement Policy, purchases that deviate from the policy would not be processed, supported, paid or reimbursed. However, DIT does not enforce this policy. The lack of controls and monitoring over the electronic equipment purchases could result in unnecessary purchases or abuse of City funds. The City is at risk when electronic equipment is purchased and not identified or accounted for.

Unauthorized Electronic Equipment Purchases

According to DIT's policies and procedures, electronic equipment purchases should be selected from the authorized product catalog.

DIT maintains a product catalog of devices authorized to be purchased by City departments. The catalog consists of devices that have been tested by DIT for usability, compatibility, and reliability. The use of the catalog streamlines the purchase process and standardizes the devices purchased.

The auditors found and tested 22 devices purchased in FY15 that were not identified as authorized electronic equipment. The auditors noted the following:

- Auditors could not obtain the IT Purchase Request Forms for 15 printers which were not authorized by DIT. The departments' staff did not know the process applied to personal printers. According to DIT's Printer, Fax and Copier Policy, personal printing devices are not allowed. Some departments' staff indicated that they were exempt from the policy while others were unaware of the Policy.

- Except for one device, the auditors verified the existence of all the devices purchased. According to the Department of Social Services staff, when they moved equipment within the department, a printer was misplaced.

During FY15, the City spent approximately $1.7 million on printers, ink, and the printing contract. Some users argue that they need personal printers to ensure the privacy of the information printed. However, the modern centralized printers have the ability to secure documents printed

by users. Therefore, purchasing personal printers for protecting privacy could represent additional expenses that can be avoided.

Mobile Device Acquisition Process

Policy: City departments must complete a Mobile Device Authorization Request Form to request new mobile devices.

 All City departments have an allotment of mobile devices that are budgeted through DIT. When requesting a new device, the departments are required to note whether it is a replacement or an addition of the number of devices allotted. If the department's inventory is increased, a journal voucher is submitted by the department so they can be charged for the new device. The process is depicted below:

EXHIBIT 2: Mobile Device Authorization Process
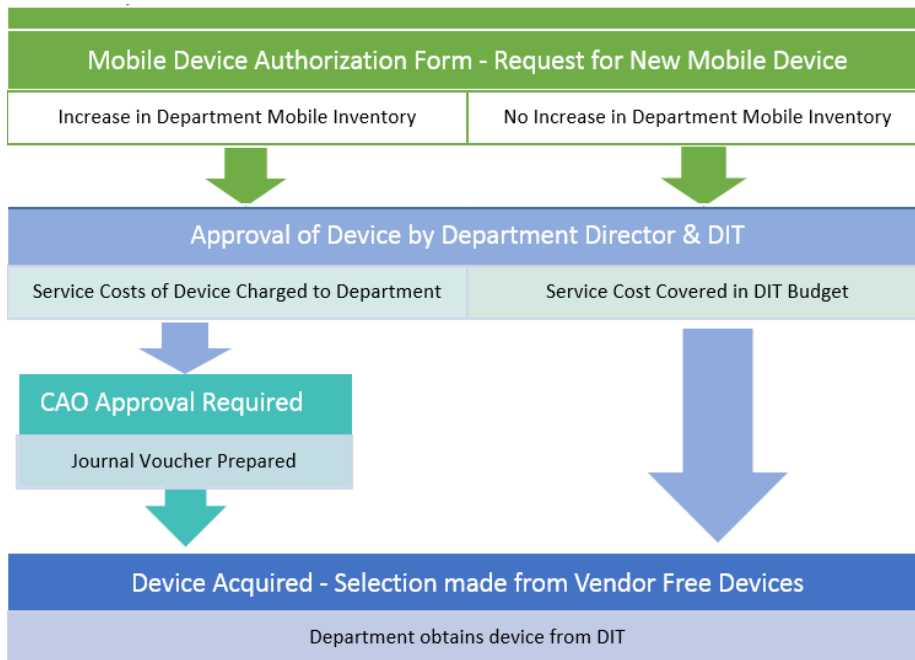
Cellular acquisition process is different than electronic equipment. The auditors selected a sample of 25 out of 51 active and deactivated cellular devices. The purpose of this test was to verify if employees had more than one cellular device assigned to them and it was properly approved in accordance with the City policy. Based on the criteria above the auditors noted the following:

- No duplicate cellular devices were identified in the sample;

- Mobile Device Authorization Forms were properly completed, justified, and approved by DIT for 19 mobile devices. The remaining six devices were for Constitutional employees and the form was not filled out.

Recommendations:

3. The CAO needs to mandate compliance with the Information Technology purchasing process from all City Departments.

4. The CAO needs to require the DIT Director to implement periodic training sessions to communicate policies and procedures related to the acquisition, tracking, and disposal of electronic equipment.

INTERNAL CONTROLS

Internal controls over the IT purchase process need improvement.

According to the Government Auditing Standards, internal control, in the broadest sense, encompasses the agency's plan, policies, procedures, methods, and processes adopted by management to meet its mission, goals, and objectives. Internal control includes the processes for planning, organizing, directing, and controlling program operations. It also includes systems for measuring, reporting, and monitoring program performance. An effective control structure is one that provides reasonable assurance regarding:

- Efficiency and effectiveness of operations;

- Accurate financial reporting; and

- Compliance with laws and regulations.

Based on the audit test work discussed above, the auditors concluded that internal controls within the electronic equipment purchasing process need improvement.

Appendix A: Objectives, Scope, & Methodology

The audit was conducted in accordance with the Generally Accepted Government Auditing Standards promulgated by the Comptroller General of the United States. Those Standards require that the auditors plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for their findings and conclusions based on the audit objectives. The auditors believe that the evidence obtained provides a reasonable basis for their findings and conclusions based on the audit objectives.

SCOPE

The City Auditor's Office has completed an audit of the Citywide Electronic Equipment Purchasing and Safeguarding procedures. This audit focused on the review of electronic equipment purchased within FY2015 as well as the inventories maintained by City departments.

OBJECTIVES AND METHODOLOGY

This audit was conducted to evaluate the operating effectiveness of the DIT's acquisition process and safeguarding procedures:

- Validate that departments supply a valid business purpose for electronic equipment and cellular device purchases
- Determine if electronic equipment purchases are being made through the DIT process
- Validate that electronic equipment is safeguarded and tracked
- Verify electronic equipment is delivered to the DIT office
- Verify electronic equipment is properly capitalized as required by City Code

The auditors performed the following procedures to complete this audit:

- Interviewed selected departments' staff to determine the process for acquiring, disposing, and tracking electronic equipment;

- Reviewed FY2015 electronic equipment purchases for compliance with DIT's IT Purchase Process;

- Reviewed the City departments' electronic equipment inventory listings;

- Identified and reviewed users for potential duplicate electronic equipment and cellular devices;

- Reviewed the process for electronic equipment transfers for employees no longer employed by the City; and

- Performed other tests, as deemed necessary.

2017-06 Electronic Equipment Purchases

#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
1	The DCAO over Finance and Administration needs to ensure enforcement and monitoring of compliance with the City's Fixed Asset Policy.	Y	*The DCAO for Finance and Administration will monitor for compliance with the City's Fixed Asset Policy. The City Controller and/or designee will also provide training to the Liaisons on the Fixed Asset Policy.*
	TITLE OF RESPONSIBLE PERSON		**TARGET DATE**
	DCAO Finance and Administration		28-Feb-17
	IF IN PROGRESS, EXPLAIN ANY DELAYS		**IF IMPLEMENTED, DETAILS OF IMPLEMENTATION**

#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
2	The CAO needs to require all City departments to maintain an accurate and complete inventory as required by City policy.	Y	*The CAO will remind City departments of the requirement to maintain an accurate and complete inventory as required by City policy. In addition, it will be included in the training to departments that will be provided by the IT Director and/or designee.*
	TITLE OF RESPONSIBLE PERSON		**TARGET DATE**
	CAO		31-Mar-17
	IF IN PROGRESS, EXPLAIN ANY DELAYS		**IF IMPLEMENTED, DETAILS OF IMPLEMENTATION**

#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
3	The CAO needs to mandate compliance with the Information Technology purchasing process from all City Departments.	Y	*The Procurement Director will ensure proper coding, proper documentation, and proper authorization form are submitted when a requisition is made.*
	TITLE OF RESPONSIBLE PERSON		**TARGET DATE**
	Procurement Director		28-Feb-17
	IF IN PROGRESS, EXPLAIN ANY DELAYS		**IF IMPLEMENTED, DETAILS OF IMPLEMENTATION**

#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
4	The CAO needs to require the DIT Director to implement periodic training sessions to communicate policies and procedures related to the acquisition, tracking, and disposal of electronic equipment.	Y	*The CAO will require the DIT Director to implement periodic training sessions to communicate policies and procedures related to the acquisition, tracking, and disposal of electronic equipment.*
	TITLE OF RESPONSIBLE PERSON		**TARGET DATE**
	CAO		31-Mar-17
	IF IN PROGRESS, EXPLAIN ANY DELAYS		**IF IMPLEMENTED, DETAILS OF IMPLEMENTATION**