

Audit Report

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**Office of Information Technology**

**Laptop Computers Inventory**

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Office of the County Auditor  
Baltimore County, Maryland  
August 2010



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ACTING COUNTY AUDITOR

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August 12, 2010

Honorable Members of the County Council  
Honorable James T. Smith, Jr., County Executive  
Baltimore County, Maryland

We have audited the procedures and controls over the Office of Information Technology's (OIT) laptop computers inventory. As of September 2, 2009, OIT's inventory consisted of 1,250 laptop computers.

Our audit disclosed that OIT did not establish written procedures for performing its annual physical inventory of laptops; did not reconcile the 2008 physical inventory as of September 2, 2009; and did not maintain accurate, complete, or reliable laptop inventory records. Our audit also disclosed that agencies with assigned or shared laptops did not establish written policies and procedures for safeguarding laptops. Our audit further disclosed that OIT's laptop inventory records duplicate the Office of Budget and Finance's fixed asset records.

A response to our findings from OIT is included as an appendix to this report.

We wish to express our appreciation to OIT for the cooperation and assistance extended to us during our audit.

Our audit reports and responses thereto are available to the public and may be obtained online at "[www.baltimorecountymd.gov/agencies/auditor](http://www.baltimorecountymd.gov/agencies/auditor)" or by contacting the Office of the County Auditor, 400 Washington Avenue, Towson, Maryland 21204.

Respectfully submitted,

*Lauren M. Smelkinson*

Lauren M. Smelkinson, CPA  
Acting County Auditor

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## **Background**

The Office of Information Technology (OIT) works in partnership with County agencies to provide information technology that supports the delivery of government services. In this regard, OIT is responsible for approving the purchase of, maintaining, and accounting for the County's laptop computers that are assigned to employees, to public safety vehicles (e.g., police cars, medic units), or to agencies as part of a laptop pool for shared use by agency employees. OIT performs an annual physical inventory of laptops and maintains an inventory list that identifies the agency/location, assignment, and 6-digit fixed asset number of each laptop. A fixed asset barcode sticker is placed on each laptop, which is scanned during the annual physical inventory. As of September 2, 2009, OIT's inventory records listed 1,250 laptops assigned to 27 agencies, including 6 laptops assigned to legislative branch agencies, which were not included in the audit scope (as described in the scope section on page 7).

## Findings and Recommendations

1. **OIT did not have written policies and procedures for performing its annual physical inventory of laptops, and the 2008 physical inventory had not been reconciled as of September 2, 2009.**

Effective internal control requires that the physical verification of assets be performed on a timely basis to ensure the existence of such assets and to detect loss or theft of the assets. In this regard, OIT performs an annual physical inventory count of the County's laptops. However, our audit disclosed that OIT had not completed the reconciliation between the 2008 physical inventory count and the perpetual records. As of September 2, 2009, 79 discrepancies (e.g., reassigned, surplus laptops) had not been investigated and resolved. Our audit further disclosed that OIT does not have written policies and procedures for performing its annual physical inventory of the County's laptops. Consequently, there is an increased risk that a laptop could be lost or stolen without timely detection.

**We recommend that OIT reconcile the laptop inventory differences in a timely manner. Appropriate adjustments to the inventory records should be made only after proper review and supervisory approval. We also recommend that OIT establish written policies and procedures for performing its annual physical inventory of County laptops.**

2. **OIT's laptop inventory records were not accurate, complete, or reliable.**

Effective internal control requires accurate, complete, and reliable records to help detect possible fraud, waste, or abuse of assets. In this regard, OIT maintains an inventory list of laptops assigned to employees, to public safety vehicles (e.g., police cars, medic units), or to agencies as part of a laptop pool for shared use by agency employees. The inventory list includes the agency name and location, assignment (e.g., employee name, police car, agency pool), and fixed asset number. However, our audit disclosed that OIT's records were not accurate, complete or reliable. Specifically, our review of 184 laptops (128 tested from OIT's inventory records to the laptops and 56 laptops identified in the agencies and tested to OIT's inventory records) disclosed the following:

- 40 laptops had the incorrect assignment;
- 26 laptops had the incorrect location;
- 16 laptops could not be located;

- 9 laptops were not listed in OIT's inventory records;
- 4 laptops had a handwritten fixed asset number rather than a barcode sticker, including 2 laptops that contained an invalid fixed asset number (5 numbers instead of 6); and
- 1 laptop was declared surplus and being used only for parts.

Consequently, OIT lacked an accurate, complete, and reliable inventory list of laptops, which increases the risk that a laptop could be lost or stolen without timely detection.

**We recommend that OIT maintain accurate, complete, and reliable inventory records of the County's laptops.**

**3. There were no written policies and procedures for safeguarding the assigned laptops or the laptop pool units used by agency employees.**

OIT delegates the responsibility of maintaining policies and procedures for safeguarding laptops with each agency. Such policies and procedures are to include restricting physical access of laptops to authorized personnel and maintaining adequate documentation for the assignment of laptops. However, our review of 19 agencies with employee-assigned laptops and 13 agencies with laptop pools disclosed that none had established written policies and procedures for safeguarding the laptops. Specifically, our review disclosed the following:

- Access to laptops was not adequately restricted. For example, we noted that one agency kept the keys to the storage area for its laptop pool in a common area accessible to all employees and another agency's keys that opened the office's main door also accessed the closet where the laptops were stored. We also noted that laptops assigned to individual employees were not always kept in a secured location when not in use (e.g., not locked in the docking station, kept under a desk).
- Agencies lacked documentation over the assignment of laptops. We noted that of the 13 agency laptop pools tested, 12 agencies did not maintain a log to document the issuance and return of the laptops (e.g., name, date, signature, fixed asset number, etc.). Further, we noted that the log maintained by the other agency was incomplete (e.g., missing the date returned) and did not include sufficient information (e.g., signatures of the employee returning the laptop and the custodian receiving the laptop) to ensure the laptops were properly safeguarded. Of the 19 agencies tested with employee-assigned laptops, 18 agencies did not maintain documentation of the employee assignment.

As a result, there is a lack of assurance that laptops are protected against the risk of loss or theft.

**We recommend that OIT oversee the process of establishing written policies and procedures to properly safeguard County laptops and require all agencies to submit the written policies and procedures for review by OIT. We further recommend that the written policies and procedures restrict physical access to laptops to authorized personnel and provide that adequate documentation be maintained for assigned laptops.**

**4. OIT's laptop inventory records duplicate the Office of Budget and Finance's fixed asset records.**

In addition to OIT's inventory listing of County laptops, the Office of Budget and Finance (OBF) maintains a listing of the County's laptops as part of its fixed assets reporting requirement for financial statement purposes. Both OIT and OBF identify the laptops by the same fixed asset number. However, our audit disclosed a number of discrepancies between the two inventory listings. Specifically, we noted that 44 laptops on OIT's listing were not included in OBF's fixed asset report listing as of August 28, 2009. We further noted that no reconciliation is performed between the two listings. Maintaining two separate listings for the same assets results in duplication of effort and inefficient use of County resources.

**To eliminate the duplication of effort in the reporting of County laptops, we recommend that OIT coordinate with OBF to generate a mechanism whereby a single listing of all County laptops is maintained that will serve the needs of both agencies.**

## Audit Scope, Objective, and Methodology

We have audited the procedures and controls for the County's laptop computers inventory maintained by the Office of Technology (OIT) as of September 2, 2009. Our audit scope was limited to laptop computers maintained in OIT's inventory that were assigned to executive branch agencies. Although OIT maintains in its inventory the laptop computers assigned to legislative branch agencies, these laptops were excluded from the audit scope to assure auditor independence. The audit was conducted in accordance with generally accepted government auditing standards, except for the requirement of an external quality control review. 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In accordance with the Baltimore County Charter, Section 311, the objective of our audit was to evaluate the adequacy of internal control practices and procedures over OIT's laptop computers inventory. In planning and conducting our audit, we focused on laptop computers managed by OIT based on assessments of materiality and risk.

Our audit procedures included inquiries of appropriate personnel and inspections of documents, records, and laptop computers on hand. We also tested transactions and performed other auditing procedures that we considered necessary to achieve our objective. Data provided in this report for background or informational purposes were deemed reasonable but were not independently verified.

OIT's management is responsible for establishing and maintaining effective internal control to safeguard the County's laptop computers, including maintaining inventory records for all laptops. Internal control is a process designed to provide reasonable assurance that objectives pertaining to the reliability of financial records, effectiveness and efficiency of operations including safeguarding of assets, and compliance with applicable laws, regulations, policies and procedures are achieved.

Because of inherent limitations in internal control, errors or fraud may nevertheless occur and not be detected. Also, projections of any evaluation of internal control to future periods are subject to the risk that conditions may change or compliance with policies and procedures may deteriorate.

Our reports on fiscal compliance are designed to assist the Baltimore County Council in exercising its legislative oversight function and to provide constructive recommendations

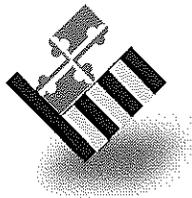
for improving County operations. As a result, our reports generally do not address activities we reviewed that may be functioning properly.

This report includes findings and recommendations relating to conditions that we consider to be significant deficiencies in the design or operation of internal control and administrative and operating practices and procedures that could adversely affect OIT's ability to maintain reliable financial records, operate effectively and efficiently, and/or comply with applicable laws, regulations, policies and procedures.

# **APPENDIX A**

**Office of Information Technology**

**Response**



**BALTIMORE COUNTY**  
M A R Y L A N D

JAMES T. SMITH, JR  
*County Executive*

ROBERT R. STRADLING, *Director*  
*Office of Information Technology*

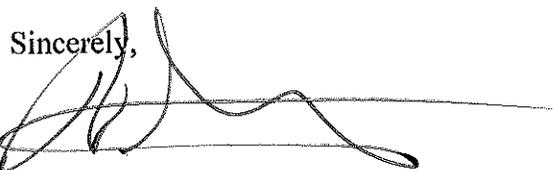
August 6, 2010

Dear Ms. Smelkinson:

Enclosed is the complete response to the County Auditor's draft Audit Report for County laptop inventory addressing all areas of concern.

As a result of the findings, The Office of Information Technology is making changes to the existing processes to improve compliance and accountability for tracking all laptop equipment.

If you need additional information, please let me know.

Sincerely,  


Robert R. Stradling  
Director



**Office of Information Technology  
Laptop Computer Inventory Audit  
Response**

**Office of Information Technology  
Baltimore County, MD  
July 2010**

## Findings and Recommendations Response

- 1. OIT did not have written policies and procedures for performing its annual physical inventory of laptops, and the 2008 physical inventory had not been reconciled as of September 2, 2009.**

OIT has now documented the County Annual Inventory Process, which includes the general County inventory, OIT Equipment Receiving and Deployment Workflow, Police Equipment Receiving and Deployment process and the Police and Fire Mobile Laptop Inventory Tracking process. OIT has revised the policies and procedures and have distributed said policies to appropriate personnel.

**We recommend that OIT reconcile the laptop inventory differences in a timely manner. Appropriate adjustments to the inventory records should be made only after proper review and supervisory approval. We also recommend that OIT establish written policies and procedures for performing its annual physical inventory of County laptops.**

The reconciliation process occurs during the annual physical inventory and is mandated by OIT management to be completed in the fourth quarter of the fiscal year. The 2007/2008 physical inventory was conducted, but the reconciliation was postponed due to the acquisition of the Public Safety IT units. The 79 laptops referenced, which had not been reconciled previously have been reconciled. One laptop could not be reconciled at this time for the State's Attorney Office. OIT is working with the Agency to locate this item.

- 2. OIT's laptop inventory records were not accurate, complete, or reliable.**
  - **40 laptops had the incorrect assignment:** LAN Administrators were responsible for providing updated employee names as equipment is reassigned. Agency LAN Administrators were reassigning equipment without notifying OIT as agency staff moves. OIT would reconcile these differences by updating the assignee names during the annual physical inventory. OIT will now provide agency LAN Administrators with a written policy and procedure to insure inventory data is accurate and up to date as agency staff change assignments. OIT will notify agency directors when LAN Administrators are non-compliant with the procedures.

- **26 laptops had the incorrect location:** LAN Administrators were responsible for providing updated locations as equipment is reassigned. Agency LAN Administrators were reassigning equipment without notifying OIT as agency staff moves. OIT would reconcile these differences by updating the location information during the annual physical inventory. OIT will now provide agency LAN Administrators with a written policy and procedure to insure inventory data is accurate and up to date as agency staff move. OIT will notify agency directors who have LAN Administrators who are non-compliant with the procedures
  
- **16 laptops could not be located:** There were 16 laptops which could not be located by the Auditors during their independent review. The 16 laptops referenced, were reconciled. Of the 16 laptops, there were two which have not been located at this time. One laptop was in the Department of Social Services (DSS) and one was in the Fire Department. These are not showing in their inventory. OIT is continuing to work with DSS and Fire to locate these items. Additionally, OIT is evaluating a laptop tracking software to detect the location of all County laptops.
  
- **9 laptops were not listed in OIT's inventory records:** Agency LAN Administrators and Agency Fixed Asset Administrators are responsible for adding new equipment purchased by the agency to the County Fixed Assets system and to the Service Center Inventory. OIT is establishing a centralized inventory receiving process to insure all equipment is added to the Service Center inventory and fixed asset inventory upon receipt..
  
- **4 laptops had a handwritten fixed asset number rather than a barcode sticker, including 2 laptops that contained an invalid fixed asset number (5 numbers instead of 6):**

All equipment receives a barcode when received and over time the labels can become damaged and unreadable. Labels are reprinted during the annual inventory when it is discovered that the barcode is missing or unreadable. OIT is investigating other label material that will withstand more abuse and remain readable for the duration of the equipment.
  
- **1 laptop was declared surplus and being used only for parts:**

The standard OIT process for utilizing surplus equipment for parts is necessary when repairing broken equipment which is out of manufacturer support and parts can no longer be obtained from the manufacturer for repair. Equipment will be surplus with a notation on the Surplus Declaration form stating, "Agency retain for Parts".

**We recommend that OIT maintain accurate, complete, and reliable inventory records of the County's laptops.**

The OIT Service Center inventory captures all data regarding the purchased date, model, serial number, agency, location, user type, etc. to determine eligibility for replacement. The process developed for Centralizing inventory receiving with OIT will improve compliance and insure accurate records.

OIT is working to consolidate the separate Police Access Database inventory obtained during the Public Safety IT consolidations into Service Center to standardize one repository for laptops. This consolidation was delayed waiting for an upgrade to the Service Center software.

**3. *There were no written policies and procedures for safeguarding the assigned laptops or the laptop pool units used by agency employees.***

Each agency developed a unique process to meet the shared laptop usage needs within the agency. OIT did not provide a standard policy and procedure for each agency with shared laptops. OIT will establish a standard policy and procedure for the use of shared laptops based on best practices and require agencies to utilize a sign out/in log to track shared laptop use.

OIT will conduct random inspections of the shared laptops process used by agencies, document and follow-up with agency management regarding discrepancies and non-compliance.

Each laptop user will be requested to read, review and sign a County policy for all employees assigned a laptop detailing the responsibilities of the user. The existing OIT policy will be revised and distributed to County employees currently assigned a laptop, as well as require a signed policy for each laptop issued in the future. A copy of the signed policy will be scanned and maintained with the equipment inventory record in the Service Center Inventory.

**4. *OIT's laptop inventory records duplicate the Office of Budget and Finance's fixed asset records.***

**To eliminate the duplication of effort in the reporting of County laptops, we recommend that OIT coordinate with OBF to generate a mechanism whereby a single listing of all County laptops is maintained.**

The Service Center inventory software was purchased and populated with County PC inventory to provide the appropriate information in a searchable format to determine eligibility of PC and laptop replacement based on a three (3) year replacement cycle.

The Service Center application allows OIT to document the individual user assignment, user types, location, attachments, etc. The Fixed Asset inventory records system is a financial system and is not designed to capture additional information needed to determine replacement eligibility.

The Centralized Inventory Process for receiving all agency purchased equipment will insure all initial fixed assets paperwork be completed by OIT upon receipt of equipment and insure it is entered in Service Center Inventory. OIT will do a yearly reconciliation between the two systems to ensure they are in sync.

AUDIT TEAM

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