



**FULTON COUNTY**

**FULTON COUNTY, GEORGIA  
OFFICE OF INTERNAL AUDIT**

**Department of Information Technology Audit Report  
Phase II**

**March 27, 2015**

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## Executive Summary

The Office of Internal Audit conducted an audit of the Department of Information Technology (DoIT) in two phases. This audit report is conclusive of our findings for Phase II. Phase II of the audit included an examination of vendor payments, software licensing, management of the Intellectual Property list, asset management, costs for wiring and storage services, overall project management, oversight and client communication. The scope for Phase II of the audit covered January 1, 2011 through December 31, 2014. The audit was conducted in accordance with the Generally Accepted Government Auditing Standards. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Based on the results of our audit procedures, we noted the following findings and areas of concerns:

- Lack of communication between DoIT and user departments  
Two instances were noted in our audit where a lack of communication led to significant delays in the implementation of systems required for service to citizens and internal clients.
- Overbilling for professional services  
Due to improper contract management, Fulton County was overbilled for professional services.
- Failure to comply with the Enterprise Agreement  
The DoIT failed to perform an annual “true up” to Microsoft, which led to insufficient payments for licenses and non-compliance with the Enterprise Agreement.
- Deficient management of the County’s technical assets  
The County lacks an adequate technical asset management system that effectively tracks and centrally manages the County’s technical assets.
- Payments for support of expired licensing  
The DoIT paid for professional support of expired software and licenses and payments continued subsequent to the servers being decommissioned.
- Possible circumvention of the procurement process  
It appears the DoIT did not procure goods and services for maintenance and support of the Securefusion software package using the most effective procurement process to optimize vendor responses. This appears to be an attempt to circumvent a formal solicitation.
- Potential vendor steering/cost savings management  
The DoIT required a direct service provider to utilize an intermediary vendor at an increased cost to Fulton County without receiving additional benefits. This action does not constitute good business practices and can lead to the perception of vendor steering and result in Fulton County paying a higher rate for services.

Our audit also noted one audit concern pertaining to alleged claims of retaliation, which we recommended for further investigation by the appropriate agency.

It is important to note that a significant amount of the findings and audit concerns outlined in both Phase I and Phase II were systemic problems that occurred under previous administrations. Current management is in the process of making attempts to rectify challenges that have led to insufficient processes and practices, ineffective operations and cost prohibitive procurements.

The report details our findings and recommendations that intend to improve internal controls, compliance and accountability.

## Introduction

The Office of Internal Audit was asked by Commissioner Joan Garner to conduct a comprehensive audit of the Department of Information Technology (DoIT). Due to its magnitude, the audit had to be divided into two phases. The initial phase of the audit, which contained several findings, was completed on December 12, 2014 and was presented to the Board of Commissioners, the Interim County Manager and the Interim Director of DoIT. The primary focus of the audit consisted of a review of professional service contracts and was conducted to address concerns regarding the infrastructure, administration, invoice payments, deliverables and overall Information Technology (IT) operations.

Phase II of the audit contains other areas of operation that were reviewed, which included an examination of vendor payments, software licensing, management of the Intellectual Property list, asset management, costs for wiring and storage services, overall project management, oversight and client communication.

## Background

The internal and external environments of Fulton County are subject to consistent change and technology is critical to the development, implementation and enhancement of services to the citizens, employees, businesses and visitors of Fulton County. As the largest county in the State of Georgia, it is imperative that there is an overall approach for the selection, use and support of technology and that it aligns with County resources, business needs and processes.

The DoIT provides a wide range of technology services and resources targeted to ensure Fulton County employees are supplied with the necessary tools that enable them to deliver quality services to their constituents. Services include technical support for IT infrastructure as well as applications and administrative support. The department provides the County Manager and all elected and constitutional officials advisement and direction on technology. The DoIT is the County's resource for establishing technology best practices, standardization and guidance. The DoIT services more than 45 county departments totaling over 6,000 users in over 200 locations county-wide.

## Objective

The objectives of the audit were to review and assess the following items:

- Software licensing issues;
- Communication concerns between user departments and the DoIT;
- Management of the Intellectual Property Listing;
- Concerns regarding possible retaliation;
- Contractual agreements with Microsoft, Vixio Technology, and Consilium; and
- Inventory management processes of the DoIT.

## Scope

The audit period for this review is January 1, 2011 through December 31, 2014.

## Methodology

We conducted this audit in accordance with Generally Accepted Government Auditing Standards. To accomplish our objectives, we:

- Reviewed the DoIT internal controls as they currently exist;
- Interviewed and performed walkthroughs with key personnel to gain an understanding of controls and how risks are mitigated in the DoIT environment;
- Interviewed consultants and vendors as needed;
- Identified and reviewed the DoIT written policies and procedures, applicable laws, codes, plans and regulations;
- Reviewed the DoIT's files, records and data;
- Reviewed associated files, records and data from the Finance, Personnel and Purchasing Departments;
- Conducted interviews with management and staff from the Finance, Personnel and Purchasing Departments; and
- Reviewed and analyzed vendor invoices, payment processing and authorizations required to issue payments.

Generally Accepted Government Auditing Standards require that we plan and perform the audit to obtain sufficient and 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 objectives.

## Findings and Recommendations

### Finding 1 – Lack of Communication between DoIT and User Departments

The mission of the DoIT is to deliver secure, innovative, reliable technology services and solutions, and to provide guidance and oversight that lead to sound decisions for Fulton County Government. During our review, we noted poor communication by the DoIT while working with other County departments. Lack of proper program management appears to have led to poor communication between the DoIT and user departments. This failure to communicate resulted in the following:

- In May, 2011, the Clerk of Superior Court sought to procure digital scanning of real estate, civil, criminal and financial records that the Clerk's Office is required to microfilm and maintain for permanent retention per State law. The DoIT management proposed that the Clerk's Office purchase additional memory prior to submission for consideration for approval by the Board of Commissioners. However, other members of DoIT management indicated the additional memory was not necessary. Due to lack of communication between the DoIT management, conflicts regarding the necessity of the memory, and the need to keep records independent per state law requirements, the Clerk's Office appealed to the County Manager's Office to procure the services without the additional memory.

- In May, 2013, the Office of Planning and Community Development sought to implement Cityworks, a program that manages infrastructure capital assets, for its permit and work order project. The DoIT was assigned to oversee the implementation of this project. Due to inadequate project management, the Planning and Community Services Department has waited for more than two years for the implementation of this software designed to provide basic processing of Fulton County construction permits and inspections. The extensive delay in implementation of this software has hindered the efficiency and effectiveness of services being rendered to County constituents.

By not properly communicating, proper guidance and oversight was not afforded to the departments as expected based on their mission.

**Recommendation**

The DoIT should ensure they are meeting expectations and providing technology services that are consistent with the department’s mission. The DoIT management should stress the importance of communication within the DoIT as well as with other County departments. This will ensure that departments maintain fluid and efficient technology services.

**Finding 2 – Overbilling for Professional Services**

The County contracted with Consilium and Randstad to provide the following:

- Oracle licensing server and database administrative services;
- Support for the Disaster Recovery and Operational Continuity Plan; and
- On Demand services.

According to the terms of the Scope of Work in the Oracle Licensing and Database Support Service and the Disaster Recovery contracts, the County anticipates a minimum of five (5) full-time position equivalents (FTE) to address the requirements in the contract. We reviewed the payroll records provided by the vendors, Randstad and Consilium, for the period January 1, 2013 through October 31, 2014. In three (3) Consilium contracts, we noted positions that were required to be filled per contractual terms that were not filled for a designated period of time. After reviewing the rates noted in the contract, we were able to determine the amount paid to Consilium for those positions for which services were not provided. The details of the positions are indicated below:

YEAR	CONTRACTS	POSITION	VACANT HOURS	AMOUNT
2013	Disaster Recovery	Candidate 1	640	\$ 92,160.00
2013	Oracle/Database	Database Manager	80	\$ 12,938.40
2014	Oracle/Database	Database Manager	80	\$ 12,938.40
2014	Oracle/Database	MS SQL Database Administrator	80	\$ 7,392.80
<b>Total</b>			880	\$ 125,429.60

The DoIT management failed to ensure the appropriate number of professionals were available to provide the necessary services. In addition, the DoIT approved semi-annual invoices for payment to Consilium in advance of the services being rendered.

### **Recommendation**

The DoIT should ensure compliance with the terms of the contract as it relates to staffing requirements for the professional services. The DoIT should ensure accurate tracking of attendance and services provided by all consultants in an effort to provide a means of attendance reconciliation and avoid potential overbilling errors.

### **Finding 3 – Failure to Comply with Enterprise Agreement**

Pursuant to the Enterprise Agreement between the DoIT and Microsoft, the DoIT is to provide the total number of desktops and servers to Microsoft in order to pay the amount due to cover the number of licenses being used by Fulton County for Microsoft products. The DoIT violated the Enterprise Agreement by not providing the accurate number of desktops and SQL servers on an annual basis. Fulton County was under agreement to pay for 3,500 Microsoft licenses for desktops. During our review we noted there were a total 5,959 desktops and 1,077 public facing units that required licensing. Our review also revealed that the correct number of Structured Query Language (SQL) servers may not have been declared and an accounting was needed to determine an accurate number to be in compliance with the terms and payment of products per the Enterprise Agreement. Lack of proper oversight and management caused a breakdown in supplying the accurate number of desktops and servers to Microsoft necessary to cover the correct number of licenses and payments due for Microsoft product licensing. As a result, the County is out of compliance with the Enterprise Agreement and Microsoft has not been paid the full amount due for the actual number of licenses for their products that are used on County desktops and servers.

In addition to the desktops and public facing computers, the DoIT declared twelve (12) SQL Standard Server licenses and ten (10) SQL Enterprise Server licenses; however, there is still question as to whether the number of SQL servers is accurate. Microsoft agreed to hire a third party partner to assist the DoIT in running the MAPS tool, which would help to finalize the count on the number of SQL servers. At the time of this report, this agreement was still under review by the County Attorney's Office. Once the assessment of the SQL Database Server licenses is complete the additional amount that needs to be paid to cover the remaining servers should be determined by the DoIT.

### **Recommendation**

As a result of our audit, the DoIT declared the correct number of desktops and public facing computers. However, the DoIT should continue to work with Microsoft to provide an accurate "true-up" of numbers and submit a request to the Board of Commissioners for adequate payment to cover all licenses that have not been paid. In the future, to ensure proper payment for licensing, the DoIT should implement procedures that annually "true-up" the number of desktops and servers per the terms of the Enterprise Agreement.

**Finding 4 – Deficient Management of the County’s Technical Assets**

According to best practices, system administrators should provide asset management for all technical assets in an organization including hardware and software. The goals of hardware asset management are to account for all hardware assets on the IT infrastructure in order to provide a comprehensive inventory visibility while software asset management focuses on software assets including licenses, versions and installed endpoints. During our review, we noted the following deficiencies with the management of the County’s technical assets:

- Inability to centralize data due to the use of multiple information systems that are not integrated or provide real time data;
- Failure to adequately capture the County’s technical assets lifecycle from acquisition through disposal;
- Failure to properly track assets and relying on County departments to report changes in the assets status and/or location;
- Failure to provide real time data due to a manual process of data capture and asset discovery;
- Failure to verify the physical County assets due to the lack of periodic reviews;
- Inability to properly account for all technical assets on the IT infrastructure that may have been procured through other agencies or non-County funds; and
- Failure to properly manage software assets.

The County does not have adequate processes that effectively and centrally manage the County’s technical assets. Without an adequate centralized asset management system, the County could be at risk to the loss of technical assets, use of non-compliant software and a vulnerable IT infrastructure.

**Recommendation**

We encourage the County to procure, if necessary, and implement a centralized IT asset management system, which would help to improve the management of all technical assets utilizing the County’s IT infrastructure. The benefits of procuring an adequate asset management system include: achieving IT operating efficiency, financial accountability of assets purchased, and long-term asset manageability and maintenance. Additionally, the DoIT should ensure the system is capable of asset discovery, data capture, asset tracking, asset lifecycle management and asset reporting.

**Finding 5 – Payments for Support of Expired Licensing**

Fulton County’s Code of Ordinances sections 102-386, Renewal of annual licensing, maintenance and support agreements for intellectual property, states:

*(1) It is the policy of Fulton County Government to respect all copyrights, patents, trademarks, and trade secrets and to adhere to the terms and conditions of any license to which Fulton County is a party. Moreover, it is the policy of the county government to ensure that all resources are managed in a transparent and cost-effective manner and in accordance with applicable laws.*

During the audit, we revealed the DoIT may have made improper payments to Vixio Technology totaling \$147,950 for the support and maintenance of Securefusion Software after the licenses expired on November 16, 2012. Additionally, the servers maintaining the software were decommissioned in November 2013. We noted after the software expired, one additional full payment was made to Vixio Technology; however, this payment should have been prorated. Furthermore, there were two additional full payments that should not have been made. Details of the payments are below:

<b>PAYMENT DATE</b>	<b>DESCRIPTION</b>	<b>AMOUNT</b>	<b>AGREEMENT PERIOD</b>
<b>06/07/2013</b>	Securefusion Asset Discovery Portal	\$49,950.00	06/01/2012 – 05/31/2013*
<b>02/28/2014</b>	Securefusion Configuration Module	\$49,950.00	02/01/2013 – 01/31/2014
<b>03/05/2014</b>	Securefusion Suite Software Licenses, Maintenance and Support	\$48,050.00	06/01/2013 – 05/31/2014
<b>Total</b>		\$147,950.00	
* license expired on November 16, 2012			

It appears the DoIT internal controls over software and maintenance agreements are inadequate and are not being properly reviewed. As a result, Vixio Technology may have been improperly paid a total of \$147,950.00 for support and maintenance services. There also appears to be a lack of communication in the DoIT related to determining if support services were actually provided by Vixio Technology.

**Recommendation**

The County should manage all resources in a cost-effective manner. Fulton County should not pay for the support of expired software and licensing. If an agreement period for a particular service extends beyond the time a server license is decommissioned, the amount to be paid should be prorated. The DoIT needs to implement processes that include a regular review of all IT software that is being supported to ensure its use and necessity.

**Finding 6 – Possible Circumvention of the Procurement Process**

According to Fulton County’s General Bid Information, procurement for goods and services valued over \$50,000 should be procured through a Request for Proposal (RFP). The DoIT submitted two (2) Requests for Quotes (RFQs) for similar services related to the Securefusion Software that were both awarded Vixio Technology. A review of the Vixio Technology invoice payments for 2011, 2012, and 2014 revealed the amounts paid for each service were just under the \$50,000.00 threshold for RFQs. However, the total amount paid to Vixio Technology each year for the combined services exceeded \$50,000.00 as reflected in the chart below:

<b>PAYMENTS TO VIXIO TECHNOLOGY FOR SECUREFUSION SOFTWARE SUPPORT</b>		
<b>Invoice Date</b>	<b>Description</b>	<b>Amount Paid</b>
01/15/2011	Configuration Model Support	\$ 49,500
05/07/2011	Maintenance & Support	\$ 41,500
<b>Total Payments in 2011</b>		<b>\$ 91,000</b>
02/02/2012	Configuration Model Support	\$ 49,500
04/13/2012	Maintenance & Support	\$ 49,950
<b>Total Payments in 2012</b>		<b>\$ 99,450</b>
01/31/2014	Configuration Model Support	\$ 49,950
02/10/2014	Maintenance & Support	\$ 48,050
<b>Total Payments in 2014</b>		<b>\$ 98,000</b>

It appears the services were split in an effort to circumvent the procurement process that may have required an RFP solicitation. Failure to comply with Purchasing regulations resulted in the County paying for services that may not have been at a favorable cost.

**Recommendation**

The Department should comply with all Purchasing regulations and ensure payments for goods and services are within the Purchasing limits. The DoIT should not divide related services that can be combined in an effort of what appears to be an attempt to by-pass the threshold limits of an RFP solicitation. This will provide assurance that a fair bidding process is available for all qualified vendors.

**Finding 7 – Potential Vendor Steering/Cost Savings Management**

Fulton County Government should seek to procure required goods and services at the most economical price. During our audit, we noted a Request for Quote (RFQ) was issued in an effort to solicit support and license services for Asentinel’s Managed Telecom Hosted Service, which is a telecom auditing product that was purchased by the County in 2003. According to a representative of Asentinel, their company was directed to respond to the solicitation through Vixio Technology, who was a Fulton County registered vendor. As a result, Asentinel never responded directly to the RFQ but rather partnered with Vixio Technology to respond and services were ultimately awarded to Vixio Technology, a Minority/Female Business Entrepreneur company (MFBE) and a Valued Added Reseller (VAR). Subsequent solicitations have been awarded to Vixio Technology for Asentinel’s services and in each instance Vixio Technology was the only responder. This action gives the appearance of vendor steering.

As a result of this direction, there was an increase in the cost for service in order to receive the Asentinel products and services through Vixio Technology. However, there appears to have been no material added value from Vixio Technology for the services they provided. Although there was \$194,815.00 in payments made to Vixio Technology for Asentinel Software Licenses from 2011 through 2014, the amounts billed to Vixio Technology by Asentinel Software Licenses totaled \$184,260.00 for the same time period. Based on figures provided by the Asentinel Chief

Financial Officer (CFO), Fulton County could have saved \$10,555.00 from 2011 through 2014 if A Sentinel provided the services directly for the telecom management software package and support.

**Recommendation**

The DoIT should work to ensure the best possible cost is obtained when attempting to procure goods and services. Fulton County Department Directors should not mandate that suppliers utilize an intermediary vendor at an increased cost to Fulton County without receiving an additional benefit. The DoIT should encourage potential vendors to register with the County in an effort to increase vendor responses for required services. Every effort should be made to foster an environment open to competitive bidding by direct and indirect service providers to guarantee Fulton County is receiving the best possible price for required services.

**Audit Concern(s)**

**Audit Concern 1 – Retaliation Complaints**

During our audit investigation, complaints of alleged retaliation were referenced for acts of exposing potential breaches in security and/or activity that could place the county at risk. The complaints include allegations of removal, reduced and/or transfer of duties and transfer to other units within the DoIT. We interviewed the DoIT management regarding the allegations of retaliation and requested documentation to include their organizational chart and any documented plans for a re-organization. We also inquired about the performance of the employees whose job duties were altered. The DoIT management indicated changes were made due to necessities of talent in different areas and best fit, and were in accordance with the former Chief Information Officer’s (CIO) plan for re-organization. However, the former CIO indicated that these movements/changes were not in alignment with his plans nor was sufficient written documentation provided to support the changes.

**Recommendation**

It is our opinion that these allegations warrant further investigation and should be reviewed by the appropriate entity within the county equipped to handle retaliation complaints. These departments include the County Attorney’s Office, an arm of the Personnel Department and/or the Office of Equal Employment and Disability Affairs.

**Conclusion**

Our audit revealed the following findings for the DoIT:

- Lack of communication between DoIT and user departments;
- Overbilling for professional services;
- Failure to comply with the Enterprise Agreement;
- Deficient management of the County’s technical assets;
- Payments for support of expired licensing;

- Possible circumvention of the procurement process; and
- Potential vendor steering/cost savings management

One concern was noted pertaining to alleged claims of retaliation, which we recommend further investigation be conducted by the appropriate agency.

It is our opinion that the DoIT is in need of a wide variety of improvements in their processes and internal controls. The process of change must be implemented in a well-planned, organized fashion. The County Manager's Office should utilize all resources at their disposal to design, implement and complete a high level assessment and reorganization of the DoIT. This reorganization should include:

- Implementation of effective policies and procedures for processing and monitoring contracts and invoice payments;
- Effective project management; and
- A process designed to regularly review the sufficiency of internal controls.

We would like to express our appreciation to the DoIT for their cooperation during this audit review.

Please provide a written response to this audit within 30 days. You may email your written response to the County Manager and Brigitte Bailey, Administrative Coordinator III, in the Office of Internal Audit at [Brigitte.Bailey@fultoncountyga.gov](mailto:Brigitte.Bailey@fultoncountyga.gov). We would like to thank management and staff for their timely cooperation and assistance during this audit. The distribution of this report is reserved for the executive management of Fulton County and the Board of Commissioners.