



**Mecklenburg County
Department of Internal Audit**

Advantage Application Follow-Up Audit
Report 1464

March 21, 2014

**Internal Audit's
Mission**

Through open communication, professionalism, expertise and trust, Internal Audit assists executive management and the Audit Review Committee in accomplishing the Board's objectives by bringing a systematic and disciplined approach to evaluate the effectiveness of the County's risk management, control and governance processes in the delivery of services.

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**Staff
Acknowledgements**

Richard Kring, CISA, Auditor-In-Charge

**Obtaining Copies of
Internal Audit Reports**

This report can be found in electronic format at
<http://charmeck.org/mecklenburg/county/audit/reports/pages/default.aspx>



MECKLENBURG COUNTY
Department of Internal Audit

To: Dena Diorio, County Manager

From: Joanne Whitmore, Director, Department of Internal Audit

Date: March 21, 2014

Subject: Advantage Application Follow-Up Audit Report 1464

The Department of Internal Audit has completed follow-up procedures on reported issues from the Advantage Application Audit Report 1152 issued June 21, 2012. The objective of the follow-up review was to determine with reasonable but not absolute assurance whether management took effective and timely action on the issues presented in the audit report.

Internal Audit interviewed key personnel, observed operations, reviewed written policies and procedures and other documents, and tested specific transaction activity where applicable. Internal Audit conducted this audit in conformance with The Institute of Internal Auditor's International Standards for the Professional Practice of Internal Auditing.

RESULTS

As noted in the following **Follow-Up Results** section, there were seven recommendations in the Advantage Application Audit Report 1152. Internal Audit determined three recommendations were fully implemented and two recommendations were partially implemented. Because the software vendor declined to voluntarily make requested changes to Advantage, management has assumed the risk of not pursuing implementation of two recommendations.

Management indicates the recommendations are partially implemented due to competing priorities and their intention is to fully implement the recommendations by July 2014, and you have accepted this date.

Internal Audit will conduct a follow-up review at a later date to verify the partially implemented recommendations are fully implemented and working as expected.

The cooperation and assistance of the Financial Services Department staff are recognized and appreciated.

- c: Deputy County Manager
- Assistant County Managers
- Deputy County Attorney
- Senior County Attorney
- Board of County Commissioners
- Audit Review Committee
- Director, Financial Services Department

Follow-Up Results
Finance Advantage Application Audit Report 1152

- **Fully Implemented** – The audit issue has been adequately addressed by implementing the original or alternative corrective action (X).
- **Open/Partially Implemented** – The corrective action has been initiated but is not complete (P) or the audit issue has not been addressed but management fully intends to address the issue (O).
- **Not Implemented** – The audit issue has not been addressed and management has assumed the risk of not taking corrective action (NI).
- **Withdrawn** – The audit issue no longer exist because of changes in the auditee’s operation (W).

Issue	Risk Observation	Recommendation	Corrective Action Taken			
			Fully Implemented	Open/Partially Implemented	Not Implemented	Withdrawn
1	<p>The Department does not have formal, documented policies and procedures for:</p> <ul style="list-style-type: none"> • application security risk assessments and supporting activities to include identification of high risk business processes and transactions • developing security roles, including ongoing security role maintenance • user access controls, to include but not be limited to, user identification and authorization; user identifications (UserID) and password management; system delivered UserIDs; sensitive accounts and related privileges; and other sensitive application resources • configuration management to include purpose, scope, roles, responsibilities, baseline configuration, management commitment, coordination among relevant entities, compliance and implementation of the policy and associated controls • batch processing verification and error handling 	<p>Internal Audit recommends the Department develop formal, documented policies and procedures to include, at a minimum:</p> <ul style="list-style-type: none"> • Advantage application security risk assessments • security roles • user access controls • configuration management • batch processing verification and error handling • controls and compliance monitoring • business continuity planning 		P		

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Issue	Risk Observation	Recommendation	Corrective Action Taken			
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	<ul style="list-style-type: none"> • frequency and scope of monitoring the adequacy of information technology controls and other procedural compliance • business continuity planning to include development, implementation and testing. <p>Policies and procedures are important control activities to help ensure management’s directives are carried out while mitigating risks that may prevent the department from achieving its objectives. Further, documented policies and procedures, along with evaluations and updates, should provide management with a level of assurance that control activities are functioning as intended.</p>					
2	A BSSA-IT staff member who occasionally provides problem resolution and other assistance to the Department continues to use a generic UserID provided by the Advantage vendor for the system’s initial implementation to accomplish production processing. The generic UserID, however, is not intended to be used as an individual’s UserID to perform ongoing Advantage	Internal Audit recommends the Department assign unique UserIDs to all staff with Advantage administrative rights. In addition, the Department should remove all generic UserIDs when there is no business need to retain them. For those generic UserIDs that need to be retained, the Department should change the initial default passwords and control their distribution and use.	X (3)			

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	responsibilities. As a result, staff could inappropriately alter data and security permissions or create and approve unauthorized payment documents and other similar activities without the ability to track and assign accountability.					
3	The Department has not tested and updated its Business Continuity Plan or verified with BSSA-IT it can timely recover Advantage in the event of an emergency. If the Department cannot confirm its Business Continuity Plan will work as intended, including restoring Advantage functionality, it may not be able to resume essential functions, such as issuing vendor payments and recording County revenues and financial transactions.	Internal Audit recommends the Department periodically test and update its Business Continuity Plan, including coordination with BSSA-IT to ensure Advantage can be timely recovered.		P		
4	Although recent Advantage workflow enhancements have been implemented to help increase application controls, the workflow does not prevent users from discarding payment requests and other documents that are in draft status waiting for document completion. As a result, the documents could be deleted before	Internal Audit recommends the Department work with the vendor to add document control features that can prevent inappropriate discards and provide reasonableness checks on date fields to prevent erroneous date entries.			NI (2)	

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	<p>processing is complete.</p> <p>In addition, while Advantage automatically enters most dates for financial transactions, the system does not prevent errors when users must manually enter dates. For example, invalid invoice date entries ranged from September 20, 1907 through February 6, 2029.</p>					