



CITY OF SAN ANTONIO

SAN ANTONIO TEXAS 78283-3966

April 30, 2013

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SUBJECT: Audit Report of Capital Improvements Management Services (CIMS) Web Portal (PRIMELink) Security and Application Controls

Mayor and Council Members:

We are pleased to send you the audit report of CIMS Web Portal (PRIMELink) Security and Application Controls. This audit began in October 2012 and concluded with an exit meeting with department management in March 2013. Management's verbatim response is included in Appendix B of the report. The CIMS Department management and staff should be commended for their cooperation and assistance during this audit.

The Office of the City Auditor is available to discuss this report with you individually at your convenience.

Respectfully Submitted,

Kevin W. Barthold, CPA, CIA, CISA
City Auditor
City of San Antonio

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CITY OF SAN ANTONIO
OFFICE OF THE CITY AUDITOR



Audit of Capital Improvements Management Services
Web Portal (PRIMELink) Security and Application Controls

Project No. AU13-003

April 30, 2013

Kevin W. Barthold, CPA, CIA, CISA
City Auditor

Executive Summary

As part of our annual Audit Plan, we conducted an audit of the Capital Improvements Management Services Department (CIMS) Web Portal. The audit objective, conclusions, and recommendations follow:

Has CIMS successfully implemented security and application controls within its Portal system to effectively manage the department's risks as they relate to issues that could adversely affect the ability to record, process, summarize and report data?

Yes, CIMS has successfully implemented security and application controls within its PRIMELink¹ Portal system. CIMS has a process in place to ensure that external users have the appropriate system access. The system also generates automatic control logs that can be used as a monitoring tool to review external and internal user activity. PRIMELink includes several automated functions that serve as controls to mitigate the risk of inaccurate and incomplete data being transmitted via interfaces from the SAP system. In addition, a manual control exists for ensuring the accuracy of invoice dates.

Although security and automated controls are effective for the PRIMELink system, we identified some areas that could be improved:

- Approval for user access is not documented
- The date recorded in PRIMELink is not part of the data that is interfaced into SAP. Consequently, SAP reflects the date of transmission versus the date recorded in PRIMELink causing a manual review process to occur.

We recommend the Director of CIMS:

- Ensure that user access requests, including user roles, are approved by the requestor's manager and that authorizations are documented and maintained.
- Continues working with ITSD to capture the record date for the interface to eliminate the manual process of reconciling invoice dates between the PRIMELink and SAP systems.

CIMS verbatim response is in **Appendix B** on page 5.

¹ Project Reporting Information Management Exchange Link

Table of Contents

Executive Summary.....	i
Background	1
Audit Scope and Methodology.....	2
Audit Results and Recommendations.....	3
A. PRIMELink – System Security Controls	3
B. PRIMELink – Application Controls.....	3
Appendix A – Staff Acknowledgement.....	4
Appendix B – Management Response	5

Background

CIMS manages the City's Capital Improvement Program projects to include the 2007-2012 Bond Program through all phases of design, construction, and inspection. The department also coordinates the consultant selection, construction contractor procurement, and project delivery for all capital improvement construction projects.

CIMS uses a project management tool called PRIMELink, which was implemented in April 2012. PRIMELink was designed to improve project delivery, increase accountability and provide the City the means to identify project management needs. Although a few projects remain in the previous Web Portal system until project completion, future capital improvement projects and other associated contracts will be managed using the new PRIMELink system.

The PRIMELink system is managed by the CIMS's PRIMELink Helpdesk. The Helpdesk provides CIMS and other city departments such as Public Works, Aviation, Parks and Recreation with centralized project data and encourage project management efficiency. The PRIMELink system supports several user accounts which include City staff, contractors, consultants, utilities and other agencies, accompanying workflow routings and over 200 projects/contracts.

Audit Scope and Methodology

The audit scope included security and application controls implemented within PRIMELink and recorded transactions from April 2012 through December 2012.

Our audit work included interviews with CIMS, Finance and ITSD personnel and walkthroughs of key processes. We also reviewed relevant documents, including the Project Charter, System User Guides, the Contract Agreement and City Ordinances.

As part of our user access test work, we obtained a judgmental sample of 25 external users and reviewed documentation requesting system access. In addition, we reviewed the process for issuing access to City employees. We also reviewed PRIMELink administrator's access roles in SAP and verified appropriate segregation of duties. We reviewed SAP data files, which interface with PRIMELink, and verified users do not have data file access. Finally, we reviewed automated controls, which limit or restrict user access.

We used a judgmental sampling methodology to obtain a sample of 33 invoices totaling \$2,824,409 paid during November 2012 and a sample of 25 contract change requests totaling \$328,978. We reviewed each invoice and contract change request project's audit logs for appropriate approval within PRIMELink. We also verified automated controls were functioning as intended related to purchase order and change request threshold amounts.

The PRIMELink system interfaces with the City's SAP and FileNet systems. An automated control is in place to verify the accuracy of Vendor, Budget, Fund, Invoice, and Payment data between systems. We verified that the aforementioned data matched when compared between the systems and that identified errors were captured and routed to appropriate personnel for review.

We relied on computer-processed data from SAP and compared it to source documents obtained from within the PRIMELink system to determine appropriate transaction approvals and accuracy of data transmissions. We did not evaluate SAP's general and application controls. We do not believe the absence of testing general and application controls had an effect on the results of our audit.

This audit was conducted from October 2012 to January 2013 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 audit results and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our audit results and conclusions based on our audit objectives. Our audit included tests of management controls that we considered necessary under the circumstances.

Audit Results and Recommendations

A. PRIMELink – System Security Controls

CIMS does not document user role access request authorizations for PRIMELink users. The Federal Information System Controls Audit Manual (FISACAM), section AC-3.1, states, “In order to adequately control user accounts, an entity should institute policies and procedures for authorizing logical access to information resources and document such authorizations.”

The lack of user role access authorization documentation may result in the inappropriate assignment of access roles.

Recommendation

The CIMS Director ensure that user role access requests are approved and that authorizations are documented and maintained.

B. PRIMELink – Application Controls

We judgmentally selected five invoice requests for payments totaling \$85,689 and reviewed the application controls in place for the accurate transmission of invoice data from PRIMELink into SAP. We determined overall invoice data such as vendor name, dollar amount, and purchase order numbers was transmitted accurately. However, four out of the five invoice dates did not match. Currently, the invoice date recorded in PRIMELink is not part of the data interfaced into SAP. Once the data is imported into SAP, the system lists the date of transmission as the invoice date. This is creating a discrepancy between the invoice dates recorded in PRIMELink and SAP. As a result, accounts payable staff must manually correct the date within the SAP system to reflect the invoice date recorded in PRIMELink.

Finance identified the issue during the PRIMELink implementation phase and communicated it to CIMS. CIMS is working with ITSD to correct the issue.

Recommendation

The CIMS Director continues working with ITSD to capture the record date for the interface to eliminate the manual process of reconciling invoice dates between the PRIMELink and SAP systems.

Appendix A – Staff Acknowledgement

Sandy Paiz, CFE, Audit Manager
Buddy Vargas, MBA, CFE, Auditor-in-Charge
Christopher Moreno, Auditor II, MPA

Appendix B – Management Response



CITY OF SAN ANTONIO

SAN ANTONIO TEXAS 78283-3966

March 25, 2013

Kevin W. Barthold, CPA, CIA, CISA
 City Auditor
 San Antonio, Texas

RE: Management’s Corrective Action Plan for the Web Portal Security and Application Controls Audit

Capital Improvements Management Services (CIMS) Department has reviewed the audit report and has developed the Corrective Action Plans below corresponding to report recommendations.

Recommendation					
#	Description	Audit Report Page	Accept, Decline	Responsible Person’s Name/Title	Completion Date
A	<p>PRIMELink – System Security Controls</p> <p>The CIMS Director ensures that user access requests are approved and that authorizations are documented and maintained.</p>	3	Accept	Debbie Sittre / Assistant Director	July 2013
<p>Action plan: PRIMELink system in its suite of products captures users’ access setup, specifically user activation date and time but presently doesn’t capture authorization of this access. CIMS PRIMELink Helpdesk will ensure that a formal procedure regarding user access requests (addition, deletion or modification of a user’s access) is implemented and that authorizations are documented and maintained. CIMS PRIMELink Helpdesk will develop and implement the use of an access authorization form and retain the authorized document(s) in PRIMELink system to document authorization of user access at the individual project level.</p>					
B	<p>PRIMELink – Application Controls</p> <p>The CIMS Director continues working with ITSD to capture the record date for the interface to eliminate the manual process of reconciling invoice dates between the PRIMELink and SAP systems.</p>	3	Accept	Debbie Sittre / Assistant Director	December 2013

Audit of CIMS Web Portal Security and Application Controls

Recommendation					
#	Description	Audit Report Page	Accept, Decline	Responsible Person's Name/Title	Completion Date
	Action plan: CIMS PRIMELink Helpdesk, in conjunction with ITSD and Oracle Support where appropriate, will work on updating current integration between PRIMELink and SAP to include invoice date so that the invoice date is systematically updated in SAP. This change will eliminate the need for the manual review and update in SAP by Finance Department.				

We are committed to addressing the recommendations in the audit report and the plan of actions presented above.

Sincerely,



 Michael S. Frisbie
 Director
 CIMS Department

4-12-13

 Date



 Peter Zanoni
 Deputy City Manager
 City Manager's Office

4-17-13

 Date