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April 24, 2014

The Honorable Toni Preckwinkle, President
And Board of Cook County Commissioners
118 N. Clark Street, Room 537
Chicago, Illinois 60602

Dear President Preckwinkle and Board of Commissioners:

We have conducted an audit of the Office of the Public Guardian Case Management System implementation. We conducted our audit in accordance with the Cook County Auditor Ordinance.

The scope and objectives of the Public Guardian (PG) Case Management System Review were designed to assess the development, implementation, and internal control procedures of the PG Case Management System.

Please refer to the following audit report for the results of the audit. The audit report contains 1 audit finding. The Executive Summary provides an overview of the audit with a summary of the finding.

We express our appreciation for the cooperation of the Office of the Public Guardian staff extended to Norman Spielman during the course of our audit. We have discussed our findings with the PG staff and would be pleased to discuss our recommendations in greater detail in order to assist the PG with their implementation of our recommendations.

Respectfully Submitted,

Shelly Banks

Shelly A. Banks, CPA
Cook County Auditor

cc: Robert F. Harris, Public Guardian
Charles P. Golbert, Deputy Public Guardian
Simona Rollinson, Cook County Bureau of Technology Chief Information Officer

COOK COUNTY GOVERNMENT

OFFICE OF THE COUNTY AUDITOR

Office of the Public Guardian Case Management System Implementation

Internal Audit Report

Report Date: April 24, 2014

Issued By:
Shelly A. Banks, County Auditor

Audit Conducted By:
Norman Spielman, IT Audit Supervisor

EXECUTIVE SUMMARY

We have reviewed the implementation process and internal controls of the Public Guardian Case Management System.

The scope and objectives of the Public Guardian (PG) Case Management System Review were designed to assess the development, implementation, and internal control procedures of the Case Management System.

Overall we noted that the system appears to be operating effectively and efficiently while meeting the Public Guardian's operational needs. The Public Guardian is still working with Panoramic Software on finalizing some additional reports and forms before implementing a final signoff on the project.

We noted the following finding in regards to the implementation and internal control processes:

- Written internal system development standards, policies or procedures do not exist to support the approach used to implement the Public Guardian (PG) Case Management System. The lack of written policies and procedures may have led to the required testing documentation being overlooked during the system implementation.

The finding noted was presented to the Office of the Public Guardian. Please refer to the Findings section for more detail on the finding with the management responses.

BACKGROUND

The Office of the Cook County Public Guardian represents abused and neglected children, children in highly contested custody cases, and acts as guardian for adults with disabilities and their estates.

The Cook County Public Guardian contracted with Panoramic Software to modernize its current case management system with a web based, case management and fiduciary accounting system that provides a cost-effective, technologically sound, scalable, state-of-the-art case management and fiduciary accounting system that will improve the processing of guardianship related activities. Each department module shall provide full ability to process the requirements for all functional areas and all case types filed within the Cook County Public Guardian's Office (PG). The system will enable the PG to streamline its processes in order to realize cost savings, and recoup time spent on administrative and manual processes that can be automated.

Panoramic offers software for Public Guardian environments. The software to be used is PG Pro Web. The software will be hosted by Amazon Web Services (AWS). Founded in 1982, Panoramic Software Inc. has been providing fiduciary and case management software for nearly 30 years. Throughout their history, they have evolved with technology, and advocated modernization within County and State agencies across the United States. The Public Guardian software system (PG Pro) handles investigations, case management, payments, and receipts.

The Panoramic System is similar to an ERP system, in that an individual transaction is entered once and carries through the system through the final accounting made each year for the financial statements required by the various regulatory entities that the PG must report to.

BACKGROUND (CON'T)

It is primarily a "stand alone" system in that there are no integrated systems either feeding data into the system or receiving output data from the system. The one exception to this would be ACH files received from banks for cleared checks and the ACH files sent to banks for payments. Both of these links are secured through bank requirements.

The basic software provided to Cook County is a shell with much customization done for the PG. This is necessary because the governing bodies that regulate the various public guardian offices throughout the country all have very different requirements and needs. Each government installation would require significant customization. Panoramic provides ongoing maintenance to the system as needed throughout the contract. Panoramic provides a "tool kit" with each implementation that includes the code and customizations performed on the original software. The support contract with Panoramic includes hosting, maintenance, and support functions.

System documentation is maintained on Base Camp. Base Camp provides version control and is a management tool provided by Panoramic. Documentation will remain on Base Camp during duration of contract with Panoramic.

The system went into production status November 18, 2013.

AUDIT SCOPE AND OBJECTIVES

Our objectives for this examination were designed to assess the development, testing, and implementation of the Public Guardian Case Management System. The objectives included:

- The business case should be achieved, (i.e. project costs were within budget, remediation processes were concluded effectively, management provided governance over the project, etc.).
- Adequate internal controls are in place throughout the system to provide a streamlined but thorough approach to internal control of application data and processes.
- Third-party providers should be paid according to their contracts, with all deliverables due from the vendors received. SSAE 16 SOC1 & SOC2 reports verify effective internal controls are in place at third-party vendors.
- Source documents should be prepared by authorized and qualified personnel following established procedures in a timely manner, and should provide for adequate segregation of duties between the origination and approval of these documents and accountability.
- Entered transactions should be accurate, complete and valid. Input data should be validated and edited; edit failures should be corrected interactively or sent back for correction as close to the point of origination as possible.
- Access control and role and responsibility mechanisms should be implemented so that only authorized persons whose duties are appropriately segregated from conflicting functions may input, modify and authorize data.
- The integrity and validity of data should be maintained throughout the processing cycle and the detection of erroneous transactions should not disrupt processing of valid transactions.
- Procedures and associated responsibilities to ensure that output is handled in an authorized manner, delivered to the appropriate recipient and protected during transmission should be established and implemented; verification, detection and correction of the accuracy of output should occur.
- Appropriate backup and recovery capabilities are developed in the system and at the hosted site to ensure contracted recovery capabilities are achieved.

The scope of our work consisted of:

- Reviewing contracts and SSAE 16 SOC1 and SOC2 reports for appropriate and effective controls.
- Reviewing produced documentation to verify stated output documents were produced and met appropriate internal control standards and procedures.
- Reviewing access controls and segregation of duties tables to verify appropriate access controls are in place.
- Observing a walkthrough of the system with the developer to gain an understanding of the system and its controls.
- Reviewing the balancing process with the PG Financial Services function to ensure appropriate balancing procedures are in place and functioning.
- Reviewing the file backup and recovery process to ensure adequate recovery capabilities are in place and are effective.

FINDINGS

Finding #1:

Written internal system development standards, policies or procedures do not exist to support the approach used to implement the Public Guardian (PG) Case Management System. Without a standard methodology to follow in developing, implementing or updating an IT system, there is a risk of overlooking or not effectively implementing some aspect of the system that affects either the security or functionality of the system, which can lead to cost overruns, delays or errors with the implementation.

The lack of written policies and procedures may have led to the required testing documentation being overlooked during the system implementation. A comparison of the documentation produced on the website with the list of stated deliverables revealed the following missing documentation:

- Test plan and scripts
- Completed test records/results and summary test files

Although extensive testing by the developer and users was described and detailed in the audit walkthrough and other conversations, there is no proof of the actual testing performed and the degree of success of that testing. Without adequate documentation of test scripts and test results from those scripts, there is no evidence available for review to verify appropriate testing was performed and that the test results were successful and appropriate.

Recommendation

We recommend for any future system development/implementation projects that the Public Guardian adopts an effective methodology with written policies and procedures that would ensure that all appropriate steps are followed in the development, implementation and documentation of system projects. The Public Guardian may want to reach out to the Cook County Bureau of Technology for any standard guidance that can be provided for system development/implementation policies and procedures.

Management Response

Thank you for the opportunity to respond to this finding. The Office of the Public Guardian received a comprehensive guardianship and case management software solution program that is meeting the needs of all areas of our operations and has resulted in many efficiencies. The project was completed in a timely manner and within budget.

We are pleased that, out of all the areas within the scope of the audit which are outlined on p. 5 – which include costs, timeliness, management governance over the project, internal controls within the system, internal controls for third-party vendors, source documents, segregation of duties, accuracy of entered transactions, validation of input data, balancing procedures, access control and mechanisms to allow only authorized people to access various portions of the program and edit data, output protection, verification ability, backup and recovery capabilities, and segregation of duties tables, among others – the audit's one finding is limited to internal system development policies and in particular test plan and scripts and documentation of test results.

As an initial matter, we are not aware of any County-wide System Development Life Cycle (SDLC) standards or methodologies. Such standards and practices would be helpful in future system development/implementation projects.

To address the specific finding, rather than utilizing test scripts, we had multiple beta testers or "super users" from all of our departments actually use the program to do their day-to-day jobs for several months before "go live." As a result, the system was rigorously tested. Panoramic first conducted internal testing. Then we had the beta testing period that lasted approximately three months. During this time, Panoramic promptly addressed any "bugs" and other issues that our super users uncovered using the system to do their jobs. For three weeks after "go live," Panoramic had three engineers on site to address any bugs or problems, all of which were promptly resolved. We have been live for five months, and all aspects of the system are working well.

While we found that this method resulted in a quality and thoroughly-tested system being delivered in a timely manner and within budget, for any future system development/implementation projects, we will adopt written procedures as per your recommendation including a written test plan and scripts.