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MICHAEL POST, C.P.A., M.B.A.
HARRIS COUNTY AUDITOR

March 25, 2022

Dear MG Richard Noriega (Ret), Executive Director and Chief Information Officer and Leslie Wilks Garcia, First Assistant County Auditor:

Harris County Auditor's Office Audit Division (Audit Division) has completed an audit of New System Interfaces. The results of our audit are included in the attached report.

We appreciate the time and attention provided by you and your staff during this engagement. Please anticipate an email request to complete the Audit Division's Post Engagement Survey. We look forward to your feedback. If you have any questions, please contact me or Errika Perkins, Chief Assistant County Auditor, 713-274-5673.

Sincerely,

A handwritten signature in blue ink that reads "Michael Post". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Michael Post
County Auditor

Report Copies:

District Judges
County Judge Lina Hidalgo
Commissioners:
R. Jack Cagle
Rodney Ellis
Adrian Garcia
Tom Ramsey
Christian Menefee

AUDIT REPORT
NEW SYSTEM INTERFACES
MARCH 25, 2022

Executive Summary

OVERALL CONCLUSION

The controls related to the implementation of new system interfaces to PeopleSoft (STARS) were found to be generally effective. An opportunity to improve the consistency of the management of these projects was observed. The issue was discussed with Universal Services (US), and a management action plan has been developed that will address the identified issue by September 30, 2022.

SCOPE AND OBJECTIVE

Audit Division – Data Analytics and Technology Audit conducted an audit of the process by which new system interfaces to STARS are set up and tested, in accordance with Accounting Procedure O.15 – *New System Interfaces*. The audit reviewed certain internal controls and data during the fiscal year ended February 28, 2022, for the following system interfaces to STARS:

- Assessment and Collection Technology (ACT) for rendition of tax revenue;
- Odyssey Navigator for mental health payments;
- Tracker Portfolio Accounting and Reporting by C2 Investment Group for investment settlements;
- JWEB for community and corrections department payments; and
- Oracle’s Primavera Unifier for requisitions and purchase orders.

The objective of this audit was to evaluate the design and effectiveness of controls supporting the following:

- Evidence that interfaces were designed to process the transactions completely, accurately, and securely.
- Expected test results and actual test results are documented, any discrepancies are resolved, and acceptance of the results is formally documented.
- Procedures and tools in place adequately monitor the performance of the interface.

SUMMARY OF AUDIT ISSUE

Our testing identified an opportunity to deploy a consistent project management process, with associated deliverables, for new interface implementations.

The audit issue, management’s action plan to address the issue, and background information regarding this audit are discussed in more detail on the following pages. Each audit issue is ranked based on the likelihood and impact of the risk to Harris County (County).

AUDIT ISSUES

ISSUE #1: INCONSISTENT PROJECT METHODOLOGY [MODERATE]

What is the Issue: While the Accounting Procedure O.15 prescribes the procedure for setting up, testing, and approving a new or modified system interface to STARS, a complimentary project management methodology and associated templates has not been employed for managing the implementation of these new interfaces.

Why it Happened: Various project managers have been utilized for the interfaces reviewed and have been permitted to utilize their own preferred methodology and deliverables.

Why it Matters: Without appropriate controls and support, there is an increased risk that data interfaced with STARS is incomplete or inconsistent, which could impair the ability of the County to produce reliable financial information.

What is Expected: New interface projects should adhere to a consistent methodology regardless of the project manager and home department.

What Action(s) are Suggested: Auditor's Office Accounting Division and US should consider adopting a consistent project methodology aligned with Accounting Procedure O.15, which could include the following phases:

Initiation:

- US assists the user department create the business case justification for the interface.
- US should facilitate communication between the user department and the Auditor's Office Accounting Division at the initiation of the new system interface to STARS.

Design: The functional and technical design phase should provide the project definition, scope, and project plan for each interface that forms the basis for deliverables, expectations, and success criteria.

- US should facilitate routine, documented meetings to capture discovery process, issues and key decisions, action plans, and status updates.
- The user department in coordination with the Accounting Division should approve functional and technical design documents based on performing adequate research, understanding the proposed process and account mapping, including the technology to support the transfer of data, and identifying key risk points.

Development: Development should conform with the approved functional and technical design and if modifications or customizations are necessary, it should be communicated and approved.

- US should update design documents based on changes identified during development`

Testing: Testing examines the design and development of the interface.

- The user department and the Accounting Division should utilize a comprehensive test plan that includes adequate testing coverage and end-to-end testing of all relevant business scenarios including mapping, transfer of data, and negative tests at a minimum.
- The First Assistant County Auditor should approve the test plan.
- US should retain evidence of the outcomes of testing performed by all relevant participants and tracking of resolutions for any issues encountered.

Approval: Project approval by the County Auditor that provides assurance that the interface is ready for promotion to production.

MANAGEMENT'S ACTION PLAN

Responsible Party: Ravi Ranjan

Like for the fiscal year (FY) change, US needs to set up standing project governance to review, monitor, and approve all interfaces and/or development projects. For the following phases, US will consider the recommendation and plans to implement the following:

Initiation: For a capital project (substantial effort, 300 hours-TBD), there should be a project charter and governance (like FY change project) that includes business justification, timeline, resource requirement, and cost. The charter should be approved by the department heads.

Analysis/Design: Must include success/acceptance criteria (aka test cases, validation of user stories). Use a template for consistent output regardless of department or teams.

Development/Unit Testing: Developers must document test evidence against the acceptance criteria.

QA/System/Integration Testing: All integration points must be tested and documented against the acceptance criteria.

User Acceptance Testing (UAT): The end-user/key stakeholder must test and approve the solution and must provide evidence of testing against the acceptance criteria.

Due Date: 9/30/2022

Responsible Party: Leslie Wilks Garcia

The Auditor's Office Accounting Division agrees with the recommendation and will work with Universal Services to develop a structured methodology by which system interface projects that are financial in nature can be consistently and formally managed. The Accounting Division will work to review and update Accounting Procedure O.15, *New System Interfaces*, accordingly.

Due Date: 9/30/2022

BACKGROUND

Harris County's financial system (STARS) accounts for all financial activity conducted the County. Certain County departments, however, use their established internal systems to conduct County business (e.g., issuing receipts for collections). The user department has the option of interfacing their financial data to STARS or manually entering the data. Data interfacing with STARS must be complete, accurate, and secure.

Audit Division – Data Analytics and Technology Audit reviews the interface and notifies the County Auditor or designee of our results. The interface will not connect the User Department's system into STARS-Production until documented approval has been received from the County Auditor or designee.

ACCOUNTABILITY

We conducted our audit in accordance with the International Standards for the Professional Practice of Internal Auditing ("Standards"). The Standards require that we comply with the Code of Ethics and obtain reasonable assurance that significant risks to the activity are minimized to an acceptable level.

The work performed required our staff to exercise professional judgment in completing the engagement's scope. As the engagement's scope did not include a detailed examination of all transactions, there is a risk that fraud, errors, or omissions were not detected during this engagement. The official, therefore, retains the responsibility for the accuracy and completeness of their financial records and for ensuring sufficient controls are in place to detect and prevent fraud, errors, or omissions.