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March 11, 2022

Dear Daniel Ramos, Executive Director, Office of Management and Budget

The Harris County Auditor's Office Audit Division has completed an audit of the Harris County Electronic Funds Transfer (EFT) Processes. The scope of the audit originally included the County Treasurer's Office and the County Auditor's Office, who are the primary departments responsible for processing EFT transactions. However, the issues identified were related to the Office of Management and Budget (OMB), who is responsible for the banking relationship and access to Cadence Bank's EFT system (Allegro).

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,

Michael Post County Auditor

Report Copies:

District Judges

County Judge Lina Hidalgo

Commissioners:

R. Jack Cagle

Rodney Ellis

Adrian Garcia Tom Ramsey

Christian Menefee

David Berry

MG Richard Noriega (Ret)

AUDIT REPORT

ELECTRONIC FUNDS TRANSFER PROCESSES

MARCH 11, 2022

Executive Summary

OVERALL CONCLUSION

Overall, controls related to our audit objectives for the EFT process are effective, except for access controls over the systems used in the EFT process. The issues were discussed with OMB and a management action plan was developed to address the issues by May 1, 2022.

SCOPE AND OBJECTIVE

The audit involved internal controls and data related to EFTs, which consist of wire transfers and automated clearing house (ACH) transactions processed by the County Treasurer's Office and the County Auditor's Office for the 12 months ended June 30, 2021.

The objective was to verify that:

- EFT transactions were properly authorized, processed, and recorded in accordance with applicable County policies and procedures
- User access controls within the EFT processes were adequate
- Emergency phone wire transfer controls were adequate

SUMMARY OF AUDIT ISSUES

- 1. A system update to Allegro caused a segregation of duties control to be disabled for County wire transfer approvals.
- 2. User access reports from Allegro do not identify each user's level of access to the various system functions.
- 3. Five terminated/transferred County employees have access to Allegro.
- 4. Six users in OMB have inappropriate access to release EFTs within PeopleSoft.
- 5. Emergency phone wire transfer processes were not tested prior to implementation, personal identification numbers (PINs) were not activated, terminated employees had active PINs, and the business continuity policy had not been updated.

The audit issues, management's action plan to address the issues, 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.

AUDIT ISSUES

ISSUE #1: Allegro System Update Disabled Certain Wire Transfer Approval Controls. HIGH

What is the Issue: A system update to Allegro caused a segregation of duties control to be disabled for County wire transfer approvals from November 16, 2020, to May 31, 2021. Based on our review of a sample of wire transfers for this period, no unauthorized wire transfers were processed.

Why it Happened: The update to Allegro was implemented without proper testing by Cadence Bank to ensure the update did not have unintended consequences. In addition, the County does not have a monitoring function to periodically validate Allegro system controls.

Why it Matters: Without proper testing or monitoring of system updates to ensure system controls remain intact, there is an increased risk of unauthorized wire transfers, errors, misappropriation of assets, and/or financial loss to the County.

What is Expected: National Institute of Standards and Technology (NIST) Special Publication 800-53, CM-4, Security Impact Analysis, states that organizations should analyze changes to the information system to determine potential security impacts prior to change implementation.

What Action(s) are Suggested: Cadence Bank reactivated the system controls on June 1, 2021, because of our audit procedures. To further mitigate the risk, OMB should communicate the following requirements to Cadence Bank:

- Properly test all Allegro system updates before implementation to ensure the update does not disable or cause unintended changes to system controls.
- Communicate all future updates to applicable County personnel so they can monitor system controls for unintended changes.

In addition, OMB should coordinate with applicable County departments to have Cadence test the controls over the initiation, approval, and release of wires when a system upgrade is implemented.

MANAGEMENT'S ACTION PLAN

Responsible Party: Amy Perez, Deputy Executive Director, OMB

Cadence has agreed to include Harris County OMB and applicable department personnel on any future communication before a system update goes live that affects Harris County in order for OMB to coordinate testing between Cadence and the departments to occur prior to implementation.

Due Date: Implemented

ISSUE #2: Insufficient Allegro User Access Report HIGH

What is the Issue: User access reports from Allegro do not identify each user's level of access to the various system functions.

Why it Happened: The reports are not designed to provide the necessary details.

Why it Matters: Without sufficient details about the users' access levels the reports are not useful for determining whether access is appropriate based on employee roles and responsibilities.

What is Expected: It is best practice that user access reports identify each user's security access rights.

What Action(s) are Suggested: OMB should coordinate with Cadence Bank to design an Allegro system access report that identifies each user's level of access. OMB should require County departments to periodically review the report to determine whether user access is appropriate.

MANAGEMENT'S ACTION PLAN

Responsible Party: Amy Perez, Deputy Executive Director, OMB

Cadence Bank Online Banking provides an Entitlement Report but it has limitations on details for Users with Single Sign-on access. Cadence has committed to manually creating a more user-friendly spreadsheet containing details at account level access and User level access. This spreadsheet will be provided to Harris County on an agreed upon timeframe for our review for accuracy. In addition, OMB will require County departments to annually review this report to determine whether user access is appropriate

Due Date: May 1, 2022

ISSUE #3: Allegro Access Not Disabled for Terminated/Transferred Employees [MODERATE]

What is the Issue: Five terminated/transferred County employees have access to Allegro.

Why it Happened: County departments do not have processes in place to monitor employee's access to Allegro.

Why it Matters: Inappropriate use of a terminated/transferred employee's access could make it difficult to prevent and/or detect fraud, which could result in misappropriation and financial loss to the County.

What is Expected: Harris County Information Security Access Control Policy, Section C.1.11, Access Certification states, "Business Owners must verify the membership, access and contents of the systems, applications and/or resources for which they have primary responsibility on a regular basis (at least once per year), to ensure that only authorized members maintain access to and permissions for the systems, applications and/or resources involved."

What Action(s) are Suggested: Access for terminated/transferred employees identified during this audit should be disabled immediately. In addition, OMB should require departments to periodically review and validate the users who have access to Allegro.

MANAGEMENT'S ACTION PLAN

Responsible Party: Amy Perez, Deputy Executive Director, OMB

The access for the terminated employees identified during this audit has been removed. Departments are to notify OMB immediately when an employee that has Allegro access has been terminated or needs to be changed. In addition, OMB implemented an annual review of employee access in Allegro and the first review occurred in February 2021. Due to Cadence Bank reporting limitations, this review was very manual and labor intensive. Contingent upon review of the report that Cadence has committed to supplying, addressed in Issue #2, this could allow for more frequent reviews to monitor employee access in Allegro.

Due Date: May 1, 2022

ISSUE #4: Improper PeopleSoft Access [MODERATE]

What is the Issue: Six users in OMB have inappropriate access to release EFTs within PeopleSoft.

Why it Happened: The initial design of the PeopleSoft user role included the ability to release EFTs. In addition, the role descriptions do not always provide complete access permissions assigned.

Why it Matters: Unauthorized access to release PeopleSoft EFTs could result in noncompliance with Texas Local Government Code (LGC) §113.041, errors, misappropriation of assets, and/or financial loss to the County.

What is Expected: To facilitate the County Treasurer's compliance with LGC §113.041, internal controls should be put in place to monitor the appropriateness of users' ability to release EFTs.

What Action(s) are Suggested: OMB should coordinate with the County's Universal Services department to remove PeopleSoft security permissions to release EFTs from the six inappropriate users.

Furthermore, Universal Services should work with the business owners to enhance the roles definitions document to include additional descriptions outlining the access permissions provided to that role.

MANAGEMENT'S ACTION PLAN

Responsible Party: Amy Perez, Deputy Executive Director, OMB

As soon as OMB was made aware that we had unauthorized access we had it removed. There were not any unauthorized wires initiated or processed nor did any loss occur.

Due Date: Implemented

Responsible Party: Lori Brown, Manager, Enterprise Systems Analysis & Programming, Universal Services

Universal Services will continue to work with the Central Business groups who have been recently designated as "Role Owners" and ensure they have full and complete understanding of the contents of the roles they own. The Role Owners will be asked to supply additional detailed descriptions of the roles, so the Role Description documents are more relevant to the Business when requesting and approving security to end users, as well as when doing annual reviews. Ultimately, if Role Owners or approvers have questions, they should contact Universal Services to review and clarify as needed.

Due Date: Implemented

ISSUE #5: Emergency Phone Wire Transfer Process Needs Improvement [MODERATE]

What is the Issue: The County's emergency phone wire transfer process needs improvement to address the following:

- The emergency phone wire transfer process was not tested prior to implementation.
- Emergency PIN numbers were not activated for use in the event of an emergency.
- Three terminated employees still had active PIN numbers for the emergency phone wire transfer process.
- The Business Continuity policy for emergency phone wire transfers had not been updated to reflect the current process.

Why it Happened: The County does not have a monitoring function for the emergency wire transfer process.

Why it Matters: The absence of a monitoring function for the emergency phone wire transfers could impair the ability to process a wire transfer in the event of an emergency.

What is Expected: National Institute of Standards and Technology (NIST) Special Publications 800-53 Security and Privacy Controls for Federal Information Systems and Organizations and 800-16 A Role-Based Model for Federal Information Technology/Cybersecurity Training states that organizations should test their contingency plan to determine the plans effectiveness and the organizations readiness to execute the plan. In addition, the organization should review the contingency plan test results and initiate corrective actions.

What Action(s) are Suggested: OMB should:

- Work with the County Auditor's Office and the County Treasurer's Office to perform an annual business continuity test for the emergency phone wire transfer process to ensure it operates as intended.
- Perform a review of authorized users for the emergency phone wire transfer process, and immediately deactivate access and PIN numbers for the terminated employees and any employees whose access is no longer needed.
- Update the current Business Continuity Policy for emergency phone wire transfers to reflect the current process.

MANAGEMENT'S ACTION PLAN

Responsible Party: Amy Perez, Deputy Executive Director, OMB

The Business Continuity Plan (BCP) for phone in wires has been updated and was tested on **11/16/2021** and **12/08/2021** without any issues. We will schedule a test with Cadence Bank, Auditor's Office, and Treasurer's Office annually and update the BCP/list of users, if needed, at this time. Departments are to notify OMB immediately if an employee with a PIN number is terminated or no longer needs access so that we can deactivate their PIN.

Due Date: Implemented

BACKGROUND

EFT is a generic term used to describe wire transfers and ACH transactions. Wire transfers and ACH transactions are transferred between bank accounts through a secure data line. Wire transfers are generally for large dollar amounts and single payments and settle on the day they are sent; however, ACHs can be for any dollar amount, can be processed as a single transaction or in batches, and can take 1-3 days to settle. The County uses EFTs to receive/disburse funds from/to third parties and move funds between County bank accounts.

The County utilizes Allegro and PeopleSoft to process EFT transactions. Allegro is the online banking system for Cadence Bank, and PeopleSoft is the County's financial system. All transactions are approved by the Auditor's Office before they are released by the County Treasurer's Office. Wire transfers are also approved by OMB prior to being released by the County Treasurer's Office.

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 engagement's scope did not include a detailed inspection of all transactions. There is a risk that fraud or errors were not detected during this engagement. Therefore, the official 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.