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Chief Audit Executive

December 2022

DeKalb County Government

JUVENILE COURT

**AUDIT OF TERMINATION AND
TRANSFER OF EMPLOYEES
PROCESS**

FINAL REPORT

Audit Report No. IA-2022-076-IT

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JUVENILE COURT AUDIT OF TERMINATION AND TRANSFER OF EMPLOYEES PROCESS REPORT NO. IA-2022-076-IT

FINAL

HIGHLIGHT SUMMARY

<p>Why We Performed the Audit</p> <p>In accordance with the Office of Independent Internal Audit (OIIA) annual audit plan, we conducted a performance audit of the termination and transfer of employees' process within the Juvenile Court. The purpose of the audit was to evaluate the effectiveness of the procedures and processes specifically related to the management of terminated and transferred employees' access to key court applications and County network.</p> <p>The Juvenile Court utilizes the Judicial Court Activity Tracking System (JCAT) and the Court Process Reporting System (CPRS) applications to process the County's sensitive child related data that require optimized data security. The timely deactivation of terminated and transferred employees' user access on these applications and the County network is critical to the security of sensitive citizens' information. Gaps and weaknesses in the controls would be an opportunity for unauthorized access and breach of data that could result in reputational, regulatory and or financial loss to the County.</p> <p>According to a recent <i>Chief Information Officers' Leadership insights report</i>, 20% of organizations experienced data breaches by former employees. Of those, 47% admitted that ex-employees have been responsible for more than 10% of all their data breaches¹.</p> <p>How We Performed the Audit</p> <p>The audit focused on the period of January 1, 2020, through December 31, 2021. Our methodology included, but was not limited to the following:</p> <ul style="list-style-type: none"> Reviewed the policies and procedures relating to the Termination and Transfer of Employees process and related best practices. Selected and tested a sample of termination and transfer activities. Conducted a walkthrough of the termination and transfer of employees process. Interviewed the concerned stakeholders. <p>Background</p> <p>The Dekalb County Juvenile Court has a responsibility to protect the best interests of children and the community, to restore the lives of children who have been neglected or abused, to redirect children who have admitted to or have been found in violation of the law to become law-abiding, productive citizens, and to support the continuity of families by leaving children in their homes whenever possible. On average the court processes about 2,000 child-related cases yearly. In accomplishing its goals, the Court utilizes the JCAT and CPRS applications. The management and administration of system user access to these applications is the responsibility of the Juvenile Court and the application vendor.</p>	<p>What We Found</p> <p>The audit noted that the Juvenile Court has a good practice of maintaining the records of terminated and transferred employees. They use the Human Resource Administrative Policies and Procedures as a guide for the termination and transfer process. The two major applications (JCAT and CPRS) that the court personnel use are managed by the court and the vendor. Specifically, the access administration is managed by the vendor in collaboration with the court's information technology administrator.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #d9e1f2;">Audit Findings</th><th style="background-color: #d9e1f2;">Results</th></tr> </thead> <tbody> <tr> <td>1. Untimely Deactivation of System Access of Terminated and Transferred Employees on JCAT and CPRS Applications.</td><td style="background-color: #c00000;"></td></tr> <tr> <td>2. Non-Performance of Periodic Reviews of User System Access.</td><td style="background-color: #ffc000;"></td></tr> <tr> <td>3. Untimely Deactivation of County Network Access for Terminated Employees.</td><td style="background-color: #c00000;"></td></tr> <tr> <td colspan="2" style="background-color: #008000; color: white;">No exceptions were noted.</td></tr> <tr> <td colspan="2" style="background-color: #ffc000;">Recommendation to enhance internal controls.</td></tr> <tr> <td colspan="2" style="background-color: #c00000; color: white;">Internal control exception noted requiring action.</td></tr> </tbody> </table> <p>What We Recommend</p> <p>We recommend that the Juvenile Court management collaborate with the Human Resources & Merit System (HR) and Department of Innovation and Technology (DoIT) to address the control process deficiencies identified in this report.</p> <p>How Management Responded</p> <p>Management agrees with the exceptions noted.</p>	Audit Findings	Results	1. Untimely Deactivation of System Access of Terminated and Transferred Employees on JCAT and CPRS Applications.		2. Non-Performance of Periodic Reviews of User System Access.		3. Untimely Deactivation of County Network Access for Terminated Employees.		No exceptions were noted.		Recommendation to enhance internal controls.		Internal control exception noted requiring action.	
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¹ <https://www.cioinsight.com/security/ex-employees-still-cause-data-breaches/>



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BACKGROUND AND INTRODUCTION

The mission of the DeKalb County Juvenile Court is to protect the best interests of the child and the community, to restore the lives of children who have been neglected or abused, to redirect children who have admitted to or have been found in violation of the law to become law-abiding, productive citizens, and to support the continuity of families by leaving children in their homes whenever possible. On average the court processes about 2,000 child-related cases yearly. The court utilizes the Judicial Court Activity Tracking System (JCAT) and the Court Process Reporting System (CPRS) applications to process the County's sensitive child-related data and some personally identifiable information (PII). PII is any information that can be used to distinguish or trace an individual's identity or linkable to an individual's personal, medical, educational, financial, and employment information.

Why this Audit Was Performed

The Court collects various types of PII through the applications such as name, date of birth, address, driver's license, mobile or email, and social security number. Even though there had not been any identified data breaches related to the applications during the audit scope, the audit was conducted to verify the existence of logical system access controls related to the deactivation or modification of access when no longer required. Additionally, the County network is the first line of defense for system access to County-wide processes and information. The administration of system user access to these applications is managed by the Juvenile Court and the application vendor. Juvenile Court also collaborates with HR, and the DoIT when its employees are terminated or transferred.

The timely and complete deactivation of terminated employees and transferred employees on these applications and the County network is critical to the security of sensitive information of citizens. According to the Chief Information Officers' Leadership insights (CIO Insight) report, 20% of organizations experienced data breaches by former employees. Of those, 47% admitted that ex-employees have been responsible for more than 10% of all their data breaches.²

Our Scope and Objectives

The focus of this audit was to evaluate the effectiveness of the employee termination and transfer process as it relates to the de-provisioning (i.e., deactivation and removal) of user access from the County network, JCAT, and CPRS applications that are managed by the DeKalb County Juvenile Court and the vendor. To prevent and detect improper use of data and computer systems, effective logical access controls (authentication and authorization) should be in place to ensure that user access is appropriate given the current roles and responsibilities. Gaps and weaknesses in the controls would be an opportunity for unauthorized access to data or data breaches that could result in reputational, operational, and regulatory loss to the County.

The main document that guides the termination and transfer of employees process is the HR Administrative Policies & Procedures along with other process documents like the

² <https://www.cioinsight.com/security/ex-employees-still-cause-data-breaches/>



Personnel Action (PA2) form, the Inventory, and Separation Notice forms. Together these documents guide the following:

- Deactivation of an employee's access to the County's network and computer systems immediately upon termination of their employment.
- Modifying employee access upon transfer to another department within the organization.

AUDIT RESULTS

Our audit procedures included discussions with key stakeholders and management staff and tests of transactions to assess the effectiveness of the termination and transfer of employees' process with a focus on application system access. We noted that the Juvenile Court utilized the HR termination and transfer policies and procedures as a guide for this process. We determined that the HR policies and procedures are not complete as they do not address some aspects of the termination and transfer process related to system access. The details and recommendations of this observation are being communicated to the HR department in a separate audit report covering departments within the direction of the County administration. The audit also noted that the Juvenile Court has a good practice of maintaining the records of terminated and transferred employees in the court. They use the records to perform a reconciliation of the termination and transfer of employees' records with their department's payroll records. We noted opportunities for improvement in the court's processes for de-provisioning users who have been terminated or transferred out and no longer require the same level of access.

The detailed findings and corresponding recommendations are outlined in this report.

Finding 1: Untimely Deactivation of System Access of Terminated and Transferred Employees on JCAT and CPRS Applications.

During the audit, we discussed the procedures for deactivating timely the JCAT and CPRS users' system access when no longer needed. We noted that the procedures were not documented. Additionally, we observed that:

JCAT

- 6 of 9 (66%) terminated employees' system access had not been deactivated timely (6 - 294 days) after the termination date including three terminated employees that were active at the time of the audit but have since been deactivated.
- 2 of 2 (100%) transferred employees' user system access was not deactivated timely from the JCAT application in (51 – 306 days after transfer).

CPRS

- 1 of 9 (11%) terminated users was still active on the CPRS application during the audit review, more than 200 days after termination, and has since been deactivated.



- 1 of 2 (50%) transferred users was still active at the time of the audit (278 days after the transfer) and has since been deactivated.
- We could not determine the exact deactivation dates of the transferred employees because the vendor's technical personnel had limited knowledge of retrieving and validating deactivation dates on the CPRS application.
- We could not confirm the completeness of the list of active users on the CPRS application. Further, we identified an active user account that was not listed on the report of active CPRS user accounts provided by the vendor.

Additionally, for two of the nine terminated employees, we could not verify how timely the department notified HR of the termination.

Recommendation:

We recommend that the Juvenile Court management should:

- Collaborate with the HR and DoIT management to develop a formal procedure for the removal of user access on applications, including the timeliness of HR notifications.
- Deactivate terminated or transferred users' accounts immediately from the applications as stated by best practices such as the National Institute of Standards and Technology (NIST), the Payment Card Industry Data Security Standard (PCI-DSS), and Control Objectives for Information and related Technology (COBIT).
- Collaborate with the application vendor to ensure the dates of deactivation of user account access on the CPRS application are identified and validated.
- Initiate a plan to ensure the CPRS vendor periodically validates and generates a complete active user report.
- Collaborate with the CPRS application management to ensure periodic upskilling of the vendor's support staff.

Management Response (Juvenile Court Management):

Management Agreement	Description of Management's Action Plan to Address Finding	Estimated Timeline to implement Action Plan
<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree	The department will incorporate the steps on partnering with the vendor to ensure the required reports and skills needed for the process are part of the SOP we are developing. The department will support DoIT and HR in developing a county-wide procedure for the termination process. Inform DoIT and vendor immediately upon employee separation.	60 days after the report is issued
Reason For Disagreement:		



Finding 2: Non-Performance of Periodic Reviews of User System Access.

During the audit, we interviewed management to determine procedures for the periodic review and validation of users and roles in the JCAT and CPRS applications and noted that procedures did not exist. Management also confirmed that they do not perform periodic reviews of user access on the applications.

Recommendation:

We recommend that the Juvenile Court management coordinate with DoIT and HR management to:

- Establish a standard operating procedure (SOP) for the review of users' access and roles on the JCAT and CPRS applications. The procedure should include but is not limited to:
 - The identification, roles, and responsibilities of the review managers conducting the review and other stakeholders.
 - The reports required for a complete review of the users.
 - The criteria, guidelines, and documentation required to be maintained to support the review.
 - The period, duration, and frequency of the review.
 - The procedures for addressing and validating recommendations made during the review.
- Establish a procedure for routine training of the reviewing officers to ensure that accurate and appropriate user system access reviews are carried out.
- Include Juvenile Court administration on the distribution list for reports of recently terminated and transferred Juvenile Court employees. Or provide Juvenile Court administration the ability to generate these reports from CV360 (County Personnel Management Application).

Management Response (Juvenile Court Management):

<i>Management Agreement</i>	<i>Description of Management's Action Plan to Address Finding</i>	<i>Estimated Timeline to implement Action Plan</i>
<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree	Department will coordinate with DOIT to establish a SOP on JCAT and CPRS within 60 days.	60 days after the report is issued
Reason For Disagreement:		

Finding 3: Untimely Deactivation of Network Access for Terminated Employees.

During the audit, we reviewed the procedures for deactivating the County network access of terminated employees. We noted that there were no documented procedures. Additionally, we reviewed the report of terminated employees provided by HR and compared them with the list of active users on the network to verify if network access was deactivated.



Furthermore, using the report of deactivated user network accounts we verified how timely the nine terminated employees were disabled, we observed that:

- 4 of 9 (44%) terminated employees were not on either the lists of disabled or active network users so we could not determine if or when their access was deactivated.
- 3 of 9 (33%) terminated employees' network access was not deactivated timely (3 -13 days) after the effective termination date.

We also reviewed the procedures for removing transferred users from their old email distribution and security groups to the new email distribution and security groups. Security groups are used for managing access rights and permissions to resources such as network drives and SharePoint sites in an organization while distribution groups are used for sending email notifications that are specific/unique to a group of people in an organization. Not appropriately restricting access for users increases the risk of unintentional or unauthorized modification or misuse of the County's information resources.

We observed that:

- 1 of 2 (50%) transferred users' access to the security groups was not modified timely (144 days) after transfer and there was no indication of the employee's record on the department's email distribution group.
- 1 of 2 (50%) transferred users' records of removal from the department's security and email distribution groups were not available. We were informed by DoIT that the records likely had been purged by DoIT.

Recommendation:

We recommend that the Juvenile Court's management collaborate with the HR and DoIT to:

- Establish a formal procedure for the timely deactivation of terminated employees' network access and transfer employees' access to email distribution and security groups when no longer required.
- The procedure should establish specific timeframes which may vary depending on if the termination/transfer is considered "friendly" or "unfriendly" as stated in better practices such as the *NIST Special Publication 800-53: Personnel Termination PS-4*.

Management Response (Juvenile Court Management):

Management Agreement	Description of Management's Action Plan to Address Finding	Estimated Timeline to implement Action Plan
<input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree	The department will incorporate the steps of ensuring user network access, security, and email distribution groups are part of the SOP we are developing. The department will support DoIT and HR in developing a county-wide procedure for the termination process.	60 days after the report is issued
Reason For Disagreement:		



APPENDICES

Appendix I – Purpose, Scope, and Methodology

Purpose

The purpose of the audit was to evaluate the effectiveness of the procedures and processes specifically related to the disabling and updating of terminated and transferred employees' access to County applications and networks.

This involved:

- Review and assess the effectiveness of the policies and procedures in place guiding the termination and transfer of employees' processes.
- Determining if terminated employees' access was removed timely from the applications in scope and the County network and if transferred employees' access is modified upon transfer.
- Determine whether user access reviews are performed periodically.

Scope and Methodology:

The scope of our audit focused on the termination and transfer of employees' activities from January 1, 2020, to December 31, 2021.

Our methodology included but was not limited to the following:

- Reviewed the policies and procedures relating to the termination and transfer of employees' process and related best practices.
- Conducted a walkthrough of the termination and transfer of employees' process.
- Selected and tested a sample of termination and transfer of employees' activities.
- Reviewed supporting documentation and information.
- Interviewed appropriate Juvenile Court and County personnel.



Appendix II – Management Response

DeKalb County



Juvenile Court

Desiree Sutton Peagler
Judge

Linda Bratton Haynes
Judge

Vincent C. Crawford
Chief Judge

Fatima A. El-Amin
Judge

Temika W. Murry
Judge

Antoninette L. Brantley
Clerk of Court

Colet I. Odenigbo
Court Administrator

DeAndre Allen
Chief Probation Officer

November 25, 2022

Lavois Campbell
Chief Audit Executive
Office of Independent Internal Audit
1300 Commerce Drive, Suite 300
Decatur, Georgia 30030

RE: **Management Response to "Termination and Transfer of Employees" Audit Report**

Dear Mr. Campbell:

In accordance with DeKalb County, Georgia - Code of Ordinances / Organizational Act Section 10A- Independent Internal Audit, this is our response to the audit named above provided in this document. As required by the ordinance, our response includes 1) a statement regarding our agreement or disagreement along with reasons for any disagreement, 2) our plans for implementing solutions to issues identified, and 3) the timetable to complete such plans.

If you have any questions about this response, please contact Colet Odenigbo, Court Administrator, Juvenile Court.

Sincerely,

Colet Odenigbo, Court Administrator, Juvenile Court



Appendix III – Definitions and Abbreviations

Acronyms and Abbreviation

DoIT: Department of Innovation and Technology.

HR: Human Resources and Merit System

PCI-DSS: Payment Card Industry Data Security Standard.

PA2: Personnel Action Form

PII: Personally Identifiable Information.

NIST: National Institute of Standards and Technology

Key Definitions

JCAT: A court case management system that allows case and calendar management, risk assessment tools, document management, and personalized portals into the information required to make decisions.

CPRS: Court Process Reporting System.

CV360: A CloudVergent360 (CV360) Oracle Cloud HCM system. It is the County Personnel Management Application that was developed to provide DeKalb County users with a more streamlined and user-friendly method to access and update HR information.

De-provisioning: An access management practice of removing or deactivating user access to computer systems and resources.

Terminated Employees: Employees whose employment with the County has ended either voluntarily or involuntarily.

Transferred Employees: Employees who transferred between departments within the County.

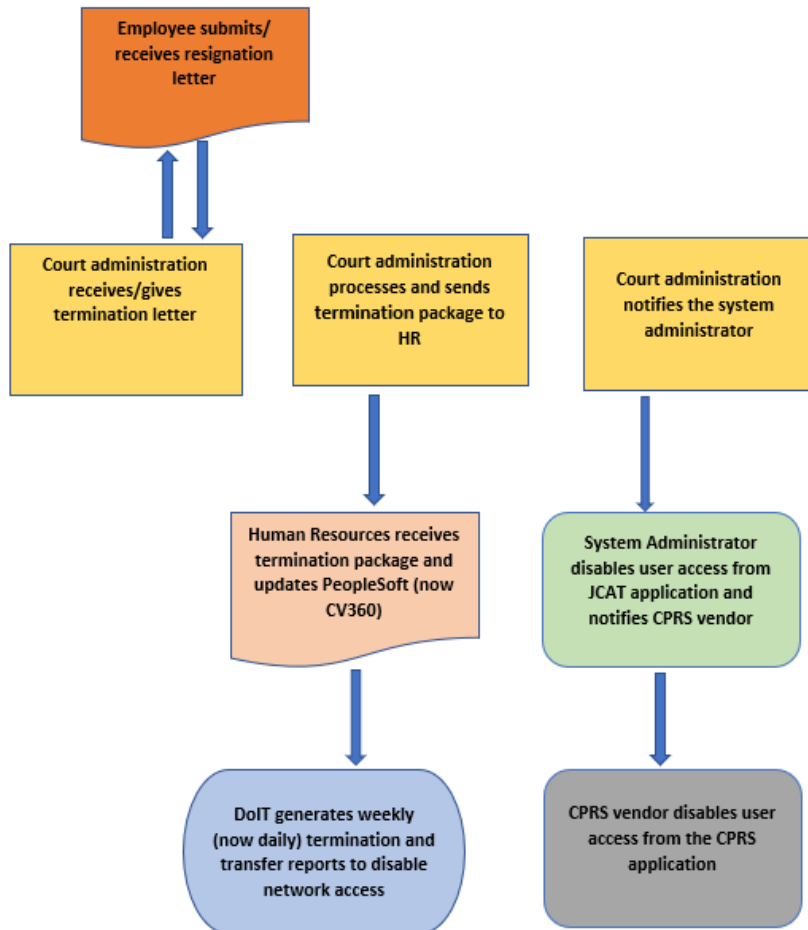
Security group: A group created in an organization to manage access permissions for all users on their various department folders and system resources.

Distribution group: A group created in an organization to enable a group of recipients in a specified department or unit to send and receive e-mail messages related to specific/unique department information.



Appendix IV – Process Description

The DeKalb County Juvenile Court's termination process is summarized in the following flowchart:



Source: Developed from information provided by Juvenile Court Administration.



DISTRIBUTION

Action Official Distribution:

Colet Odenigbo, Court Administrator, Juvenile Court

Statutory Distribution:

Michael L. Thurmond, Chief Executive Officer

Robert Patrick, Board of Commissioners District 1

Jeff Rader, Board of Commissioners District 2

Larry Johnson, Board of Commissioners District 3

Steve Bradshaw, Board of Commissioners District 4

Mereda Davis Johnson, Board of Commissioners District 5

Ted Terry, Board of Commissioners District 6

Lorraine Cochran-Johnson, Board of Commissioners District 7

Adrienne T. McMillion, Chairperson, Audit Oversight Committee

Harold Smith, Jr., Vice-Chairperson, Audit Oversight Committee

Gloria G. Gray, Audit Oversight Committee

Lisa Earls, Audit Oversight Committee

Tanja Christine Boyd-Witherspoon, Audit Oversight Committee

Information Distribution:

Zachary L. Williams, Chief Operating Officer/ Executive Assistant

Vivian Ernstes, County Attorney

La'Keitha D. Carlos, CEO's Chief of Staff

Kwasi K. Obeng, Chief of Staff, Board of Commissioners

John Matelski, Chief Information Officer and Director of Innovation and Technology

Benita Ransom, Director, Human Resources & Merit System Department



PROJECT TEAM

This report was submitted by:

Julie Ikioda
Julie Ikioda, CISA, PMP
IT Internal Auditor, Senior
Office of Independent Internal Audit

12/29/2022

Date

This report was reviewed by:

Rubby Ibe-Ikechi
Rubby A. Ibe-Ikechi, CISA, ISO/IEC 27001 LA
IT Audit Manager
Office of Independent Internal Audit

12/29/2022

Date

The report was approved by:

Lavois Campbell
Lavois Campbell, CIA, CISA, CFE, CGA
Chief Audit Executive
Office of Independent Internal Audit

12.29.2022

Date



STATEMENT OF ACCORDANCE

Statement of Accordance

The mission of DeKalb County is to make the priorities of the citizens of DeKalb County; the priorities of County government - by achieving a safer DeKalb, building stronger neighborhoods, creating a fiscally accountable and more efficient county government and uniting the citizens of DeKalb County.

The mission of the Office of Independent Internal Audit is to provide independent, objective, insightful, nonpartisan assessment of the stewardship or performance of policies, programs, and operations in promoting efficiency, effectiveness, and integrity in DeKalb County.

This performance audit was prepared pursuant to DeKalb County, Georgia – Code Ordinances/Organizational Act Section 10A- Independent Internal Audit. We conducted this performance audit 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 findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

This report is intended for the use of the agency to which it was disseminated and may contain information that is exempt from disclosure under applicable law. Do not release without prior coordination with the Office of Independent Internal Audit.

Please address inquiries regarding this report to the Office of Independent Internal Audit at 404-831-7946.