December 3, 2018

Dr. Kirk A. Calhoun, President
UT Health Science Center at Tyler
11937 U. S. Hwy 271
Tyler, TX 75708

Dr. Calhoun,

We have completed the Employee Off-Boarding Audit that was part of our Fiscal Year (FY) 2019 Audit Plan as a risk-based audit. The objective of this audit was to assess the current processes and controls in place for the timely and accurate removal of UT Health Science Center at Tyler employee access as the result of termination and/or transfer. The scope of the audit was from March 1, 2018 through September 28, 2018.

This audit was conducted in accordance with guidelines set forth in The Institute of Internal Auditor's *International Standards for the Professional Practice of Internal Auditing*. We appreciate the assistance provided by management and other personnel and hope the information presented in our report is helpful.

Sincerely,

Stephen Ford
AVP, Chief Audit Executive

Enclosure

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Employee Off-Boarding Audit

December 3, 2018

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Report

Background

The Employee Off-Boarding Audit was completed as part of the Fiscal Year (FY) 2019 Audit Plan as a risk-based audit. It is important to note for this audit that the employee off-boarding process is comprised of both terminated employees (voluntary and involuntary) and employees who transferred departments within the Institution.

A recent cybersecurity newsletter released by the Department of Health and Human Services’ Office for Civil Rights states that “data breaches caused by current and former workforce members are a recurring issue across many industries, including the healthcare industry.” The newsletter also states that “effective identity and access management policies and controls are essential to reduce the risks posed by these types of insider threats.”

In 2017, OneLogin, an identity management company, conducted a survey completed by 500 Information Technology (IT) decision makers in the United States. The survey revealed that nearly half of the respondents (48%) were aware of former employees who still had access to corporate applications.

In September of 2017, a former employee at a Pennsylvania clinic group was sentenced to 27 months in federal prison for fraud, which was committed through continued systems access after being fired. The employee only worked for the employer for approximately three (3) weeks. The article indicates that the former employee, “hired as an in-house systems administrator, was aware of the administrative credentials necessary to gain access, modify settings and control all computer systems at the healthcare facility”. The article states that the employee retained access to the clinics’ system administrator credentials for more than two (2) years after his termination date.

In 2012, an audit report issued by the Legislative Audit Bureau, a legislative service agency created to assist the State of Wisconsin in maintaining effective oversight of State operations, included a finding that the University of Wisconsin System made $15.4 million in overpayments for health insurance premiums, including $8 million for 924 employees who had been terminated.

Currently, a departing UT Health Science Center at Tyler (UTHSCT) employee is required to meet with and obtain a signature on a check-out form from a minimum of eight (8) different department representatives prior to their effective termination date. Some of the departments include; Human Resources (HR), the Police Department, IT, Benefits, and Payroll. Each department is responsible for ensuring that certain actions, such as access removal and the discontinuation of all compensation, are completed in a timely manner.
Objective

The objective of this audit was to assess the current processes and controls in place for the timely and accurate removal of UTHSCT employee access as the result of termination and/or transfer.

Scope and Methodology

The scope of the audit was from March 1, 2018 through September 28, 2018.

To achieve the audit objective we:

- Reviewed applicable regulations, guidance and UTHSCT policies;
- Performed a walkthrough of employee off-boarding procedures at each department that is part of the standard employee check-out process; and
- Selected a sample of terminated employees and a sample of employees who transferred departments to review their applicable exit documentation and digital profile.

The audit was conducted in accordance with the guidelines set forth in The Institute of Internal Auditor’s International Standards for the Professional Practice of Internal Auditing.

Audit Results

Our audit revealed that UTHSCT does not have an Institutional policy that specifies the requirements of the employee off-boarding process or written procedures to be used and referred to by department managers and employees. As a result, department managers and employees currently do not have clear guidelines or training materials provided on how to successfully complete the off-boarding process in order to ensure the complete and timely removal of access.

We selected a total of 65 employees for testing; 40 employees who were identified as terminated and 25 employees who were identified as interdepartmental transfers on the reports provided to us by HR.

We answered the following five (5) questions for each of the sampled employees:

1) Was the terminated or transferred employee’s network access (applications authenticated through the Active Directory (AD), which comprises the Institution’s highest risk systems) disabled or changed timely* (43 exceptions, inclusive of 28 exceptions where we were unable to make a determination due to a lack of supporting information, see Issue #6 on page 8); *Please note that our sample testing revealed no instances where access had not yet been disabled at the time of our testing.

2) Were the terminated or transferred employees’ miscellaneous accounts (all other applications not authenticated through the AD) disabled or changed timely* (64
exceptions, each exception resulting from being unable to make a determination due to a lack of supporting information, see Issue #6 on page 8); *Please note that our sample testing revealed no instances where access had not yet been disabled at the time of our testing.

3) Was the terminated or transferred employee’s physical access disabled or changed timely* (33 exceptions); *Please note that our testing revealed no access attempts after the employee’s off-boarding date.

4) Were the terminated employee’s benefits disabled timely* (0 exceptions); and

5) Was the terminated employee’s final paycheck processed timely* (0 exceptions).

*It should be noted that “timely” in the above testing ranges from a 1-day period to a 30-day period depending on best practices within the area tested.

In addition, we noted that 14 of the 40 terminated employees in our sample did not have a completed check-out form on file.

Policies and Procedures

Issue #1: UTHSCT does not have a policy that specifies the requirements of the employee off-boarding process.

Recommendation #1: UTHSCT, through the collaboration of HR and IT, develop and implement an Institutional policy that specifies the requirements of the employee off-boarding process and sets an appropriate deadline for disabling access.

Ranking: Medium

Management’s Response: Agreed. HR, IT, and the Police Department will collaborate to develop a policy relating to the employee off-boarding process and establishing deadlines for employee access removal.

Implementation Date: March 1, 2019

Issue #2: Currently, UTHSCT does not have an employee off-boarding process write-up or training available for the department managers and employees, resulting in inconsistencies in the timeliness of removing employee access in the areas tested.

Recommendation #2: UTHSCT develop and implement training that adequately covers the responsibilities for both the department managers and the employees on the required elements of the employee off-boarding process.
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**Ranking:** Medium

**Management’s Response:** Agreed. HR will develop an annual training that will be included in the New Employee Orientation (NEO) and required in the annual Performance Manager training modules for all employees.

**Implementation Date:** March 1, 2019 for the NEO and June 1, 2019 for Performance Manager

**Issue #3:** As noted from our walkthroughs and testing, the current employee check-out form is inefficient and inconsistently utilized, which has contributed to the untimely removal of access for terminated and transferred employees. In addition, we noted that key departments are not currently included in the employee off-boarding process.

**Recommendation #3:** UTHSCT, through the collaboration of HR and IT, as well as other departments involved in the check-out process, develop a digital form that can take the place of the current check-out form and be used as part of the employee off-boarding process. This digital form should be inclusive of all necessary departments involved in the process to ensure timely removal or change of employee access.

**Ranking:** Medium

**Management’s Response:** Agreed. IT will work with key stakeholders to identify and develop a new employee check-out process.

**Implementation Date:** June 1, 2019

**Issue #4:** Currently, UTHSCT does not have a complete inventory list of all system applications utilized at the Institution.

**Recommendation #4:** IT should ensure that a complete and accurate system application inventory listing is finalized and utilized as part of the employee off-boarding process.

**Ranking:** Medium

**Management’s Response:** Agreed. IT has begun working on a complete AD listing. Information Security (IS) currently maintains a system application inventory listing through collaboration with IT, however this is not a complete list. IS and IT will continue to strive towards a complete and accurate system application inventory listing that is regularly updated.

**Implementation Date:** March 1, 2019

**Issue #5:** UTHSCT does not have an on-going review process of its inventory listing or a review to ensure access rights for all applications have been appropriately removed for all off-boarded employees.
Recommendation #5: IS should develop and implement a 90-day user access review to ensure access rights for AD integrated applications, at a minimum, have been appropriately removed for all off-boarded employees.

**Ranking:** Medium

**Management’s Response:** Agreed.

**Implementation Date:** Implemented and on-going

**Issue #6:** Currently, UTHSCT does not have a consistent process in place to ensure that all applicable system access changes are completed and captured on an auditable log.

**Recommendation #6:** IT should ensure that a process is developed and implemented, in conjunction with the new digital check-out form in Recommendation #3 above, that will help ensure all applicable system access is removed or changed and can be tracked effectively.

**Ranking:** Medium

**Management’s Response:** Agreed.

**Implementation Date:** June 1, 2019

**Conclusion**

Our audit identified areas where the employee off-boarding controls and processes in place at UTHSCT could be strengthened. We found inconsistencies in the processes for assuring removal of employee access upon termination or transfer. We also noted inconsistencies in the timeliness of removing employee access in the areas tested. The above recommendations have been made to improve these areas.

__________________________________________
Stephen Ford
AVP, Chief Audit Executive