INTERNAL AUDIT REPORT

Building Access Security

July 20, 2023

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Executive Summary

This *Building Access Security* Audit was performed in accordance with the approved schedule of engagements identified in the Department of Internal Audit Fiscal Year 2023 Annual Audit Plan.

As part of the Fiscal Year 2023 Annual Audit Plan, the Department of Internal Audit conducted this Building Access Security Audit. The City of Fort Worth (CoFW) uses both electronic badge cards and door keys for the management of access to its various buildings and related internal locations.

Internal Audit staff reviewed the internal controls and related processes to determine whether they are sufficient to minimize the risks associated with the management of building access security. Our testing identified internal control weaknesses in the management of employee/contractor badge cards. Additionally, policies and procedures governing the management of facility door keys were determined to be nonexistent.

Our audit findings are discussed in further detail within the Detailed Audit Findings section of this report.

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Background

Physical access to City of Fort Worth (CoFW) facilities, and to specific areas within, are managed by the use of badge cards issued to CoFW employees and authorized contractors/vendors, as well as by the use of physical facility door keys. A badge card serves as both a method of identification and a means of obtaining access to facilities, interior offices, and specific CoFW locations that utilize gates for entry and exit control. Door keys are used for those locked doors which are either not controlled by a badge card reader (i.e. specific interior office doors and equipment closets), or to gain access to a facility's exterior doors in the event of a badge card reader malfunction. The CoFW uses two different badging software for controlling access via the use of badge cards. The MonitorCast software, implemented in FY2020-21, is used for non-Water-specific locations. The Water Department uses its own badging software, called Continuum, to manage access to locations such as water treatment plants. For purposes of this specific engagement, the Department of Internal Audit did not review the Water Department's badging software.

Audit Objectives

The objectives of the audit were to evaluate the effectiveness of building access security, and to analyze the related access and monitoring controls.

Audit Scope

The audit scope included current data in the MonitorCast badge card monitoring system, and current CoFW facility door key documentation.

Methodology

To achieve the audit objective, the Department of Internal Audit performed the following tests and procedures:

- reviewed and analyzed the MonitorCast badge card monitoring software and related data;
- reviewed current badge card management procedures documentation;
- reviewed Personnel Rules and Regulations (PRRs) for Police, Fire, and General Employees
- reviewed CoFW facility door key documentation;
- interviewed IT Solutions, Municipal Court, and Property Management Department personnel; and
- evaluated internal controls related to building access.

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.

Audit Results

The Department of Internal Audit would like to thank the IT Solutions, Property Management, and Municipal Court Departments for their cooperation and assistance during this audit.

Overall Risk Evaluation

High	Medium	Low
Administration of MonitorCast badge card processes and data is inadequate		
Written policies and procedures for the governance of CoFW facility door keys do not exist		
	General Employee Personnel Rules and Regulations (PRRs) are inconsistent with the current badge card process	

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Detailed Audit Findings

1. Administration of MonitorCast badge card processes and data is inadequate.

The Control Objectives for Information and Related Technologies (COBIT) Standard is a framework that is designed to help organizations that are looking to develop, implement, monitor, and improve IT governance and information management. The COBIT 2019 edition states that access to premises, buildings, and areas should be justified, authorized, logged, and monitored, ensuring that access profiles remain current. These controls are necessary to ensure access to secure areas of City of Fort Worth (CoFW) facilities is provided only to those persons for whom access has been approved.

The Department of Internal Audit reviewed current badge card process documentation, and conducted interviews with IT Solutions, Municipal Court, and Human Resources Department staff to determine whether the documentation was still accurate. Based on the review of documentation and interviews with staff, we concluded that the current badge card process documentation is incomplete. Specifically, there is no documented process for the deactivation and replacement of a lost badge card, nor is there a documented process for the disposition of an employee's previous badge card when he or she transfers from one department to another.

The Department of Internal Audit also reviewed data within the MonitorCast software, during the course of audit fieldwork, and identified the following issues which were communicated to IT Solutions staff:

- 40 active CoFW employees/contractors are assigned multiple, active badge cards
    - For 27 of the 40 employees/contractors, each of their active badge cards shared some of the same assigned building access codes
- 70 terminated CoFW employees have badge cards that are still active
- 112 badge cards with an assigned deactivation date were swiped after the identified date; however, in each instance, access was appropriately denied

Interviews with staff from the IT Solutions and Municipal Court Departments determined that regular reviews of MonitorCast badge card data were not occurring prior to the beginning of this audit. IT Solutions Department staff, however, stated that a new, automated daily process was implemented (in late January 2023) that identifies whether specific badge cards need to be deactivated, and whether specific assigned access codes for a badge card need to be removed. According to IT Solutions staff, however, this new process does not address any issues in existence (such as those previously stated) prior to its implementation. Additionally, our review of the MonitorCast software determined that detailed access log entries are captured for every badge card in use. However, according to interviews with IT Solutions staff, CoFW departments are not currently required to regularly review their staff's badge card access to ensure the assigned access is still required and appropriate for their respective positions.

Recommendation 1A: *The Municipal Court Services Director, in conjunction with the Chief Technology Officer, should ensure that the badge card documentation includes all of the processes required for the adequate administration of badge cards and related data.*

Auditee's Response: Concur. Documentation will be enhanced or developed as necessary. Personnel will be trained to comply with the documented processes.

Target Implementation Date: September 29, 2023

Responsibility: William Rumuly, Municipal Court Services Director

Applicable Department Head: William Rumuly, Municipal Court Services Director
Kevin Gunn, Chief Technology Officer

Applicable Assistant City Manager: Valerie Washington

Recommendation 1B: *The Chief Technology Officer, in conjunction with the Municipal Court Services Director, should ensure that processes are developed and implemented to address the identified issues of multiple badge cards assigned to an employee/contractor, active badge cards for terminated CoFW employees, and the use of badge cards that have an assigned deactivation date.*

Auditee's Response: Concur. Documentation will be enhanced or developed as necessary, and personnel will be trained to comply with the new process.

Target Implementation Date: September 29, 2023

Responsibility: Sallie Trotter, Assistant IT Solutions Director

Applicable Department Head: Kevin Gunn, Chief Technology Officer
William Rumuly, Municipal Court Services Director

Applicable Assistant City Manager: Valerie Washington

Recommendation 1C: *The Chief Technology Officer, in conjunction with the Municipal Court Services Director, should ensure that a process for the regular review of assigned badge card access is implemented for all CoFW departments.*

Auditee's Response: Concur. A documented badge card review process will be enhanced or developed, as necessary. Personnel will be trained to comply with the new process.

Target Implementation Date: March 29, 2024

Responsibility: Sallie Trotter, Assistant IT Solutions Director

Applicable Department Head: Kevin Gunn, Chief Technology Officer
William Rumuly, Municipal Court Services Director

Applicable Assistant City Manager: Valerie Washington

2. Written policies and procedures for the governance of CoFW facility door keys do not exist.

The Committee of Sponsoring Organizations (COSO) Standard states that control activities should be developed and implemented so that an organization's risks to achieving its business objectives are mitigated, in full or in part, ensuring that such oversight activities are responsive to those business objectives, including reporting, and related risks.

The Department of Internal Audit reviewed documentation provided by the Property Management Department, and interviewed Property Management and IT Solutions Department staff, to determine the extent to which the policies and procedures for the governance of CoFW facility door keys are documented. The Property Management Department was able to provide documentation regarding facility door key configurations. However, based on the interviews and the documentation provided, Internal Audit concluded that written policies and procedures for door key management do not exist.

The lack of written policies and procedures increases the risks that keys could be distributed incorrectly, not returned, or duplicated without authorization. Written policies and procedures are necessary for the effective governance of the distribution and retrieval of door keys, and to ensure related operational risks are mitigated.

Recommendation 2: *The Property Management Director should ensure that written policies and procedures are developed and implemented for the governance of CoFW facility door keys.*

Auditee's Response: Concur. Property Management will work with IT Solutions to incorporate requests for door keys into the current Employee Badge Card process/form; this will allow for the request(s) to be routed to the appropriate facility owner(s) and the Property Management Department for approval, will facilitate the notification of the CoFW locksmithing contractor for the production of keys, and would allow requestors to re-submit their requests in the event their initial requests are denied. The implementation of this process will enable a listing of issued keys to be produced (how many and to whom), and this process would also be used for requests to re-key an entire building/facility.

Target Implementation Date: July 31, 2024

Responsibility: Aaron Cutaiar, Facilities Superintendent

Applicable Department Head: Ricardo Salazar II, Interim Property Management Director

Applicable Assistant City Manager: Dana Burghdoff

3. The current General Employee Personnel Rules and Regulations (PRRs) are inconsistent with the current badge card process.

The 2019 edition of the Control Objectives for Information and Related Technologies (COBIT) Standard states that business processes should be continually assessed and monitored, and the related control activities identified and documented, to ensure that the inherent risks associated with the processes are continually addressed and mitigated, and that such processes are in alignment with the business's goals and objectives.

The Department of Internal Audit reviewed the current Personnel Rules and Regulations (PRRs) for Police, Fire, and General employees to determine whether the PRRs are in alignment with the current badge card process documentation. Based on the review, along with interviews with staff from the IT Solutions, Municipal Court, and Human Resources Departments, Internal Audit concluded that the General Employee PRRs are inconsistent with the current badge process documentation.

Page 67 of the General Employee PRRs states "*If an employee loses their Identification Badge, the employee should immediately contact their department's Human Resources Coordinator (HRC) for a replacement badge and to notify the City Marshal's Office so that the card can be deactivated*". Additionally, it states that "*If an employee terminates employment without notice, the department's HRC will contact the Marshal's Office immediately to cancel access codes associated with the Identification Badge*". The instructions, as stated in the PRRs, however, are now inconsistent with the current badge card process. According to the current process, the Marshal's Office is no longer responsible for the overall printing, replacement, and deactivation of badge cards. The Municipal Court, of which the Marshal's Office is a part, continues to play a role in the management of badge cards.

Recommendation 3: *The Human Resources Director, in conjunction with the Municipal Court Services Director and the Chief Technology Officer, should ensure that the CoFW Personnel Rules and Regulations are updated to correspond to the current processes for badge card management.*

Auditee's Response: Concur. Appropriate changes to the Personnel Rules and Regulations (PRRs) will be made to correspond to the current badge card management process.

Target Implementation Date: September 30, 2023

Responsibility: Sandra Huerta, Employee Labor Relations Manager

Applicable Department Head: Dianna Giordano, Human Resources Director
William Rumuly, Municipal Court Services Director
Kevin Gunn, Chief Technology Officer

Applicable Assistant City Manager: Jesica McEachern
Valerie Washington