FIRE RMS SYSTEM EFFECTIVENESS AND EFFICIENCY

Exit Conference Date: July 23, 2024

Release Date: August 19, 2024

Report No. 24-05

City of Orlando
Office of Audit Services and Management Support

George J. McGowan, CPA
Director

Co-source Partner
CBIZ

CITY OF
ORLANDO

MEMORANDUM OF TRANSMITTAL

To: Charles Salazar, Fire Chief

From: George J. McGowan, CPA
Director, Office of Audit Services and Management Support

Dates: Exit Conference: July 23, 2024
Release: August 19, 2024

Subject: Fire RMS System Effectiveness and Efficiency (Report No. 24-05)

The Office of Audit Services and Management Support, with major assistance from our co- source partner CBIZ, performed a review of the effectiveness and efficiency of the Fire Records Management System (RMS) System, which is used be the Fire Life Safety section to manage personnel, equipment, and training resources and activities. This review was included on our annual plan for FY 2023-24.

As noted in the attached report, the principal recommendation is to continue the performance of existing projects that have been initiated between the Orlando Fire Department (OFD) and Information Technology Division (IT) to improve operations and to dedicate the necessary resources to facilitate project(s) completion. We will follow-up on our recommendations in a year to determine your progress in the improvement of the Fire RMS System.

This work does not rise to the level of an audit and is considered an advisory consulting engagement under the International Standards for the Professional Practice of Internal Auditing. All information included in this report is offered for consideration by City management and has been reviewed with OFD Fire Life Safety and IT. Their responses to our observations and recommendations are included in the attached report.

We appreciate the cooperation and courtesies extended by the staff of the Orlando Fire Department and Information Technology Division consulted during this review.

GJM

c:

The Honorable Buddy Dyer, Mayor
Jody Litchford, Deputy City Attorney
Kevin Edmonds, Chief Administrative Officer
Michelle McCrimmon, Chief Financial Officer
Kevin Preston, Executive Deputy Fire Chief
Jason Revoldt, Deputy Fire Chief
Roberto Lopez, Chief Information Officer

Orlando Fire Department – City of Orlando

FireRMS Efficiency and Effectiveness Review

August 2024

August 19, 2024

George McGowan
Director, Audit Services and Management Support
City of Orlando
400 South Orange Avenue
Orlando, FL 32801

Dear George:

Thank you for the opportunity to provide a review of the RescueNet FireRMS[1] system for the Orlando Fire Department of the City of Orlando. This report includes the scope, objectives, and methodology for the assessment, and presents our results, conclusions and recommendations based on the procedures performed.

CBIZ Risk & Advisory Services, LLC ("CBIZ") was engaged to perform a process review to evaluate the efficiency and effectiveness of the FireRMS system business processes and sub-processes.

This report and the results contained therein are confidential and intended solely for the use of the Orlando Fire Department and City of Orlando management, and management is ultimately responsible for the scope, procedures, and corrective actions taken as a result of these risk advisory services.

We would like to thank the management and staff of the Orlando Fire Department and the Technology Management Division for their assistance and professionalism during the course of our engagement.

Sincerely,

CBIZ Risk & Advisory Services, LLC

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[1] FireRMS is a Fire Records Management System produced by Zoll Data Systems.

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Executive Summary

Engagement Overview

CBIZ Risk & Advisory Services, LLC ("CBIZ") was engaged by the City of Orlando ("City") to review the efficiency and effectiveness of the FireRMS system at the Orlando Fire Department ("OFD") and provide short-term and long-term solutions to improve department operations.

The scope of the review included the evaluation of the following FireRMS System business processes and sub-processes:
- Access Management (Personnel)
- Occupancy (Inspections, Incidents, and Billing)
- Hydrants
- Scheduling & Tracking
- Reporting

All procedures were performed from March 2024 through May 2024. The scope for this review was the period from March 1, 2023, thru May 31, 2024.

Background

OFD is a government entity whose mission is to protect the lives and property of Orlando Citizens. OFD is made up of multiple sections including, but not limited to, Arson and Bomb Squad, Fire Life Safety, Permitting, and Training. For the purposes of the engagement, Internal Audit reviewed the operations of the Fire Life Safety section and its use of the records management system, FireRMS, produced by Zoll Systems.

Fire Life Safety uses FireRMS to manage personnel, equipment, and training resources, track personnel assignments, schedule training sessions and activities, generate department rosters, manage operational data, and produce comprehensive reports.

Methodology

The Information Technology (IT) FireRMS Efficiency and Effectiveness review was conducted in the following three phases:
- Discovery and Documentation
- Testing
- Recommendations/Reporting

Our primary objective during the *Discovery and Documentation* phase was to understand and document the current processes surrounding the FireRMS system. This was accomplished by executing the following:
- Reviewed policies and procedures provided and/or obtained from OFD.
- Conducted interviews with applicable staff members within the Technology Management Division ("TM") and the Fire Life Safety section.
- Identified current processes and design gaps.
- Requested and obtained evidence to execute test procedures.

In the *Testing* phase, using evidence obtained, we evaluated the current processes surrounding the business processes and sub-processes noted above and finalized documentation from the planning efforts identifying gaps, inefficiencies, and short/long term opportunities for improvement.

Lastly, during the *Recommendations/Reporting* phase, we developed a set of observations and recommendations based upon results. These items are summarized and detailed below.

Summary of Observations, Recommendations and Remediation Timeframes

The OFD is currently utilizing a version of FireRMS that is <u>several iterations</u> behind the latest release. Therefore, functionality enhancements that would improve efficiency and effectiveness have not been implemented. Projects to upgrade FireRMS as well as other system enhancements to improve OFD operations have been funded and initiated.

Our review identified several issues that are detailed in the *Results: Observation and Recommendations* section of this report and summarized below. Our principal recommendation is to continue with existing projects that have been initiated between TM and OFD to improve operations, dedicating the necessary resources to facilitate project completion.

- System Integration: For permitting processes, the current version of FireRMS does not integrate with the CAD ("Computer Aided Dispatch") system or the Infor database.
- Paper Inspection Forms: Field inspectors currently utilize paper forms, as opposed to electronic devices, for inspections.
- Permitting Notifications: There is currently no established process to notify Fire Life Safety of new buildings added to FireRMS by the Permitting section of OFD.
- Property Classification: The "Property Type Classification" field is not a mandatory field, which can lead to it being left blank, requiring Fire Life Safety to conduct additional research to determine the property type.
- Scheduling and Reporting System Limitation: FireRMS does not allow copying of inspection schedules from pre-existing buildings to new buildings within the same geographical area.
- Reporting: Discrepancies exist between the FireRMS schedule and summary reports.
- Duplicate Entries: When a new building is added to FireRMS with an address previously occupied by an old building, duplicate address entries are created.
- Inspection Timeliness: No automated or proactive monitoring exists to detect inspectors who have not entered data into FireRMS timely (i.e., 30 days).
- Access Reviews: No process is in place to periodically review access to FireRMS.

The City of Orlando should evaluate these observations and implement corrective actions based on available resources and risk tolerance.

Results: Observations and Recommendations

Observation 1 – System Integration

The current version of FireRMS does not integrate with the CAD system or the Infor database, requiring similar information to be manually entered into multiple systems.

In the Permitting section, property information entered in CAD must also be manually entered into FireRMS. Similarly, Plan Reviewers manually enter plan details into Infor, a database program utilized in the plans review and inspection phase of permitting, and FireRMS separately. There is a standard interface between Tyler CAD and Zoll FireRMS for CAD Call Export that are used for NFIRS Incident Reporting. There are also several custom interfaces between Zoll FireRMS and Tyler for Location Alerts, Personnel Scheduling, Personnel Skills, and Preplans. These custom interfaces were mandated by OFD administration, developed by Tyler according to requirements documents approved by OFD. For Infor, OFD's operational needs (after issuance of Certificate of Occupancy when construction transitions to maintenance) were supposed to have been accounted for within the application, but these were pushed off to later phases of the implementation as initial challenges with just EDVs needs were addressed.

The inability to integrate FireRMS with other systems increases the likelihood of errors, compromises data accuracy, and potentially hinders the effectiveness of the permitting and plan review processes.

Recommendation

Management should consider the following:

1. Building upon the existing integration of CAD to FireRMS for incident reporting, extend similar integration capabilities to/from FireRMS for critical processes such as permitting.
2. Develop APIs (Application Programming Interfaces) that facilitate data exchange between FireRMS and other systems.
3. Explore alternative system options with integration functionality.

Management Response

OFD Response: This is an IT issue and is not controlled by OFD administration.

Observation 2 – Paper Inspection Forms

Field inspectors currently utilize paper forms, as opposed to electronic devices, for inspections, necessitating manual transcription of data into both FireRMS and CAD.

Relying on manual data entry for field inspections introduces the risk of data inaccuracies, inefficiencies, and potential delays in updating critical information within FireRMS. Additionally, inconsistencies may arise between FireRMS and CAD due to the dual-entry process, compromising data integrity and reliability.

Recommendation

In addition to the integration recommendations mentioned in the above observation, management should consider implementing a mobile version of a Fire records management system allowing inspectors to input data directly into the system during inspections.

Management Response

TMD Response: The feature has been turned on recently and is in the process of being built for OFD use on test devices.
OFD Response: This feature was turned on July 15th, and staff have a 45-day evaluation period. Staff are working through some minor issues but are making progress.

Observation 3 – Permitting Notifications

There is currently no established process to notify Fire Life Safety of new buildings added to FireRMS by the Permitting section. Fire Life Safety requires this notification for inspection scheduling of new buildings after the issuance of permits and certificates.

The absence of a formal process to notify Fire Life Safety about new buildings added to FireRMS could lead to missed inspections or inadequate oversight of fire safety measures in newly constructed buildings, potentially compromising public safety.

Recommendation
In addition to integration recommendations mentioned in other observations, management should consider implementing a formal procedure for the Permitting section to promptly notify Fire Life Safety when new entries are added to FireRMS after the issuance of permits and certificates.

This procedure can be built from the previous recommendation to utilize the "Building Status" field (e.g., under construction, not built, etc.). Once the "Building Status" field is utilized, reports and notifications can be configured accordingly.

Management Response
OFD Response: Management will continue to express the need for better communication between the Life Safety Division and the permitting office at City Hall.

Observation 4 – Property Classification
Fire Life Safety performs inspections of only commercial properties. The "Property Type Classification" field in FireRMS is utilized to identify whether a property is commercial or residential type. This field is not mandatory, which can result in it being left blank. Consequently, Fire Life Safety would need to conduct additional research to identify the property type and determine if inspections should be scheduled.

The absence of this required property type data results in incomplete data records, leading to the assignment of inspections to incorrect properties or delays due to additional research needed to determine property classification.

Recommendation
Management should consider making the "Property Type Classification" field mandatory in FireRMS. This feature can be configured within the application to make this field mandatory.

Management Response
OFD Response: Management will ensure the latest update to FireRMS will include the Property Classification as a mandatory item.

Observation 5 – Scheduling and Reporting System Limitation
FireRMS does not allow copying of inspection schedules from pre-existing buildings to the new buildings within the same geographical area. Users must manually reenter the schedules from the pre-existing buildings as schedules for the new buildings.

This manual process is inefficient and increases the risk of inaccuracies elevating the likelihood of errors in subsequent scheduling reports.

Recommendation

Management should develop a feature within FireRMS that allows users to directly copy schedules from existing buildings to new ones within the same geographical area. This would streamline the data entry process and reduce the likelihood of errors associated with manual input.

Management Response
OFD Response: If this feature becomes available in future iterations of the FireRMS software, management will ensure it's use.

Observation 6 – Reporting
Discrepancies have been identified between the FireRMS OFD Inspections Summary report and the OFD Scheduling Matrix report. During an inspection conducted by Internal Audit on the Summary Report, a monthly report for May 2024, it was noted that twenty-eight inspections were listed as open. However, the Scheduling Report displayed 108 inspections. Fire Life Safety is uncertain about the data source used for the Scheduling Report, which generated the figure of 108 inspections.

The lack of clarity about data sources may lead to inaccurate decision-making, inefficient resource allocation, and compromised operational effectiveness in managing inspections and ensuring compliance.

Recommendation
Management should document and clarify the sources of data used for the schedule and summary reports in FireRMS and standardize the process of data entry for inspections to ensure consistency across both reports.

Management Response
OFD Response: Data is stored and retrieved from an IT-controlled server. This is the single source of data for FireRMS reports, and any issues would be an IT-related matter.

Observation 7 – Duplicate Entries
When a new building is added to FireRMS with an address previously occupied by an old building, duplicate address entries are created. Identifying the current building becomes challenging for Fire Life Safety when accessing the address in FireRMS where duplicates exist.

The creation of duplicate address entries can lead to inaccurate data, which may result in erroneous inspection reports and potentially compromise the effectiveness of fire safety oversight.

Recommendation
Management should develop functionality within FireRMS to archive previous address entries when there is a new building added with the same address or develop a method to identify the most recent building when duplicate address entries exist.

Management Response
OFD Response: Management will employ any new functionality the FireRMS developer offers to reduce duplication in the database.

Observation 8 – Inspection Timeliness
There is no automated or proactive system in place to identify instances where inspectors fail to enter inspection data into FireRMS within the expected timeframe, which is typically within 30 days.

The lack of monitoring can lead to delays in operations, missing information, and inaccurate data, potentially compromising the effectiveness of fire safety oversight and reporting.

Recommendation
Management should develop a process, preferably automated, or minimally manual, to monitor inspections whose data has not been entered into FireRMS timely.

Management Response
OFD Response: Management has identified this issue and created a new process to help remediate the issue of delayed inspection entries into FireRMS. In March 2023, management requires inspectors to log their "end-of-shift" tasks into a form, which is then pulled into a report and shared with upper-level management.

Observation 9 – Access Reviews
Internal Audit inspected FireRMS access reports and determined that access to FireRMS was appropriate. However, despite containing sensitive information, no process is in place to periodically review access to FireRMS.

Regular reviews of access permissions are essential to maintain data integrity and security, ensuring alignment with employees' current roles and responsibilities. Without periodic reviews, the organization risks unauthorized data manipulation, compromised data integrity, and potential breaches to sensitive information.

Recommendation
Fire Life Safety should implement a periodic review process to prevent unauthorized access.

Management Response
TMD Response: OFD is responsible for creating and maintaining user accounts and security groups. Organizational changes and new product versions are opportunities to review the security and access. An established process for quarterly or bi-yearly security reviews should be implemented.

OFD Response: Currently, the department is addressing this issue by conducting a thorough system cleanup. This cleanup will involve a comprehensive review of all users to ensure that their access is appropriate. Specifically, they will verify that users are active employees, confirm that roles are assigned to users with corresponding titles, and determine if there are any Segregation of Duties (SOD) concerns.

Overall, the City of Orlando should evaluate the observations and recommendations detailed above. Based on available resources and the risk appetite set by City leadership, corrective actions should be taken to address and implement these and any additional recommendations where possible and feasible.