

Surveillance Technology Usage Review: Seattle Fire Department Computer-Aided Dispatch

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Report Highlights

Background

The Seattle Fire Department (SFD) Computer-Aided Dispatch (CAD) is used to support SFD personnel who dispatch Fire and Emergency Medical Services units in emergency situations. The CAD software provides recommendations to dispatchers about the type of unit(s) to send in response to 911 emergency and non-emergency calls for fire or medical aid based on the caller's reported problem and location. Most CAD data is shared with several entities outside of SFD, including the public through SFD's 911 Real Time, which tracks SFD's real-time and historical 911 incident responses online. Although most CAD data is publicly available and does not include personal identifiable information (PII), there are sensitive personal data in CAD such as a caller's medical information or residential access information that could be used to surveil individuals. Because the SFD CAD Surveillance Impact Report (SIR) does not distinguish between what is surveillance and non-surveillance data in CAD, we examined all SFD CAD data for compliance with Ordinance 125376 (referred to as the Surveillance Ordinance, which is codified in Seattle Municipal Code 14.18 and Ordinance 126295 and its attached SIR, which the City Council passed to authorize SFD's continued use of the CAD technology.

What We Found

We concluded that, overall, SFD's use of the CAD technology generally complies with the terms of its SIR and that the Seattle Information Technology Department (SITD) takes proactive steps to ensure that the technology usage is consistent with the SIR. However, we found that SFD's compliance with the six areas specified in SMC 14.18.060 could be improved. Specifically, SFD's lack of CAD records retention policies and procedures are not compliant with State and local retention policies, SFD lacks data sharing agreements with the entities it shares data with, and SFD's operating policies lacked statements about the approved and inappropriate uses of SFD CAD and its data. We also found that SFD could do more to assure the public that sensitive data it obtains about individuals through CAD is not being used to surveil them, and we identified inaccuracies in the SFD CAD SIR.



WHY WE DID THIS AUDIT

Seattle Municipal Code (SMC) 14.18.060 requires the City Auditor to annually review City departments' use of City Council-approved surveillance technologies. Ordinance 126295, which approved SFD's use of the Computer-Aided Dispatch technology required this review for compliance with SMC 14.18 and with the Surveillance Impact Report.

HOW WE DID THIS AUDIT

To accomplish the audit's objectives, we:

- Reviewed the 2019 SFD CAD Surveillance Impact Report (SIR), an attachment to Ordinance 126295,
- Reviewed relevant State and local laws,
- Interviewed SFD and SITD officials,
- Analyzed data about inquiries and concerns about SFD CAD,
- Obtained documents to verify compliance with Ordinance 126295 and the 2019 SFD CAD SIR, and
- Obtained cost data for the use of SFD's CAD technology.

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Recommendations

We make 19 recommendations to improve SFD's compliance with Ordinance 125376 and Ordinance 126295 and its adopted SIR attachment. Recommendations to SFD include, but are not limited to:

- Updating its operating procedures to include the list of SFD CAD approved and inappropriate uses. (Recommendation 1).
- Creating data sharing agreements with all the entities it shares data with (Recommendations 2 and 6).
- Working with the Office of the City Clerk's City Records Management Program to prioritize, create, and implement SFD CAD data records retention schedules (Recommendation 5).
- Developing and documenting CAD data management policies and protocols in SFD's policies to safeguard individual information (Recommendations 9).
- Analyzing the equity metrics identified in SFD's response to a City Council amendment to Ordinance 125376 and reporting the results of the analysis to the City Council by December 31, 2022 (Recommendation 13).
- Addressing the remaining four unaddressed issues concerning CAD that the public raised through the public engagement process and another recommendation we make stemming from public comments concerning Public Records Act requests (Recommendation 14 and 15).
- Updating the SFD CAD SIR to reflect 2021 annual maintenance and licensing costs of \$201,675 and providing an estimate of the total costs associated with SFD CAD as requested in Seattle Municipal Code 14.18.040B6 (Recommendation 16).

For a complete list of our recommendations and SFD's responses to them, please see Appendix B.

Department Response

In their formal, written response to our report, SFD officials concurred with 17 recommendations and have taken steps to address some of them and partially concur with two recommendations due to their potential feasibility based on resources and time that would be required to implement them. We include SFD's response in Appendix A.

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EXECUTIVE SUMMARY




SFD COULD INCREASE PUBLIC CONFIDENCE THAT CAD DATA IS NOT BEING USED FOR SURVEILLANCE BY CREATING RECORDS RETENTION POLICIES AND USAGE AGREEMENTS, AND CORRECTING INACCURACIES IN THE CAD SIR

Seattle Municipal Code (SMC) 14.18.060 (Ordinance 125376) directs the City Auditor to conduct annual reviews of the City of Seattle's (City) use of surveillance technology and the extent to which departments comply with the requirements of SMC Chapter 14.18 and with the terms of the approved Surveillance Impact Report (SIR) for a technology. This ordinance resulted from concerns about privacy, the lack of a process for the City's acquisition of surveillance technologies, and the risks that such technologies could pose to civil liberties related to privacy, freedom of speech or association, or have a disparate impact on specific demographic groups through over-surveillance.




While this audit focused on the Seattle Fire Department's (SFD) compliance with SMC provisions 14.18.040 through 14.18.070, this Executive Summary, highlights our major findings and recommendations pertaining to the six elements of SMC 14.18.060, which the City Auditor is required to review. Of most concern is that SFD has retained all Computer-Aided Dispatch (CAD) data since the system's 2003 implementation, which is inconsistent with State and local records retention laws and policies.¹ SFD's operating policies need to be updated to define allowed and unapproved uses of SFD CAD data and SFD needs to create usage agreements with entities it shares information with. SFD can also do more to assure the public that the sensitive data it obtains about individuals through CAD is not being used to surveil them. One way to assure the public is to address all the public comments and concerns for CAD received during the SIR public review process and to correct erroneous or incomplete information in the SIR. Finally, SFD did not include the full costs of CAD as SMC 14.18 requires. Exhibit 1 below lists our significant audit results associated with SMC 14.18.060. Below Exhibit 1, we summarize additional issues we identified that are part of other SMC chapters of 14.18 but do not fall within the six review areas of SMC 14.18.060.

¹ Ordinance 124217, which created the Office of the City Clerk's City Records Management Program, states that all records created in City government are public records and notes the necessity to provide a comprehensive system of integrated procedures for the management of records, for efficient, economical, and effective controls over the creation, distribution, organization, maintenance, use, and disposition of all City of Seattle public records in accordance with State laws and regulations.

Exhibit 1: SFD’s CAD SIR Should be Revised to Comply with SMC 14.18.060 and Related Requirements

14.18.060 Provision	Compliance Determination	Auditor’s Assessment	Recommendations
<p>A. How surveillance technology has been used, usage frequency, and whether usage patterns have changed.</p>	<p>Yes, however, needs work.</p> 	<p>SFD is using SFD CAD surveillance technology data consistent with the approved SIR. SFD CAD is operational 24 hours/7 days a week. SFD stated it has not identified changes in usage patterns, has no plans to change its usage, nor does it have plans to upgrade or replace CAD. SFD’s operating procedures do not include SFD CAD’s list of SIR approved uses.</p>	<p>SFD should update its operating procedures to include the list of SFD CAD approved uses and inappropriate uses. (Recommendation 1).</p>
<p>B. How often surveillance technology or its data is shared with other entities, including government agencies.</p>	<p>No. Records retention policies and data sharing agreements need immediate attention and implementation.</p> 	<p>SFD has retained all CAD data since the technology’s 2003 acquisition and data agreements are not in place with any of the entities that SFD shares information with; therefore, these entities may also be retaining CAD data indefinitely. The agreements (contracts) that do exist with outside entities do not include provisions for the handling, storage, or retention of the data.</p>	<ul style="list-style-type: none"> • SFD should create data sharing agreements with the entities it shares data with (Recommendations 2 and 6), • SFD’s policies should document the need for such agreements (Recommendation 3 and 7), • SFD should update the CAD SIR to state it shares CAD data with the National Fire Incident Reporting System (NFIRS) (Recommendation 4), and • SFD and the Office of the City Clerk’s Records Management Program should prioritize creating and implementing SFD CAD data records retention schedules (Recommendation 5).
<p>C. How well data management protocols are safeguarding individual (personal) information.</p>	<p>Yes, however, needs work.</p> 	<p>There are no SFD data management policies regarding CAD and limited information in the SIR about how CAD data is protected via regular access controls such as password protection and multi-factor authentication. SFD’s CAD SIR should correctly state the position in SFD responsible for safeguarding individual information.</p>	<p>SFD should develop and document the data management policies and processes it uses to safeguard individual information and should update the SIR to reflect that SFD’s Public Disclosure Officer (not the Quality Assurance position) safeguards individual information in public disclosure matters (Recommendations 9, 10, 11).</p>

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14.18.060 Provision	Compliance Determination	Auditor’s Assessment	Recommendations
D. How deployment of surveillance technologies impacted or could impact civil liberties or have disproportionate effects on disadvantaged populations, and how those impacts are being mitigated.	<p>Yes, however, needs work.</p> 	The SIR does not answer some questions related to this provision and it could provide clearer information about how SFD mitigates the potential disparate impacts the surveillance technology can have on the civil rights and liberties of communities of color and other marginalized communities. SFD has not yet begun the analysis to identify CAD equity metrics the City Council requested in an amendment to Ordinance 126295.	SFD should clarify and provide stronger assurances in the SIR about how SFD works to mitigate the potential disparate impacts of SFD CAD on the civil rights and liberties of communities of color and other marginalized communities and should develop a mitigation plan (Recommendation 12). SFD should analyze the equity metrics identified in their response to the City Council amendment to Ordinance 126295 and report the results of the analysis to the Council by December 31, 2022 (Recommendation 13).
E. A summary of any complaints or concerns about the surveillance technology and results of internal audits or assessments of code compliance.	<p>Yes, however, needs work.</p> 	During this audit, SFD addressed 18 of 22 concerns or issues we identified in the SIR that were raised during the public engagement process for CAD.	SFD should address the remaining four unaddressed issues in the SIR that the public raised during the public engagement process and address other recommendations we make stemming from public comments (Recommendation 14 and 15).
F. Total annual costs for use of surveillance technology, including personnel and other ongoing costs.	<p>Yes, however, needs work.</p> 	The annual maintenance cost of CAD in the SIR is outdated and does not include staffing costs. SFD reported that they would have to do a significant amount of work to determine the staffing costs of SFD CAD.	SFD should update the SFD CAD SIR to reflect the 2021 annual maintenance and licensing costs of \$201,675 and provide an estimate of the total costs associated with SFD CAD as requested in SMC 14.18.040B6 (Recommendation 16).

Other Issues

During the audit we identified a policy question and had findings and recommendations pertaining to section 14.18.040.

Is SFD CAD Surveillance Technology?

1. SFD and Seattle Information Technology Department (SITD) officials have questioned whether most of CAD and its data should be considered surveillance technology. SMC 14.18.030 exempts information from surveillance technology ordinance (SMC 14.18) requirements when the information acquired is from individuals who knowingly and voluntarily consented to provide the information, such as when they submit personal information for receiving City services.

Some of the information collected through SFD's CAD is obtained through individuals voluntarily submitting personal information in order to receive fire and medical services. This information includes their name, phone number, address from which they are calling, and their medical condition(s). While information that an individual voluntarily provides about themselves would meet this exemption, personal information that SFD dispatchers gather from the caller about someone else would not be exempted because the individual did not provide the personal information about themselves. Making distinctions about who provided personal information to determine if the data should be exempted may be time consuming and not feasible. Additionally, premise notes² and dispatcher comments that SFD officials add to the CAD system without the consent or knowledge of an individual should not be exempted from the requirements of SMC 14.18.

Rather than deciding in this report about what CAD data should be considered surveillance data, which would be beyond the scope of this audit, we recommend SFD and SITD, in consultation with the City Attorney's Office, consider if any CAD data should be exempted from the requirements of SMC 14.18.

Recommendation 17: The Seattle Fire Department (SFD) and the Seattle Information Technology Department, in consultation with the City Attorney's Office should decide if any Computer-Aided Dispatch (CAD) data should be exempted from Seattle Municipal Code 14.18 requirements. If they determine that certain CAD data should be exempted, SFD should update the CAD Surveillance Impact Report accordingly.

Corrections to the SFD CAD SIR

2. SMC 14.18.040.B2 requires a demonstration in the SIR of the intended benefits of the surveillance technology. The hyperlinks provided in the CAD SIR to demonstrate the intended benefits of SFD CAD were broken. The SIR should be accurate. An inaccurate SIR can diminish the public's confidence in the document and the technology's credibility. At our request, SFD provided our office with new hyperlinks to demonstrate the intended benefits.

Recommendation 18: The Seattle Fire Department should update the Computer-Aided Dispatch Surveillance Impact Report (SIR) with the corrected hyperlinks that it provided the City Auditor related to Seattle Municipal Code 14.18.040.B2 and in other areas of the SIR where there are minor or inconsequential errors.

3. In addressing SMC 14.18.040.B3b, the SFD CAD SIR refers to an incorrect Revised Code of Washington (RCW).

Recommendation 19: The Seattle Fire Department should replace the reference to RCW 35A.92.010 in the Computer-Aided Dispatch Surveillance Impact Report with the correct legal citation, RCW 35.103.

² Premise notes are information that Fire Department officials enter into CAD to provide first responders details of the environment and potential hazards they will encounter at the scene.

INTRODUCTION

Audit Overview

Ordinance 125376 required this surveillance usage review and what the review should cover.

The Seattle City Council approved Ordinance 126295 on March 22, 2021, which authorized the use of the Seattle Fire Department's (SFD) Computer-Aided Dispatch (CAD) technology. The ordinance adopted Attachment 1 Computer-Aided Dispatch (CAD) Surveillance Impact Report (SIR v2) that specifies the procedures and protocols for this approved technology.³

This audit of the Seattle Fire Department's (SFD) use of the CAD technology is required by Seattle Municipal Code (SMC) 14.18.060 (Ordinance 125376 "Acquisition and Use of Surveillance Technologies"). SMC 14.18.060 requires the City Auditor to annually review the surveillance technologies used by all City of Seattle (City) departments, except for those used by the Seattle Police Department. This review covered the extent to which SFD is following the requirements of SMC 14.18 and the terms of approved Surveillance Impact Reports (SIRs) for its CAD system.

SMC 14.18.060 states that the review should include, but not be limited to:

- A. How the surveillance technology has been used, how frequently, and whether usage patterns are changing over time.
- B. How often the surveillance technology or its data are being shared with other entities, including other governments in particular.
- C. How well data management protocols are safeguarding individual information.
- D. How deployment of surveillance technologies impacted or could impact civil liberties or have disproportionate effects on disadvantaged populations, and how those impacts are being mitigated.
- E. A summary of any complaints or concerns received by or known by departments about their surveillance technology and the results of any internal audits or other assessments of code compliance.
- F. Total annual costs for use of the surveillance technology, including personnel and other ongoing costs.

³ Ordinance 125376, SMC 14.18.020F City Council approval for acquisition of surveillance technologies: Following Council approval of the acquisition and the terms of the SIR, the department may acquire and use the approved surveillance technology only in accordance with the procedures and protocols set forth in the SIR.

Our assessment of SFD's CAD technology per SMC 14.18.060 is found in the Executive Summary of this report. One section of SMC 14.18 (14.18.040) where we have findings and recommendations that do not fall within the six elements of SMC 14.18.060 are found in the "Other Issues" section of the Executive Summary (page III) and on page 19 of this report.

In its response to our report, the Seattle Fire Department stated that they concur with our 19 recommendations and have started to implement them. They said they would try to resolve each recommendation by the end of 2022.

We thank and appreciate the cooperation we received from individuals with the Seattle Fire Department, especially Evan Ward, Public Disclosure Officer, and Seattle Information Technology Department staff.

Legislative Background

SFD's Computer-Aided Dispatch (CAD) technology is legacy technology that predates Seattle's "Surveillance Ordinance" (Ordinance 125376) that the Seattle City Council approved in July 2017. The Surveillance Ordinance is intended to provide greater transparency to the City Council and the public when a City department acquires or uses surveillance technology that raises concerns about privacy or other civil liberties and involves new or legacy technologies that require City Council review and approval for their use. The City Council approved the use of the Seattle Fire Department's Computer-Aided Dispatch system as a surveillance technology via Ordinance 126295 in March 2021.

Audit Criteria

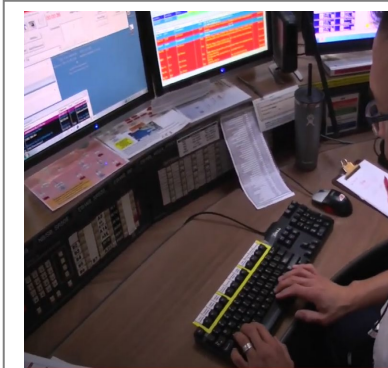
We used Seattle Municipal Code (SMC) 14.18 (Ordinance 125376) and the Seattle Fire Department Computer-Aided Dispatch (CAD) 2019 Surveillance Impact Report (SIR) v2 as the criteria to assess the evidence we gathered about whether the technology is being used in accordance with legislative requirements.

A. SURVEILLANCE TECHNOLOGY USE AND TRENDS

Section Summary

To understand how the Seattle Fire Department (SFD) Computer-Aided Dispatch (CAD) technology is being used, how frequently, and whether usage patterns have changed over time, we interviewed knowledgeable SFD officials who manage and operate SFD CAD technology and visited the CAD system located at the Fire Alarm Center. We found that SFD’s CAD is operational 24 hours a day (365 days a year), seven days a week. According to SFD officials, CAD is essentially used in the same manner it has been used since its implementation in 2003. CAD is used frequently by all Seattle Fire Department employees, including uniformed and civilian personnel. SFD CAD allows SFD to respond to emergencies, adequately staff units, and keep track of Department resources.

What is SFD Computer-Aided Dispatch technology?



Source: Seattle Fire Department

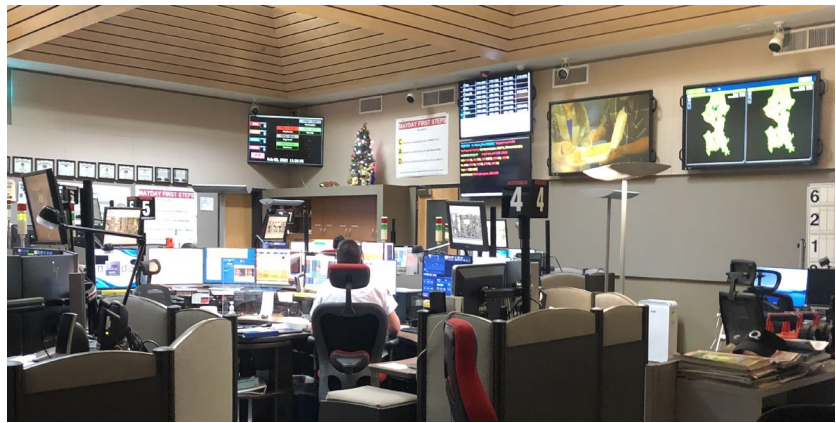
Computer-Aided Dispatch (CAD) is a suite of software packages that provide unit (e.g., fire engines) dispatch recommendations for 911 emergency calls based on the reported problem and location of a caller. SFD uses CAD to manage dispatches for thousands of responses each year. CAD also maintains the status of responding units in the field. SFD officers use CAD mobile data terminals (MDTs)

in the field. Usually, public participation in CAD is opt-in when individuals make a call for service. However, individuals may call and provide personal information about someone else and without that person’s knowledge or approval and dispatchers may enter personally identifying information (PII) into CAD about the public without providing notice to those individuals.

When was the SFD Computer-Aided Dispatch technology acquired?

SFD CAD was acquired in 2003, well before the Surveillance Technology Ordinance was passed in 2017.

How does the SFD Computer-Aided Dispatch technology work?



SFD Fire Alarm Center

Source: Office of City Auditor, 2/9/2022

SFD CAD receives information from callers that it provides to dispatchers to help the dispatchers properly respond to emergency situations. This information can include the caller's name, phone number, address from which they are calling, medical conditions, and other personally identifiable information. While callers volunteer most of this information for an ongoing incident, some of the information may be stored in CAD for future reference in emergency situations or for quality assurance purposes.

All SFD employees have access to view CAD data. According to SFD and Seattle Information Technology Department (SITD) officials, additional access is restricted through controls such as a firewall. Only specially trained members of SFD's Fire Alarm Center (FAC) can input information into CAD. The training process required for FAC employees includes months of hands-on training on location at the Fire Alarm Center.

CAD is a distributed computer server environment using multiple workstations to centrally manage 911 emergency calls. The CAD software is made by Tritech Software Systems. According to Tritech:

"CAD dispatch software helps communications center personnel manage a large amount of information—unit locations, unit statuses, pending and active calls, and other critical data—while serving as a voice of reassurance to callers and providing vital information that links firefighters and paramedics."

SFD has integrated CAD into many facets of its operations, from dispatching and resource delivery to staffing and reporting to federal authorities on departmental performance.

Technology Data Flow

See Appendix D for a visualization of the SFD CAD technology data flow.

Acceptable Uses of SFD CAD Technology and Data

According to the SFD CAD SIR (4.9, page 15), acceptable and approved uses for SFD CAD technology and data include:

- Emergency services and dispatch communication for first responders,
- Public records requests (some exemptions may apply),
- Discovery for litigation purposes,
- Sharing of information with law enforcement for investigations under the Uniform Healthcare Information Act,
- Quality assurance, and
- Client services for SFD IT technologies and applications, including the CAD system.

According to an SFD official, an unacceptable use of CAD or its data includes sharing or reviewing personal identifiable information from CAD for non-approved and/or nonwork-related purposes.

Finding: SFD’s Fire Alarm Center operational policies lack information about the appropriate uses for SFD CAD technology.

SFD’s Fire Alarm Center Policies and Operational Guidelines (POG) (adopted with the SFD CAD SIR) do not explain the purpose of CAD and its approved and unapproved uses. Having explicit language in the policy document about the approved and unapproved uses would be an initial step towards establishing an accountability system for SFD CAD usage within SFD. Updating the POG with CAD usage information should be followed by a communication plan to inform SFD’s employees and the entities SFD shares CAD data with about its usage policies.

Recommendation 1

The Seattle Fire Department’s (SFD) Fire Alarm Center operating procedures should be updated to include the list of Computer-Aided Dispatch system (CAD) approved and inappropriate uses listed in the CAD Surveillance Impact Report and SFD should develop a plan for communicating this information to its employees and the entities it shares CAD data with.

B. TECHNOLOGY AND DATA SHARING

Section Summary

Seattle Municipal Code (SMC) sections 14.18.060B, 14.18.040.B3a, d, and f, and 14.18.040D all concern data sharing and records retention requirements. These provisions require that if surveillance technology will be operated or used by another entity on the City's behalf, the SIR must explicitly describe the other entity's access to the technology or its data and any applicable protocols. In addition, the SMC sections require records retention procedures and policies that comply with the requirements of SMC 3.122.040 regarding records retention. In our review of the Seattle Fire Department's (SFD) compliance with these provisions, we found:

- SFD shares CAD data with a federal government agency not listed in the CAD SIR,
- SFD has kept all CAD data since the inception of CAD's use in 2003 and has not established or implemented data retention policies for CAD, and
- SFD has not implemented agreements with external entities that include access, data sharing, or data retention protocols.

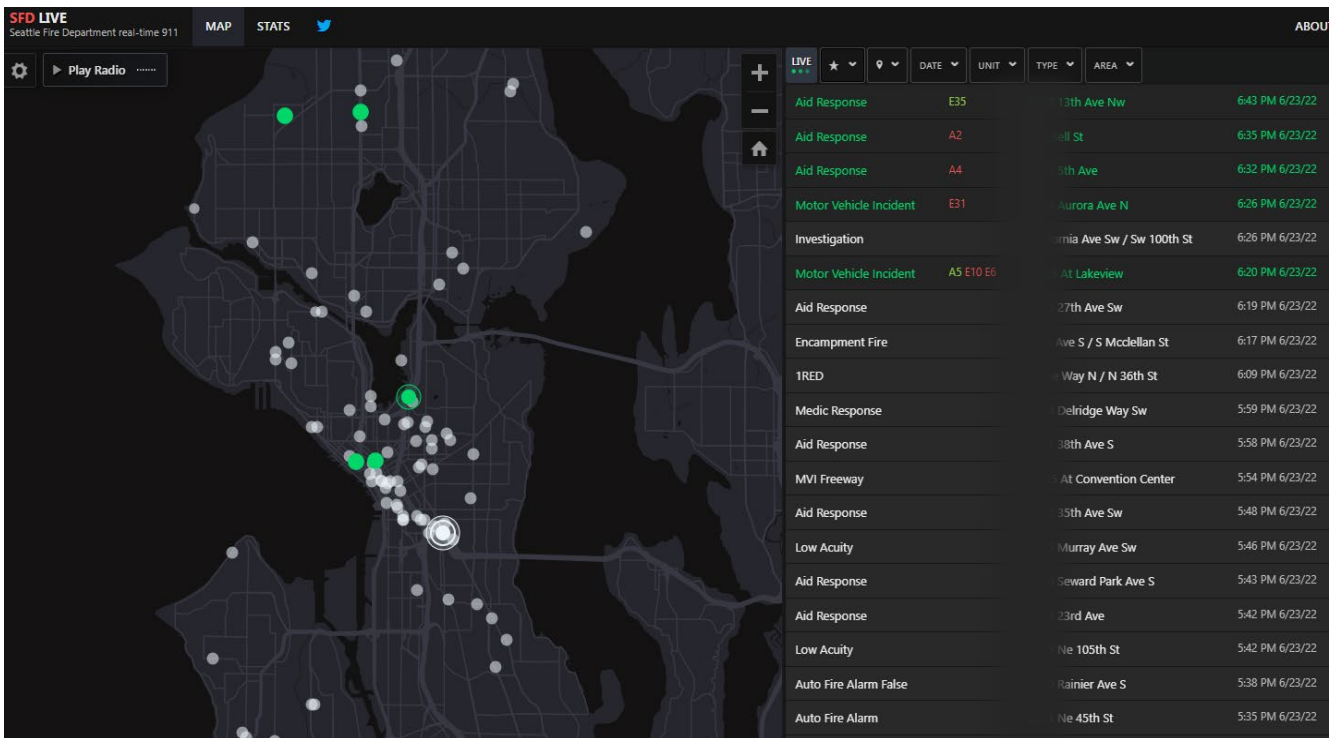
SMC 14.18.040.B3a – Data Sharing

To understand how SFD CAD technology and data are being shared with other entities, we interviewed SFD and Seattle Information Technology Department (SITD) officials who manage and operate SFD CAD technology and we reviewed the adopted SFD CAD SIR. In addition, we reviewed SFD CAD data reports, external reports containing CAD data, and contracts with entities SFD shares CAD data with. Based on this review, we found SFD CAD, and its data are shared and accessible as follows:

- All SFD employees: Levels of access depends on the employee's need to access the system.
- Public: Online public access to 911 dispatch information is available through [Realtime 911 \(https://sfdlive.com/\)](https://sfdlive.com/). See Exhibit 2 below.
- American Medical Response (AMR): SFD provides real-time access to AMR, which is a medical transportation company the City contracts with to provide some ambulance services, to coordinate basic life and emergency medical support calls.
- PulsePoint: A phone application used to coordinate CPR volunteers and the location of automated external defibrillators (AEDs) with emergency cardiac victims.

- King County Emergency Medical Services: King County gets a nightly extract of CAD data via an electronic health records data.
- University of Washington Medicine, Harborview Medical Center. UW Medicine is on contract with the City to oversee the SFD Medical Quality Program by providing advice, program planning assistance and program evaluation assistance. As contract employees, UW Medicine has full access to CAD data.
- SITD Client Services: SITD has data access to CAD so it can provide technology client services.
- Law Enforcement: SFD shares CAD information with law enforcement agencies under the Uniform Healthcare Information Act, such as the Seattle Police Department.
- National Fire Incident Reporting System (NFIRS): This federal agency is not listed in the SFD CAD SIR, but it is an agency SFD shares CAD data with.

Exhibit 2: Real-Time 911 is Available to the Public Online 24 Hours/7 Days A Week



Source: <https://sfdlive.com/>

Finding: SFD has no written protocols or data sharing agreements with entities it shares CAD data with.

SMC 14.18.040.B3a states that if the surveillance technology will be operated or used by another entity on the City's behalf, the SIR for that technology must explicitly describe the other entity's access and any applicable protocols.

Further, SMC 14.18.040.D states that, "When providing access to the City's surveillance technology by contract with a non-City entity, the City shall require that such entity be bound by any restrictions specified in the SIR under subsection SMC 14.18.040.B3f⁴ with regards to such surveillance technology. The City department providing such access shall also have written procedures in place for determining how the department will ensure the non-City entity complies with any restrictions identified in the SIR."

In addition, SMC 14.18.060.B specifies that a SIR should state how often surveillance technology, or its data are being shared with other entities, including other government agencies.

In SIRs, departments are supposed to describe surveillance technology policies and the legal standards and conditions that must be met when using the technology. The SFD policies referenced in the CAD SIR are not adequate protocols to guide the usage of SFD CAD and provide no legal standards or conditions for its usage. The SFD policies in the SIR are the Fire Alarm Center Policy and Operating Guidelines that only provide instructions on how to use CAD. Further, we did not find written procedures, protocols, or data sharing agreements that cover data restrictions and retention in the UW Medicine or American Medical Response contracts we reviewed.

We also found that there are no data sharing protocols for any of the entities SFD shares CAD data with.

Recommendation 2

As the Seattle Fire Department renews or creates new contracts or agreements with entities with which it shares Computer-Aided Dispatch (CAD) system data, these documents should include protocols that cover CAD data access, sharing, and retention.

Recommendation 3

The Seattle Fire Department (SFD) should include information about the need for data sharing agreements in SFD's Fire Alarm

⁴ SMC 14.18.040.B3f: Whether a department intends to share access to the surveillance technology or the surveillance data from that surveillance technology with any other entity, including any other City department or non-City entity, and if so, with which entity and how such sharing is necessary for the purpose or purposes for which Council approval is requested; and what restrictions, if any, the department will place upon the receiving non-City entity's use of such surveillance technologies. If applicable, the SIR shall include a copy of the department's procedures for ensuring the entity's compliance with this provision.

Center Policies and Operating Guidelines to ensure their placement in future SFD agreements with other entities.

Recommendation 4

The Seattle Fire Department (SFD) should modify the Computer-Aided Dispatch (CAD) Surveillance Impact Report to state that SFD shares CAD data with the federal National Fire Incident Reporting System (NFIRS) and should indicate the frequency with which SFD has shared data with NFIRS.

SMC 14.18.040.B3d – Data Retention

SMC 14.18.040.B3d states that surveillance technology records retention procedures and policies must be developed in compliance with the requirements of SMC Section 3.122.040.

SFD has retained all SFD CAD data since 2003, when the technology was acquired. SFD has acknowledged that City and State records retention schedules need to be created and implemented for CAD data and it is working with the Office of the City Clerk's City Records Management Program to prioritize bringing CAD data into compliance with applicable laws.

Finding: SFD has retained all CAD data since the technology's acquisition.

We found that SFD has not established or implemented data retention policies for CAD data and data retention is not addressed in the contracts or agreements that SFD has with entities it shares data with.

Recommendation 5

The Seattle Fire Department (SFD) and the Office of the City Clerk's City Records Management Program should prioritize creating and implementing Computer-Aided Dispatch (CAD) data records retention schedules in compliance with the Revised Code of Washington (RCW) and the Seattle Municipal Code by fourth quarter 2022. SFD and Records Management Program staff should request any needed additional resources to ensure the schedules are completed by the end of 2022 and are incorporated into SFD Fire Alarm Center Policies and Operating Guidelines and any agreements with entities SFD shares CAD data with.

SMC 14.18.040.B3f Data Sharing with City Departments

SMC 14.18.040.B3f indicates that when a City department shares access to a surveillance technology or its data with any other entity, including any other City department or non-City entity, the SIR should indicate what restrictions the department will place upon the receiving non-City entity's use of such surveillance technology or its data. If applicable, the SIR shall include a copy of the department's procedures for ensuring the other entity's compliance with this provision.

Finding: SFD has not obtained written assurances from City departments it shares data with about SFD data restrictions and does not train all its employees about the handling of sensitive data in CAD.

SFD does not obtain written assurance from City departments that those departments understand the restrictions in SMC 14.18 pertaining to CAD.

SFD does not have documented procedures for restricting the sharing of sensitive information to comply with this provision. Upon request, anyone can ask for premise notes (i.e., notes saved in CAD that provide first responders with information about a scene that may have surveillance implications) and SFD would have to provide the information. However, SFD has indicated that it redacts sensitive information in its responses to public information requests. The information that SFD redacts and the process it undertakes for redacting sensitive information are not outlined in SFD's Fire Alarm Center POGs. Also, there is no language in SFD's CAD agreements with other entities, including City departments, about how to redact sensitive information when public information requests for CAD data are made to those entities.

Further, SFD does not provide training about handling CAD sensitive data to SFD employees who do not use CAD as part of their jobs. These employees only receive the privacy training given to all City employees. It is not clear whether these employees need access to sensitive aspects of CAD such as premise notes and dispatcher comments. Since there is nothing to prevent an employee from accessing the notes and, for example, taking a screen shot and using the information, limiting their access to the data is a reasonable restriction to employees who don't need it and are untrained in handling sensitive CAD data.

Recommendation 6

The Seattle Fire Department (SFD) should develop and execute agreements with City departments that use SFD Computer-Aided Dispatch data that specify what are the approved uses of the data.

Recommendation 7

The Seattle Fire Department (SFD) should document the processes it uses to restrict the dissemination of sensitive surveillance technology data, and to redact sensitive information to ensure consistency with applicable State and City laws. Further, the documentation should indicate that agreements with other entities should include SFD's procedures for redacting sensitive information.

Recommendation 8

The Seattle Fire Department (SFD) should limit access to Computer-Aided Dispatch system premise notes and dispatcher comments to SFD employees who need access to them to perform their jobs.

C. PROTOCOLS FOR DATA MANAGEMENT

Section Summary

Accurately documenting in the Surveillance Impact Report (SIR) how the Seattle Fire Department (SFD) safeguards personal information is key to addressing concerns about the privacy and civil liberty impacts of surveillance technology. To understand how well SFD's Computer-Aided Dispatch (CAD) data management protocols are safeguarding individual information, we interviewed SFD and Seattle Information Technology Department (SITD) officials who manage SFD CAD technology and data, reviewed the SFD CAD SIR, requested and obtained information from SFD, and visited SFD's Fire Alarm Center. The City's SIR form assumes departments have data management protocols for its surveillance technologies and the department is supposed to provide information about how well data management protocols are safeguarding individual (personal) information contained in or generated by SFD CAD. While SFD and SITD are taking actions to safeguard SFD CAD data, we found SFD needs to create data management policies to reflect the work it does to safeguard individual information and include this information in the CAD SIR.

Findings: There are no data management policies and protocols about safeguarding individual (personal) information for CAD and SFD's CAD SIR needs to be revised to more accurately describe how SFD safeguards individual information.

SMC 14.18.060.C presumes that departments have data management protocols and asks our office to assess how well data management protocols are safeguarding individual (personal) information contained in or generated by a surveillance technology. While SFD and SITD are taking actions to safeguard SFD CAD data, with access controls such as password protection and multi-factor authentication, we found that:

- There are no data management policies documented for CAD about safeguarding individual (personal) information.
- SFD's CAD SIR incorrectly states that SFD's Quality Assurance Specialists audit CAD data obtained via dispatch calls to prevent the unauthorized release of information about an individual. Instead, an SFD employee trained in records disclosure determines whether records generated by CAD should be released in response to a public disclosure request.
- SFD's CAD SIR does not mention that CAD data is currently protected by information technology access controls such as password protection and multi-factor authentication.

Recommendation 9

The Seattle Information Technology Department and the Seattle Fire Department (SFD) should work to address data management

policy and protocol about safeguarding individual (personal) information contained in the Computer-Aided Dispatch system.

Recommendation 10

The Seattle Fire Department (SFD) Computer-Aided Dispatch (CAD) Surveillance Impact Report should be updated to state that the SFD Public Disclosure Officer safeguards individual (personal) information generated by CAD when the public makes CAD records requests.

Recommendation 11

The Seattle Fire Department (SFD) should update its Computer-Aided Dispatch Surveillance Impact Report to include the process SFD uses to safeguard individual (personal) information, including information about access controls and other measures it takes to safeguard individual information.

D. CIVIL LIBERTIES IMPACT

Section Summary

Seattle Municipal Code (SMC) 14.18.060.D and 14.18.040.B5 require City departments to provide descriptions in the Surveillance Impact Report (SIR) of how the impact or potential impacts of the surveillance technology on civil rights and liberties on communities of color and other marginalized communities have been considered, and a mitigation plan for the impacts. While the Seattle Fire Department (SFD) provided some information in the Computer-Aided Dispatch (CAD) SIR about the potential impacts on civil liberties through implementing this technology, it could include additional information about how it is mitigating those risks. Specifically, SFD could create a mitigation plan that helps to ensure that personally identifiable information is not being compromised.

What are civil liberties concerns about SFD CAD Technology and Data?

According to the SFD CAD SIR, some personally identifiable information (PII) that SFD dispatchers gather in CAD during emergency calls and responses could be used to identify individuals, such as their name, home address or contact information. Victims of criminal activity may also be identified during incident responses, whose identities should be protected in accordance with RCW 42.56.240 and RCW 70.02.

Has SFD CAD technology affected civil liberties?

We found that SFD CAD technology had no impact on civil liberties based on the materials we reviewed.

Finding: The SIR could clarify information about SFD CAD's civil liberty impacts and how SFD mitigates them.

In its CAD SIR, SFD is supposed to describe any impacts of the technology on civil liberties and how the department is mitigating any such impacts. The CAD SIR could state more clearly that the sharing of PII of individuals from vulnerable populations could jeopardize their wellbeing and safety. It could also provide information about some of the mitigation efforts SFD has implemented to protect civil liberties. For example, according to SFD officials, when using CAD, SFD staff do not ask individuals certain personal information questions that could jeopardize their civil liberties such as asking for their place of birth, national origin, or about their immigration status, but the SIR does not state this if SFD requires identification (e.g., when responding to information requests that contain medical information involving the person making the request), it allows for many types of identification to be shown. This would be another way of mitigating civil liberty concerns that it could state in the SIR. As discussed in the section above on data protocols, after SFD implements record retention policies, it should update the SIR to state that SFD deletes unnecessary surveillance information and that the information it keeps is held consistent with

legal requirements. SFD could also be clearer in the SIR about the redaction efforts it undertakes when CAD is provided in response to a public disclosure request. This would help assure the public that SFD is taking steps to mitigate the potential civil liberty impacts of CAD.

Recommendation 12

The Seattle Fire Department (SFD) should update the Computer-Aided Dispatch (CAD) Surveillance Impact Report to clarify the civil liberty risks associated with CAD data and provide information about the steps SFD is currently taking to mitigate the potential disparate impacts of SFD CAD on the civil rights and liberties on communities of color and other marginalized communities.

SMC 14.18.050 Equity Impact Assessment

As required, in September 2021, the Chief Technology Officer (CTO) submitted the 2021 Surveillance Technology Community Equity Impact Assessment Report, which included SFD CAD, to the City Council. However, the City Council passed an amendment as part of CB 120003 (Ordinance 126295) requesting SFD to conduct an analysis to identify equity metrics for the SFD CAD technology. In response, SFD provided the following three metrics, but did not commit to a date when the analysis would be completed:

1. Prevalence of Premise Notes in CAD and if they are disproportionately associated with members of vulnerable populations.
2. Impact of Premise Notes on response time.
3. Impact of CAD data on response times based on geographic location, such as neighborhood, station area and zip code.

We found as of May 2022, SFD had not analyzed these equity metrics.

An SFD official stated that the department would work with its Race and Social Justice Initiative (RSJI) Change Team to analyze these issues. While SFD should solicit the input and assistance of the RSJI Change Team in this effort, the responsibility of this work lies with SFD management. Therefore, SFD should support the work of the RSJI Team with the resources needed to conduct this analysis.

Recommendation 13

The Seattle Fire Department (SFD) should analyze the equity metrics identified in their response to the City Council amendment that was part of Ordinance 126295 (Council Bill 120003) and report the results of the analysis to the City Council by December 31, 2022. Should SFD assign this work to the SFD Race and Social Justice Initiative Change Team, it should provide the change Team with the resources it needs to conduct this analysis.

E. COMPLAINTS, CONCERNS, AND OTHER ASSESSMENTS

Section Summary

We reviewed the Seattle Fire Department (SFD) Computer-Aided Dispatch (CAD) Surveillance Impact Report (SIR), the 2021 SFD complaints, and the City of Seattle Department of Facilities and Administrative Services Customer Service Bureau (CSB) complaint database for July 2020 through December 2021 to identify privacy or civil liberties issues, complaints, or concerns about SFD CAD. While we identified no issues or complaints from the SFD complaints or CSB database, we identified 22 surveillance technology issues listed in the CAD SIR that the public raised during the CAD SIR public engagement process. SFD and SITD addressed most of these issues either in the SIR or during this audit. However, we are recommending that they address the four remaining unaddressed issues. We also make a new recommendation about one issue.

Appendix C lists the 22 issues and concerns we identified from the SIR, SFD and SITD's responses, and the recommendations we make related to some of the issues and concerns. Below is a list of the issues that SFD did not address and the issues for which we make recommendations. We numbered the issues we identified for easy reference to Appendix C, which lists all the issues raised during the CAD SIR public engagement process.

Issue 3. Data Retention (SIR pages 37 and 116)

Issue: Why does CAD data need to be retained indefinitely? Does all the data need to be retained that long or does only certain "metadata" (such as CAD event ID, type of medical incident, etc.) have a "business need" to be kept that long? Should there be a lifetime imposed on this data?

SFD and/or SITD Response: When the CAD system was adopted in 2003, no retention policies were applied. This has remained the case to this day. SFD is working with the City's Records Management Program to update the records retention schedule and change the retention period for CAD data to align with state standards for records retention.

Issue 4. Contract with American Medical Response (AMR) Ambulance Services

Issue: The draft SIR doesn't include a contract between SFD and AMR. Is there a contract between SFD and AMR? If so, does that contract specify any data handling and/or data retention requirements that AMR needs to follow?

SFD and/or SITD Response: SFD provided the contract with AMR at <http://www.seattle.gov/purchasing-and-contracting/purchasing>. However, we reviewed the City's contract with AMR and did not find

language about data handling or retention, in part because SFD has not implemented data retention policies.

**Previous
Recommendation 5
(Regarding Issues 3
and 4)**

We address the concerns raised in Issues 3 and 4 with Recommendation 5.

Issue 7: Contract with FirstWatch

Issue: The diagram on page 183 of the SIR (see Appendix D) lists FirstWatch as one of the cloud vendors that receives data from the SFD CAD, but the draft SIR doesn't mention "FirstWatch". What type of data is being provided to FirstWatch? If the data provided to FirstWatch is beyond what is provided publicly (such as via "Realtime 911"), then is there a contract between SFD and FirstWatch? Does said contract also specifically define requirements for the handling/storage/security/privacy of non-public SFD CAD data?

SFD and/or SITD Response: SFD will need to follow up with SITD.

Recommendation 14

The Seattle Fire Department (SFD) and the Seattle Information Technology Department should provide responses to all unaddressed SFD Computer-Aided Dispatch (CAD) concerns raised during the public engagement process and include their responses in an updated SFD CAD Surveillance Impact Report.

Issue 8: Exempting Domestic Violence Victims PII Public Records Act (PRA) Disclosure

Issue: SFD doesn't have a built-in mechanism for knowing that a restraining order is active when processing a (Washington State) Public Records Act (PRA) request (and the PRA law doesn't explicitly contain such an exemption for SFD either - so the PRA law should be improved).

SFD and/or SITD Response: SFD agreed that the PRA would need to be updated to include guidance on how to identify someone with a restraining order making the PRA request to invoke an exemption to the PRA law. According to an SFD official, the department has begun discussing this issue with the City Attorney's Office.

Recommendation 15

The Seattle Fire Department should work with the City Attorney's Office to determine the feasibility of the City of Seattle Office of Intergovernmental Relations lobbying the State legislature to change the Public Records Act (PRA) to guide how to identify PRA requests that involve persons with restraining orders to exempt the records request because of the restraining order.

Issue 11: Use of Alert Seattle/Seattle 911

Issue: It is unclear if or how SFD uses/is integrated with "Alert Seattle"/"Seattle 911" for the receiving of personal details (potentially medical in nature) pre-provided by citizens to help first responders should they have a medical emergency.

SFD Response: SFD will need to follow-up with SITD.

Previous Recommendation 14 (Regarding Issue 11)

We address the concerns raised in Issue 11 with Recommendation 14.

Issue 16: Define NGDC

Issue: The diagram on page 183 of the draft SIR includes a legend that certain servers in the diagram would be "Located At NGDC", but "NGDC" is not defined in the SIR.

SFD and/or SITD Response: SFD will need to follow-up with SITD.

Previous Recommendation 14 (Regarding Issue 16)

We address the concerns raised in Issue 16 with Recommendation 14.

Issue 18: SFD Call Logging

Issue: The diagram on page 183 (Appendix D) shows two types of servers labeled with the NICE logo (one set is called "NRX Loggers 1 & 2" and the other is "SFDNICEINFORM2 (GUI Front End to Loggers)", which would be the same vendor software SPD uses for 911 call logging. It is unclear from the diagram alone which calls SFD is logging. If it includes calls with the public, then wouldn't that be in scope just like SPD's usage of the same software? (I didn't see SFD call logging listed in the planned technologies for Group 3 or 4 – my understanding is that the next two groups are SPD-only.)

SFD and/or SITD Response: SFD will need to follow-up with SITD.

Previous Recommendation 14 (Regarding Issue 18)

We address the concerns raised in Issue 18 with Recommendation 14.

F. TOTAL ANNUAL COSTS

Section Summary

The Seattle Fire Department's (SFD) 2021 annual maintenance and licensing costs for SFD Computer-Aided Dispatch (CAD) technology was \$201,675.78. This amount is higher than the cost stated in the SIR of \$151,380. SFD has not analyzed all the costs associated with the maintenance or data retention associated with CAD. According to SFD, this would require determining the percentage of several Seattle Information Technology Department (SITD) staff members' salaries and various overhead costs at the Fire Alarm Center (FAC), and currently it does not have the capacity to perform this analysis.

What are the costs for SFD CAD technology?

Seattle Municipal Code (SMC) 14.18.060F and 14.18.040B6 calls for the SIR to describe the fiscal impact of the surveillance technology, including initial acquisition costs; ongoing operating costs such as maintenance, licensing, personnel, legal compliance, use auditing, data retention, and security costs; any cost savings achieved using the technology; and any current or potential sources of funding, including any subsidies or free products being offered by vendors or governmental entities.

SFD provided us with the 2021 invoice from the SFD CAD vendor that showed the most recent annual maintenance and licensing costs were \$201,675.78. The source of funding for these costs is the City's General Fund. The invoice amount is higher than the amount stated in SFD's CAD SIR for CAD costs, which states \$151,380. SFD has not analyzed the costs associated with the maintenance or data retention associated with SFD CAD as required by SMC 14.18.060F. According to SFD officials, obtaining this cost information would require determining the percentage of several SITD staff members' salaries and various overhead costs at the FAC and SFD does not have the capacity to perform this analysis. To be compliant with the SMC provision, SFD should at minimum estimate the costs of CAD technology as requested in SMC 14.18.060F.

Recommendation 16

The Seattle Fire Department should update its Computer-Aided Dispatch (CAD) Surveillance Impact Report (SIR) to reflect the 2021 annual maintenance and licensing costs of \$201,675.78 (or the current costs if different from this amount) and should provide an estimate of the total costs associated with SFD CAD as requested in Seattle Municipal Code 14.18.040B6.

OTHER ISSUES

Section Summary

During this audit, we identified a policy question and had findings and recommendations pertaining to SMC section 14.18.040. Specifically, we identified items in the Computer-Aided Dispatch (CAD) Surveillance Impact Report (SIR) that are incorrect and should be replaced with accurate information.

Is SFD CAD surveillance technology?

Seattle Fire Department (SFD) and Seattle Information Technology Department (SITD) officials have questioned whether most of CAD and its data should be considered surveillance technology. According to Seattle Municipal Code (SMC) 14.18.030, the following do not constitute surveillance data or surveillance technology, and the requirements of this Chapter 14.18 do not apply:

“Information acquired where the individual knowingly and voluntarily consented to provide the information, such as submitting personal information for the receipt of City services.”

Some of the information collected through the SFD CAD System is obtained through individuals voluntarily submitting personal information in order to receive fire and medical services. This information includes their name, phone number, address from which they are calling, medical condition(s), and potentially other personally identifiable information. However, neighbors and relatives can make a call for assistance to the SFD for someone other than themselves and provide personal information about another person without that other person’s knowledge. While information that an individual voluntarily provides about themselves would fall under the SMC exemption, personal information gathered from someone else would not be exempted because the individual did not provide the personal information about themselves. Making distinctions about who provided personal information to determine if the data should be exempted may be time consuming and not feasible. Additionally, premise notes and dispatcher comments that Seattle Fire Department officials add to the CAD system without the consent or knowledge of the individual should not be exempted from SMC 14.18.

CAD also contains information about dispatches such as unit locations, their statuses, and pending and active calls that do not contain information about individuals. This information may not pose a surveillance risk. However, because information about dispatches can be linked to calls and callers, and an individual’s information can be obtained through public information requests stemming from a

dispatched call, it is unclear whether any CAD data should be exempt. However, rather than determining in this report about what CAD data should be considered surveillance technology data, which would be beyond the scope of this audit, we recommend SFD and SITD, in consultation with the City Attorney's Office, consider if any CAD data should be exempted from the requirements of SMC 14.18.

Recommendation 17:

The Seattle Fire Department (SFD) and the Seattle Information Technology Department, in consultation with the City Attorney's Office, should decide if any Computer-Aided Dispatch (CAD) data should be exempted from Seattle Municipal Code 14.18 requirements. If they determine that certain CAD data should be exempted, SFD should update the CAD Surveillance Impact Report accordingly.

**14.18.040.B2:
Surveillance Impact
Report Requirements –
Intended Benefits Link
is Broken**

SFD should update the SIR with correct information pertaining to SMC 14.18.040.B2. This provision of the Seattle Municipal Code requires a demonstration of the intended benefits of the surveillance technology. The hyperlinks provided in the SIR to demonstrate the intended benefits of SFD CAD were broken. The SIR should be accurate, and its hyperlinks should be functional. An inaccurate SIR or broken hyperlinks can diminish the public's confidence in the document and the technology's credibility. At our request, SFD provided our office with new hyperlinks to demonstrate the intended benefits.

Recommendation 18

The Seattle Fire Department should update the Computer-Aided Dispatch Surveillance Impact Report (SIR) with the corrected hyperlinks that it provided the City Auditor related to Seattle Municipal Code 14.18.040B2 and in other areas of the SIR where there are minor or inconsequential errors.

**Finding: The
information in the
Surveillance Impact
Report regarding SMC
14.18.040.B3b is
incorrect.**

SFD should update the CAD SIR with correct information pertaining to SMC 14.18.040.B3b. The SIR should be accurate. An inaccurate SIR can diminish the public's confidence in the document and the technology's credibility. There is an incorrect reference in the CAD SIR to the Revised Code of Washington (RCW). RCW 35A.92.010 should be removed from the SIR and replaced with RCW 35.103.

Recommendation 19

The Seattle Fire Department should replace the reference to RCW 35A.92.010 in the Computer-Aided Dispatch Surveillance Impact Report with the correct legal citation, RCW 35.103.

OBJECTIVES, SCOPE, AND METHODOLOGY

Objectives

[Ordinance 125376](#) (the “Surveillance Ordinance”), requires the City Auditor to annually review the City’s use of surveillance technologies by all City departments except the Seattle Police Department, and [Ordinance 126295](#) approved the use of SFD’s CAD technology.

Ordinance 125376 states that the review for non-Police surveillance technologies should include, but not be limited to:

- A. How surveillance technology has been used, how frequently, and whether usage patterns are changing over time;
- B. How often surveillance technology or its data are being shared with other entities, including other governments in particular;
- C. How well data management protocols are safeguarding individual information;
- D. How deployment of surveillance technologies impacted or could impact civil liberties or have disproportionate effects on disadvantaged populations, and how those impacts are being mitigated;
- E. A summary of any complaints or concerns received by or known by departments about their surveillance technology and results of any internal audits or other assessments of code compliance; and
- F. Total annual costs for use of surveillance technology, including personnel and other ongoing costs.

In addition, we reviewed the SFD CAD’s compliance with Seattle Municipal Code (SMC) provisions 14.18.040, 14.18.050, and 14.18.070.

Scope

By ordinance,⁵ the scope of the usage review is to cover the data and activities of the previous year from the date the review was filed. In SFD CAD’s case, this review is due to be filed in September 2022, therefore the data and activities cover 2021.

The scope of our audit was 2021. However, for SMC 14.18.060F, regarding complaints and concerns received by the department and others about SFD CAD technology, we examined the concerns and

⁵ Section 6 of Ordinance 125679 amended Section 5 of Ordinance 125376 (the Surveillance Ordinance) that requires “surveillance usage reviews (in years subsequent to 2018) shall be filed in September (of the following year) and cover the data and activities of the previous year”. [Note: auditor added text in parenthesis.]

comments in the SFD CAD SIR and data from the Department of Facilities and Administrative Services Customer Service Bureau for July 2020 through December 2021.

Methodology

To accomplish the audit's objectives, we:

- Reviewed State and local laws and regulations related to public information, retention, and public records,
- Reviewed the 2019 SFD CAD Surveillance Impact Report (SIR) v2, and amendments to Ordinance 126295;
- Received a tour of the Fire Alarm Center where SFD CAD is located and spoke with the SFD dispatchers who operate SFD CAD;
- Interviewed SFD officials who manage and operate SFD CAD technology;
- Interviewed Seattle Information Technology Department officials about the work they have done or are doing to assess and mitigate SFD CAD technology security risks;
- Obtained documents to verify compliance with Ordinance 126295 and the 2019 SFD CAD SIR;
- Obtained data from the Department of Facilities and Administrative Services Customer Service Division on constituent service requests, suggestions, complaints, and correspondence received by the City of Seattle and reviewed this information for complaints and concerns specific to SFD CAD technology, but found none; and
- Obtained and reviewed an invoice from SFD for 2021 maintenance cost for SFD CAD technology.

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 finding and conclusions based on our audit objectives.

APPENDIX A

Response from the Seattle Fire Department

Your
Seattle
Fire Department

MEMORANDUM



DATE: August 22, 2022

TO: City Auditor

FROM: Fire Chief Harold D. Scoggins *HDS*

SUBJECT: **CAD AUDIT – SFD RESPONSE**

Computer-Aided Dispatch (CAD) is essential to the mission of the Seattle Fire Department. Any alteration to the use of CAD could have profound for the residents, visitors, and employees in the City of Seattle. The privacy and surveillance concerns regarding CAD are also very serious and requires real efforts on behalf of the Department to mitigate the potential effects of improper disclosure could have on an individual or particular group. SFD welcomes the recommendations made by the City Auditor's Office regarding Its use of CAD. The response to all 19 recommendations can be found in the list below (Appendix B). As you will see, there are no significant disagreements with the substance of any of the auditor's recommendations, only with the potential feasibility of some based on the resources and time that would be required to implement a small number.

HDS:db

cc: Evan Ward, SFD Public Disclosure Officer

APPENDIX B

List of Recommendations and Department Responses

Recommendation 1: The Seattle Fire Department's (SFD) Fire Alarm Center operating procedures should be updated to include the list of Computer-Aided Dispatch system (CAD) approved and inappropriate uses listed in the CAD Surveillance Impact Report and SFD should develop a plan for communicating this information to its employees and the entities it shares CAD data with.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q2 2023

SFD Response: The Seattle Fire Department will review standard operating procedures, policies, and operating guidelines regarding the use of CAD data and adopt new policies should they be deemed necessary by subject matter experts in dispatching for emergencies.

Recommendation 2: As the Seattle Fire Department renews or creates new contracts or agreements with entities with which it shares Computer-Aided Dispatch (CAD) system data, these documents should include protocols that cover CAD data access, sharing, and retention.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q4 2022

SFD Response: The Seattle Fire Department is currently adding data-management, privacy, and disclosure clauses to new data-sharing agreements. As new contracts/agreements are created, these clauses will become the norm. However, creating new data-sharing agreements with all entities that use SFD CAD data would likely be unfeasible, as much of the data is available via public records.

Recommendation 3: The Seattle Fire Department (SFD) should include information about the need for data sharing agreements in SFD's Fire Alarm Center Policies and Operating Guidelines to ensure their placement in future SFD agreements with other entities.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q4 2022

SFD Response: The Seattle Fire Department will inform employees that the sharing of data with external agencies or vendors must be accompanied by a data sharing agreement or at least a clause regarding data management and retention in their contract/agreement. This is already standard practice for many employees who work with City contracts, but the Fire Alarm Center will also be informed of this necessity.

Recommendation 4: The Seattle Fire Department (SFD) should modify the Computer-Aided Dispatch (CAD) Surveillance Impact Report to state that SFD shares CAD data with the federal National Fire Incident Reporting System (NFIRS) and should indicate the frequency with which SFD has shared data with NFIRS.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q2 2023

SFD Response: The Seattle Fire Department will work with the Privacy team at Seattle Information Technology Department to make the recommended update to the SIR.

Recommendation 5: The Seattle Fire Department (SFD) and the Office of the City Clerk's City Records Management Program should prioritize creating and implementing Computer-Aided Dispatch (CAD) data records retention schedules in compliance with the Revised Code of Washington (RCW) and the Seattle Municipal Code by fourth quarter 2022. SFD and Records Management

Program staff should request any needed additional resources to ensure the schedules are completed by the end of 2022 and are incorporated into SFD Fire Alarm Center Policies and Operating Guidelines and any agreements with entities SFD shares CAD data with.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q2 2023

SFD Response: The Seattle Fire Department has been working with the City Records Management Program (CRMP) to update the retention schedule for all Department records, including CAD. Once the new retention schedule is officially adopted, SFD will instruct the Seattle Information Technology Department employee who manages CAD to change the retention setting to match the state retention standard. The vendor (TriTech/CentralSquare) has already been informed of the impending change.

Recommendation 6: The Seattle Fire Department (SFD) should develop and execute agreements with City departments that use SFD Computer-Aided Dispatch data that specify what are the approved uses of the data.

SFD Concurrence: Partial

Estimated Date of Completion (Qtr./Yr.): Q4 2022

SFD Response: Similar to recommendation 2, as new contracts/agreements are created with other departments or agencies, they will include data-retention and privacy components. Most SFD CAD data is publicly available though, either online (such as Real-Time 911) or via public records. As such the Department cannot control how other individuals or agencies use that data, nor would a data sharing agreement likely be legally enforceable by the Department in such a scenario.

Recommendation 7: The Seattle Fire Department (SFD) should document the processes it uses to restrict the dissemination of sensitive surveillance technology data, and to redact sensitive information to ensure consistency with applicable State and City laws. Further, the documentation should indicate that agreements with other entities should include SFD's procedures for redacting sensitive information.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q2 2023

SFD Response: The Seattle Fire Department will explore updates to Fire Alarm Center (FAC) policies and the Department-wide Policies and Operating Guidelines (POG) for establishing a procedure for redacting personal information. These updates will provide clear expectations and procedure for when the current incumbent of the position leaves employment with SFD.

Recommendation 8: The Seattle Fire Department (SFD) should limit access to Computer-Aided Dispatch system premise notes and dispatcher comments to SFD employees who need access to them to perform their jobs.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q4 2022

SFD Response: The Seattle Fire Department will partner with our Seattle Information Technology Department partners to determine if additional access controls can be applied to specific CAD datatypes.

Recommendation 9: The Seattle Information Technology Department and the Seattle Fire Department (SFD) should work to address data management policy and protocol about safeguarding individual (personal) information contained in the Computer-Aided Dispatch system.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q2 2023

SFD Response: SFD will work with our Seattle IT partners to suggest changes or updates to their data management policies as they impact CAD data.

Recommendation 10: The Seattle Fire Department (SFD) Computer-Aided Dispatch (CAD) Surveillance Impact Report should be updated to state that the SFD Public Disclosure Officer safeguards individual (personal) information generated by CAD when the public makes CAD records requests.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q2 2023

SFD Response: The Seattle Fire Department will work with the Privacy team at Seattle Information Technology Department to make the recommended updates to the SIR.

Recommendation 11: The Seattle Fire Department (SFD) should update its Computer-Aided Dispatch Surveillance Impact Report to include the process SFD uses to safeguard individual (personal) information, including information about access controls and other measures it takes to safeguard individual information.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q4 2022

SFD Response: The Seattle Fire Department will work with the Privacy team at Seattle Information Technology Department to make the recommended updates to the SIR.

Recommendation 12: The Seattle Fire Department (SFD) should update the Computer-Aided Dispatch (CAD) Surveillance Impact Report to clarify the civil liberty risks associated with CAD data and provide information about the steps SFD is currently taking to mitigate the potential disparate impacts of SFD CAD on the civil rights and liberties on communities of color and other marginalized communities.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q1 2023

SFD Response: The Seattle Fire Department first needs to identify if there are any potential disparate impacts on civil rights and liberties. The SFD Change Team has initiated work on a Racial Equity Toolkit (RET) regarding CAD data, with specific focus on Premise Notes and dispatcher comments.

Recommendation 13: The Seattle Fire Department (SFD) should analyze the equity metrics identified in their response to the City Council amendment that was part of Ordinance 126295 (Council Bill 120003) and report the results of the analysis to the City Council by December 31, 2022. Should SFD assign this work to the SFD Race and Social Justice Initiative Change Team, it should provide the Change Team with the resources it needs to conduct this analysis.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q1 2023

SFD Response: The Seattle Fire Department has initiated a Racial Equity Toolkit (RET) on this subject, with several members of the Department Change Team taking the lead on the analysis.

Recommendation 14: The Seattle Fire Department (SFD) and the Seattle Information Technology Department should provide responses to all unaddressed SFD Computer-Aided Dispatch (CAD) concerns raised during the public engagement process and include their responses in an updated SFD CAD Surveillance Impact Report.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q2 2023

SFD Response: The Seattle Fire Department will review the unaddressed concerns raised by the public and update the SIR if answers to those concerns can be identified.

Recommendation 15: The Seattle Fire Department should work with the City Attorney's Office to determine the feasibility of the City of Seattle Office of Intergovernmental Relations lobbying the State legislature to change the Public Records Act (PRA) to guide how to identify PRA requests that involve persons with restraining orders to exempt the records request because of the restraining order.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q4 2022

SFD Response: The Department is amenable to discussions regarding updates to the PRA where it may increase caller and patient privacy. The City-wide Public Records Act division of Seattle IT, City Attorney's Office, and Office of Intergovernmental Relations are important stakeholders at the City, and SFD will work with those agencies to seek improvements to the PRA.

Recommendation 16: The Seattle Fire Department should update its Computer-Aided Dispatch (CAD) Surveillance Impact Report (SIR) to reflect the 2021 annual maintenance and licensing costs of \$201,675.78 (or the current costs if different from this amount) and should provide an estimate of the total costs associated with SFD CAD as requested in Seattle Municipal Code 14.18.040.B6.

SFD Concurrence: Partial

Estimated Date of Completion (Qtr./Yr.): Q2 2023

SFD Response: The Seattle Fire Department can provide the annual operating costs associated with CAD, including the annual maintenance and licensing fees. However, determining every indirectly related cost, such as percentage of an IT worker's salary dedicated to CAD, would be extremely difficult, time-consuming, and such information would not be available to the Fire Department.

Recommendation 17: The Seattle Fire Department (SFD) and the Seattle Information Technology Department, in consultation with the City Attorney's Office, should decide if any Computer-Aided Dispatch (CAD) data should be exempted from Seattle Municipal Code 14.18 requirements. If they determine that certain CAD data should be exempted, SFD should update the CAD Surveillance Impact Report accordingly.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q2 2023

SFD Response: The Seattle Fire Department will work with the Privacy team at Seattle Information Technology Department to make the recommended updates to the SIR.

Recommendation 18: The Seattle Fire Department should update the Computer-Aided Dispatch Surveillance Impact Report (SIR) with the corrected hyperlinks that it provided the City Auditor related to Seattle Municipal Code 14.18.040B2 and in other areas of the SIR where there are minor or inconsequential errors.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q4 2022

SFD Response: The Seattle Fire Department will work with the Privacy team at Seattle Information Technology Department to make the recommended updates to the SIR.

Recommendation 19: The Seattle Fire Department should replace the reference to RCW 35A.92.010 in the Computer-Aided Dispatch Surveillance Impact Report with the correct legal citation, RCW 35.103.

SFD Concurrence: Yes

Estimated Date of Completion (Qtr./Yr.): Q4 2022

SFD Response: The Seattle Fire Department will work with the Privacy team at Seattle Information Technology Department to make the recommended updates to the SIR.

APPENDIX C

List of 22 Issues from the Seattle Fire Department Computer-Aided Dispatch Surveillance Impact Report Public Engagement Process

SIR Concern/Issue Location	Issue	SFD and/or CTO Response	OCA Comment
1. Pg. 39 and 112	Data Storage and Access: How is CAD data stored? Who may see it? Is it used for BOLOs (all-points bulletin/broadcasts from law enforcement)?	SFD CAD data is stored on two servers in a locked and secured room at the Fire Alarm Center (FAC). All employees are allowed to see CAD data. SFD CAD data is available continuously; it is not used for BOLOs.	None
2. Pg. 113	Giving Consent: People should give their consent before the City collects PII.	By calling 911 in anticipation of receiving emergency services, people are volunteering their information. SFD only collects information necessary to provide emergency services.	None
3. Pg. 116 Concern 1 in doc. and pg. 37.	Data Retention: Why does CAD data need to be retained indefinitely? Does all the data need to be retained that long or does only certain "metadata" (such as CAD event ID, type of medical incident, etc.) have a "business need" to be kept that long? Should there be a lifetime imposed on this data?	When the CAD system was adopted in 2003, no retention policies were applied. This has remained the case to this day. The Department is working with the City Records Management Program to update the retention schedule and change the retention period for CAD data to align with state standards.	SFD and the City Clerk's Records Management Program staff should prioritize the creation and implementation of retention schedules for CAD data and SFD should include these schedules in SFD's operating policies. (See OCA Recommendation 5).
4. Pg. 116 Concerns 2a &b in doc. and pg. 37	Contract with American Medical Response Ambulance Services (AMR): The draft SIR doesn't include a contract between SFD and AMR. Is there a contract between SFD and AMR? 2b) If so, does that contract specify any data handling and/or data retention requirements that AMR needs to follow?	Yes, please see the contract with AMR, available online here: http://www.seattle.gov/purchasing-and-contracting/purchasing .	OCA reviewed the City's contract with AMR and did not find language about data handling or retention, in part because SFD has not implemented data retention policies. (See OCA Recommendation 5).
5. Pg 116 Concerns 3. and pg. 37	Data Sharing with UW and others - Lack of Clarity: How does UW HMC access the SFD CAD data? Do they have direct access or are they periodically given a download of certain SFD CAD data by SFD manually (though likely digitally)? Does UW HMC have recurring access to the data (such as	The doctors at the University of Washington are considered Seattle Fire Department employees. As part of their duties, they are given access to CAD data to gather critical incident information, analyze potential patterns or notable incidents in the data, and to provide	None

Surveillance Technology Usage Review: Seattle Fire Department Computer-Aided Dispatch

SIR Concern/Issue Location	Issue	SFD and/or CTO Response	OCA Comment
	weekly/ monthly updates of the data from SFD); or was the data sharing one-time only? Is the data made available to UW HMC as part of the Public Records Act (PRA) process or is there another process being used? If it's not via PRA request, is there a contract between SFD and UW HMC? Is there any redaction happening to the data before it is provided to UW HMC (perhaps the same level of redaction as would occur for PRA disclosures)?	quality assurance for emergency medical services provided by Seattle firefighters and paramedics. The agreement between SFD and UW has been provided.	
6. Pg 116, Concern 4. and pg. 37.	Data Sharing with SPD: From the discussion at the SIR tech fair, I was under the impression that SPD's access to SFD CAD data was on an as-needed basis and reviewed by SFD before being supplied to SPD, but network lines in the diagram would imply to me that the SPD access is continuous/ constant. Is that correct? Does SPD have full access to the data in the SFD CAD? If not, what supposedly limits that scope?	The Seattle Police Department does not have full or continuous access to SFD CAD data.	None
7. Pg 116, Concern 5	Contract with FirstWatch: The diagram on page 183 lists FirstWatch as one of the cloud vendors that receives data from the SFD CAD, but the draft SIR doesn't mention "FirstWatch". What type of data is being provided to FirstWatch? If the data provided to FirstWatch is beyond what is provided publicly (such as via "Realtime 911"), then is there a contract between SFD and FirstWatch? Does said contract also specifically define requirements for the handling/storage/security/privacy of non-public SFD CAD data?	Will need to follow up with IT.	SFD/SITD should address all unaddressed concerns and include their response in an updated SFD CAD SIR (See OCA Recommendation 14).
8. Pg 116, Concern Med 1	Exempting Domestic Violence Victims PII Public Records Act (PRA) Disclosure: SFD doesn't have a built-in mechanism for knowing that a restraining order is in play when processing a PRA request (and the PRA law itself doesn't explicitly contain such an exemption for SFD either - so the PRA law should be improved).	SFD agreed that the PRA would need to be updated to include guidance on how to know if a caller has a restraining order against another individual.	SFD should work with the City Attorney's Office to determine the feasibility of the City lobbying for this change at the State level (Recommendation 15).
9. Pg 116-117, Concern Med 2	Managing Large Numbers of CAD Administrators: Page 16 item 7.3 says "Changes to program ownership and	Only a select few administrators can manipulate CAD data/information. All SFD staff have access to	

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SIR Concern/Issue Location	Issue	SFD and/or CTO Response	OCA Comment
	<p>participation can result in a large number of administrators within SFD who have access to the CAD system.” That statement points to SFD/IT likely having difficulty in managing Active Directory and Group Policy Objects, which has a direct impact on the security and privacy of the data in the SFD CAD. This would be considered a common skill for a Windows administrator to have mastered, so this type of problem should not be cropping up with SFD’s CAD access controls.</p>	<p>CADview/CADTools, but they have no administrative rights.</p>	
<p>10. Pg 117, Concern Med 3</p>	<p>What info does Media Log automatically redact? The TriTech CAD pdf linked off of page 5 item 2.2, lists the feature “Media Log allows automatic redaction of Sensitive information”. However, the SFD rep at the SIR tech fair didn’t know what exactly would be detected and redacted in the logs.</p>	<p>The Media Log is not used by SFD personnel and has never been disclosed to any external entity.</p>	<p>None</p>
<p>11. Pg 117, Concern Med 4</p>	<p>Use of Alert Seattle/Seattle 911: It is unclear if or how SFD uses/is integrated with “Alert Seattle”/“Seattle 911” for the receiving of personal details (potentially medical in nature) pre-provided by citizens in an effort to help first responders should they have a medical emergency.</p>	<p>Will need to follow up with IT.</p>	<p>SFD/SITD should address all unaddressed concerns and include their response in an updated SFD CAD SIR (See OCA Recommendation 14).</p>
<p>12. Pg 117, Concern Med 5</p>	<p>Pen Tests: Pen tests are used to detect security vulnerabilities in software (in a controlled manner). This agreement would appear to me (not a lawyer) to hinder SFD’s ability to find such security vulnerabilities (or even confirm that certain vulnerabilities were NOT present thus confirming more confidently that the system is secure). That being said, I don’t know if SFD/IT has the budget to normally be conducting pen tests, even for high risk/concern applications (such as those that handle medical info).</p>	<p>SITD officials stated that they take many proactive efforts to secure SFD CAD. If SITD found SFD CAD was not being used as intended or by an invalid user, they could “shut the door” on the user. SITD does not wait until a breach occurs, SITD is proactively preventing breaches.</p>	<p>None</p>
<p>13. Pg 117, Concern Med 6</p>	<p>Decision-assistance technology in TriTech CAD: It is unclear SFD has final control over the decision-assistance technology embedded in the TriTech CAD. Specifically, page 8 item 4.1</p>	<p>That is not SFD-defined. SFD does not use that plug-in.</p>	<p>None</p>

Surveillance Technology Usage Review: Seattle Fire Department Computer-Aided Dispatch

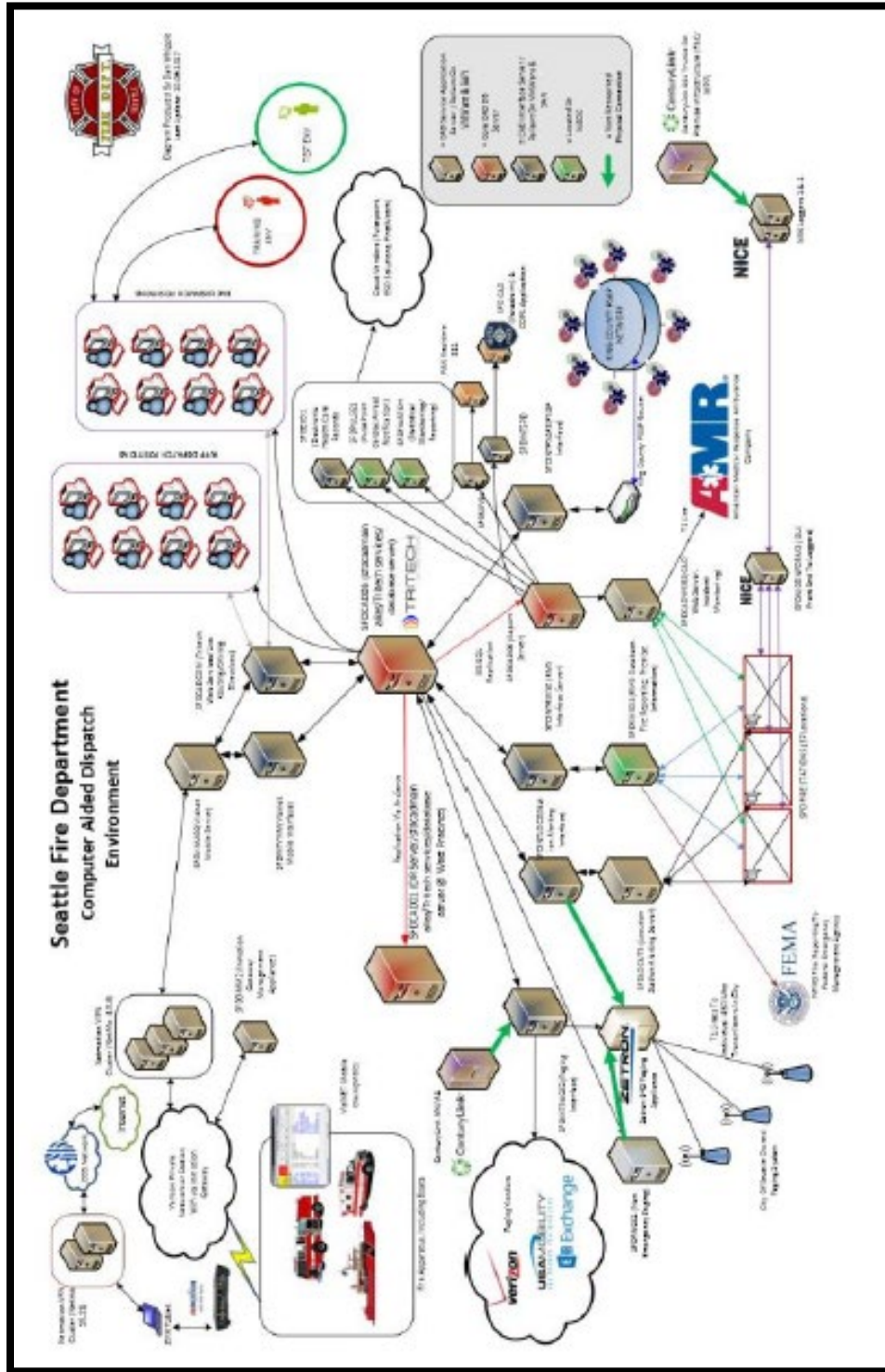
SIR Concern/Issue Location	Issue	SFD and/or CTO Response	OCA Comment
	mentions that there is a CAD plug-in for the decision tree protocol. Is that SFD-defined or TriTech proprietary?		
14. Pg 117, Lesser Concern 2	MFA for Login to CAD: No 2-step-verification/2-factor-authentication (2SV/2FA) for login to TriTech vCAD; however, an individual would need to first logon to an SFD workstation and then login to the CAD.	MFA is now required for all City of Seattle employees.	None
15. Pg 117, Lesser Concern 3	CAD Software with Better Security/Privacy Features: The draft SIR did not specify what (if any) other vendors SFD/IT considered before deploying TriTech's CAD software. Is this the optimal CAD solution for the City of Seattle? Is there perhaps another CAD software provider that is more competitive and perhaps has better security/privacy/audit features?	Unknown, but Trittech's CAD software meets the dispatching needs of SFD.	None
16. Pg 117, Lesser Concern 4	Define NGDC: The diagram on page 183 of the draft SIR includes a legend that certain servers in the diagram would be "Located At NGDC", but "NGDC" is not defined in the SIR. My assumption is that "DC" stands for DataCenter, but I don't know what "NG" stands for (maybe "NextGen?"); and that the NGDC is likely located on-premises to some part of City of Seattle (though unknown if that is a SFD-specific location or if "NGDC" is shared by multiple city agencies).	Will need to check with IT.	OCA is recommending SFD/SITD address all unaddressed concerns and include their response in an updated SFD CAD SIR. (See OCA Recommendation 14).
17. Pg 118 Other comments 1	Racial bias in Medical Services dispatched based on CAD? City leadership should specifically inquire as to the results of SFD's analysis of potential racial bias in their medical services (that analysis is based partially on CAD data).	This analysis has not been done. However, SFD has identified Racial Equity metrics, but has taken no concrete steps to analyze them. The metrics were identified in coordination with SFD's Change Team, which SFD staff will contact to initiate the analysis.	SFD should analyze the metrics and report the results of the analysis to the City Council (See OCA Recommendation 13).
18. Pg 118 Questions or Clarifications	SFD Call Logging - ST Technology? The diagram on page 183 happens to show two types of servers labeled with the NICE logo (one set is called "NRX Loggers 1 & 2" and the other is "SFDNICEINFORM2 (GUI Front End to Loggers)"), which would be the same vendor software SPD uses for 911 call	Will need to check with IT.	OCA is recommending SFD/SITD address all unaddressed concerns and include their response in an updated SFD CAD SIR. (See OCA Recommendation 14).

Surveillance Technology Usage Review: Seattle Fire Department Computer-Aided Dispatch

SIR Concern/Issue Location	Issue	SFD and/or CTO Response	OCA Comment
	logging. It is unclear from the diagram alone which calls SFD is logging. If it includes calls with the public, then wouldn't that be in scope just like SPD's usage of the same software? (I didn't see SFD call logging listed in the planned technologies for Group 3 or 4 – my understanding is that the next two groups are SPD-only.)		
19. Pg 120 Survey Monkey Comment 10550721152	Public Access to CAD: It was mentioned civilians could possibly have access to this. Problem here will be one of discrimination towards people the officers or the city may feel do not require access. In these standards there isn't any language that guides or gives officers or the city to whom is eligible to see the information in CAD. We need transparency from our public appointed officials especially when it deals with information.	SFD provides real time access to CAD info via Real Time 911 to all members of the public via their public portal.	None
20. Page 124 CTAB Recommendation (first bullet)	Age of CAD Technology: Due to the age of the (SFD CAD) technology, we recommend conducting a survey into the plausibility of replacing Tritech as SFD's CAD solution.	SFD has no plans to replace SFD CAD; although it can enhance CAD or purchase additional tools.	None
21. Page 37 and 124 CTAB Recommendation (second bullet)	Central Square/TriTech Merger: Did contracts change as a result of the Central Square Merger (TriTech joined a merger with other companies in 2018.)?	CTO Assessment: As the SFD CAD SIR was drafted and finalized in 2018 before the Central Square merger, the SIR may not reflect any information around the contracts and policies surrounding the merger. Reviewing the contractual agreements post-merger, the privacy and contractual provisions remain unchanged. SFD's CAD data is not shared with the vendor or any of the other customers they have acquired. SIR Response: The SIR was drafted before the Central Square merger and does not currently contain reference to this change.	None
22. Page 42	Lack of clarify on what data is accessible to the vendor.	CTO response on page 42 of the SIR provides 18 identifiers of health information that are provided to the vendor.	None

APPENDIX D

Seattle Fire Department: Computer-Aided Dispatch Environment



Source: Seattle Fire Department Computer-Aided Dispatch SIR v2, page 40

APPENDIX E

Seattle Office of City Auditor Mission, Background, and Quality Assurance

Our Mission:

To help the City of Seattle achieve honest, efficient management and full accountability throughout City government. We serve the public interest by providing the City Council, Mayor and City department heads with accurate information, unbiased analysis, and objective recommendations on how best to use public resources in support of the well-being of Seattle residents.

Background:

Seattle voters established our office by a 1991 amendment to the City Charter. The office is an independent department within the legislative branch of City government. The City Auditor reports to the City Council and has a four-year term to ensure their independence in deciding what work the office should perform and reporting the results of this work. The Office of City Auditor conducts performance audits and non-audit projects covering City of Seattle programs, departments, grants, and contracts. The City Auditor's goal is to ensure that the City of Seattle is run as effectively, efficiently, and equitably as possible in compliance with applicable laws and regulations.

How We Ensure Quality:

The office's work is performed in accordance with the Government Auditing Standards issued by the Comptroller General of the United States. These standards provide guidelines for audit planning, fieldwork, quality control systems, staff training, and reporting of results. In addition, the standards require that external auditors periodically review our office's policies, procedures, and activities to ensure that we adhere to these professional standards.

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