Memorandum

DATE August 25, 2023

TO Honorable Mayor and Members of the City Council

SUBJECT **Technology Accountability Report – May 2023**

Please find attached the Technology Accountability Report (TAR) based on information through July 31, 2023. The TAR is a progress report reflecting the performance and operational status of the city in purchasing, implementing, operating, and securing technology to achieve the city's priorities and service objectives.

NOTE: A separate After-Action Report (AAR) regarding the May 3rd ransomware attack against the City will be issued on September 1st and briefed to the City Council during the September 6th Council meeting.

If you have any questions, please contact William (Bill) Zielinski, Chief Information Officer and Director of Information & Technology Services.

Jack Ireland
Chief Financial Officer

c:
T.C. Broadnax, City Manager	Majed A. Al-Ghafry, Assistant City Manager
Tammy Palomino, Interim City Attorney	M. Elizabeth (Liz) Cedillo-Pereira, Assistant City Manager
Mark Swann, City Auditor	Dr. Robert Perez, Assistant City Manager
Bilierae Johnson, City Secretary	Carl Simpson, Assistant City Manager
Preston Robinson, Administrative Judge	Genesis D. Gavino, Chief of Staff to the City Manager
Kimberly Bizor Tolbert, Deputy City Manager	Directors and Assistant Directors
Jon Fortune, Deputy City Manager	

Technology Accountability Report (TAR)

City of Dallas

As of July 31, 2023

Prepared by Information & Technology Services

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1500 Marilla Street, 4DS   214-671-9868

Dallas, TX 75201

Executive Summary

The highlights of the July 2023 Technology Accountability Report (TAR) include:

- Section 1: IT Programs & Projects – Since the May 2023 TAR report, five major projects were completed and removed from the report:
    - The **Code Case Management System Phase 2 (Boarding Homes)** project provided additional support for service requests registered by City residents. (Previously project #4 on the May 2023 TAR)
    - The **DPD Auto Pound** project provides a public portal to allow residents to pay fines and fees online to the auto pound to recover their vehicle additional support for service requests registered by City residents. (Previously project #26 on the May 2023 TAR)
    - The **Early Warning System** project provides the Dallas Police Department a data-driven, decision-making support application that helps identify personnel at risk. (Previously project #34 on the May 2023 TAR)
    - The **IT Infrastructure for New Parks and Recreation Sites Phase 2** project provides the installation of IT infrastructure and services for new facilities. (Previously project #56 on the May 2023 TAR)
    - The **Boards and Commissions Management Solution** project upgrades the City Council's Boards and Commissions appointment process and provides control and tracking functions. (Previously project #61 on the May 2023 TAR)

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Section 1: IT Programs & Projects
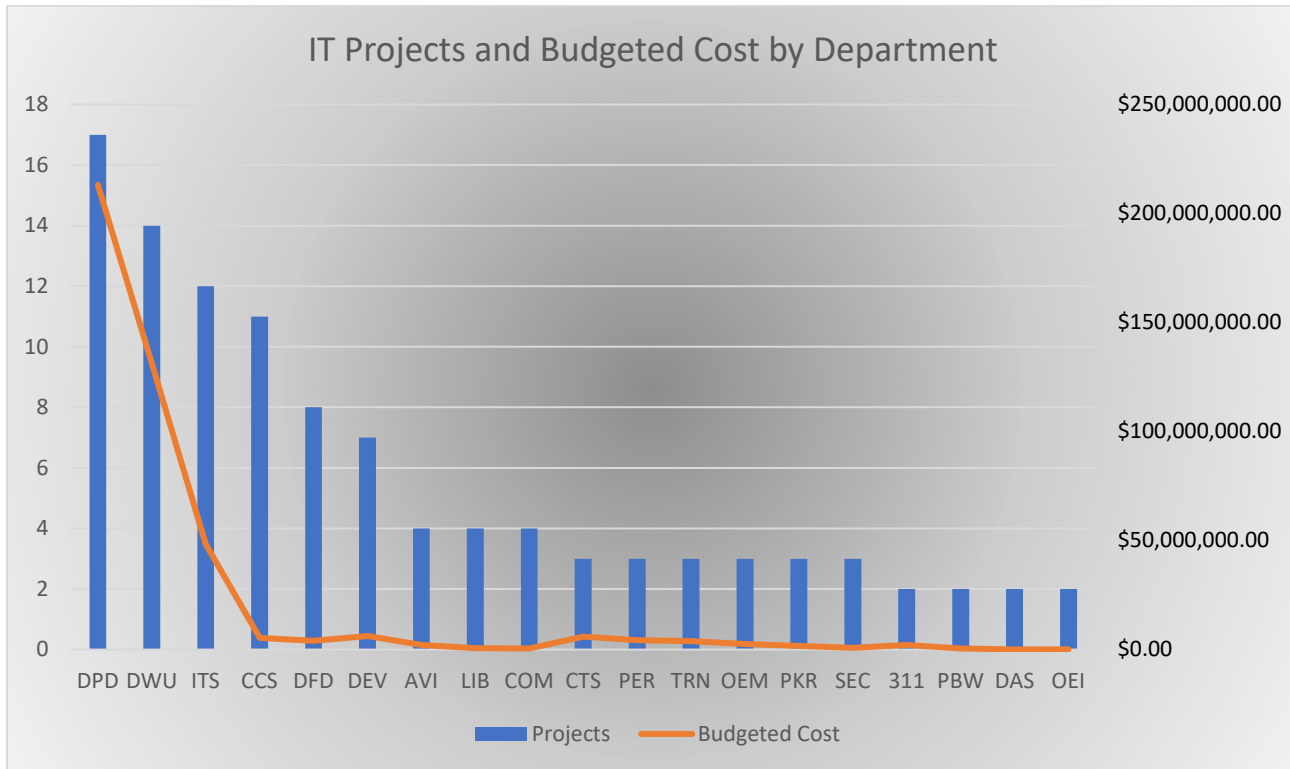
A. Project Pipeline

1. IT Projects by Strategic Priority
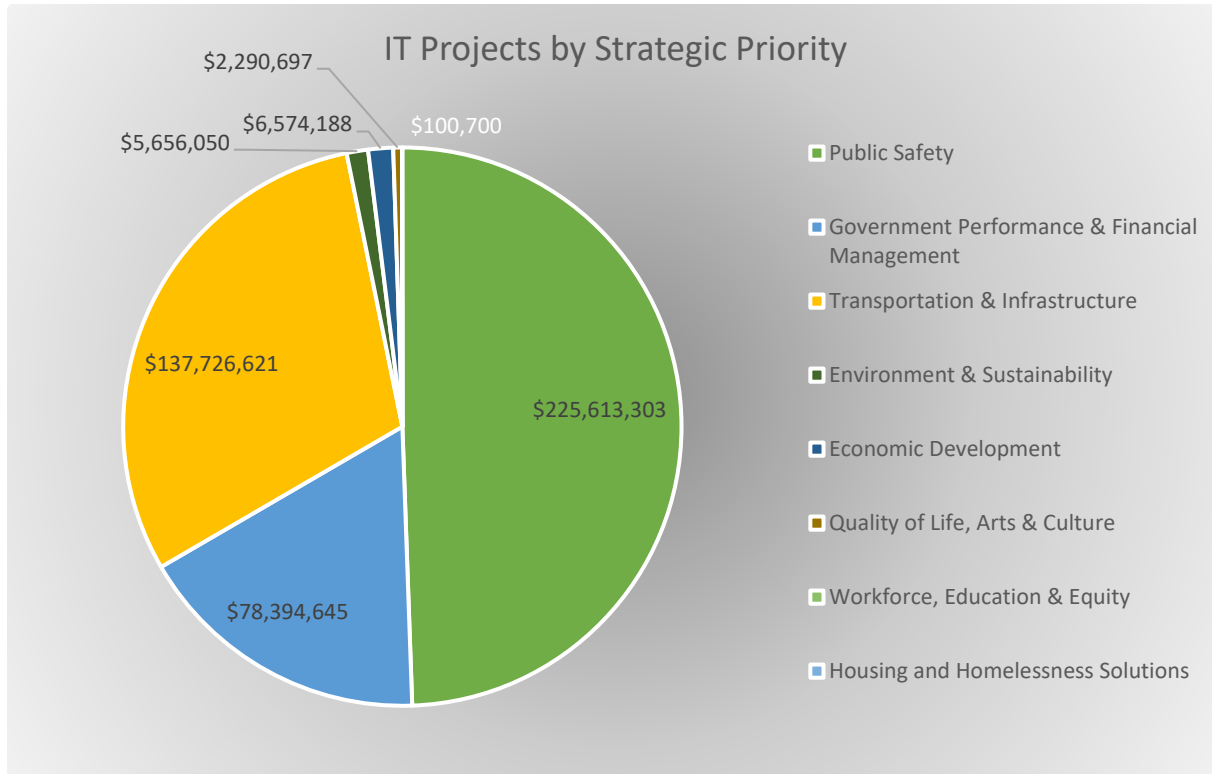
NOTES:

1. As of 07/31/2023, ITS has 114 approved IT projects in the pipeline.
2. The total budgeted costs for the 114 projects are $456,356,204.
3. Project pipeline includes at least one project in 7 of the identified 8 strategic priorities.
4. *The highest number of active IT projects are aligned to the Public Safety Strategic Priority with a total of 31 projects at a total budgeted cost of $225.6M, followed by Government Performance & Financial Management with a total of 28 projects at a total budgeted cost of $78.4M, Transportation & Infrastructure with a total of 23 projects at a total budgeted cost of $137.8M, and Environment & Sustainability with 14 projects at a total budgeted cost of $5.6M.*

2. IT Projects and Budgeted Cost by City Department

IT Projects and Budgeted Cost by Department

NOTES:

1. 26 City Departments are represented across the 114 approved IT projects in the pipeline.
2. Dallas Police Department has 17 active projects at a total budgeted cost of $213.1 million, followed by Dallas Water Utilities with 14 active projects at a total budgeted cost of $131.1 million, Information & Technology Services with 12 projects at a total budgeted cost of $48.3M, Code Compliance with 11 projects at a total budgeted cost of $5.4M, and Dallas Fire and Rescue with 8 active projects at a total budgeted cost of$3.9M.
3. 7 Departments have 1 active project each, making up the Other (OTH) group in figure 2 above.

B. Major Project Status

**LEGEND:
- **Cancelled:** The project has not finished, and work on the project will not continue.
- **Completed:** Work on the project has finished, and all deliverables/tasks have been completed.
- **Delayed:** The project is still active, but we have passed the initial estimated completion date.
- **In Process:** The project is currently being worked on by the project team.
- **On Hold:** The project has not finished, and work on the project has been suspended.
- **Ongoing:** The project consists of multiple phases or is an operational project. Some portions have been completed, but the project has not fully reached fruition.
- : Addresses technical debt
- : PCI project

#	Project Name	Description	Strategic Priority	Dept.	Estimated Completion Date	Project Status	Value Adds
1.	Enterprise Contact Center (ECC) Solution	The Enterprise Contact Center application within the City of Dallas is a secure, reliable, and scalable call platform to meet the high call volumes and growth to meet the needs of city residents. The ECC includes Natural Language Processing (NLP), Knowledge Base, Workforce Management, Interactive Voice Response (IVR), Courtesy Call Back, and other core call center capabilities to support multiple departments across the city. ($2,134,245)	GPFM	311	TBD	In Process	
2.	Ethics Point Salesforce Integration	The purpose of this system is to promote and support ethical financial compliance. ($63,164)	GPFM	ATT	Dec-23	In Process	
3.	Core Financial System Upgrade	The CG Advantage 3 system is utilized by all departments within the City for processing and recording of all budget, procurement and financial accounting transactions and interfaces with many enterprise business applications. This major upgrade will move the City's core financial system to a cloud-based solution providing advanced capabilities and incorporating modern technologies such as robotic process automation (RPA) and machine learning (ML) to improve the quality and speed of financial transactions. ($22,095,745)	GPFM	CCO	Dec-24	In Process	
4.	Consumer Protection online Salesforce Application/ permitting system	This system will allow department to implement online permit process for seven applications (wood vendor, motor vehicle repairs, Credit access, electronic repairs, home repair, scrap tire). Will Allow business owners to access, complete, submit, and track their business permit applications online. ($318,050)	Environment & Sustain	CCS	Jul-23	Delayed	

#	Project Name	Description	Strategic Priority	Dept.	Estimated Completion Date	Project Status	Value Adds
5.	Envision Connect Replacement Project	This project will replace the current Restaurant Inspection System - Envision Connect. Envision Connect is at the end of life for support. The vendor is requesting to move to their newer application for restaurant inspections. ($482,611)	Environment & Sustain	CCS	June-23	Delayed	PCI
6.	Asset Management System	The Code Compliance office is seeking an asset management system to manage a number of different of assets to include Ballistic vests, uniform items (pants, belts, reflective vests, shirts, jackets) that they issue officers, and other equipment deployed to their staff to perform their duties. This effort gathers requirements to conduct market research and identify potential solutions to meet the business need. ($76,000)	Environment & Sustain	CCS	Sep-23	In Process	
7.	Body Worn Cameras for Code Personnel	Code Compliance is implementing body-worn cameras to enhance citizen interactions, officer safety, and provide investigatory evidence for field inspections. The department has completed a pilot with limited staff and will move forward with a phased rollout. (TBD)	Environment & Sustain	CCS	Feb-24	In Process	
8.	Remote Video Streaming	COM is currently exploring acquiring equipment that would allow live video and audio to be streamed from offsite locations to our control room. This is a frequently requested service by various departments and Council offices and aligns with COM's mission. ($192,166)	GPFM	COM	TBD	In Process	
9.	Closed Captioning System for City Council Meetings	Closed Captioning on the live webstream/cable channel of City Council meetings will help meet ADA compliance and our Equity and Inclusion goals. ($504,612)	GPFM	COM	Jun-23	In Process	
10.	Court Case Management System: On Prem Upgrades	Planned CCSM upgrades: Tyler's Municipal Justice and Content Manager, Orion and, Infax. Additionally, all servers will be updated. ($259,016)	Public Safety	CTS	Dec-23	In Process	⛁
11.	RFCSP for Court Case Management System	The current Court Case Management System (Tyler Technologies) contract will expire June 2024. CTS wishes to conduct market research and conduct a competitive procurement to ensure the best solution is selected to upgrade and improve court case management. ($4,371,720)	Public Safety	CTS	Dec-25	In Process	⛁
12.	DAS Inventory Management Tool	Dallas Animal Services manages a large inventory of drugs, supplies and business equipment needed to perform their functions. Currently inventory management is done through a legacy system database (animal software) or on spreadsheets, but are inadequate to provide appropriate controls and functionality. ($14,062)	Environment & Sustain	DAS	TBD	Delayed	
13.	iNovah Upgrade	This project upgrades existing software to most recent version and provides new hardware for iNovah, the Point of Sale/cashiering system for Sustainable Development. ($484,350)	ECO	DEV	TBD	In Process	⛁

#	Project Name	Description	Strategic Priority	Dept.	Estimated Completion Date	Project Status	Value Adds
14.	Development Services Training Simulator	The building permitting and inspection process involves a number of different components operating independently on separate software platforms. The purpose of this project is to develop a training simulator that allows for cross-collaboration across city divisions to improve quality and efficiency of processes. ($50,000)	ECO	DEV	TBD	On Hold	
15.	Customer Queuing software	Customers currently walking into the permit center need to be able to "sign in" and set appointments remotely. DEV needs to be able to offer this service to their customers to better track the data associated with their customers' experiences; volume, wait times, types of service...etc. This project will identify, procure, and implement a customer queue management solution for Development Services. ($60,000)	ECO	DEV	Jul-23	In Process	
16.	Expand OnBase to the entire SDC Department	The OnBase content management system was originally implemented only for the Building Inspection division within the Development Services Department (DEV). Purpose of this project is to implement the content management system to all divisions within DEV. ($180,712)	ECO	DEV	Dec-24	On Hold	
17.	Land Management System POSSE replacement project (DallasNOW)	The city's current permitting system has reached end of life, cannot interact with the new geospatial technology standards, and is difficult to change to support new business requirements, and workflows. This project will deploy a new system to replace the existing system and to add efficiencies in the permitting process. ($9,746,780)	ECO	DEV	Sep-25	In Process	🖥️
18.	Smart Device/Technology Behavioral Health App for DFR members	This project will provide a Peer Support Contact App for Dallas Fire–Rescue (DFR) personnel. At Dallas Fire-Rescue (DFR), the City is promoting whole-person wellness. This new application will supplement existing mental health support services available to the City's DFR members. ($170,000)	Public Safety	DFD	TBD	On Hold	
19.	Unmanned Aerial Systems (Drones)	Unmanned Aerial Systems (UAS) may be used during crucial emergency response occurrences., giving real-time video to improve situational awareness, officer safety, and thermal assessment. They are useful in a variety of special operations, including Haz-Mat, search and rescue, water rescue, and wildland fires, allowing Incident Command and Executive Staff to perform airborne surveys of an incident. ($111,400)	Public Safety	DFD	Aug-23	In Process	
20.	Telestaff	Telestaff automated scheduling and staffing system for City of Dallas Public Safety 24-hr employees' integration with Workday Payroll System. ($731,238)	Public Safety	DFD	Sep-23	On Hold	🖥️

#	Project Name	Description	Strategic Priority	Dept.	Estimated Completion Date	Project Status	Value Adds
21.	Station Alerting System	Dallas Fire Rescue dispatches resources from 58 fire stations strategically deployed throughout the City. To avoid response delays, DFR relies on a station Alerting System that integrates with our Computer Aided Dispatch (CAD) system to advise firefighter/paramedics of assistance calls. The current station alerting system is end of life, difficult to maintain, and lacks the full range of functionality more modern solutions provide. This project will conduct market research into, procure, and implement a new, modern station alerting system for Dallas Fire Rescue. ($1,860,000)	Public Safety	DFD	Sep-24	In Process	
22.	IT Infrastructures For New Fire Stations 19, 21, 36, 41, 46, 58 & 59	Total of 8 new and rebuild Dallas Fire Stations are being constructed in scope Sta. 46, 36, 59, 41 Temp, 41 Replacement, 19, 58 and 21 FS/AVI Center. All new IT infrastructures including cabling, network, workstations, printers, radio Alerting system equipment, etc., will be activated in line with facility openings. ($131,688)	Public Safety	DFD	May-25	In Process	
23.	Mobile Surveillance Platform Vehicles (Formerly known as Bait Car)	The Dallas Police Department ("DPD") currently operates a fleet of 25 Mobile Surveillance Platform vehicles. These vehicles are deployed throughout the City and serve as "bait cars". These vehicles are outfitted with covert cameras, microphones, GPS, and other capabilities. ($700,000)	Public Safety	DPD	TBD	On Hold	
24.	County CAD Collaboration	Upgrade and expand the city's Computer-Aided Dispatch (CAD), extending it to the County to improve collaborate on emergency 911 call center responses. This project is also required to fully implement the upgrade of the 911 call center's telecommunications infrastructure. ($0)	Public Safety	DPD	TBD	In Process	
25.	Real Time Crime Center (RTCC) Video Integration (Previously Starlight)	To provide an analytics-driven video monitoring platform, capable of alerting the Dallas Police Department's Real Time Crime Center (RTCC) of criminal behavioral indicators and activity occurring at local businesses. ($747,052)	Public Safety	DPD	Aug-23	In Process	
26.	WEB-RMS	This project will migrate DPD's current law enforcement Records Management System (RMS) case management system from the current onsite solution to an upgraded Web-based system. The upgraded RMS will give the department needed functionality that is not available to the department currently in the on-premise solution. Current limitations require process workarounds creating potential errors and inefficiencies which will be resolved with the upgrade. ($1,010,000)	Public Safety	DPD	TBD	In Process	
27.	Ricoh-Fortis Document Management System Replacement	The DPD Fortis document management system is at end of life and no longer supported. This project will replace and upgrade the DPD document management system. ($217,633)	Public Safety	DPD	TBD	In Process	
28.	COBWEBS	This project will implement social media investigative software for the Police Department (DPD). This software will provide an efficient tool for investigating social media post from potential suspects to aid in investigations. ($93,353)	Public Safety	DPD	TBD	In Process	

#	Project Name	Description	Strategic Priority	Dept.	Estimated Completion Date	Project Status	Value Adds
29.	Axon Air (Drones)	UAS capture vital information that officers can use to resolve very dangerous situations with in the best possible way. The information can be sent, in real-time, to officers in the field. Also, the data gathered from UAS can be key in an investigation for locating suspects who are wanted for a crime. For example, murder suspect barricades himself in a residence, the UAS will be able to be sent in to let the officers in the field know if there are innocent citizens in danger or if the officers have time to deescalate and talk the suspect out. UAS technologies are used by departments and agencies across the nation. Agencies that use UAS technology have seen great benefits from the information gathered in real time situations. Combining this technology with Axon Air will provide the real time intelligence and evidentiary needs to create the holistic solution. ($20,160)	Public Safety	DPD	Aug-23	In Process	
30.	P25 Compliant Radio Project	The city's current public safety radio network is 40 years old and not compliant with new standards (P25) for these networks. This project installs all-new infrastructure for a fully P25 compliant radio communications system that will be used by multiple departments within the City and County of Dallas. This system is intended and designed to host external governmental agencies throughout the region. ($54,898,873)	Public Safety	DPD	Oct-23	In Process	
31.	Fusus Devices Implementation for DPD	The Fūsus product suite will provide a video and data collaboration platform to expedite intelligence gathering and efficiency of response to situations as they unfold throughout the community. Further, providing a tool for identifying the location of cameras in proximity that may provide valuable information to aid in the response and/or subsequent investigation. ($478,589)	Public Safety	DPD	Dec-23	In Process	
32.	In Car Video - Body Worn Camera - Interview Room	There is a Federal Requirement to video record public safety stops. In car systems involve video in patrol cars. Body Worn Cameras involve wearable video cameras systems for officers. Interview Rooms involves replacement of video equipment in Public Safety interview rooms. ($134,756,801)	Public Safety	DPD	Dec-24	In Process	
33.	Surveillance Cameras and Real Time Crime Center	This project will provide a "Real Time Crime Center" capability within Jack Evans police station. It will include 1) building a new command center video room (Real Time Crime Center), 2) building camera installations, 3) video camera software, video storage and surveillance camera installations at intersections, and 4) Trailer camera installations. ($16,261,454)	Public Safety	DPD	Dec-24	In Process	
34.	Use of Force - Police Strategies LLC	This project will provide a data analytics platform which produces analytic dashboards which provides comparative analyses by extracting data from incident reports & officer narratives, analyzes the data using established algorithms, and produces written summary reports used by DPD leadership in focusing resources. ($1,383,800)	Public Safety	DPD	Jul-26	Ongoing	

#	Project Name	Description	Strategic Priority	Dept.	Estimated Completion Date	Project Status	Value Adds
35.	Unsupported Software Remediation	Identify Servers running unsupported Software, DBs running unsupported versions of software, and Applications that will require modifications to bring up to supported software levels. Develop a plan to upgrade, in a sequenced fashion. ($0)	GPFM	ITS	TBD	Ongoing	
36.	Visualization Engineering Services	Purchase of Visualization Engineering services will provide an authoritative visualization of our Current State and Future States - an effort critical to information data center improvements. The outputs of this engagement will be crucial to the success of planned improvements to Application Portfolio Management in addition to the stated necessity in regard to data center improvements. ($685,972)	GPFM	ITS	Oct-23	In Process	
37.	ServiceNow Phase 2	ServiceNow Phase 2 comprises 4 major tasks or subprojects - "IT Software and Hardware Asset Management", "ServiceNow Stabilization and Workflow Improvement", "ServiceNow Fedramp Cloud Migration", and "ServiceNow Version Upgrade to San Diego Q1 2022". ($1,305,890)	GPFM	ITS	Dec-23	In Process	
38.	Apptio IT Financial Transparency SaaS	This project is for a cloud-based solution for the Department of Information and Technology Services (ITS) to gain detailed insight into information technology (IT) expenses, cloud infrastructure / software usage and other IT related costs. ($1,353,866)	GPFM	ITS	Sep-23	In Process	
39.	Relocate Development Services to New Facility	In September 2022, the City of Dallas purchased a new facility at 7800 N. Stemmons Freeway which will serve as the offices and storefront for the Development Services Department (DEV). This project will provide all new IT infrastructure including cabling, network, workstations, printers, radio equipment, etc. in line with the facility opening. ($5,000,000)	GPFM	ITS	Nov-23	In Process	
40.	Network Unified Communications Upgrade	The City's current collaboration suite is at end of life and requires an update to maintain functionality and reduce risk. This project will upgrade the Unified Communications Management (UCM) to the latest version available. ($618,180)	GPFM	ITS	Feb-24	In Process	
41.	Data Center Improvement Program	This program provides a comprehensive review, assessment, and cleanup of the City Hall Data Center and all other locations which hold primary and ancillary equipment used for IT operations in the City. ($10,700,000)	GPFM	ITS	Apr-24	Ongoing	
42.	IT Project and Portfolio Management Tool	This project will implement a new Project and Portfolio Platform (PPM) tool suite to provide a centralized and automated project management portfolio, assist with project intake, and improve the tracking and management of IT projects. ($300,134)	GPFM	ITS	Nov-24	In Process	

#	Project Name	Description	Strategic Priority	Dept.	Estimated Completion Date	Project Status	Value Adds
43.	Digital Equity Infrastructure	This project seeks to meet the City's vision of ensuring that all Dallas households will have high-speed, reliable internet and access to devices in their homes by seeking commercial telecommunication service providers to develop and implement digital equity infrastructure which addresses established gaps in targeted communities. ($40,000,000)	GPFM	ITS	Dec-32	In Process	
44.	Enterprise Capital Project Management System (ECPMS) Phase 2	Phase 2 Implementation of the Enterprise Capital Project Management System (ECPMS), IBM Tririga, to support the DWU Capital Projects division. Also, includes the delivery of reporting enhancements and efficiencies to the Phase 1 implementation. ($2,169,090)	Transport & Infra	DWU	Dec-22	In Process	
45.	Enterprise Work Order and Asset Management (EWAMS) Phase 2	Implementation of an Enterprise Work Order and Asset Management System (EWAMS), that can be utilized as the standard for the City of Dallas. The Phase 2 effort of this Enterprise platform implementation will manage Work Orders and Maintenance. ($4,901,864)	Transport & Infra	DWU	Sep-23	In Process	
46.	LIMS Acquisition and Implementation Phase 3	DWU is implementing a Laboratory Information Management System (LIMS) for one Analytical Lab, five treatment plants, the Water Quality Division and the Watershed-Reservoir Division to increase regulatory compliance, productivity, efficiency and effectiveness. (TBD)	Transport & Infra	DWU	May-24	In Process	
47.	Enterprise Work Order and Asset Management (EWAMS) Phase 3	This professional service contract allows for continuous consultant services for the expansion of the Enterprise Work Order and Asset Management System (EWAMS). Phase 3 will oversee the implementation of Dallas Water Utilities (DWU) Meter Services division. ($12,989,751)	Transport & Infra	DWU	May-28	In Process	
48.	Infrastructure Upgrade of Dallas LIB system (formerly called E-Rate)	This project will refresh existing, and add new components, to LIB Network Infrastructure. The upgraded infrastructure will dramatically improve the delivery of digital services to LIB patrons. (TBD)	QOL	LIB	Sep-23	In Process	
49.	Library Website update	The library's website needs to be updated to meet the current and future needs of the library including being able to support additional online content and online programs and education. (TBD)	QOL	LIB	Dec-24	In Process	
50.	Neighborly Expansion - Fair Housing	The purpose of the software is to complete the Fair Housing assessment of housing projects. This ensures we affirmatively further fair housing in the City as required by the Fair Housing Act and HUD. ($25,700)	WEE	OEI	Mar-23	Delayed	
51.	Stormwater Compliance Information Management System	OEQ staff currently manage mission-critical and legally sensitive environmental management consent decree (EMCD) /permit-required tasks though a 20-year-old "homemade" information system built on MS Access 2002 and InfoPath. This project will procure and implement a new, modern system which provides timely information through dashboards and reports. ($49,900)	Environment & Sustain	OEQ	Mar-23	In Process	

#	Project Name	Description	Strategic Priority	Dept.	Estimated Completion Date	Project Status	Value Adds
52.	Implement Workday Prism	The Workday Prism Project will aggregate historical data from the City's prior payroll system and make it available with new payroll data in Workday. ($68,995)	GPFM	PER	Sep-23	Delayed	
53.	Replace Human Capital Management System Ph 2	This initiative involves the strategic implementation of HR modules for Performance and Talent Management, Recruiting and Onboarding, Learning Management System, Benefits Administration, and Advanced Compensation. In addition, we are orchestrating a meticulous Data Migration process, ensuring a seamless transition from legacy applications. (TBD)	GPFM	PER	Dec-24	In Process	
54.	PKR Recreational Management System	Dallas Park and Recreation Department is looking for a recreation management system to manage recreation activities and programs of its 43 recreation centers, 107 pavilions, 19 aquatic facilities and over 200 athletic fields. ($0)	QOL	PKR	Dec-29	In Process	
55.	Payment Vendor (SAP Users - DWU)	This project is to migrate DWU and other user departments of online (Biller Direct) and IVR payments to a new payment platform which provides real-time information for payments and reconciliation. ($15,000,000)	Transport & Infra	DWU	Dec-23	In Process	
56.	DWU Billing CIS and Customer Portal Replacement	DWU's current CIS system, SAP, will reach its end of life in 2025. DWU must replace SAP by 2025 in order to ensure continuity of our billing. ($0)	Transport & Infra	DWU	Jul-26	In Process	
57.	SEC Records Inventory Management Solution	Replace the current obsolete unsupported FoxPro database with a state-of-the-art software application (preferably SaaS) that provides full functionality for operating a records center. Replacing this application will improve the management of the 70,000+ ($231,440)	GPFM	SEC	Nov-22	In Process	
58.	Build an Ethics Financial Reporting Solution	The purpose of this system is to promote and support ethical financial compliance. ($15,000)	GPFM	SEC	Feb-23	On Hold	
59.	Electronic Document Management - EDMS	Project Provides Electronic Document Management and Document Archive System for City Secretary's Office. ($336,562)	GPFM	SEC	Dec-24	On Hold	

NOTES

1. **Enterprise Contact Center (ECC) Solution.** Project is still in process. Anticipate approximately 3 – 6 months' work to implement Single Sign On (multi-factor authentication), for final delivery of the Lab (test portion) of the project, and potential re-evaluation of Salesforce integration.

3. **Core Financial System Upgrade.** The contract was approved by Council on 6/28/2023. Project kickoff occurred 7/31/2023. The project is now in the planning stages.

8. **Remote Video Streaming.** Project deliverables have been accepted and are in service. Project is in closure phase. This project will be removed from the TAR in the August 2023 report.

10. **Court Case Management System: On Prem Upgrades.** Project Implementation was completed on 5/26. Working through performance issues with vendor Tyler Technologies. Project will be closed out and removed from the TAR upon resolution of performance issues.

12. **DAS Inventory Management Tool.** Multiple departments have requested an asset/inventory management tool. ITS is consolidating requirements across departments to perform market research to determine whether an option for a city-wide solution can be provided.

13. **iNovah Upgrade.** Project is currently in planning stage. Project date will be updated after the planning phase is complete.

14. **Development Services Training Simulator.** This project is on hold due to competing priorities.

18. **Smart Device/Technology Behavioral Health App for DFR members.** Project requirements are being re-evaluated.

20. **Telestaff.** Telestaff Scheduling System is operational. Accenture contract is signed. Kickoff meeting scheduled for early August. Schedule will be developed and published in planning stage.

21. **IT Infrastructures For New Fire Stations 19, 21, 36, 41, 46, 58 & 59.** Project is being implemented in an agile fashion. Next phase is expected to complete October 2023. No. of Fire Stations complete to date include Sta. 46, 36, 41 Temp, 58, 59 and 19. Remaining 41 Main and FS 21/AVI Center.

22. **Mobile Surveillance Platform Vehicles (Formerly known as Bait Car).** Awaiting funding to be identified.

25. **Real Time Crime Center (RTCC) Video Integration (Previously Starlight).** Requirements have been defined. Follow-on work will be executed in the "Fusus Devices Implementation for DPD" project. This project will be removed from the TAR in the August 2023 report.

26. **WEB-RMS. This project is still in the procurement process.** Purchase request has been submitted. New date will be provided when available.

27. **Ricoh-Fortis Document Management System Replacement.** This project is in the planning stages. New timeline is being developed. New date will be provided when available.

30. **P25 Compliant Radio Project.** The new P25 Public Safety Radio system is now live, operational, and performing as designed. Final migration of all City of Dallas Departments is complete. Team is now working on decommissioning of old systems and equipment.

34. **Use of Force - Police Strategies LLC.** All initial project tasks have been completed. End date of project is 2026 because CoD will continue to provide data on a quarterly basis until the end of the contract.

40. **Network Unified Communications Upgrade.** Project is being implemented in an agile fashion. Unity Voice Mail portion is now complete. The next phase, "Call Manager" has an estimated completion date December 2023.

42. **IT Project and Portfolio Management Tool.** Project schedule adjusted in anticipation of Council contract review and approval in October 2023.

44. **Enterprise Capital Project Management System (ECPMS) Phase 2.** PCR pending by Vendor for update requirements/deliverables for linear segments, linear structures and X/Y coordinates, working with DWU GIS to finalize requirements.

52. **Implement Workday Prism.** Telestaff Scheduling System is operational. Accenture contract is signed. Kickoff meeting scheduled for early August. Schedule will be developed and published in planning stage.

57. **SEC Records Inventory Management Solution.** Requirements have been developed. Awaiting Council approval.

58. **Build an Ethics Financial Reporting Solution.** Project date will be updated after this project has completed the procurement process.

59. **Electronic Document Management - EDMS.** The EDMS project is part of a group of projects relying on the Hyland Software System, which are being developed serially. We are currently re-validating project budget, scope, and participating department and will then re-work the schedule.

C. Changes to Major Project Status List

1. Major Projects Implemented or closed since last report.
   a. Code Case Management System Phase 2 (Boarding Homes) - #4 on May 2023 TAR.
   b. DPD - Auto Pound - #26 on May 2023 TAR.
   c. Early Warning System - #34 on May 2023 TAR.
   d. PKR-IT Infrastructures for New Parks and Recreation Sites Phase 2 - #56 on May 2023 TAR.
   e. Boards and Commissions Management Solution - #61 on May 2023 TAR.

2. New Projects added that are not on the Major Projects List – These projects are either Internal projects or projects undergoing initial review prior to being added to the TAR major project list.
   a. City of Dallas Bigdata Cluster Hardware and Software Upgrade
   b. FY2022-2023 Onbase Server Upgrade(s)
   c. Inform CAD and Mobile Rehost and Inform CAD Routing Server
   d. PCI DSS Requirements Validation Project
   e. Cameras at 7901 Goforth
   f. Electronic Citation (eCitation) system

Section 2: IT Operations

IT Operations provides information and status updates on the IT operations to include outages and incidents impacting city operations. Source data is drawn from the City's ServiceNow platform which was implemented in April 2021 to better manage incident reporting and resolution and to better track and control requests for IT services. ServiceNow documents incidents and service requests and is used by technicians and departments alike to submit, track, manage, and resolve pending requests and issues.

A. Outage Report

1. Monthly Help Desk Report

Category	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Total Calls	8006	7252	7616	7151	7222	9694	6969	8230	7319	11740	5528	5698
Answered	7763	7017	6921	6132	6222	7117	6778	8048	7171	7977	5005	5513
Abandoned	243	235	695	1019	1000	1084	191	182	148	523	523	185
Abandoned (<10sec)	115	93	273	408	380	1493	81	81	65	1398	166	172
Abandoned %(<10sec)	1.5	1.3	3.9	6	5	8	1	1	1	17.5	3.3	3.1

Metric	Metric	Current Month	Trend
Average Speed to Answer – Voice	Average Speed to Answer - Voice	00:19	*Speed to answer time has returned to a more normal pattern over the past 2 months
Password Related Incidents	Password Related Incidents	26%	56.3% (May) 25.8% (Jun) 26.4% (Jul)
First Contact Resolution - Incident	First Contact Resolution - Incident	57.77%	55% (May) 84% (Jun) 58% (Jul)
Average Duration – Service Desk	Average Duration - Service Desk	0.7 Days 1010 Minutes	10865 (May) 3154 (Jun) 1010 (Jul)
Average Duration – Field Services	Average Duration - Field Services	6.38 Days 9201 Minutes	30648 (May) 17605 (Jun) 9201 (Jul)
Average Duration - PD Field Services	Average Duration - PD Field Services	6.18 Days 8913 Minutes	35763 (May) 22821 (Jun) 8913 (Jul)

NOTES:

1. In July 2023, the IT Helpdesk received 5698 calls for support. This is a slight increase over June which saw 5528 calls, and slightly lower than the yearly average of ~7700 per month (excluding May and the impact of ransomware related calls).

2. First Contact Resolution (Incidents) for July, 58% was down from June, 84%, however on par with previous months.

3. Field Services (excluding DPD) average service duration of 6.3 days in July is a marked decrease only June of 12.2 days.

4. Field Services for DPD saw a similar decrease in average service duration 6.1 days in July from 15.8 days in June.

2. *Monthly Incident Report (Break/Fix "My Computer doesn't work")*

Top 15 Assignment Groups
Incidents July 2023
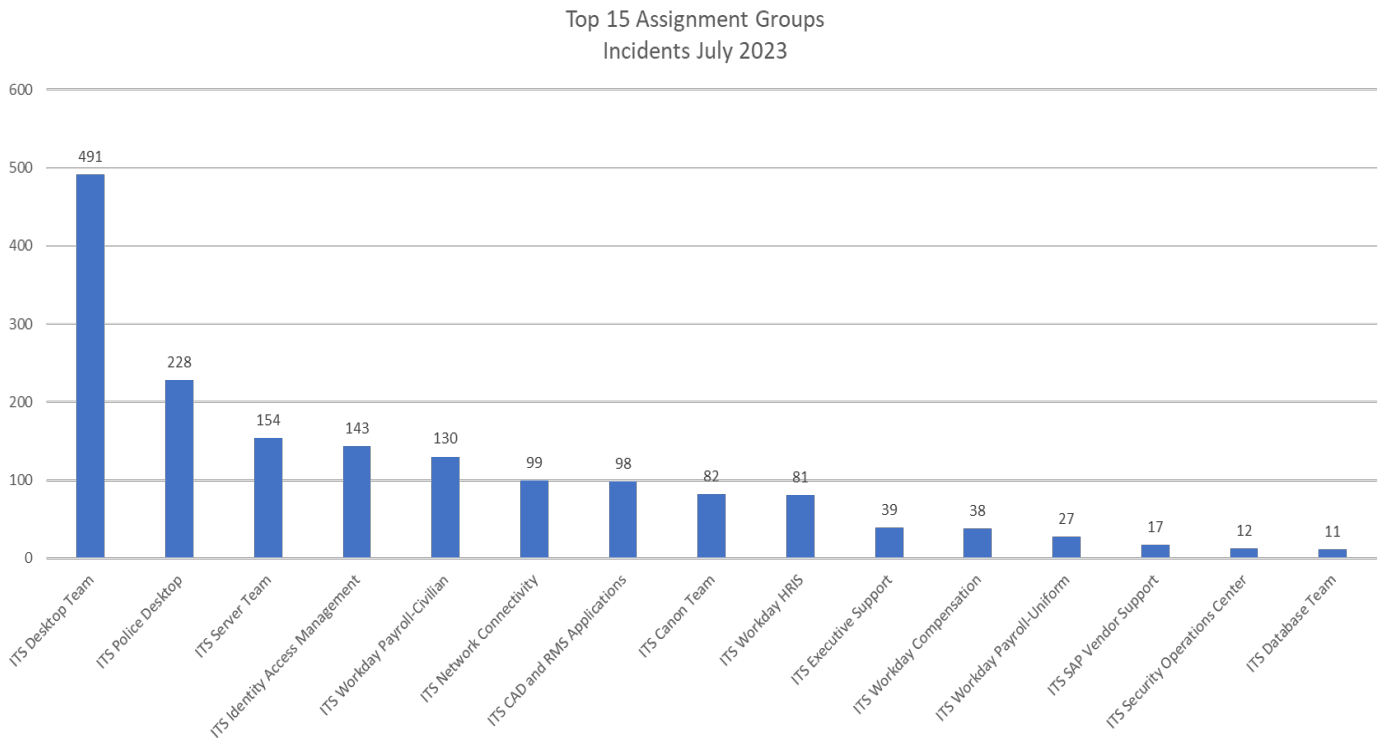
Impact Minutes by Department
Severity 1 and Severity 2
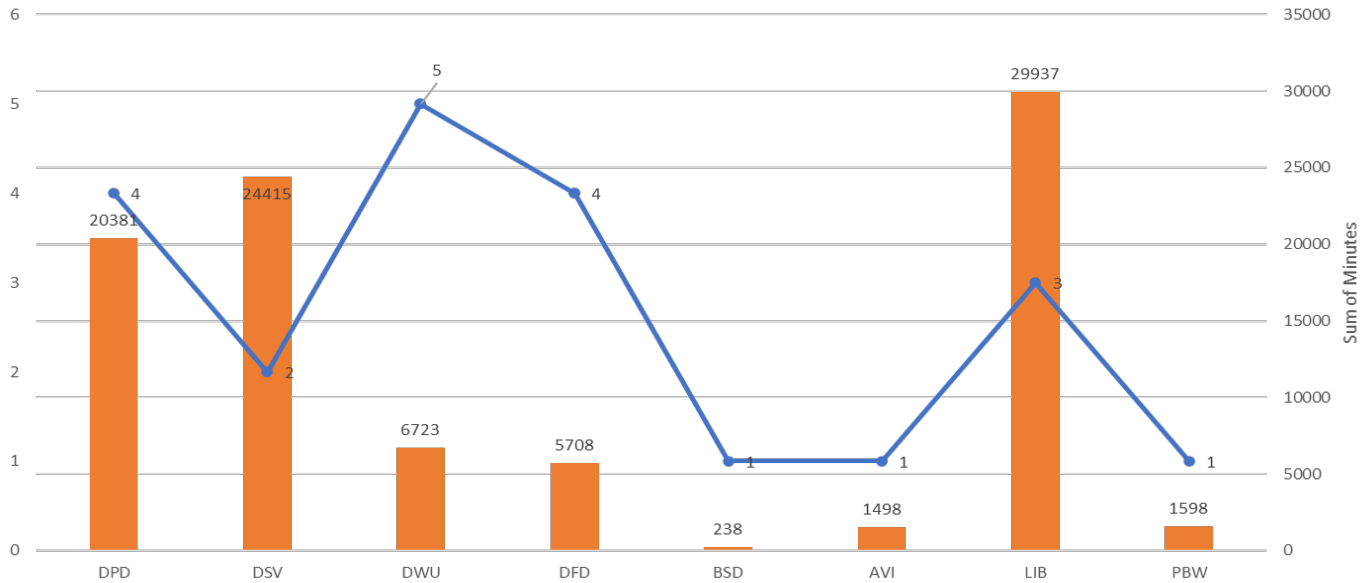
Impact Minutes by Issue Category
Severity 1 and Severity 2
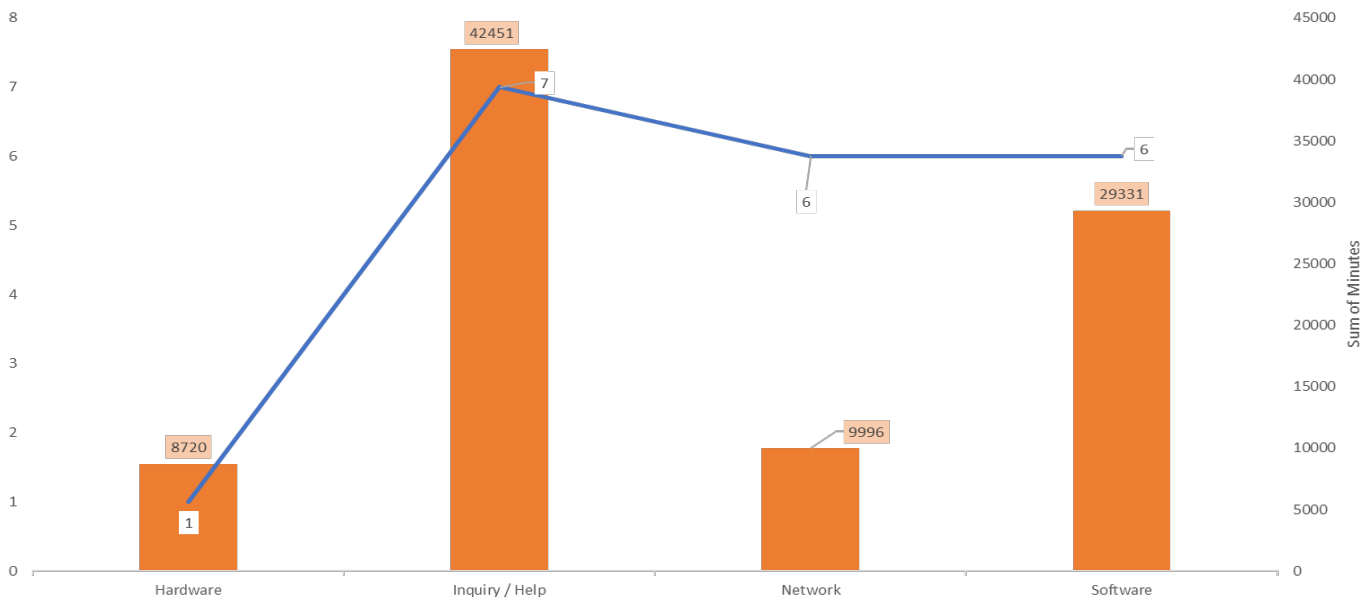
*Statistics for May do not include Ransomware Incident totals, as incident continued into June and will be reported once closed

NOTES:

1. Severity 1 and Severity 2 incidents are the most severe and most likely result in degraded services or outages that impact the ability of City departments to fulfill their missions.

2. This chart tracks the number of reported incidents by department, along with the total number minutes the incident(s) potentially impacted them.

3. These data points are extracted from ServiceNow based upon input by city IT technicians. Our analysis reveals that there are incidents which are resolved but have not been timely

or appropriately closed out within the ServiceNow platform, resulting in artificially inflated resolution timeframes. ITS is working with IT service delivery managers to improve documented processes to ensure timely updates to ServiceNow in order to accurately reflect the actions for the incident and to provide a more representative experience. As is demonstrated by the reduction in MTTR over the past several months, our efforts in this area are having positive results.

Severity 1 and 2 by Issue Category
Impact in total minutes
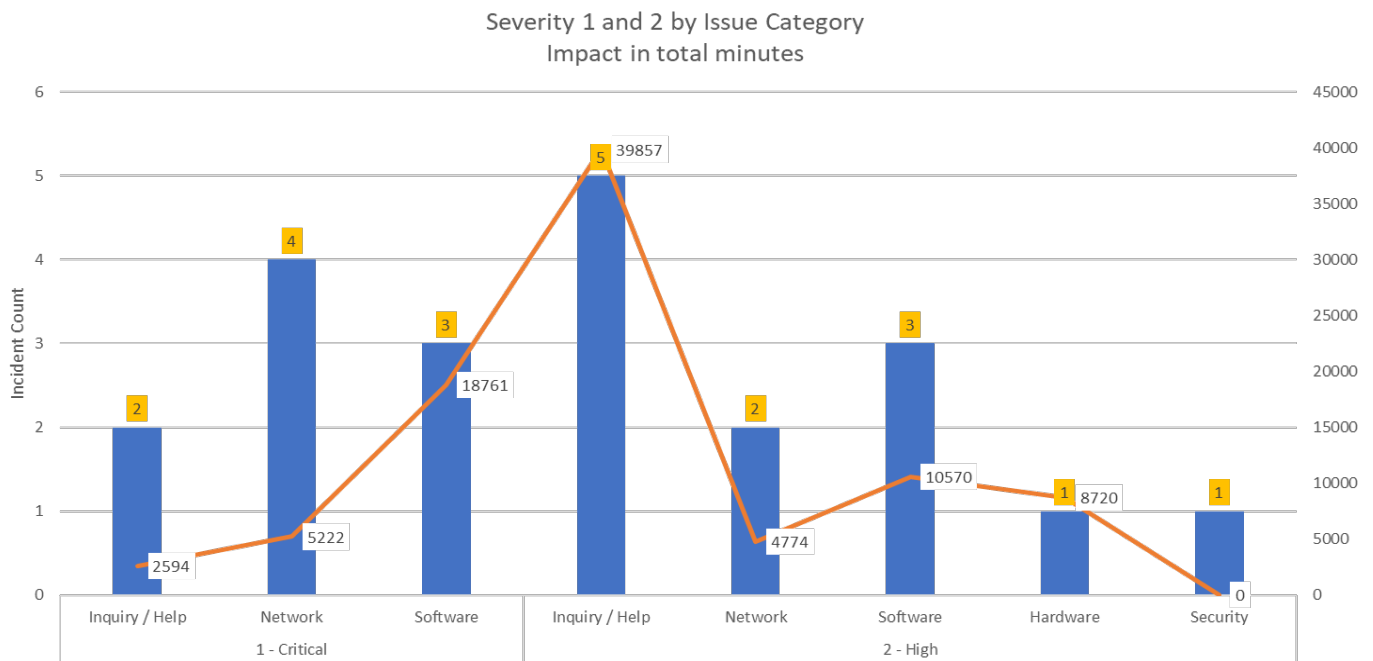
NOTES:

1. This chart provides the distribution of major incidents and impact minutes over specific services and delineated by Critical and High severity.

Monthly MTTR
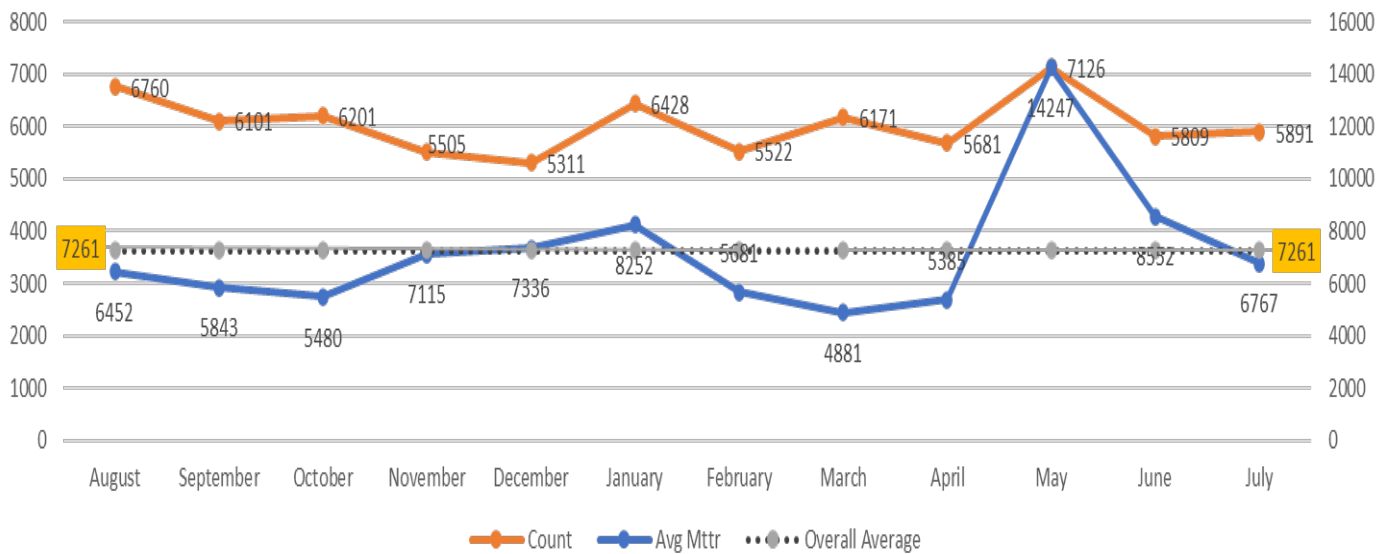
NOTES

1. This chart provides the trendline for the average mean time to repair (MTTR), an industry standard for tracking the timeliness of resolution on reported incidents.
2. Number of Incidents and MTTR remain above the yearly average as a result of post ransomware issues and activities.
3. Diligence by the technicians to document and resolve tickets in a timely manner is the primary driver of the reduction in MTTR.

    *Open incidents may impact July MTTR in August report

3. Monthly Major Outage Report

| Priority	Description	Department	Primary	Secondary	Hours
1 - Critical	Network | locution client | DFD Station #2	DFD	Software	Troubleshooting	4.9
1 - Critical	Network | User states that there is no network since 7/11	DWU	Inquiry / Help	How To	25.9
1 - Critical	Network | Network Outage 2900 MUNICIPAL	DWU	Network	Outage	23.9
1 - Critical	Incode | Tyler Incode TCM system completely offline APCCMS02	DSV	Software	Troubleshooting	287.9
1 - Critical	Desktop | User states he has no network : 334 S HALL ST	DPD	Inquiry / Help	Escalation/Status	17.3
1 - Critical	Network | Network Outage at cityhall and satellite locations	BSD	Network	Outage	4.0
1 - Critical	PC Support | IDS system down citywide	DFD	Software	Troubleshooting	20.0
1 - Critical	Network: network down: DFD Station #34	DFD	Network	Outage	34.2
1 - Critical	Network | Network Outage | 3448 Mockingbird Ln	AVI	Network	Outage	25.0
2 - High	Security Notification - Suspicious Hacking Tool Domain Access	DWU	Security		#VALUE!
2 - High	PC Support| Kronos stating connection not private	DWU	Software	Troubleshooting	9.3
2 - High	Storage | DPD K Drive \Homicide_2023\Homicide_2023_03 is full	DPD	Inquiry / Help	How To	116.8
2 - High	Vesta| Callers hearing an echo and having to re-dial	DPD	Software	Troubleshooting	14.2
2 - High	Recovery |DPD |Files need to be Recovered K Drive Specific folders	DPD	Inquiry / Help	Account Locked	191.4
2 - High	PC support | TCP/IP Error on Printer	LIB	Hardware	Local Printer	145.3
2 - High	GPO Rule | Edit GPO to allow RDP access for DRaaS project	DSV	Inquiry / Help	How To	119.1
2 - High	Network| Network Outage| 1020 SARGENT RD	DWU	Network	Outage	52.9
2 - High	Telephony | main phone number for library | patrons just get dead air when calling	LIB	Inquiry / Help	Escalation/Status	200.9
2 - High	Network | \\FSPBW02\Survey_Vault is unavailable | Oak Cliff Municipal Center	PBW	Network	Outage	26.6
2 - High	IVR | When calling the IVR main phone # 214-670-8403 the call does not go through/ does not ring at all.	LIB	Software	Troubleshooting	152.7
2 - High	Locution Client | locution not auto logging:DFD Station #9	DFD	Inquiry / Help	How To	36.1

NOTES

1. Major outages are identified as Severity1 that have significant impact to City services or Department's ability to perform critical functions and last over 4 hours in duration. As we mature the process this definition will be better scoped around impact and less around duration.

2. Outages with #value are incidents that had over 4 hours of impact, however, are incomplete of details, at the time the report was generated. to identify full impact to departments

3. July saw a decrease in both average time to repair and total outage time for Major Incidents compared to June. July average MTTR of 75.4 hours compared to June of 136 hours. July total outage 1508 hours compared to June which had 3695 hours

4. 21 Major incidents in the month of July, 9 critical and 12 high, a decrease of 6 over June of 27, 14 critical and 13 high.

B. Service Requests (including new employee onboarding)

1. New Hire Report

New Hire Requests by Department
July Total New Hires Requests 213
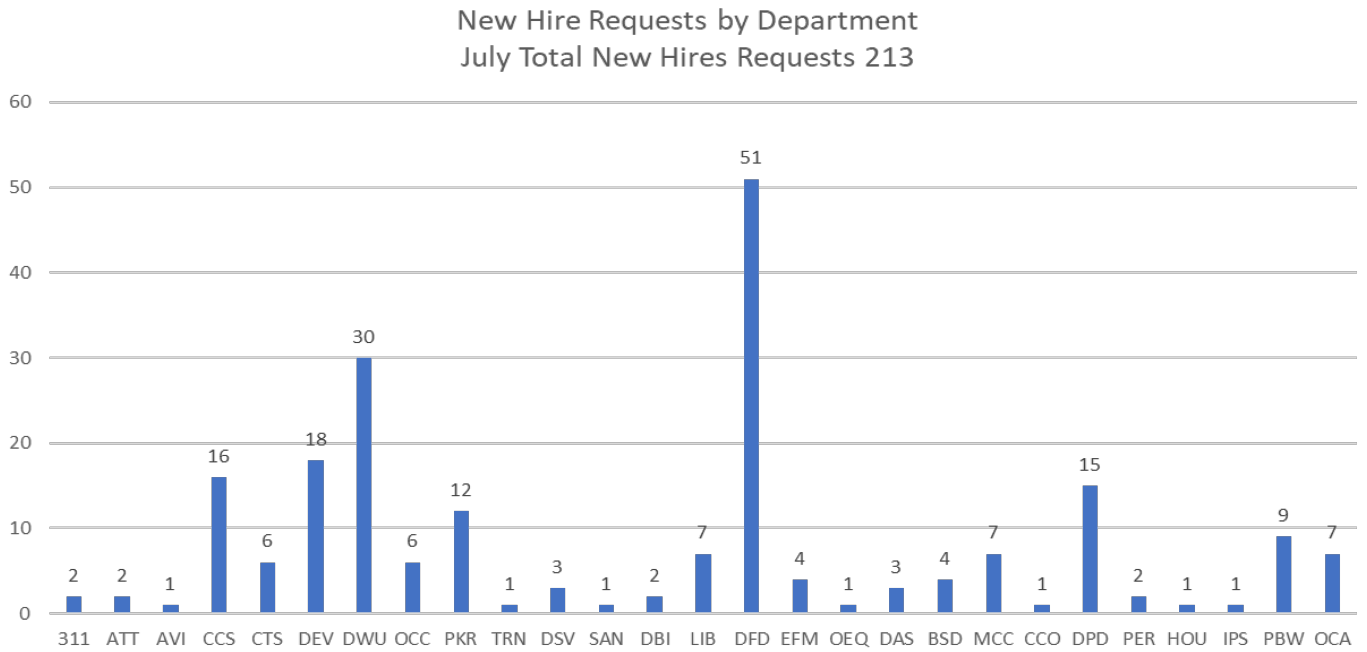
Notes

1. In the month of July, a total of 213 requests were opened for new employees.
2. DWU, DEV, and CCS being the top 3 hiring departments. DWU has had 11 consecutive months in the top 3.
3. Blank indicates no department match was available for the requested onboarding at the time the report was generated.

2. Service Request Report (An ask for service – "I need Software Installed")

Top 15 Requested Items
July 2023
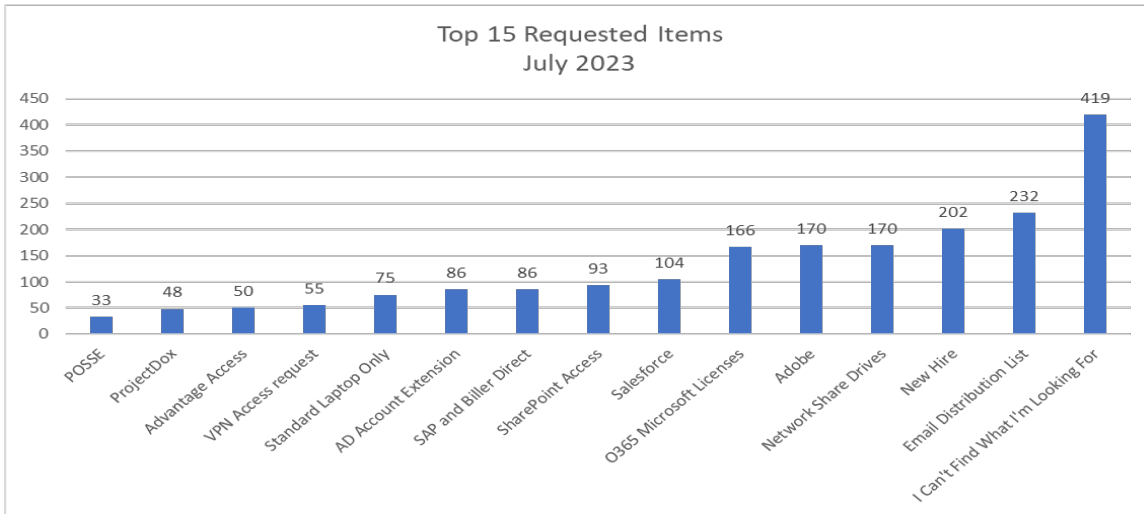
Note

1. July Service Request actions totaled 667 a decrease of ~1100 over June which totaled 1907. This report depicts the top 15 Request by type that were selected.
2. "I Can't Find What I'm Looking For" is a category used when a service catalog item does not exist for what the user is asking.

Request Action by Month
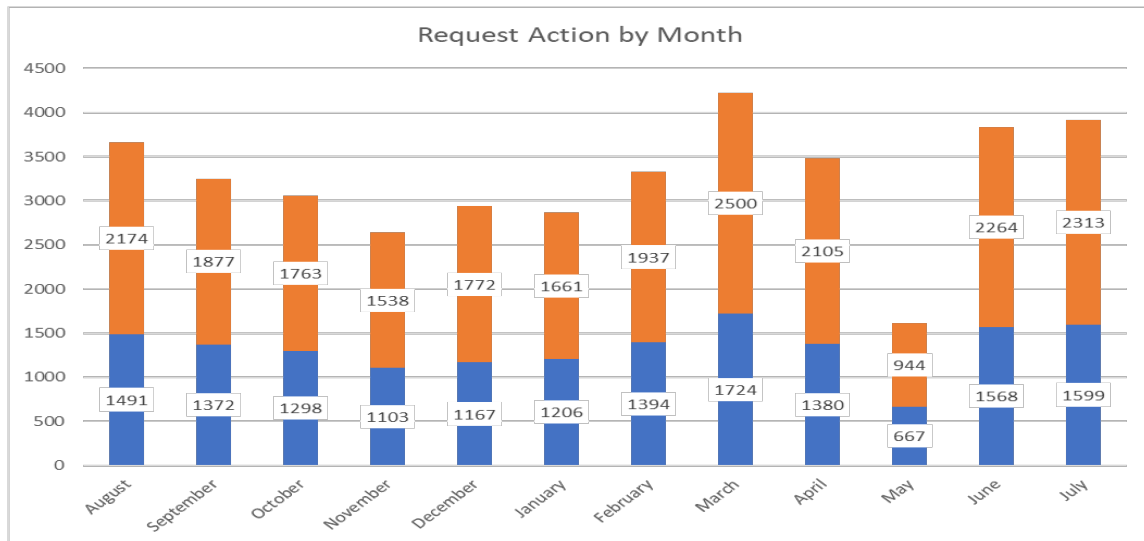
Note

1. This chart illustrates that 1599 Request Tickets, generated 2313 Request Actions. Frequently one Request generates multiple actions to be completed by one or more teams to fulfill the ask.

Section 3: IT Budget Execution

IT Budget Execution provides information on the execution of the IT budget, the management of technology procurements, and the management of IT Human Capital. Information in this section is effective through 12/31/2022.

A. Contract/Procurement Management

Upcoming Contracts Requiring Council Approval

Items Approved on August 9 Council Agenda:

Gimmal, LLC - service contract for a physical records inventory management software solution for the City Secretary's Office
- 3-year agreement
- Contract amount $231,440
- Replaces current software solution
- Improves management of over 70,000 record cartons and the destruction and legal hold processes
- Includes work-flow capabilities which currently do not exist and integrate with the City's off-site storage vendor's system

GTS Technology Solutions, Inc – service contract for helpdesk and desktop support services
- 1 Year renewal option
- Contract amount $4,241,512
- Provides City staff with a single point of contact for reporting problems and requesting services
- Desktop support includes installing, moving, changing, and repairing equipment and software

Various Vendors – ratification to pay invoices for emergency purchases to maintain continuity of City operations as the result of a cyber-attack which occurred on May 3, 2023

- Not to exceed $8,578,629
- Purchases of hardware, software, professional services, consultants and monitoring services

Item on August 23 Agenda:

N Harris Computer Corporation – service contract for maintenance and technical support of the point-of-sale and online payment processing system for Development Services

- 5-Year agreement
- Contract amount $484,350
- System is used to collection payments for various permits online and at pay stations
- Technical support includes system patches, fixes, and upgrades

B. Budget Performance & Execution

Fund 0191-9-1-1 System Operations as of July 2023

Expenditure Category	FY 2022-23 Adopted Budget	FY 2022-23 Amended Budget	YTD Actual	YE Forecast	Variance
Civilian Pay	643,798	643,798	428,696	520,345	(123,453)
Pension	91,413	91,413	65,889	73,980	(17,433)
Health Benefits	54,481	54,481	40,750	61,802	7,321
Worker's Compensation	1,658	1,658	1,658	1,658	-
Other Personnel Services	14,262	14,262	118,601	118,601	104,339
Total Personnel Services	**805,612**	**805,612**	**655,595**	**776,386**	**(29,226)**
Supplies	201,465	201,465	79,659	79,659	(121,806)
Contractual Services	13,205,665	13,205,665	8,653,094	13,273,008	67,343
Capital Outlay	-	-	-	-	-
Reimbursements	-	-	-	-	-
Total Expenditures	**14,212,742**	**14,212,742**	**9,388,348**	**14,129,054**	**(83,688)**

C.

Fund 0197 - Communication Services (Radio Network) as of July 2023

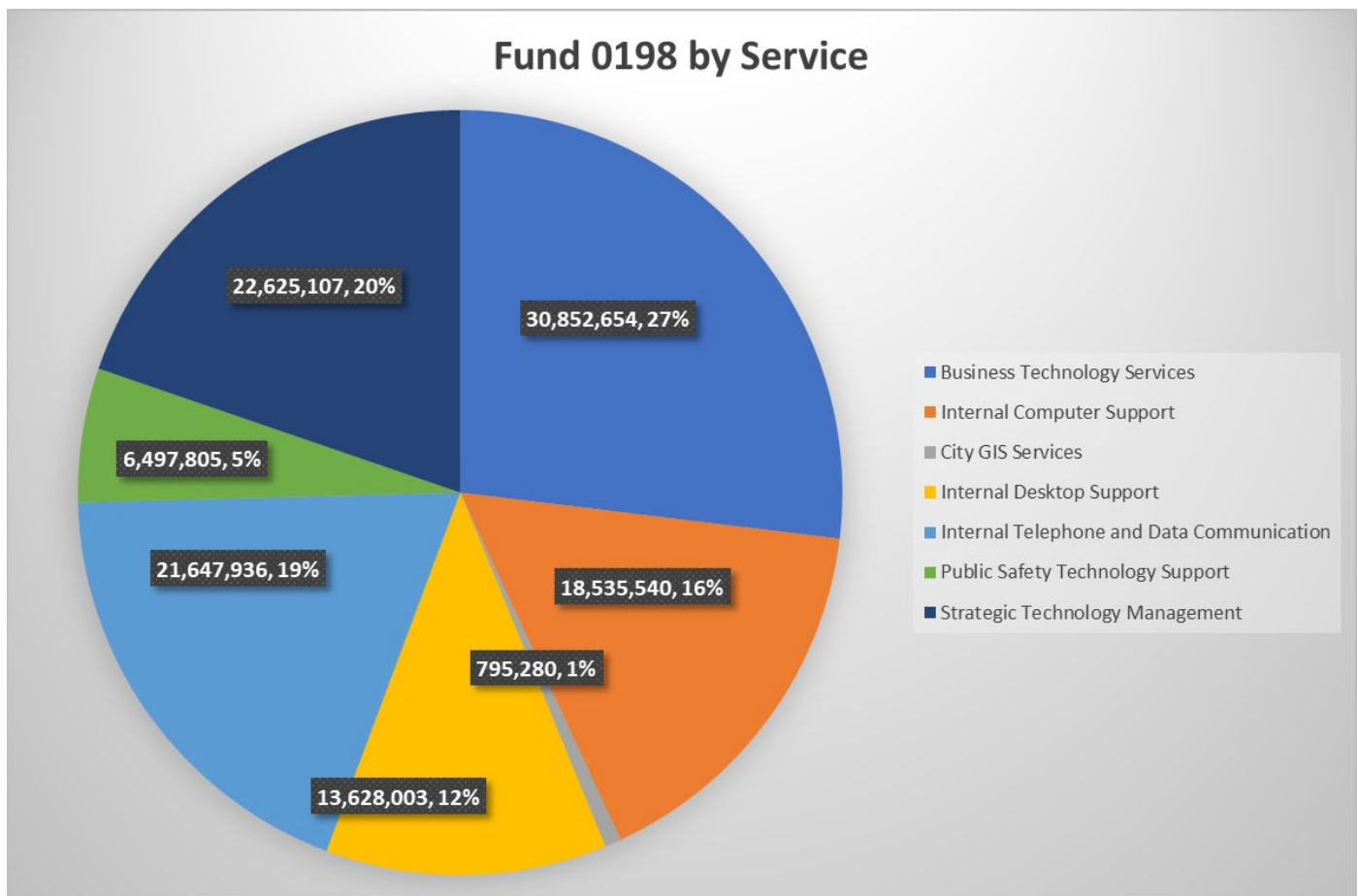| Expenditure Category	FY 2022-23 Adopted Budget	FY 2022-23 Amended Budget	YTD Actual	YE Forecast	Variance
Civilian Pay	1,995,477	1,995,477	1,425,671	1,706,385	(289,092)
Overtime Pay	51,320	51,320	184,514	195,000	143,680
Pension	282,080	282,080	229,099	251,202	(30,878)
Health Benefits	234,423	234,423	193,521	265,923	31,500
Worker's Compensation	7,197	7,197	7,197	7,197	-
Other Personnel Services	33,819	33,819	35,193	40,930	7,111
Total Personnel Services	**2,604,316**	**2,604,316**	**2,075,196**	**2,466,637**	**(137,679)**
Supplies	1,156,482	1,156,482	448,314	664,195	(492,287)
Contractual Services	13,106,759	13,106,759	4,606,006	10,630,060	(2,476,699)
Capital Outlay	-	-	-	-	-
Reimbursements	-	-	-	-	-
Total Expenditures	**16,867,557**	**16,867,557**	**7,129,516**	**13,760,891**	**(3,106,666)**

Fund 0198 – Data Services as of July 2023

Expenditure Category	FY 2022-23 Adopted Budget	FY 2022-23 Amended Budget	YTD Actual	YE Forecast	Variance
Civilian Pay	20,152,694	20,152,694	13,041,181	16,046,596	(4,106,098)
Overtime Pay	41,612	41,612	23,635	41,612	-
Pension	2,858,569	2,858,569	1,855,355	2,256,317	(602,252)
Health Benefits	1,609,376	1,609,376	1,249,922	1,825,623	216,247
Worker's Compensation	49,182	49,182	49,182	49,182	-
Other Personnel Services	1,036,948	1,036,948	372,596	589,978	(446,970)
Total Personnel Services	**25,748,381**	**25,748,381**	**16,591,871**	**20,809,308**	**(4,939,073)**
Supplies	759,552	759,552	4,193,973	848,416	88,864
Contractual Services	83,683,424	83,683,424	71,167,671	89,013,432	5,330,008
Capital Outlay	-	-	3,970,794	3,911,167	3,911,167
Reimbursements	-	-	-	-	-
Total Expenditures	**110,191,357**	**110,191,357**	**95,924,308**	**114,582,324**	**4,390,967**

Fund 0198 by Service

- Business Technology Services — 30,852,654, 27%
- Internal Computer Support — 18,535,540, 16%
- City GIS Services — 795,280, 1%
- Internal Desktop Support — 13,628,003, 12%
- Internal Telephone and Data Communication — 21,647,936, 19%
- Public Safety Technology Support — 6,497,805, 5%
- Strategic Technology Management — 22,625,107, 20%

C. ITS Staffing & Hiring Report

1. ITS Funded Staffing Levels

IT Fund	FY 20	FY 21	FY 22	FY 23	FY 24 Plan
Fund 0191 - 9-1-1 Technology Support	7.0	7.0	7.0	7.0	7.0
Fund 0197 - Radio Communications	28.0	28.0	30.0	30.0	30.0
Fund 0198 - Data Services	204.0	190.0	204.0	223.0	223.0
Total	239.0	225.0	241.0	260.0	260.0

2. Vacancies and Hiring Activities

- As of July 31, 2023, ITS had 60 vacancies out of the available 260 positions.
- As of July 31, 2023, of the 60 vacancies the disposition was:
  - 0 are in draft posting
  - 7 are actively posted
  - 8 are undergoing reclassification to re-align within the ITS department
  - 6 are awaiting posting
  - 24 were previously posted
    - 11 are under review
    - 13 are at the initial interview stage
    - 0 are completing a second round of interviews
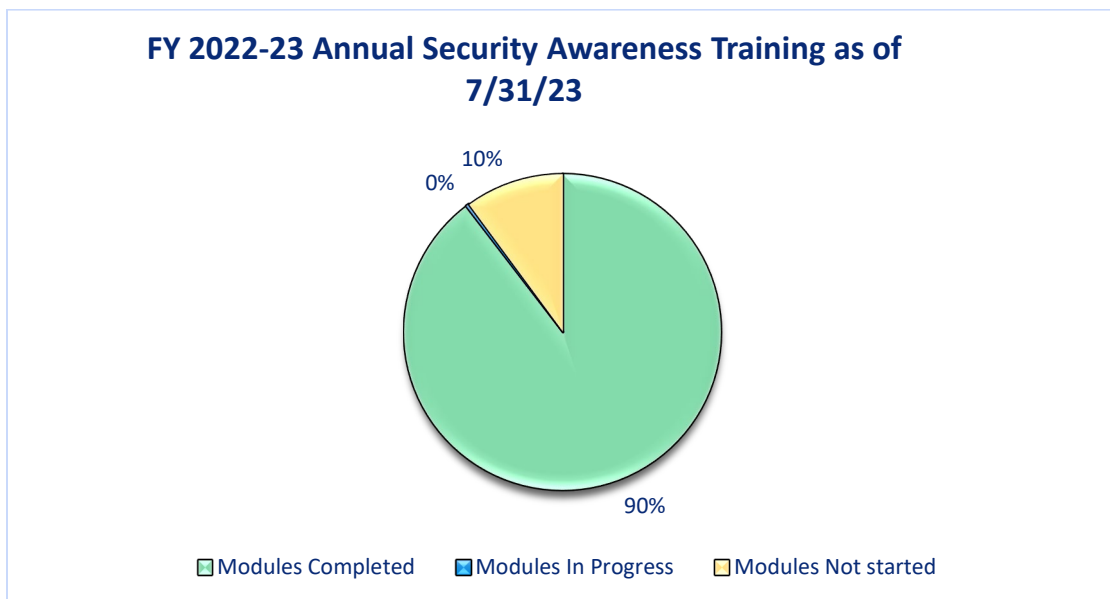   - 4 have pending offers with candidates

Section 4: Cybersecurity Programs

A. Awareness Training

Security Awareness training is measured on an annual basis. Over the last several years ITS has observed a generally positive trend in risk scoring associated with annual employee training. Beginning with each new fiscal year the City will conduct a new set of security awareness courses to meet not only the best practices, but State of Texas House Bill 3834 requirements for all government employees.

However, each year we see new or enhanced requirements from the Texas State Legislature as the risk environment evolves and becomes increasingly more threatening. As such, our security awareness training program must evolve to reflect the latest requirements and latest threats and it is critical that the security awareness training is completed each year. The information below illustrates the enrollment and completion efforts of employee training over the course of the year. For FY 2021-22 the City completed 99% of 18 training campaigns covering HIPAA, PCI, and Cybersecurity.   The FY 2022-23 security awareness training campaign began on January 25, 2023, and ITS is tracking its progress and working with City employees to ensure completion.

- o Note employees with less than 25% of job function on technology are not required to complete cybersecurity training.

FY 2022-23 Annual Security Awareness Training as of 7/31/23

10%

0%

90%

☐ Modules Completed   ☐ Modules In Progress   ☐ Modules Not started

In addition, ITS continuously applies best practices to the employees around phishing and their ability to recognize and appropriately handle phishing incidents. Campaigns designed given real world scenarios, typically taken from recent events are sent out to the employee population to test their ability to distinguish and act. This provides feedback to the employees as well has increased the actual amount of true phishing reported. As well, a "Report phishing" button added to user's Outlook has increased both the numbers of test phish and actual phishing emails.
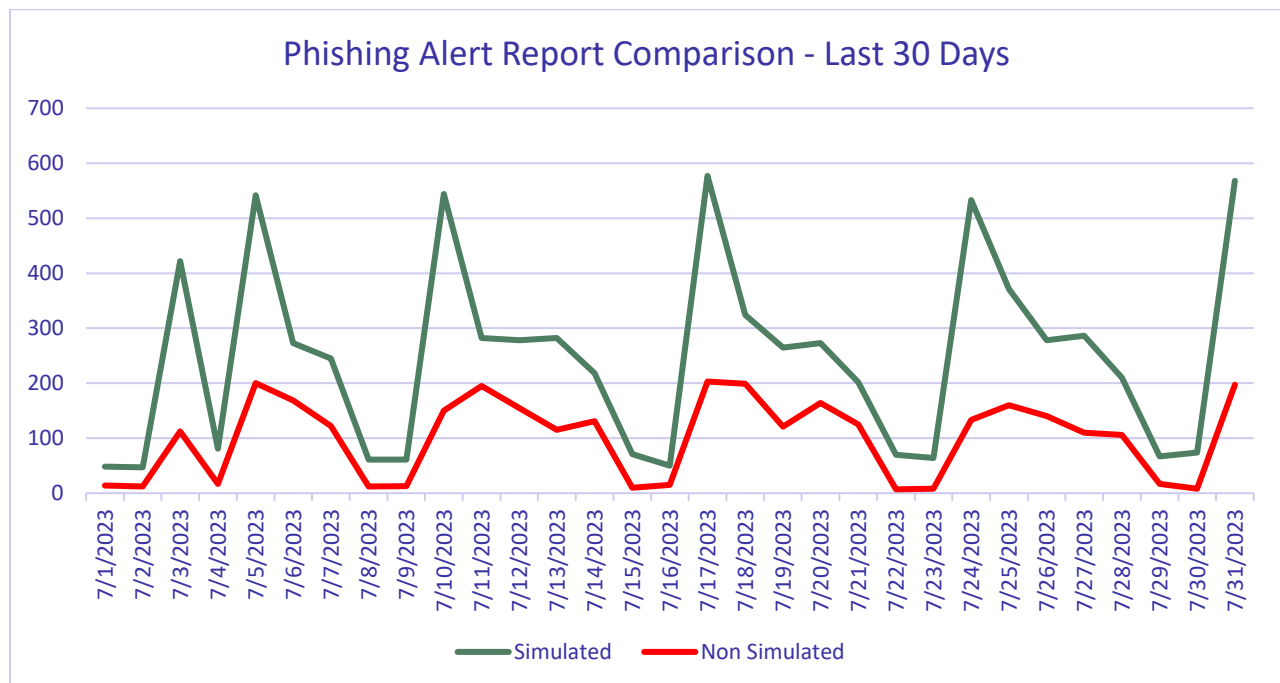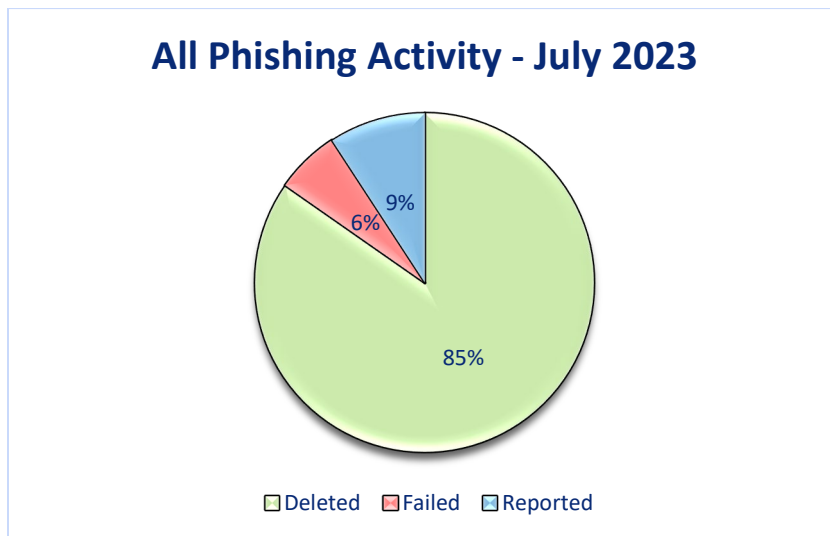
B. Situational Awareness

Annually ITS assess the overall Security posture of the organization based upon the NIST Cybersecurity Framework (CSF). Each category within the NIST CSF is evaluated for the current level of maturity and expectant maturity level. This process uses current and projected technologies and documented standards and procedures to complete the process. ITS utilizes both internal and external resources to conduct assessments. The results of the assessments are used by ITS to develop security strategy for cybersecurity and privacy. The below figure outlines the maturity model for the CSF. While the TAR does not provide our scores from our self-assessment, ITS can provide this information to Council members and discuss the assessments in depth as requested.
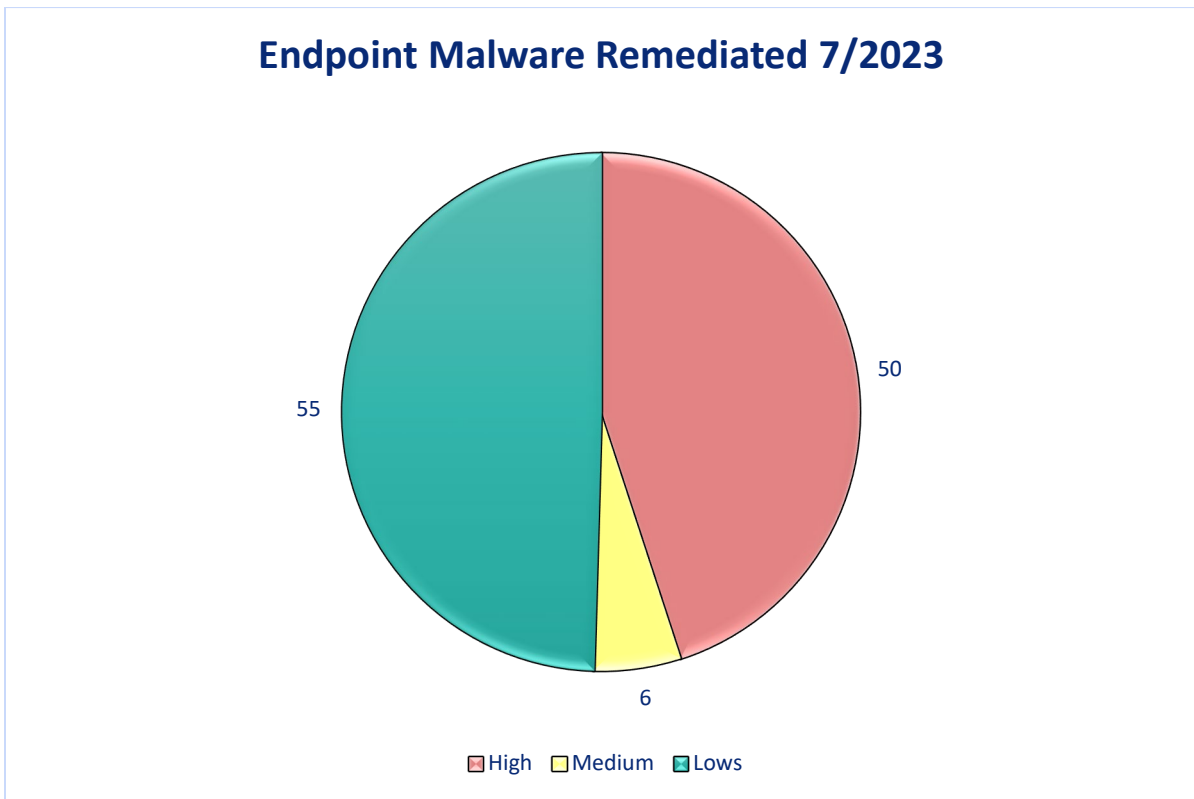
Capability Maturity Model Levels

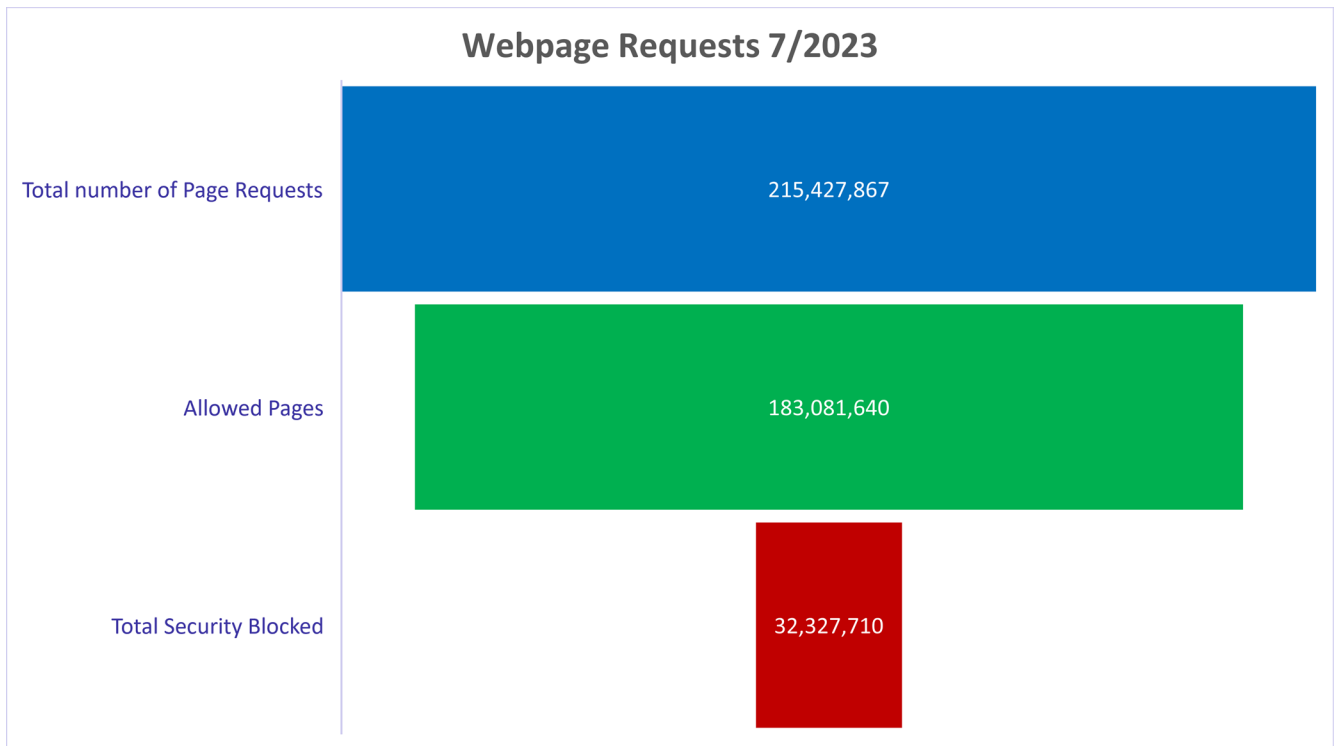| NIST Cybersecurity Framework Functions	Level 1 Initial	Level 2 Repeatable	Level 3 Defined	Level 4 Managed	Level 5 Optimized
Identify	Little to no cybersecurity risk identification.	Process for cybersecurity risk identification exists, but it is immature.	Risks to IT assets are identified and managed in a standard, well defined process.	Risks to the business environment are identified and proactively monitored on a periodic basis.	Cybersecurity risks are continuously monitored and incorporated into business decisions.
Protect	Asset protection is reactive and ad hoc.	Data protection mechanisms are implemented across the environment.	Data is formally defined and protected in accordance with its classification.	The environment is proactively monitored via protective technologies.	Protection standards are operationalized through automation and advanced technologies.
Detect	Anomalies or events are not detected or not detected in a timely manner.	Anomaly detection is established through detection tools and monitoring procedures.	A baseline of "normal" activity is established and applied against tools/procedures to better identify malicious activity.	Continuous monitoring program is established to detect threats in real-time.	Detection and monitoring solutions are continuously learning behaviors and adjusting detection capabilities.
Respond	The process for responding to incidents is reactive or non-existent.	Analysis capabilities are applied consistently to incidents by Incident Response (IR) roles.	An IR Plan defines steps for incident preparation, analysis, containment, eradication, and post-incident.	Response times and impacts of incidents are monitored and minimized.	The capabilities of all IT personnel, procedures, technologies are regularly tested and updated.
Recover	The process for recovering from incidents is reactive or non-existent.	Resiliency and recovery capabilities are applied consistently to incidents impacting business operations.	A Continuity & Disaster Recovery Plan defines steps to continue critical functions and recover to normal operations.	Recovery times and impacts of incidents are monitored and minimized.	The capabilities of all IT personnel, procedures, technologies are regularly tested and updated.

Figure 3: Assessing Cybersecurity Maturity

C. Data Protection & Privacy

1. Endpoint Protection

Endpoint protection is one component to the organization's ability to handle daily malware. All devices needing connection to the internet are subject to attacks. Attacks are mitigated through technologies monitoring the systems in real time reacting and responding to those attacks. Technologies like Firewall and Endpoint Detection and Response all are in place to respond to those attacks. Below is the current status for endpoint attack metrics.

Endpoint Malware Remediated 7/2023

Amount of Malware attacks on Endpoint 7/2023

Webpage Requests 7/2023

Total number of Page Requests	215,427,867
Allowed Pages	183,081,640
Total Security Blocked	32,327,710
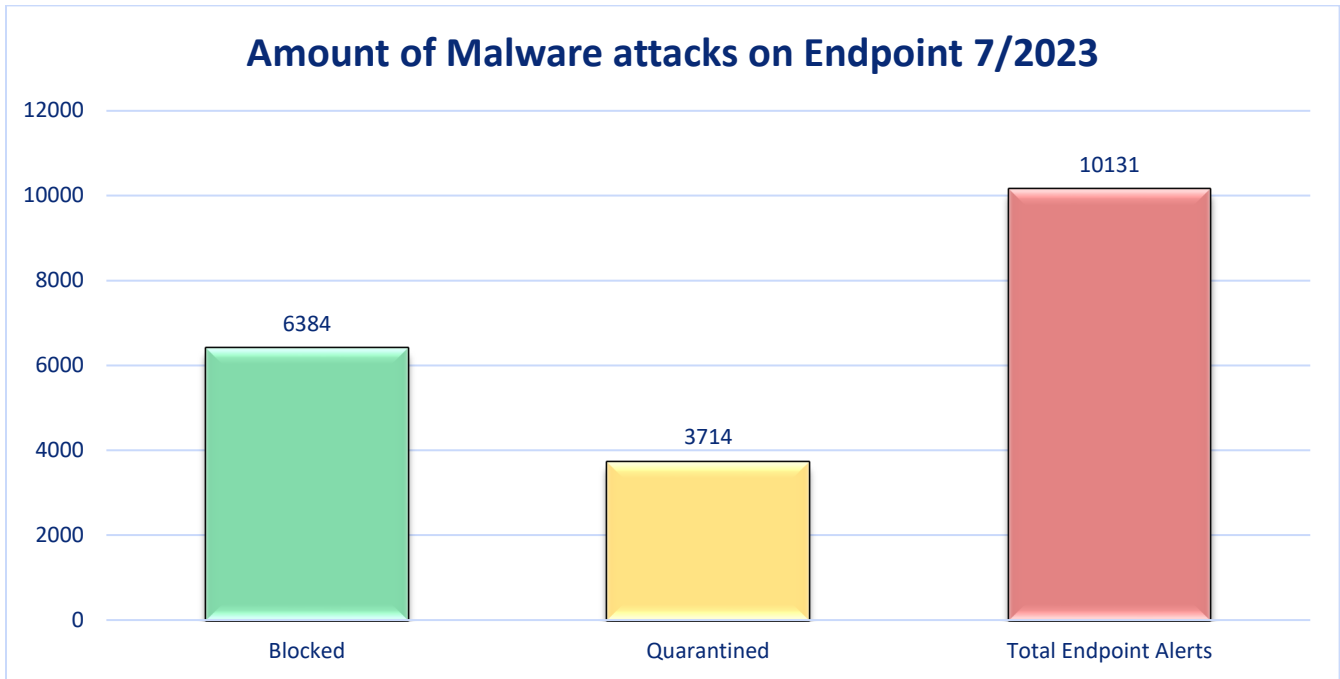
2. *Email Screening*

The City of Dallas receives and send millions of emails a month. Phishing is an attack vector that is utilized by bad actors in the form of social engineering, as a means to gain internal access to the network. This can then be used to introduce malware, ransomware, and other malicious software to adversely affect City services. Below provides a picture of mail messages processed and remediated prior to user reception.

City of Dallas Mail Processed 7/2023

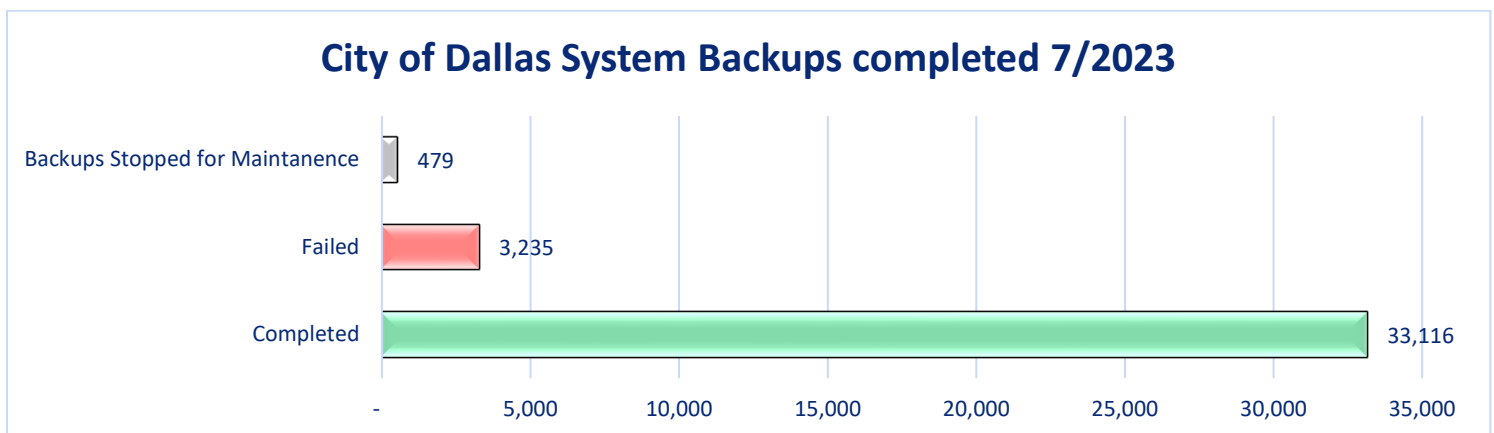|	Total Attempted Incoming Mail	Clean Incoming Messages	Threat Messages	SPAM mail	Total Outgoing mail	Blocked Outgoing
Quantity	13,166,781	334,663	8,517,580	1,314,538	1,014,867	472
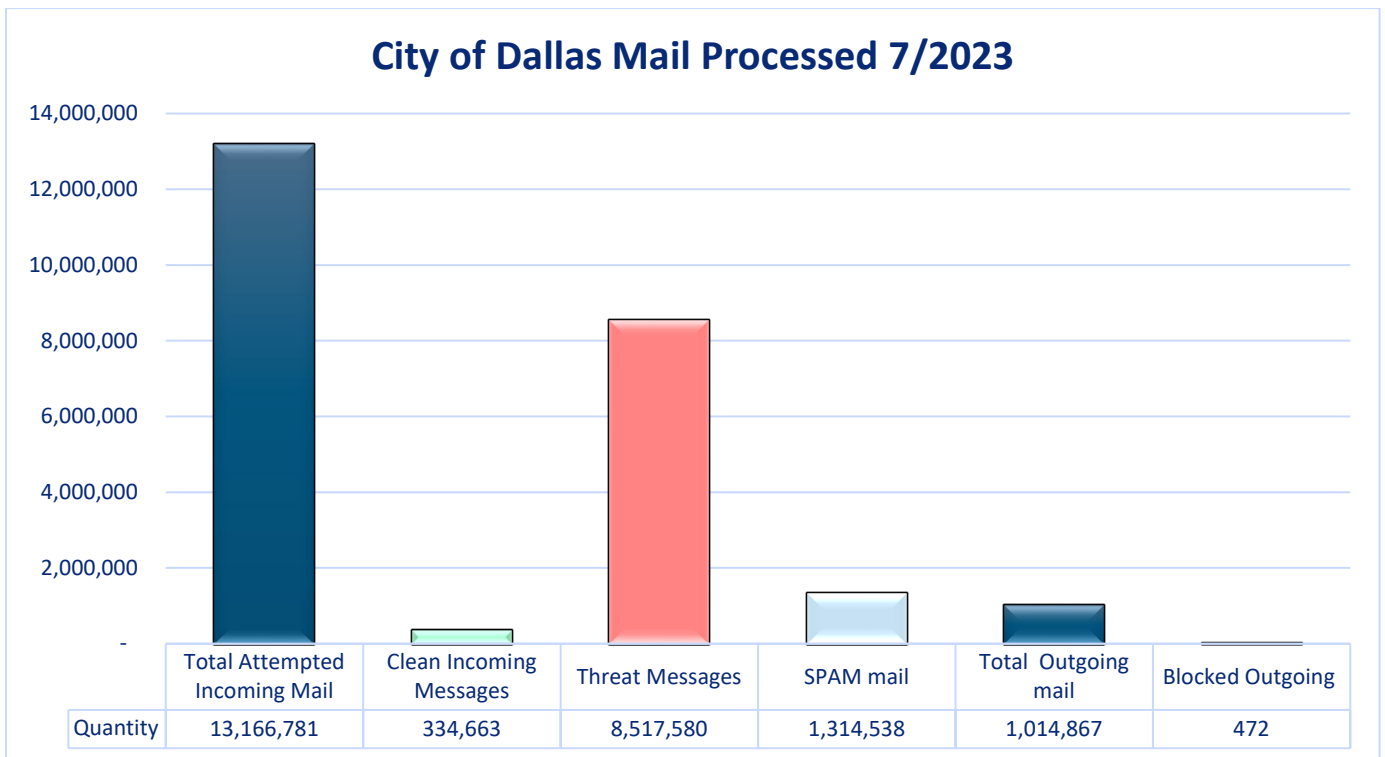
Section 5: IT Infrastructure

IT Infrastructure information and status updates on efforts to upgrade and improve the IT infrastructure used by the City to reduce technical debt, better meet current needs, and build for future service needs.

A. Resiliency - Disaster Recovery and Business Continuity

Resilience is essential in the City's IT environment because it ensures that the system can continue to function effectively and efficiently even when unexpected events occur. This can include things like hardware or software failures, power outages, natural disasters, and cyber-attacks. Lack of resiliency impacts Local government to prolonged outages, data loss, and security breaches. These can be costly in terms of services to residents, loss of public trust, and regulatory penalties.

Resiliency can be achieved through a combination of redundancy, fault tolerance, disaster recovery planning, and proactive monitoring and maintenance. By designing and implementing resilient IT systems, the City can minimize the impact of disruptions and maintain business continuity, ensuring that critical applications and services remain available. ITS has begun evaluating on opportunities to design the City's IT environment to improve resilience.

A critical component of Disaster Recovery and Business Continuity practices is backing up critical data, testing data backups, and conducting exercises to ensure that data backups can be successfully utilized to restore business services.

City of Dallas System Backups completed 7/2023

Category	Value
Backups Stopped for Maintanence	479
Failed	3,235
Completed	33,116

Axis: - 5,000 10,000 15,000 20,000 25,000 30,000 35,000

B. Technical Debt

As a part of the City's IT Infrastructure improvement direction, a proactive approach has been taken that identifies, tracks, and will communicate the potential risks and costs associated with technical debt to City departments. The City's Technical debt has accumulated over time, reducing the IT effectiveness for services. This must involve setting aside a time and resources, specifically for the deficit. By ITS developing a comprehensive technical debt management strategy, organizations can prevent the accumulation of technical debt, reduce development costs and timelines, and improve system stability and maintainability over the long term. This leads to a long-term sustainability and maintainability.

As part of the ongoing efforts to assess the health of IT systems, a recently completed review found that up to 20% of the City's technology systems and infrastructure can be defined at a level of "Critical" or "High" infrastructural debt, requiring attention to upgrade, replace or remediate the risks associated. As a result of the May 2023 ransomware attack, multiple servers and systems were taken offline and remediated vulnerabilities. The August 2023 TAR will provide an update of Infrastructure Debt based upon restoration and remediation from the ransomware attack.

IT Infrastrucutural Debt

Critical
6%

High
14%

Low
42%

Moderate
38%

☒ Critical ☒ High ☐ Moderate ☒ Low
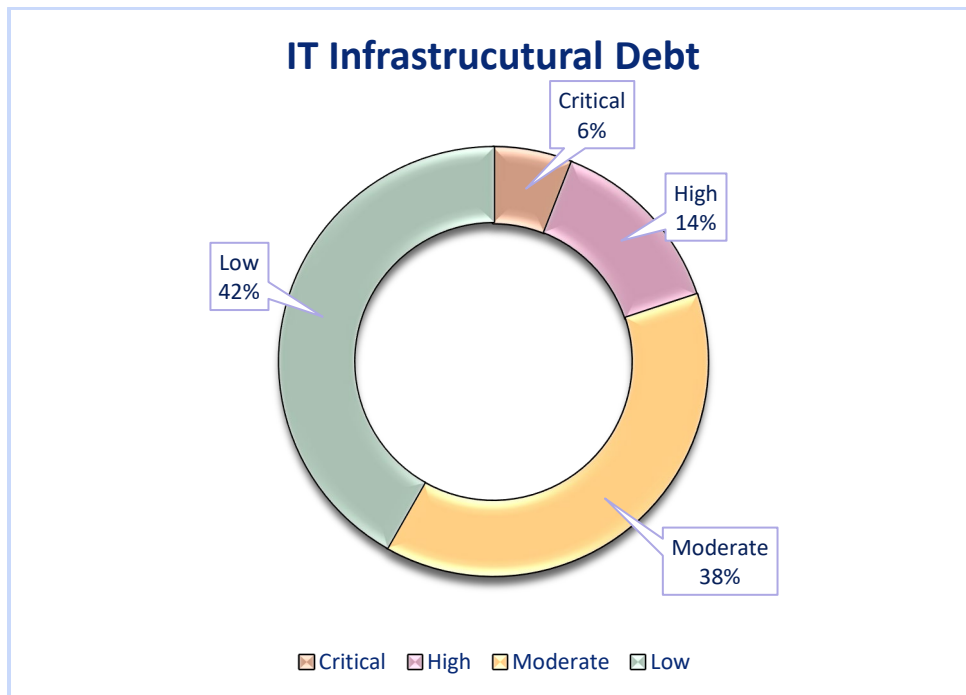
C. Audit

Currently the ITS department is working through several audits that impact technology services. Below representative if the Audit remediation efforts and stages.

Audit Remediation 7/23

Low Implemented — 1
Low Under review — 1
Medium Implemented — 1
Medium Not Implemented — 9
High Implemented — 11, 12
High Under Review — 3
High Not Implemented — 16

Legend:
- Low Implemented
- Low Under review
- Medium Implemented
- Medium Not Implemented
- High Implemented
- High Under Review
- High Not Implemented

Audit Remediation Stage 7/23

Legend:
- Implementation in Progress
- No Follow-up Yet
- Closed