



2022

ANNUAL REPORT

CITY OF JACKSONVILLE



INFORMATION
TECHNOLOGIES
DIVISION

**CITY OF JACKSONVILLE
INFORMATION TECHNOLOGIES DIVISION ANNUAL REPORT**



June 30, 2022

To: Brian Hughes, Chief Administrative Officer

From: Kenneth Lathrop, Chief of Information Technologies/CIO

CC: Constitutional Officers, Independent Agencies, City Council, Council Auditor, IT Executive Committee

Subject: ITD Annual Report per Ordinance Chapter 24, Part 7, Section 24.701(i)

Please find attached the Annual Report for the Information Technologies Division per Ordinance Chapter 24, Part 7, Section 24.701(i).

Please contact me at 904-255-8004 if you have any questions or concerns.



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Information Technologies Division 2022 Annual Report

Background

The Information Technologies Division (ITD) is responsible for the technology strategy and operations, procurement, development, maintenance, and support of all technology products, infrastructure, and services for the City of Jacksonville (COJ). This includes data centers, network and server infrastructure, telephone and wireless communications, public safety radio system, security, data services, desktop, geographic information systems (GIS), and applications.

ITD provides 24 x 7 customer and infrastructure support through our Service Desk and Operations that can be accessed from 255-1818. The Division maintains 9,370 desktops, laptops, rugged laptops, and tablets, 90 physical and 580 virtual servers, 14 communication towers that host Microwave and Radio systems, 11,170 radios, 7,500 telephones, 2,500 cell phones and data cards, network connectivity for all downtown COJ buildings plus 225 remote locations, fiber optic and copper cable infrastructure, 3 data centers and approximately 200 software applications

Strategy

ITD's objective, through technology and innovation, is to support the City's initiatives to advance Public Safety, Economic Development, Service to Youth, Healthy Citizens and Neighborhoods, and Government Efficiency and Effectiveness.

ITD's strategy to accomplish these objectives is through a series of continuous goals that include:

- Assisting customers with meeting their business needs through technology that makes sense.
 - Leveraging vendor Software as a Service (SaaS) and hosted solutions that fit the customer's business needs.
 - Implementing internal business processes within ITD that promote identifying the best and most appropriate products and technologies.
 - Ensuring long-term benefits from implementing products that allow for quicker delivery of services to the customer and the citizens they serve.
 - Filling vacancies through:
 - Contract to hire – placing a greater emphasis on hiring application administrators and configurators to align with our vendor SaaS and hosted solutions strategy.
 - Recruitment efforts – working with local colleges and universities to hire junior level personnel to train and provide career path.
- Refreshing the City's end-of-life technology infrastructure to provide reliable support for the City's technologies, products, and services.
- Ensuring Technology Security Compliance.
- Enhancing accuracy and streamlining of Customer Billing Model.

Key Accomplishments

- Completed 57 projects for FY2021.
- Completed tickets/requests:
 - FY2021 – 32,915
- College Hires and Internships – 5 hires, filling positions in the areas of Business Analysis and Application Development.
- Since incorporating drone technology into ITD, we have been able to provide a high level of aerial photography and video to departments throughout the city. This footage enhances the visibility of the City of Jacksonville and allows ITD to showcase all the City has to offer.

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ITD Customer Billing Model

The customer billing model, of which the IT Operations budget is based, continues to evolve with focus on presentation, accuracy, understanding and access to customers. Beginning in FY2017, ITD began sending monthly notifications to stakeholders, which includes customers that are accounted and billed, as part of the Customer Billing System (CBS). The FY2022 CBS continues with this billing methodology that first seeks to identify costs directly attributable and assignable to a particular customer or customers as in the case of shared projects. A capacity/resource planning tool provides additional refinements using estimate of ITD staff time and effort as being direct billable and/or indirect billable in terms of various projects and maintenance activities. Of the time and effort not directly attributable to a particular customer, the billing system employs a modifier to account for the various overhead and indirect costs. Job Categories now accurately reflect the costs of billable resources.

ITD FY2022 BUDGET	
\$43,079,088	53101 – IT Operations
4,151,514	53102 – Radio Communications
0	53103 – Technology System Development
1,549,049	53104 – Technology Equipment Refresh
578,762	53105 – Radio Equipment Refresh
430,660	53106 – Technology System Development
13,433,634	ARP Funding
<u>\$63,222,707</u>	TOTAL



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FY2022 - Customer and Infrastructure Projects

Highlights - Completed Projects

FY2021 – PBX – Voice over Internet Protocol (VoIP) Phone System Refresh (Year 5 of 5)

ITD completed the VoIP refresh strategies that were planned for specific City locations. The migration included 800 desk phones and 50 Power over Ethernet (POE) network switches, at 84 locations including public libraries, community centers, and Supervisor of Elections. Last year’s refresh concluded the VoIP phone system refresh. All scheduled locations are now on a Cisco centralized telephone system. This enables efficient management and administration of the desk phones providing for more reliable communication.

FY2021 – Network Equipment Refresh

Completed a strategic plan to replace legacy end of life network devices at various locations across the City. The last annual refresh replaced 28 network devices for various City agencies. Maintaining a solid infrastructure to support applications, connectivity, and services provided by ITD to all the City agencies is essential for maintaining effective and efficient business operations.

FY2021 – P25 Radio – Microwave Network Radio Sites (Year 3 of 4)

Successfully replaced Microwave Indoor Radio Units in 12 COJ's two-way radio Microwave Network Towers. The existing Microwave Indoor Units were discontinued for purchase in 2013 by the manufacturer and are considered end of life. This is part of ITD’s on-going strategy to replace all microwave tower radios.





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FY2021 – Mobile Radio Refresh (Year 6 of 7)

ITD successfully refreshed 253 radios for Jacksonville Sheriff’s Office (JSO) and 76 radios for Jacksonville Fire and Rescue (JFRD). These radios were at end of life and support and required replacements. Mobile radios are two-way radios installed in vehicles. Due to additional funding during FY2022, the project was reduced from a total of 8 years to 7 years. These new radios will offer enhanced encryption, GPS capability, Bluetooth, Wi-Fi capabilities, and improved auto quality.



FY2021 – Portable Radio Refresh (Year 3 of 5)

ITD successfully refreshed 419 radios for JSO, 105 radios for JFRD, and 20 radios for General Government agencies. These portable radios were at end of life and support and required replacements. Due to additional funding during FY2022, the project was reduced from a total of 8 years to 5 years. Some radios will include new smart features, including SmartConnect, SmartMapping, SmartLocation, and SmartProgramming. These smart features allow for efficiency, accuracy, and scalability. In addition, these radios will have increased battery life, Bluetooth, GPS, improved auto quality, and Wi-Fi capabilities.





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Distributed Antenna System (DAS) for Yates Building

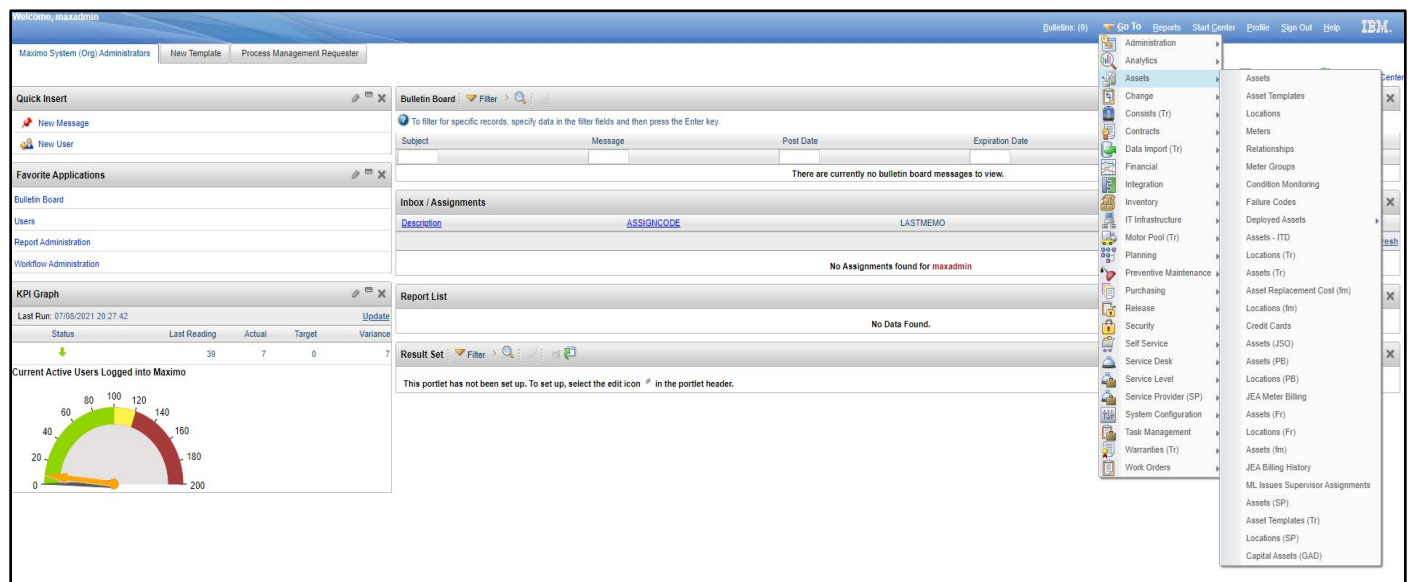
This project addressed poor cellular coverage in the Tax Collector’s Offices on the first floor of the Yates building. An additional distributed antenna node was extended from the County Court House system to support all cellular carrier signals. Project was completed successfully in April 2022.

CareWare Transition to on Premise Hosting

In 2021, ITD in conjunction with COJ Social Services, took on the responsibility of hosting the server that maintains all Ryan White related information for the Health Resources & Services Administration (HRSA) CareWare application. CareWare is a data management system used by the COJ Social Services Division Ryan White Program. The Ryan White program has ten (10) contracted community providers who use the data management system to maintain and track personal health information and services received for over 4,000 persons with HIV/AIDS in the Jacksonville area including Duval, Clay, Nassau, and St. Johns Counties. ITD conducted the initial install (upload) of historical data and currently is responsible for ensuring that the server is functioning as designed and remains in proper running condition to service the needs of the Social Services Division. Taking the application in-house has enabled Social Services to continue its mission to provide the best possible services to Ryan White HIV/AIDS Program recipients and providers.

Maximo Upgrade 2021

The purpose of this project was to upgrade the City’s Enterprise Asset Management System from 7.6.09 to 7.6.12 due to version 7.6.09 reaching end of life and support. In addition, Websphere, which is an IBM Tool/Software used by the technology staff (Developers) to create and manage the application through a website frontend was upgraded from 8.5.5.18 to 9.0.5.10 and the SQL Database from 2012 to 2019. The upgrade included all modules, customizations, integrations with internal and external systems, and was necessary to continue receiving the required annual maintenance and support from IBM. Through this upgrade, ITD ensured that Public Works, JFRD, and Fleet were able to manage Assets, Work Orders, Supply Orders, Fleet Billing, Fuel, and JEA Meter reading imports with minimal issues. This upgrade allowed the City to transition to the required supported IBM platform, which is designed to provide increased efficiency and a rapid flow of operations.





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Environmental Quality (EQD) – Geographic Information Systems (GIS) Public Water Quality Website Creation

This project delivered a web application that automates several time-intensive functions previously performed manually by EQD Staff. These functions include entering and tracking waterbody inspection data, managing testing functions, monitoring, reporting results, and meeting requirements from State and Federal regulatory institutions. This application includes the functionality of the EQD Locations module and provides the EDQ Staff the ability to analyze the health of local water bodies and to access related data. In addition, it also puts all data needed for State and Federal reporting requirements in one database, allowing accessibility through one application.

CLIENT	PROJECT/LABNAME	SAMPLENAME	LABSAMPID	MATRIX	SAMPDATES	SAMP	TIME	PREPDATE	PREP	TIME	ANALY	DATE	ANALY	TIME	BATCH	ANALY	METHOD	NAME	RESULT	DILUTION	MDL	POL	UNITS	ANALY	QUALIFIER
Ambient Water Quality/NPDES	City of Jacksonville EQDOR348	2107021-01	Water	2021/07/27	10:00												Nitrate-Nitrite	EPA 353.2		0.01	0.03	mg/L			
Ambient Water Quality/NPDES	City of Jacksonville EQDORWHEAT	2107021-02	Water	2021/07/27	10:30												Nitrate-Nitrite	EPA 353.2		0.01	0.03	mg/L			
Ambient Water Quality/NPDES	City of Jacksonville EQDORWHEAT Dup	2107021-03	Water	2021/07/27	10:40												Nitrate-Nitrite	EPA 353.2		0.01	0.03	mg/L			
Ambient Water Quality/NPDES	City of Jacksonville EQDOR10	2107021-04	Water	2021/07/27	11:10												Nitrate-Nitrite	EPA 353.2		0.01	0.03	mg/L			
Ambient Water Quality/NPDES	City of Jacksonville EQDORBW	2107021-05	Water	2021/07/27	11:30												Nitrate-Nitrite	EPA 353.2		0.01	0.03	mg/L			
Ambient Water Quality/NPDES	City of Jacksonville EQDOR84	2107021-06	Water	2021/07/27	12:00												Nitrate-Nitrite	EPA 353.2		0.01	0.03	mg/L			
Ambient Water Quality/NPDES	City of Jacksonville EQDOR348	2107021-01	Water	2021/08/06	11:15			2021/08/10	13:41								Total Kjeldahl Nitrogen	EPA 351.2	1.13	1	0.05	0.225	mg/L	SB	
Ambient Water Quality/NPDES	City of Jacksonville EQDORWHEAT	2107021-02	Water	2021/08/06	11:15			2021/08/10	13:41								Total Kjeldahl Nitrogen	EPA 351.2	0.776	1	0.05	0.225	mg/L	SB	
Ambient Water Quality/NPDES	City of Jacksonville EQDOR10	2107021-04	Water	2021/08/06	11:15			2021/08/10	13:41								Total Kjeldahl Nitrogen	EPA 351.2	0.642	1	0.05	0.225	mg/L	SB	

Monitoring Locations

Site ID: JAXSJR21
 Project ID: RR
 Monitoring Location: ST JOHNS RIVER RIVER AT MAIN STREET BRIDGE
 Location: ST JOHNS RIVER
 WBID: 2213D
 Waterbody Name: ST. JOHNS RIVER
 Organization ID: 21FLJXWQ
 Organization Name: CITY OF JACKSONVILLE
 Planning Unit: NORTH MAINSTEM UNIT

[View more Location Details](#)
[Zoom to](#)



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Enterprise Resource Planning (ERP) – Learning Management System, Talent Management

Oracle’s Cloud Learning Management System (LMS) is a unified learning delivery system extended to employees and customers. The system also can integrate with other learning content providers such as Skillsoft and LinkedIn. LMS is comprised of a centralized course catalog, learning paths, and a repository of competencies and certifications achieved by employees to facilitate career planning as well as candidate placements, performance appraisals, and other activities. LMS can automate the assignment of learning initiatives based on the department/division, position, COJ onboarding requirements, and other business rules.

Currently, COJ has 122 courses in LMS with 245 active offerings. Offerings include: New Employee Orientation, COJ Safety Sensitive Training, Team Building, Leadership Development, Diversity, Equity, Inclusion, Belonging, Developing and Maintaining a Customer Service Culture, and Human Trafficking Awareness. Over 4,177 employees have completed training courses within LMS since its implementation in July of 2021.

The screenshot displays the Oracle LMS interface. At the top, there is a search bar labeled "Search by learning item title" and a "Hide Filters" button. Below the search bar, there are filter tabs for "Enrollment Record Status" with sub-filters for "Not Passed", "Completed", "Withdrawn", and "Bypass Completed". A "Sort" dropdown menu is set to "Completed on - Most Recen".

On the left side, there is a "Filters" panel with a "Reset" button and "Expand All" / "Collapse All" options. The filters include:

- Completed Date:** m/d/yy - m/d/yy (with OK button)
- Enrolled Date:** m/d/yy - m/d/yy (with OK button)
- Due Date:** m/d/yy - m/d/yy (with OK button)
- Enrollment Record Status:** Clear button and checkboxes for:
 - Bypass Completed
 - Withdraw Pending Approval
 - Complete Pending Approval
 - Completion Request Rejected
 - Pending Required Evaluation
 - In Progress
 - Not Started
 - Not Passed
 - No Offering Selected
 - Pending Active
 - Pending Prerequisite
 - Requested
 - Pending Fulfillment
 - Request Rejected
 - Waitlisted
 - Withdrawn
 - Completed
- Offering Status:**
 - Completed
 - Pending Required Evaluation
 - In Progress

The main content area shows a list of training courses:

- City of Jacksonville Human Trafficking Awareness Training** (Course): Completed on 6/3/22 4:11 PM, Enrolled by Employee Services, Due 6/17/22
- 2021 COJ Cybersecurity Awareness Training** (Course): Completed on 8/16/21 10:51 AM, Enrolled by Employee Services, Due 8/31/21
- Introduction to SharePoint 365** (Course): Completed on 8/4/21 12:35 PM, Expired on 8/6/21, Enrolled by Employee Services, Due 8/5/21
- EEO Training for Managers** (Course): Completed on 11/17/20 7:00 PM, Enrolled by Employee Services, Due 11/18/20
- COJ Sexual Harassment and Discrimination - Employees** (Course): Completed on 6/13/18 8:00 PM, Self-registered, Due 6/14/18
- COJ Drug Free Workplace Training for Supervisors** (Course): Completed on 5/24/18 8:00 PM, Self-registered, Due 5/25/18



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City User Fees Enhancements

Beginning in 2008, the City of Jacksonville implemented two (2) new user fees: Residential Solid Waste User Fee and Storm Water User Fee, both of which entailed using a manual process to calculate the required fees. The purpose of this project was to automate the billing of Stormwater & Solid Waste Fees for various property types. Fee calculations for the various property types are determined by the business logic which has resulted in improved accuracy and efficiency by reducing manual processes. It should be noted that due to the automated process implemented, there has been a significant reduction and improvement in the time required to calculate both fees.

Property Management		Administrative Annual Steps						
Task No.	Step No.	Step Description	Year	Status	Processed By	Processed Date		
Add New Parcel								
Application Tracking								
1	0	Administrative Maintenance	2022					
Reports								
1	1	Maintain Area Types	2022	●			Process	Done
Administrative Maintenance								
1	2	Maintain Billing Factors	2022	●			Process	Done
1	3	Maintain Exemptions Codes (Government)	2022	●			Process	Done
1	4	Maintain Extra Features	2022	●			Process	Done
1	5	Maintain Solid Waste Exceptions	2022	●			Process	Done
1	6	Maintain Storm Water Overrides	2022	●			Process	Done
1	7	Maintain Townhome Subdivisions	2022	●			Process	Done
Maintain Users								
2	0	Annual Preparation	2022					
Order Billing Steps								
2	1	Extract Passed Slab Inspections	2022	●			Process	Done
Annual Preparation								
2	2	Annual Pull from CAMA	2022	●			Process	Done
All Billing Steps								
2	3	Validate and Update CUFS Data	2022	●			Locked	Done
Maintain Slab Inspections								
2	4	Review Parcels	2022	●			Locked	Done
Validate and Update CUFS Data								
2	5	Run Non Ad-Valorem Notices	2022	●			Locked	Done
Review Parcels								
2	6	Run Certified Bills	2022	●			Completed	Done

Tax Collection Management Solution Replacement

ITD assisted in the implementation of a new tax collection software solution for the Duval County Tax Collector’s Office. This project replaced a legacy system with a modernized cloud-based solution offering advanced functionality. ITD helped establish integration between the new tax collection system and various payment collection systems throughout the City such as Solid Waste Collection, Solid Waste Disposal, Construction Trade, BID, and City User Fees. In total, there were twelve (12) systems updated to integrate with the new Tax System.

City Council AV Replacement Phase 1

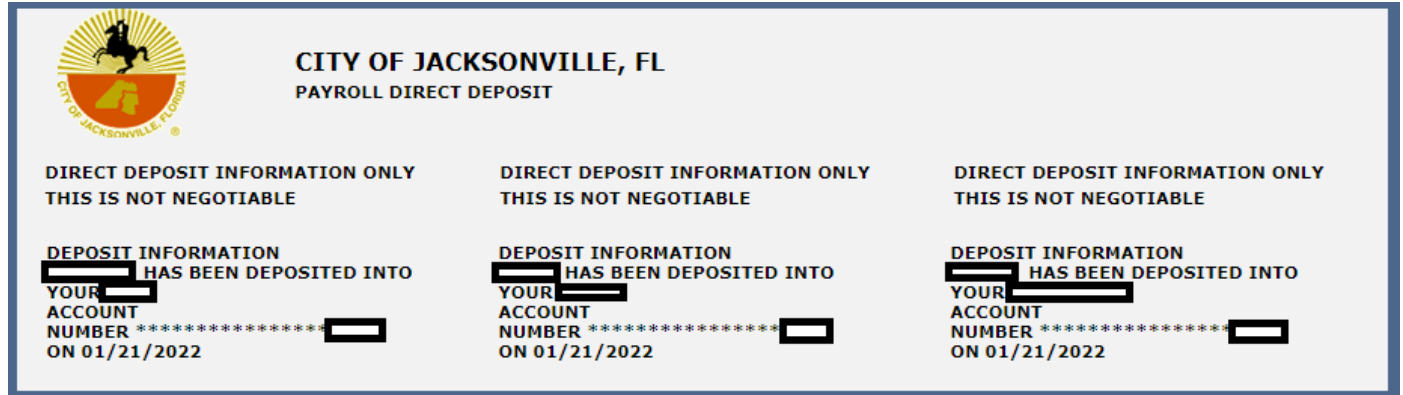
The purpose of this project was to expand the audio/visual technology in the City Council Chambers. The City Council AV system upgrade allowed the City Council to continue functioning during the pandemic and conduct virtual meetings. The new AV features included video web streaming and archive of committee meetings, legislative agenda workflow and vote tracking, automated close captioning, new high resolution video cameras and controls, and new displays in council chambers.



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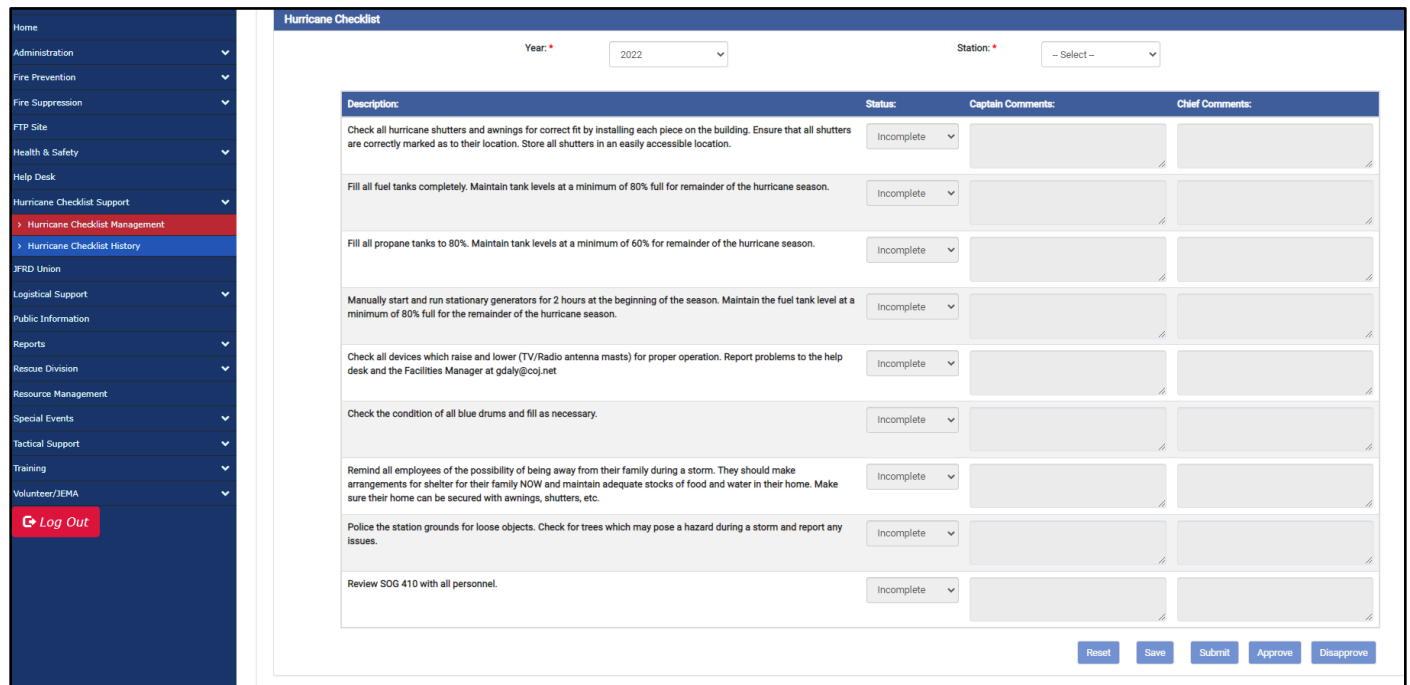
Direct Deposit Enhancements

The purpose of this project was to provide all employees an easy and convenient way to split the bi-weekly direct deposit to multiple bank accounts. With this added functionality, the online Pay Notice Portal now provides a quick glance to all earnings, deductions, and multiple bank accounts information in a single view with only a couple of clicks.



JFRD Hurricane Season Fire Station Checklist

The purpose of this project was to eliminate the manual process and add an online tool for JFRD to track deficiencies and completeness of fire stations for hurricane readiness. This tool was added to the JFRD Portal to allow station captains the ability to check fuel tanks, propane tanks, generators, TV/Radio Antennas, etc. In addition, within this online tool, station captains can submit reports to a district chief for their review and approval. The system also generates nightly notifications automatically to keep chiefs up to date with any of these requests.



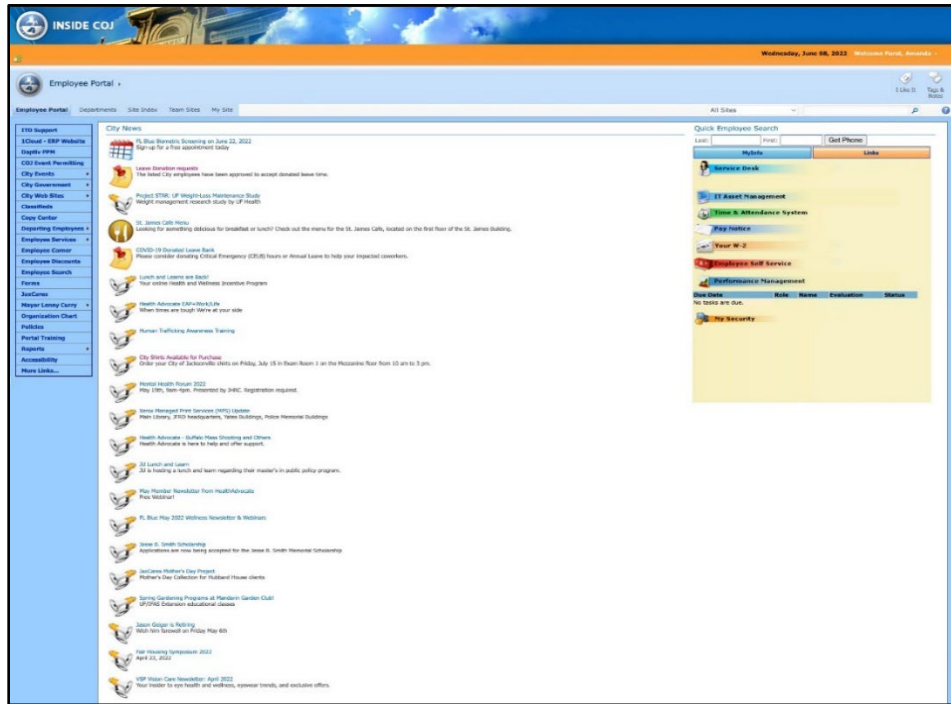


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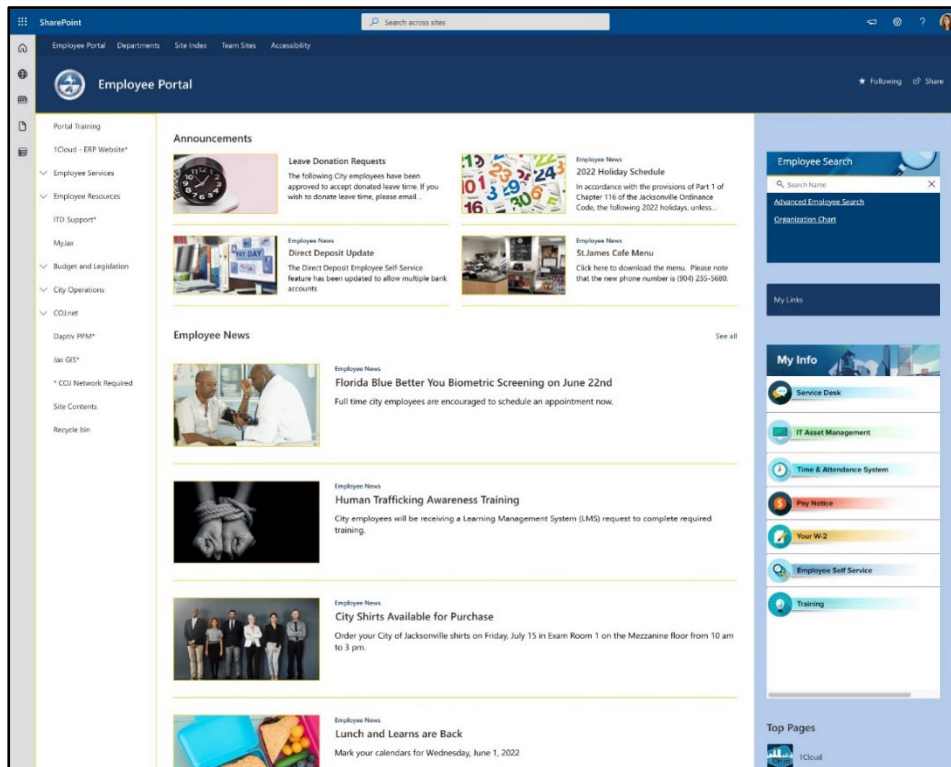
SharePoint Cloud Migration

The SharePoint 2010 environment is no longer being supported by Microsoft. ITD migrated internal sites and content from on-premise SharePoint 2010 to the Microsoft 365 SharePoint Online environment. The new SharePoint environment features updated functionality to help users with file management and collaboration. All customer content was successfully migrated.

SharePoint 2010 – Original Site



SharePoint 2010 – New and Improved Site



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Highlights – Projects in Progress

FY2021 – PC Hardware Refresh and Windows 10 Upgrade (Year 4 of 4)

ITD is in the process of deploying new computers to various COJ departments for year 4 of the 4-year PC refresh project. The project aims to replace aging devices throughout the City while providing the latest operating system software that is currently being supported. All refreshed computers will have a Windows 10 operating system and Office 365 or Office 2019 depending on the using agency. At the end of FY2022, ITD will have successfully deployed a total of 980 computers.

Network Refresh FY2022

This annual refresh will replace outdated network equipment for various City agencies. The network refresh ensures that all networking equipment is updated, supported, and maintained. This provides the COJ with enhanced security and manufacturer's support. The FY2022 refresh consists of two major data center core components, and nineteen devices in the Duval County Courthouse.

VoIP Phase VI Call Center Manager Upgrade FY2022

The Cisco Unified Communications platform provides phone, voice mail, and contact center services for COJ, and the JSO. Upgrading this application provides additional feature sets, increased stability, increased security, and supportability from the manufacturer. This project includes the upgrade of 18 servers with minimal downtime to voice services.

Medical Examiner (MEO) New Building Infrastructure

MEO is currently in the design stage of constructing a new facility. ITD is assisting the MEO with technology related recommendations: equipment closets, phone service, network connectivity, security, and audio visual. The design stage is currently at 90% completion. All requirements will be finalized, and budgetary quotes will be obtained prior to the next step, breaking ground.

Public Defender (PD) 10Gb Backbone Upgrade

ITD is working with the PD's Office to upgrade core network connectivity to 10Gbps. This will provide increased performance for bandwidth intensive bodycam footage review, and the PD's servers housed in the data center. The PD upgrade also is in line with the proposed Citywide 10Gbps network upgrade. Continually changing technology has increased demand for network resources, including bandwidth and additional physical connections.

Moncrief Community Center STEM Hub Buildout

This center completed construction during the 2nd quarter of 2021. The STEM (Science Technology Engineering and Mathematics) hub is focused on bringing real-life workforce development, in areas such as coding and robotics, for teens in the area. ITD is assisting Kids Hope Alliance (KHA) with evaluation, installation, and support for AV, network, Wi-Fi, security, and associated cabling.

FY2022 – P25 Radio – Microwave Network Radio Sites (Year 4 of 4)

The project aims to replace Microwave Indoor Radio Units installed in 12 COJ's two-way radio Microwave Network Towers. The existing Microwave Indoor Units were discontinued for purchase in 2013 by the Manufacturer and are considered end of life. FY2022 will be the final year of the project.

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FY2022 – Mobile Radio Refresh (Year 7 of 7)

ITD is refreshing 220 radios for JSO, 139 radios for JFRD, and 226 radios for General Government agencies. Mobile radios are two-way radios installed in vehicles. These radios are at end of life and support and require replacements. FY2022 is Year 7 of a 7-Year Project, to replace mobile radios. This project was accelerated by 1 year with support from ARP Funding.

FY2022 – Portable Radio Refresh (Year 4 of 5)

ITD is refreshing, 1331 radios for JSO, 397 radios for JFRD and 188 radios for General Government agencies. These portable radios were at end of life and support and required replacements. FY2022 is Year 4 of a 5-Year Project to replace portable radios. This project was accelerated by 3 years with support from ARP Funding.

FY2022 – P25 Radio – Redundant Backup System/Relocate Master Radio Site

ITD will relocate its current Master Site Radio System to the Ed Ball and Wells Fargo buildings and implement a new P25 redundant backup system. This new system will provide the City with a backup, allowing for greater fail-redundancy, greater operational flexibility, and continuous two-way radio communications in the case of system failure. The Redundant Radio System installation is scheduled to be completed in FY2023.

Radio System Upgrade P25

The intent of this project is to upgrade the P25 ASTRO radio system software version 7.17 to 2019.2 and replace 23 end of life Motorola routers at 16 Public Safety Dispatch Centers. P25 ASTRO system software upgrades are performed every two years. In addition, based on Motorola's end-of-life schedule, other critical devices of the P25 ASTRO network are also replaced.

P25 Radio – Relocate JEA Master Radio Site

The new and updated Public Safety system will provide the City with a backup, allowing for greater redundancy, greater operational flexibility, and continuous two-way radio communications during City wide emergencies. The project consists of the relocation of the current JEA Master Site to be split from the Master Site to the Ed Ball Building, along with the antennas relocating to the Wells Fargo Building. Additions include new redundant backup Master at Cecil 911 Center, updating to MPLS network labeling, routing, and new microwave connectivity. The Redundant Radio System installation is scheduled for completion in FY2024.

Courthouse Complex Distributed Antenna System (DAS) Replacement

ITD is installing new DAS equipment in the Duval County Courthouse. The upgraded solution provides in-building cellular service, and two-way radio connectivity for Law Enforcement officers, Fire and Rescue personnel, Circuit Judges, Bailiffs, Clerk of Courts employees, and citizens.

JFRD Mobile Gateway

The purpose of this project is to design, acquire, and implement a cloud managed solution for mobile Wi-Fi gateways in all JFRD apparatus. This will consolidate and replace all hot spots, Mi-Fi, and air cards currently utilized by JFRD. In return this will simplify management, security, and reduce overall cost of wireless communications for emergency vehicles.

City Council AV Replacement Phase 2

The purpose of this project is to expand the audio/visual technology in the City Council Chambers, Lynwood Roberts Room, Don Davis Room, Committee Room B, and Conference Room A at the St. James Building. In addition, this project will improve visibility for City Council meetings by expanding the functionality to other meeting rooms in the St. James Building. The image quality will also improve for broadcasting meetings by utilizing HD cameras and provide the ability to record/stream meetings from all rooms, over the web, and to Comcast Channel 99.

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Kids Hope Alliance AV Upgrade Phase 1

The purpose of this project is to expand the audio/visual technology at the Kids Hope Alliance (KHA) multi-purpose events room. The project will improve audio and video capabilities to facilitate large and split-room events.

Emergency Operations Center AV Equipment Upgrade

The intent of this project is to upgrade an unsupported, analog audio-visual system for the City's Emergency Operations (EOC) Center to modern digital technology. These system updates will be used by the EOC to coordinate and communicate with other key City agencies, Departments, and other Federal, State, and Local stakeholders for day-to-day and emergency operations. The project is scheduled to complete September 2022.

Debris Tracking System Redesign

ITD's GIS Team is redeveloping the Hurricane Debris Tracking System and its various functional elements. The new system will be significantly modernized with enhancements and will enable a simplified but more effective and efficient workflow. The approach for this new system takes advantage of mobile device technology and the 3rd party "Monitors" who are required to carry "smart" mobile devices for work use. The system is a combination of a "back end" PC application/mobile application that staff and management involved in debris cleanup would use to manage and track the progress of the debris cleanup effort. The major functions handled through this process will include the creation of Load Tickets for various types of debris, the ability to mark "Pass Completion" by street and grid to show what has been completed versus what is yet remaining, and the in-depth cost tracking and reporting needed to secure reimbursement funding from FEMA and the State of Florida. This project is expected to be the system used for hurricane season.

Real Estate Management System Replacement

ITD in conjunction with Real Estate Division has completed the process of gathering detailed requirements to build a software solution to serve as a single, unified database. The database will be used for managing the disposition of surplus property and tracking land acquisitions for temporary and permanent easements for FY2023. In addition, the solution will integrate with system for tracking all covenants and restrictions of City-owned properties. The online system will provide processing efficiencies and reduce spreadsheet-based tracking. In addition, the solution will enable the Real Estate Division to move towards a fully integrated and paperless system for managing properties, improve integration with external data systems, and enhance accuracies in the reporting of real estate.

Citywide Records Conversion

The goal of this project is to convert various legacy media types that are currently stored onsite and/or offsite into an electronic format. Media types consist of microfilm, microfiche, CDs/Discs, etc. Although this project will consist of multiple phases, the initial scope is focused on three Divisions: Accounting, Building Inspection, and Development Services. The progress of this project was impacted by the pandemic. To date, all work has been completed for the Accounting Division. ITD is continuing to work with Building Inspection, Development Services, and the vendor to complete the remaining work.

Computer Aided Dispatch (CAD) Upgrade 2021

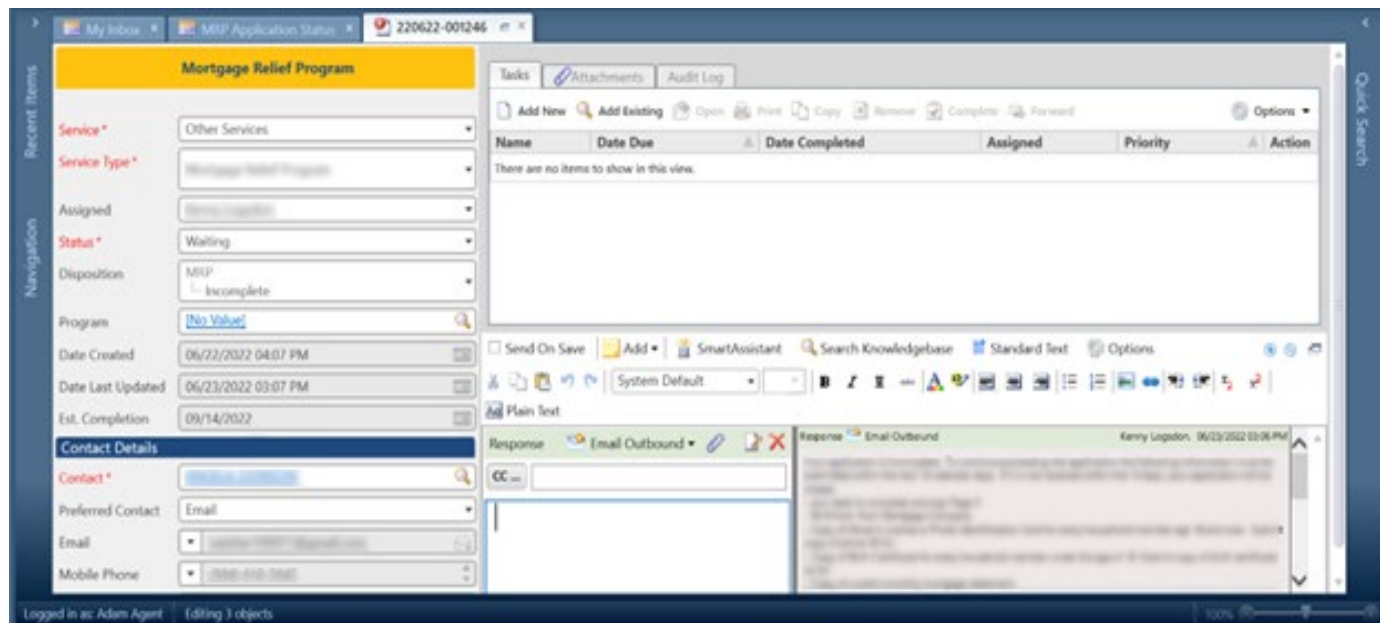
ITD is currently in the process of performing an update to the CAD/Mobile dispatch Software Application. The agency's training system has been upgraded for testing and approval prior to updating production. The software update includes cumulative updates, issue resolutions, new functionality, and hardware and software requirements conformation for upgrades (i.e., memory, NET Framework, ArcGIS, and SQL).



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Mortgage Relief Program (MRP)

COJ launched the Mortgage Relief Program on March 31, 2021. The program is distributing \$4.25 million of federal funds to assist Duval County homeowners (approximately 1,200 individuals/families) who have not been able to pay their mortgage due to a loss of income related to COVID-19. The maximum amount payable is \$7,500.00 of past due mortgage payments. Currently, the City is continuing to advertise the program and as of June 2022, there is approximately 700K remaining to be distributed. ITD will continue to provide support as needed until all remaining funds have been distributed. Upon program completion, ITD will provide support by extracting any required information/data for reporting purposes.



Physical and Virtual Environment Refresh

Each year ITD conducts a review of hardware and software to determine items that are scheduled for end of support by our vendors and items that are not operating effectively for replacement or upgrades. These refreshes are necessary to maintain the infrastructure to support applications, connectivity, and services provided by ITD to all the City agencies. This is essential for maintaining effective and efficient business operations in order to meet the needs of the citizens and businesses of the City of Jacksonville.

Virtual Server & Storage VxRail Area Network (SAN) Replacement

ITD maintains 580 virtual servers that require upgrades on a fixed schedule. This project will replace the current hardware and software of these virtual servers with a new VxRail system. The new technology will allow for faster processing and enhanced security.

Remote Desktop Services (RDS) Upgrade Citrix

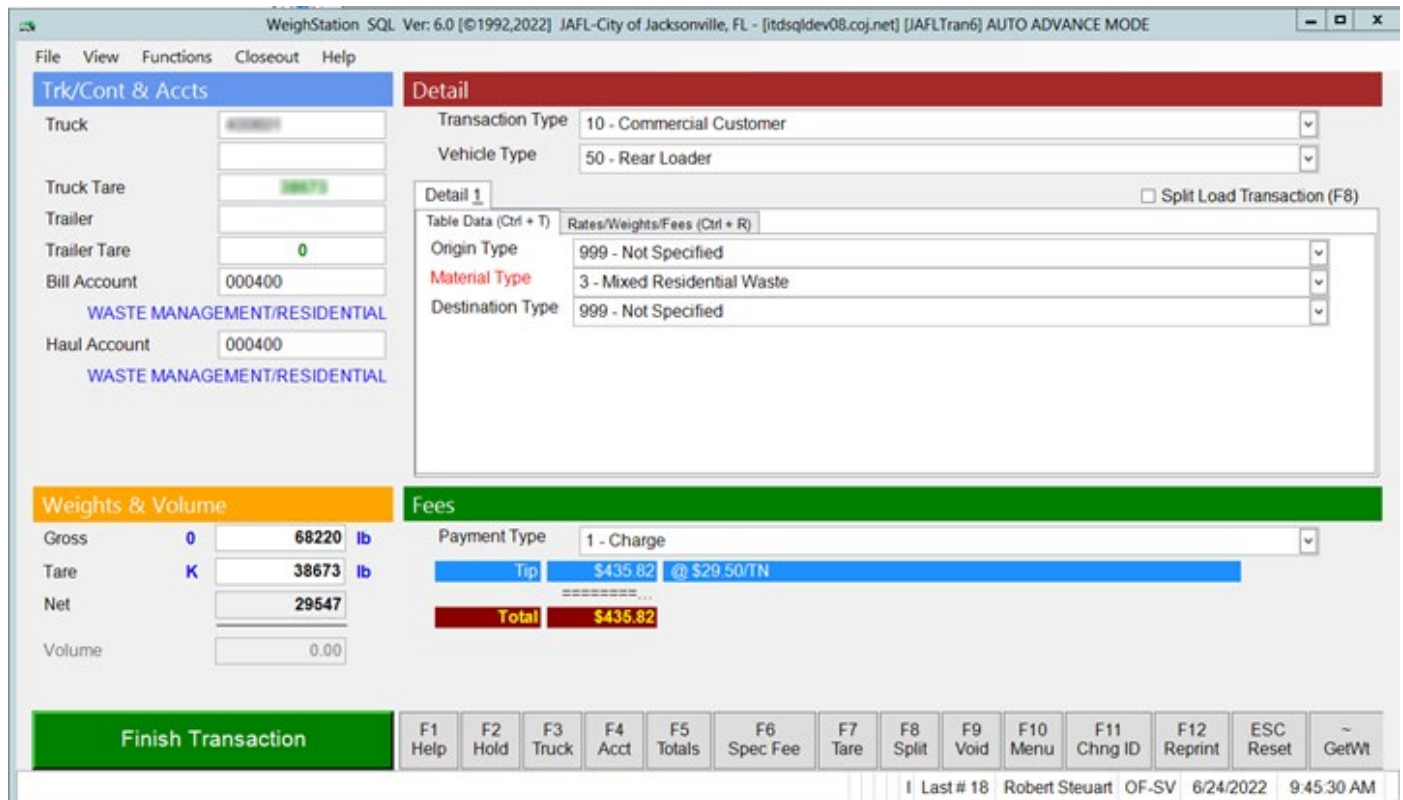
ITD will upgrade the current Citrix environment to use the new Microsoft 365 application. Citrix is vital to COJ because it allows employees to access certain applications remotely. In addition, licenses expenditures are reduced by eliminating the need to purchase additional application licenses. ITD will work with other departments to migrate and test their applications in the new Citrix environment ensuring continued supporting and functionality.



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Solid Waste CompuWeigh Software – v5 to v6 Upgrade

The purpose of this project is to upgrade the Solid Waste Disposal System from CW5 to CW6 due to version CW5 reaching end of life and support. The upgrade includes all currently owned licenses, modules, and customizations. In addition, the upgrade is necessary to continue receiving the vendor’s required annual maintenance and support. This project will ensure that the Solid Waste Division will be able to provide disposal services and accurately and efficiently bill, collect revenue, and improve the overall flow of operations. The upgrade is expected to be completed during FY2022.



Server Refresh: Load Balancing Enhancement

To ensure maximum efficiency at our disaster recovery site, applications must be available and accessible at their highest level possible. In order to ensure this, COJ servers are being refreshed with new load balancing enhancements. The new virtual F5 environment will host this load balancing enhancement. A load balancer is a device that helps manage application traffic across several servers. This will provide the City the ability to move applications between locations in the event of a disaster, along with enhancing our system security.

COJ.net v4 - Kentico 13 Rebuild & Upgrade

The purpose of this project is to rebuild COJ.net, currently a Kentico 10 solution built on Microsoft's ASP.NET framework, as a Kentico 13 solution based on Microsoft's new MVC .NET Core framework. This rebuild will enhance the speed and functionality of COJ.net and ensure that it will be compatible with future standards, such as HTTP/2 and new versions of SSL/TLS security. The rebuild will also include a new look and feel, featuring a wider maximum desktop format and stationery left-hand navigation.



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Fleet Management System Replacement

The purpose of this project is to replace the current Tivoli Fleet Management System with a solution that will allow the Fleet Management Division to fulfil their business needs. The Fleet specific application will provide the following functionality: Vehicle Services and Repairs, Equipment and Inventory, Fuel Usage and Milage Tracking, Invoice and Billing, and Surplus and Disposal. The vendor selection process is completed and work is ongoing to finalize the contract terms, confirm the software modules needed, and detail the implementation effort.

Work Order Main

Asset ID	6006 CNGT: 6006 2001 NEWFL C40LF CNG TANK - BUS 6006		
Asset Number	6006 CNGT	Repair Location	455C - EAST MAIN GARAGE - CNG
Work Order ID	SAN-2010-239	Job Status	OPEN
Job Type	REPAIR	Unit In	01/06/2011 17:11
Due	01/07/2011 01:11	Service Status	OOS - BACK - OUT OF SERVICE - BACKSHOP HOLD
Meter 1	0 HUBOMETER	Meter 2	0 MILES

Tasks: 2

Task ID	WAC	Remaining Hours
001 - AIR CONDITIONING-HEATING/VENTILATING SYSTEM		0.00
Y-CNGT - CNG TANK INSPECTION		-0.03

Actions

Main Page	Start Delay	View/Edit Detail
Finish Work Order	Part Actions	
Equipment History	Test Results	Related Files
Messages	Print Work Order	Component Warranty
Commercial Work	Postings	Relationships

Notes

Multi-unit Projects - Primary Information

Search
 Reload
 Sort

Filter
 Sort

New
 Copy
 Delete
 Edit
 Save
 Cancel

Row #	Project ID	Originator	Campaign number	Begin date	Completion date	Account ID
1	2006-THERM	THERMO KING	2006-32030439459	04/10/2006		

Basic Info

Project ID: 2006-THERM | REPLACE ALL THERMO KING X426 COMPRESSORS WITH UPDATED X556 MODEL | Status: PENDING

Basic Info

Description: REPLACE ALL THERMO KING X426 COMPRESSORS WITH UPDATED X556 MODEL

Originator: THERMO KING | Begin date: 04/10/2006 | Approved: 03/16/2006 12:42

Campaign number: 2006-32030439459 | Completion date: / / | By user: KD

Account ID: | |

Priority ID: | |

Work class: 5 | MULTI UNIT PROJECTS

Repair reason ID: P | PROGRAM MAINT/CAMPAIGNS | Associated file: |

Warranty work: YES/NO | Path and file name: | Description: |

Closed - no additional equipment units may be added to the project

Tasks

Row #	Delete	Task ID	Work accomplished code	Task description
1	<input type="checkbox"/>	001		AIR CONDITIONING-HEATING/VENTILATING SYSTEM
2	<input type="checkbox"/>	001.001		AIR CONDITIONING ASSEMBLY

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Clerk of the Circuit Court Website Rebuild

This project is a Kentico 13, in-house rebuild of the Clerk's existing. Features will include an enhanced look and feel, optimized performance, reorganized navigation for ease of use, enhanced ADA compliance, unified social media presence, and featured news and events.

Building Inspection Application (BID) Rewrite

The current system was developed in VB.Net, was implemented in 2007, and supports vertical permitting processes such as building, mechanical, plumbing, etc., as well as other permitting processes such as signs and mobile homes. It is also inclusive of electronic plans review, inspections processes, and building code enforcement. It is being rewritten as a web-based enterprise solution using the latest technology to create a more stable and sustainable product. The new solution will include existing functionality in addition to enhancements to better support agency business processes and required integrations with disparate systems. The final product will provide a more secure and functional user experience.

Fires Prevention & Inspections (FPI) Rewrite

The current system was implemented in 2008 and is used to manage the City's annual fire inspection processes. The new solution will include existing functionality in addition to enhancements, including more inspection types to better support agency business processes, and required integrations with disparate systems. It will be rewritten as another module within the permitting enterprise web-based solution that is also being developed in-house. The final product will provide a more secure and functional user experience.

Concurrency Management System Enhancements

The current system was developed in VB.net and implemented in 2008 and is used in the horizontal development process to track and manage the City's concurrency and mobility applications and payments. Required enhancements to comply with city audit requirements have been completed. It will be rewritten as another module within the permitting enterprise web-based solution that is being developed in-house. The logic incorporated for audit compliance will be included in the system rewrite in addition to new features and functionality to better support the agency's business needs.

Property Inspection & Contract Solution (PICS) Rewrite

The current system was developed by a vendor, implemented in 2008 and is used to manage municipal code enforcement processes such as citation management, abatement procedures and contractors, and special magistrate processes. It is currently in the system rewrite screen design phase and will be a module of the permitting enterprise solution currently under development. The new web-based solution will use the latest technology to create a more stable and sustainable product. The new solution will include existing functionality in addition to enhancements to better support agency business processes and required integrations with disparate systems. The final product will provide a more secure and functional user experience.

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Enterprise Resource Planning (ERP)

- **HR, Payroll and Benefits** – COJ is in the process of moving from our current on-premise Human Resources, Payroll, and Benefits Administrative systems to Oracle’s leading-edge cloud solution. The ERP initiative supports our business transformation goals to adopt industry best practice standards and improve City-wide business processes. ITD is currently performing an analysis of the City’s current processes and procedures to ensure that the City’s overall functions are accounted for in the new ERP Solution.
- **Formal Sourcing** – COJ is currently in progress of implementing Formal Sourcing, a primary component of the Advanced Procurement product. With this implementation, Request for Proposals (RFP), Invitations to Bid (ITB), Supply and Service Bids, and Evaluated Bids are among the thirteen (13) types of formal bids that will all be performed online through the Oracle Cloud solution.
- **Technical Infrastructure Upgrades** – COJ is working with Oracle Consulting to upgrade the infrastructure foundation that supports the system integrations and database storage. These migration projects are replacing the existing technology to enable the 1Cloud system improve system services, new functionality, and the latest technology.
- **Cash Management Reconciliation** – COJ is concentrating efforts to improve the ability to automate the cash reconciliation within the 1Cloud system. These configuration adjustments will dramatically improve the capability of the system to auto-reconcile cash transactions, while minimizing human efforts and providing efficiencies to close each period rapidly and accurately.
- **Project and Grants Configuration Modification** – Projects and Grants are a large component of the City’s financial business. Changes in business processes and reconfiguration of the project and grant modules will streamline the transaction processes and improve reporting capabilities on City initiatives, grants analysis, and delivered capital projects.
- **Data Warehouse** – Designed to house the legacy application data as well as a current feed from the 1Cloud system. Reports will be created to provide historical information and current information to analyze data over specific periods of time and data points.
- **Advanced Human Resources** – COJ plans to implement the modules for, Goal Management, Performance Management, Career Development, Talent Review, and Succession Planning.

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Highlights - Planned Projects

FY2023 – Portable Radio Refresh (Year 5 of 5)

ITD will continue the refresh strategy to replace portable radios for General Government Agencies, JSO and radios for JFRD. These radios will be at end of life and end of support. FY20223 will be the final year of a 5-Year project. This project aims to ensure that Public Safety personnel are operating reliable radios with enhanced security features supported by the manufacturer.

P25 Radio – Radio Site Expansion (Year 1 of 6)

The intent of this project is to add 5 new simulcast radio sites to the P25 system. Completion of this project will increase communication coverage areas throughout Duval County and will also improve in-building communication for Public Safety officers and General Government radio subscribers. FY2023 will be Year 1 of a 6-Year project.

Jacksonville Human Rights Commission (JHRC) Case Management Replacement

The goal of this project is to replace the current in-house developed JHRC Case Management system with a new vendor solution that will allow JHRC to satisfy their business needs by providing the functionality that includes Case Management, Case Tracking Information, emails/notifications, reports, forms, and other documentation related to Human Rights cases. The application will provide services to the residents of Jacksonville/Duval County related to reported matters of discrimination such as employment, public accommodation, HUD, etc., in a timely manner and according to regulatory requirements such as EEOC. Plans of implementation scheduled for FY2024.

Construction Trades Qualifying Board (CTQB) System Enhancements

The current system is a Microsoft Access System and was implemented in the late 1990s and is used to track and manage business licenses and licensing requirements within the construction industry for contractors, tradesman, journeyman, etc. The new solution will be developed in two stages and result in two major releases. The first release will result in a more secure and functional system by rewriting the existing system as a web-based solution. The second release will provide citizen access to the web solution for license renewals and online payments. The new solution will include existing functionality in addition to enhancements to better support agency business processes and required integrations with disparate systems. It will be rewritten as another module within the permitting enterprise web-based solution that is being developed in-house.

Recycling Awareness and Education Software Implementation

The purpose of this project is to implement 3 products: Waste Wizard, Collection Calendar, and a Mobile App, for Public Works Solid Waste Division. Each product will provide a unique set of benefits designed to educate, engage, and inform the citizens essential information regarding recycling coupled with communicating collection schedule changes easily, fast and in digital real-time via a mobile app. A phased approach will be used with the initial phase focused on deploying the Waste Wizard product.

Public Service Grants Application Rewrite

Currently, the solution utilized by Grants Management was implemented using SharePoint 2010 and K2 workflow technology. However, effective April 2021, SharePoint 2010 reached end of life, causing security updates and technical support to no longer be available. The purpose of this project is to implement a solution using modern technology (K2 Technologies) to ensure that technical support and technology updates can be received as necessary.

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Special Events Permitting Rewrite

The current system was implemented using SharePoint and K2 workflow technology to allow submission, review, and approval of Special Events Permits. The new solution will include existing functionality in addition to enhancements that improve performance, create efficiencies in agency business processes, and incorporate integrations with disparate systems. The system will be rewritten as another module within the permitting enterprise web-based solution that is being developed in-house.

Audiovisual Broadcast & Recording Solution for Civil Service Boardroom

The purpose of this project is to implement an audio/video solution for the Civil Service Board room. This will facilitate more effective presentations, recordings and virtual streaming of Board Meetings, Hearings, Training Sessions, other public meetings held in the Civil Service Boardroom.

Kentico 13 Rebuild & Upgrade City Sites

The purpose of this project is to rebuild 11 city websites, currently built on Kentico versions 10, 11, and 12 as Kentico 13 (or higher, if available) solutions based on Microsoft's new MVC .NET Core framework. These rebuilds will enhance the speed and functionality of the City's sites and ensure that they will be compatible with future standards, such as HTTP/2 and new versions of SSL/TLS security. In addition, these rebuilds will include a new look, feel, and feature a wider maximum desktop format and stationery left-hand navigation. Plans of implementation scheduled for FY2023.

Enterprise Resource Planning (ERP)

- **Enterprise Contracts** – To fully implement the Formal Sourcing process, the City will also implement Enterprise Contracts which will complete the cycle for securing multiple types of required contracts for the business. Contract tracking and processing will be performed within the 1Cloud system, including the use of digital signatures Citywide.
- **Enterprise Resource Planning (ERP) – Annual Comprehensive Financial Report (ACFR)** – The City is working to fully utilize the system to generate this extensive annual financial report from the 1Cloud system. This 350+ page comprehensive report consists of City financial data including Balance Sheets, Fund Statements, Pension Contributions, Financial Trends, Revenue Capacity, and much more.
- **Enterprise Resource Planning (ERP) – Cloud Access Security Broker (CASB)** – Enhanced security features for cloud access to keep up with the changing landscape of cybersecurity.

Network Refresh FY2023

Establish a recurring refresh cycle to replace network devices each year resulting in all network equipment being replaced every eight (8) years. Each year the network replacement strategy will be reviewed to identify efficiencies and improvements in hardware/software technology based on infrastructure bandwidth, customer capacity, and trending technologies.

Kids Hope Alliance AV Upgrade Phase II

The purpose of this project is to expand the audio/visual technology at the KHA main boardroom. The project will improve audio and video capabilities to facilitate large and split-room events.

Citywide Emergency Satellite System Upgrade

This project aims to upgrade and expand the existing end-of-life satellite communications system currently in use. The State Emergency Operations Center completed an upgrade of their legacy satellite equipment, which in return caused the City's equipment to no longer communicate with the State EOC via satellite. The new satellite equipment will be installed at multiple locations.



City of Jacksonville Wireless Infrastructure

The City of Jacksonville currently supports over 400 wireless access points servicing customers throughout the city. Wireless access points provide a cable free means of accessing network resources such as printing services, and access to file storage as well as Internet access. They are located throughout the city in various locations such as: libraries, fire stations, courthouse, public parks, tax collectors, and even in public parks.

City of Jacksonville Server Infrastructure

ITD will conduct a review of hardware and software each year to ensure that applications are running on vendor supported systems and to address any changes in security to address cyber-attack concerns. This review is part of ITD overall strategy of a five-to-six-year system refresh. This will allow ITD to replace or upgrade both hardware and software to meet the needs of the City of Jacksonville, FL.

Ensuring Technology Security Compliance

With the increase of threat actor activity on US critical infrastructure and state and local governments; now more than ever ITD remains committed to initiatives that focus on the security goals of the City's data and systems. ITD is committed to reducing risk to an acceptable level as we continue to focus on confidentiality, integrity, and availability as our core goals.

Ensuring public and employee safety is our priority. Continued improvements to the security of our facilities are a priority through investments and advancements in our physical security controls and technologies.