

# ANNUAL REPORT

## CITY OF JACKSONVILLE INFORMATION TECHNOLOGIES DIVISION



**JUNE 30, 2016**



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

**June 30, 2016**

**To:** Sam Mousa, Chief Administrative Officer

**From:** Kenneth Lathrop, Chief of Information Technologies / CIO

**CC:** All Constitution Officers, Independent Agencies, City Council, Council Auditor

**Subject:** ITD Annual Report per Ordinance Chapter 24, Part 7, Section 24.702

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Please find attached the Annual Report for the Information Technologies Division per Ordinance Chapter 24, Part 7, Section 24.702.

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



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## **Information Technologies Division Annual Report**

### **ITD Background**

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

ITD provides 24 x 7 customer and infrastructure support through our Service Desk and Operations that can be accessed from 630-1818 or 255-1818. The Division maintains 7200 desktops, 10 radio towers, 10,349 radios, 7,500 telephones, 2,400 cell phones and data cards, network connectivity for all COJ buildings plus 220 remote locations, fiber optic cable infrastructure, 2 data centers and over 300 software applications.

### **Strategy**

ITD's objective, through the use of 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 goals that include:

- Realigning ITD to be more customer-focused; 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.
  - Reintroducing 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 the use of contract to hire. Placing a greater emphasis on hiring application administrators and configurators to align with our vendor SaaS and hosted solutions strategy.
- Refreshing the City's end-of-life technology infrastructure in order to provide reliable support for the City's technologies, products and services.
- Ensuring Technology Security Compliance.
- Enhancing Accuracy of Customer Billing Model.

### **Key Accomplishments**

- Completed 165 projects (Projects are defined as over 40 hours)
- Completed 47,776 tickets/requests



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**Realigning ITD to be more customer-focused; assisting customers with meeting their business needs through technology that makes sense.**

**Highlights - Completed Projects**

**Automate Direct Deposit Transfer to the Bank**

Automated direct deposit file transfer to the bank upon Payroll's confirmation flag. Payroll no longer needs to download the file to employee PC, encrypt the data, and then transfer to the bank. Manual steps are eliminated. The transfer is more secure and PGP encryption licenses for Payroll staff have been eliminated.

**JFRD Inventory Phase I**

Implemented Tivoli inventory and asset management for JFRD. The system allows JFRD to manage its consumable inventory and 6,000 assets in a centralized system and track the ownership, location, and financial attributes of each asset and item in its inventory. Stations personnel can submit requisitions for supplies from the storerooms; all employees can submit requisitions for equipment repair and building maintenance. Process improvements were realized and two legacy applications can be retired.

**Fleet Vehicle PM Notifications**

Automated email notifications to City vehicle coordinators to bring vehicles in for maintenance and safety inspections. Emails are sent 30 days in advance of due date, on due date, and 30 days past due for each vehicle based on maintenance schedule in Tivoli.

Fleet PM Notification Report

Date: 6/24/2016

Vehicle #	Type of Service	Due Date	Coordinator Email
0126-30	0126-30 SAFETY	7/24/2016	[REDACTED]
1164-30	1164-30 LUBE	7/24/2016	[REDACTED]
2317-20	2317-20 LUBE/OIL	7/24/2016	[REDACTED]
2449-20	2449-20 SAFETY INSP.	7/24/2016	[REDACTED]
4222-20	4222-20 SAFETY INSP.	7/24/2016	[REDACTED]
4380-20	4380-20 SAFETY INSP.	7/24/2016	[REDACTED]
0039-30	0039-30 LUBE	5/25/2016	[REDACTED]
0252-30	0252-30 TRANSMISSION	5/25/2016	[REDACTED]
1537-30	1537-30 TRANSMISSION	5/25/2016	[REDACTED]
3439-30	3439-30 SAFETY INSP.	5/25/2016	[REDACTED]
0224-30	0224-30 LUBE	6/24/2016	[REDACTED]
0358-30	0358-30 LUBE/OIL	6/24/2016	[REDACTED]
0442-30	0442-30 LUBE	6/24/2016	[REDACTED]
1675-30	1675-30 LUBE/OIL	6/24/2016	[REDACTED]
2218-20	2218-20 SAFETY INSP.	6/24/2016	[REDACTED]
2501-20	2501-20 LUBE OIL	6/24/2016	[REDACTED]
2690-20	2690-20 LUBE/OIL	6/24/2016	[REDACTED]
3033-30	3033-30 LUBE/OIL	6/24/2016	[REDACTED]
4306-20	4306-20 SAFETY INSP.	6/24/2016	[REDACTED]
8524-10	8524-10 SAFETY INSP.	6/24/2016	[REDACTED]



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**Tivoli for Public Works Grounds Maintenance (PWGM) Contract Group**

Implemented Tivoli work orders and workflow to track projects managed by Public Works Contract group. Work orders and statuses for the projects are maintained throughout the life of the project from creation to complete and warranty inspection.

**Emergency Contacts - Employee Self Service**

Implemented employee self-service for employees to update emergency contacts information. Information can be retrieved by selected department personnel in the event of an emergency.

**JaxPension**

Enhanced City's Police and Fire Pension system and completed source code modifications to make it compliant with the Ordinance 2015-304-E which includes Disbursement Process to disburse share funds, interest & termination funds, Group Classification, DROP, Back-DROP, COLA, FAC, Accrual Rate etc.

**Time and Attendance (TAS) Automation**

Automated the Time and Attendance process for the Property Appraiser's Office and City Council by implementing TAS thus enhancing efficiency, consistency across the City, reliable accuracy, productivity and reducing labor cost & expenses.

**JFRD Resource Management System Enhancements**

Enhanced JFRD Resource Management System to supply Out of Class and Temporary Assignment information to City's Payroll System to correctly pay the employees. In addition, automated the process of updating the employees' pictures and email addresses to avoid manual entry thus enhancing efficiency, accuracy and reducing labor cost & expenses.

**Employee Performance Management Relaunch (EPMS)**

Relaunched EPMS with the help of Employee Services to provide a single and consistent platform to be used city wide to measure employees' performance.

**Stormwater & Solid Waste Billing Data**

Enhanced City User Fees application for Public Works giving them ability to edit Stormwater and Solid Waste billing information which will help in speeding up the process of resolving any billing and revenue collection discrepancies.

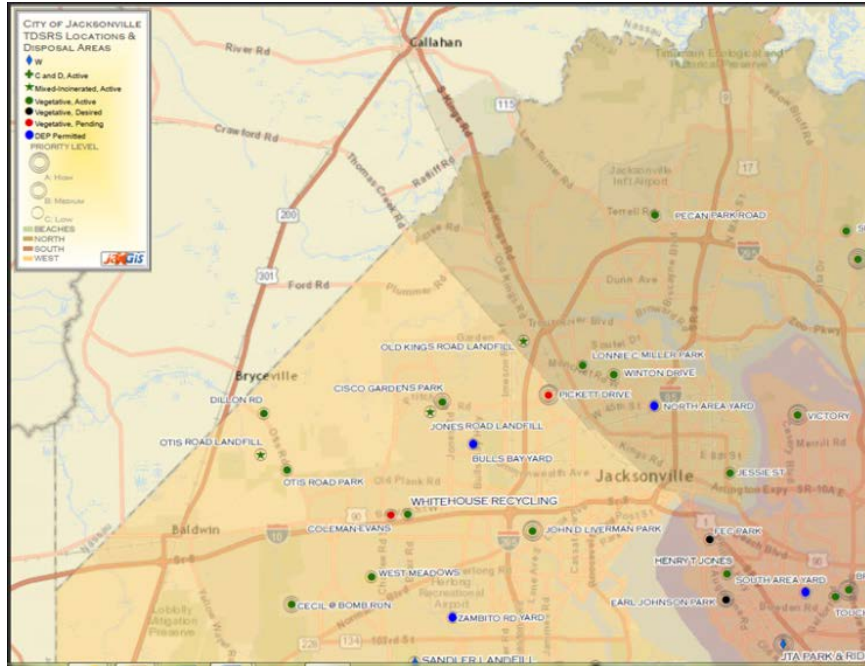




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### Annual Hurricane Update 2016

Created GIS materials needed to respond to an emergency. Includes a 400+ page map book, a buffer analysis of all temporary disposal sites with “nearest to” data for all types of debris, and data updates for 8 applications which will be used during a disaster.



### JaxKids Book Club 2016

Re-deployed the JaxKids website for the new book season. Includes various changes to pages, complete initial reload of data of providers—VPK and non-VPK, as well as all children in VPK centers, Head Starts, and possibly DCPS kids.

### Cut and Toss (ERAT)

Created the ERAT (Emergency Response Activation Team) application. This is to facilitate the creation, management, mitigation, and tracking of road blockages that occur during an emergency. It is enabled to allow a cross-Jacksonville team (COJ PW, EOC, JSO, JEA and contractors) to work with the application and thereby eliminate redundancy and misunderstanding.

### New App for Uploading Photos to PAO CAMA Application

Created a mobile-ready application which is used by Property Appraisers in the field to capture official property pictures and related data, which are automatically stored in the City’s database and transferred to the Property Appraiser’s core appraisal software system.



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**ADS Waste Route & Schedule Changes for all Disciplines**

Updated the ADS related boundary and pick up day data and propagated those changes to several systems which are used by City departments, and the public, to understand solid waste pick-up schedules.

**FIPS – Fire Inspection & FAMIS Invoices Online Payment System**

Provided online payment functionality for FAMIS Invoices. This created an online system to improve the ability to process and collect revenue for Fire Inspection.

**JSO and Parks Website Enhancements**

Updated over 50 new templates for the Jacksonville Sheriff's Office and Parks & Recreation. Enhanced web services to citizens allowing for ADA compatibility and easier methods for finding pertinent information.

**Sole Source/Proprietary Contracts on the Web**

Implemented Sole Source/Proprietary Contracts for FY2013-2016 on the web. This provided greater transparency and history of procurement contracts designated as sole source.

**EJ Ward System Upgrade for Fleet**

Upgraded connectivity and hardware to the Fleet Management fuel sites system. This improved the solution servicing the fuel sites for Fleet Management.

**Mosquito Control System – Phase I**

Replaced legacy system MCMS with off the shelf software: FieldSeeker. This provided increased functionality for the Mosquito Control Division to improve service to citizens while reducing manual paper processes.

**JaxPro Upgrade – Phase I**

Upgraded software from v7.5.2 to v12 to restore existing informal purchasing features to full functionality. The upgrade allowed the City's enterprise purchasing system to take advantage of new features, and utilize the extensive functionality within the system.



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## **Highlights – Projects in Progress**

### **Enterprise Resource Planning (ERP)**

The City has restarted efforts to acquire an enterprise resource planning solution that will replace the current core financial, procurement, human resources, payroll and budget preparation systems. The goal is to have a public sector focused Software as a Service (SaaS) system that will ensure integrated functionality, resulting in process improvements and efficiencies across the organization. A team has been assembled to define the requirements and create an RFP that will facilitate the selection and implementation of this consolidated system.

### **Computer Aided Dispatch System (CAD) Replacement**

The City's Sheriff and Fire Rescue Departments have re-initialized efforts to replace their existing CAD system. The agencies have determined three (3) major goals: 1. Replace the existing CAD system and consolidate functionality 2. Train all system call takers to handle law enforcement and emergency management calls 3. Consolidate all call takers into a single facility to handle all 911 emergency intake in a more efficient and effective manner. The teams have been formed to determine the requirements necessary to facilitate this effort.

### **Fire Station Alerting System (FSAS)**

The City's Fire Rescue Department has been working with an outdated alerting system that needs to be replaced. The team developed and solicited an RFP to replace the existing system with a more robust and reliable solution. The City has solicited proposals for a turn-key, fully automated IP based Fire Station Alerting System (FSAS). The system will integrate with the Department's existing Motorola "Premier" Computer Aided Dispatch (CAD) system, Motorola radio system, and existing network. The proposed Fire Station Alerting System will be installed in 61 fire stations and 1 training academy.

### **Customer Relationship Management (CRM)**

Enable the tracking and reporting of customer/citizen issues, collect data related to service requests or issues and provide reporting visibility into performance measures. The solution will leverage hosted, web based applications while integrating mobile functionality, incorporate the use of Interactive Voice Response (IVR), leverage the current CISCO technologies and deploy "311" type functionality.

### **Permitting and Land Use Management**

Replace 10 or more home grown, end-of-life applications with a vendor solution that will be used by several City departments for their permitting, licensing, design review, inspections, and violation and citations processing and tracking. Reduce maintenance costs and provide faster turn-around time to the public and contractor/builders.

### **Enterprise Document Management**

Complete the conversion/implementation of an enterprise-wide document management and retention solution to optimize document storage and retrieval while ensuring compliance with applicable State and City document retention policies. The proposed solution will result in reduced operating costs by



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avoiding the need to house, locate and manage millions of paper records and avoid significant increases in maintenance cost by migrating off of the original solution.

## Increase Public Wi-Fi Access Downtown

ITD is working in conjunction with the Downtown Investment Authority to expand the public access to Wi-Fi in the downtown area. A total of 21 high density wireless access points (WAPs) are scheduled for installation at the following locations covering 29 City blocks: Scheduled for completion by the end of fiscal year 2016.

- Hemming Plaza: (4) WAPs
- Hogan Street Corridor: (4) WAPs
- Laura Street Corridor: (4) WAPs
- Main Street/Bay Street Elbow: (6) WAPs
- Ocean Street/Forsyth Street Elbow: (3) WAPs

## COJ.net Website Enhancements

The enhanced coj.net website was created at the request of the Public Affairs Office in order to provide a site that more effectively represents the City of Jacksonville, while maximizing the user experience for citizens.

**Citizen Focused** – Key focus of the new front page now aimed at assisting citizens in finding pertinent information. The “Our Citizens”, “Our City” and “Our Mayor” flip boxes provide quick links to information relevant to the citizens of Jacksonville.

**Drop-down Menus** – Categories have been revamped with drop-down menus on the front page allowing citizens to access the most visited site pages directly from the front page without having to drill-down to subsequent pages.

**Optimized Search Functionality** – The search function has been given a more prominent position on the front page. Citizens are able to access search immediately due to its now permanent location on the left side of the menu bar. In addition, citizens will still be able to access the drop-down search via the looking glass on the sub-navigation.





## Refreshing the City's end-of-life technology infrastructure to provide reliable support for the City's technology, products and services.

### Highlights - Completed Projects

#### **Physical and Virtual Server Refresh**

Annual refresh to replace outdated physical and virtual servers located around the City. Maintaining a solid infrastructure to support the applications, connectivity and services provided by ITD to all of the City agencies is essential for maintaining effective and efficient business operations.

#### **Network Equipment Refresh**

Annual refresh to replace outdated network equipment for various City agencies. Maintaining a solid infrastructure to support the applications, connectivity and services provided by ITD to all of the City agencies is essential for maintaining effective and efficient business operations.

#### **Uninterruptible Power Supply Refresh**

Annual refresh to replace outdated ups equipment throughout various City agencies. Maintaining a solid infrastructure to support the applications, connectivity and services provided by ITD to all of the City agencies is essential for maintaining effective and efficient business operations.

#### **Fire Rescue Mobile Data Terminal Refresh**

Refreshed to replace outdated ruggedized computers in Fire Rescue vehicles. Updating and maintaining the technology equipment utilized by our Public Safety employees is imperative to allow these personnel to perform their important duties of serving and protecting our citizens.

#### **Mobile Radio Refresh**

Refreshed 248 radios for JSO, 78 radios for JFRD and 25 radios for COJ. These radios were at end of life and end of support. This is part of ITD's on-going strategy to replace all mobile radios over the next 8 years.

#### **Mobile/Portable Radios for JSO FY2016 New Employee Hires**

Installed and programmed 80 new mobile radios for new vehicles and 80 new portable radios for new JSO employees. Updating and maintaining the technology equipment utilized by our Public Safety employees is imperative to allow these personnel to perform their important duties of serving and protecting our citizens.

#### **P25 Radio System Upgrade**

Upgraded the P25 Two-way Radio System from version 7.13 to 7.15. Updating and maintaining the technology equipment utilized by our Public Safety employees is imperative to allow these personnel to perform their important duties of serving and protecting our citizens.

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**Library Network Redesign**

Increased and secured all connectivity to the 20 Library branches. This improved hardwired and wireless connected services to all Libraries enabling citizens to continue to take full advantage of technology and programs provided by the City.

**Wi-Fi coverage upgrade**

Upgraded Wi-Fi coverage at 12 Library locations. This improved hardwired and wireless connected services to all Libraries enabling citizens to continue to take full advantage of technology and programs provided by the City.

**Library Wireless Pharos Printing**

Provided wireless printing functionality for the Library's Pharos system. This improved hardwired and wireless connected services to all Libraries enabling citizens to continue to take full advantage of technology and programs provided by the City.

**Library Public PC Software Updates**

Concentrated effort to develop a standard, effective process to update Library public PCs to the latest software, operating systems and security patches. This improved hardwired and wireless connected services to all Libraries enabling citizens to continue to take full advantage of technology and programs provided by the City.

**City Council Implementation of new Audio/Video System**

Implemented new Haivision audio/video equipment. This enhanced online audio and video streaming services to citizens allowing for an improved experience when viewing the live and on demand City Council meetings.

**Upgrade Wi-Fi at City Hall / St. James Building**

Redesigned the wireless infrastructure and installed new technology wireless access points. The upgrade of the wireless infrastructure provides better coverage and more reliable service to internal customers and citizens visiting the facility.

**JFRD Fire Station Circuit Upgrades**

Designed and implemented fiber optic connections to fifty-five (55) Jacksonville Fire & Rescue stations. Upgraded reliability of data services to insure emergency response is improved while providing higher bandwidth to allow for remote training of firefighters, thus reducing down time of traveling to offsite locations for training.

**Wi-Fi at JFRD Rescue Stations**

Installed Wi-Fi at fire stations to support the Knox Medi Vault for uploading and downloading pertinent emergency information seamlessly. This improved functionality of technology at fire stations for faster access to pertinent medical and incident information.



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**LambdaRail System Upgrade**

Increased Internet circuit to 2Gb and upgraded the network equipment to support higher throughput to access the Education highway Florida LambdaRail. This upgraded the bandwidth and technology to support more internal City agencies with access to a lower cost internet connection.

**Enterprise Infrastructure - Current Deployment Status**

Network Equipment Refresh	FY13-14			FY14-15			FY15-16		
	Switch	Wireless Access Point	Total	Switch	Wireless Access Point	Total	Switch	Wireless Access Point	Total
Building Inspections			0	6		6			0
Ed Ball / Data Center			0	2		2	18		29
Ed Ball / Call Center				3		3			0
Ed Ball / Vacant				6		6			0
Code Enforcement				3		3			
Fire and Rescue	7		7	1		1		2	
Fleet		5	5			0			
Grant and Contract Compliance				3		3			
Guardian Ad Litem				2		2			
Health Department		1	1	1		1			
Housing and Neighborhoods				2		2			
ITD				8		8			
Jacksonville Childrens Commission	5		5		9	9			
Jacksonville Sheriff Office	1		1			0			
Library	77	82	159		30	30			
Mental Health		1	1			0			
Mosquito Control						0			
Parks and Recreation	2	1	3	8		8			
PFPF					1	1			
Planning and Development				2		2			
Procurement				3		3			
Property Appraiser					2	2			
Public Buildings	2		2			0			
Public Defender						0			
Public Parking				1		1			
Public Works	2		2	7		7			
Parks and Rec / Senior Center				1		1		1	
SMG	21		21	1		1			
St James Building						0			
State Attorney	2		2			0			
Supervisor of Elections	3	1	4	5		5		4	
Tax Collector	11		11			0		13	
Victim Services	2		2			0			
Yates Bldg / PA, TC, PP, CSB*	2		2				16		
Animal Care									
Traffic Engineering									
<b>Grand Total</b>	<b>137</b>	<b>91</b>	<b>228</b>	<b>65</b>	<b>42</b>	<b>107</b>	<b>34</b>	<b>20</b>	<b>29</b>



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**Enterprise Infrastructure - Current Deployment Status**

UPS Equipment Refresh	FY13-14	FY14-15	FY15-16
Customer	# of UPS	# of UPS	# of UPS
Behavioral and Human Services	2		
Environmental	1		
Fleet Management	1		5
ITD	1	4	
JCC / Lavilla	1	1	
JFRD	2		33
Council Auditors		1	
Spreacial Events		1	
St. James Training Dept		1	
City Council		1	
Procurement		2	1
Public Works		1	8
Guardian Ad Litem		1	
Housing & Neighborhoods		1	
Code Enforcement		1	
Veterans, Hr, Security		1	
General Counsel		1	
JPL		22	
Mosquito Control			1
Medical Examiner	1		
Parks and Recreation	8	25	13
Police and Fire Pension	1		
Public Defender	9		
Public Parking	1		2
SMG	2		
State Attorney	2		
<b>Grand Total</b>	<b>42</b>	<b>64</b>	<b>63</b>

Server Refresh	FY13-14	FY14-15	FY15-16
Customer	# of Server	# of Server	# of Server
Adult Services	1		
Data Center	4	2	1
Behavioral Services	1		
Court Admin			
Fleet		1	
Fire and Rescue	1	4	
Jacksonville Childrens Commission		1	
Jacksonville Sheriff Office		1	
Library	2		1
Medical Examiner	1		
Mosquito Control	1		
Parks and Recreation	2		1
Police & Fire Pension			1
Property Appraiser			1
Public Buildings	2		
Public Defender	2	2	1
Public Works			
SMG	1	1	1
State Attorney (Clay County)		1	
Supervisor of Elections	2		
Tax Collector		9	
Victim Services	1		
<b>Grand Total</b>	<b>21</b>	<b>22</b>	<b>7</b>

**Ensuring Technology Security Compliance**

Threats to data and systems are becoming more prevalent. ITD has implemented a series of initiatives to help assure that the City’s data, systems, and products are secure.

**Intrusion Threat Protection Replacement**

ITD replaced an end of life web filter and anti-malware solution. This enhanced solution encompasses web filtering, antimalware detection while also providing advanced threat protection. This solution provides a higher level of security by adding the ability for the Information Technologies Division to adequately defend against advanced threats to endpoint devices.

**Security Staff Certifications**

On the Information Security Team, the following exams and certifications were achieved:

- The Security Engineer achieved Rapid7’s Nexpose Certified Administrator (NXA).
- The Information Security Officer (ISC)2 Certified Information Systems Security Professional (CISSP).



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**City Employee Security Educational Initiatives**

The Information Security Team partnered with the Employee Services department to develop, maintain, and conduct New Employee Security Awareness Training for all employees on boarded to the City of Jacksonville. This training provides a baseline of security awareness by educating new users of the City of Jacksonville's Information systems and services. The curriculum includes education of password policy and in depth review of acceptable use of systems and services. Strong focus on awareness of common social engineering attacks through email, in person and phone.

**Password Protection and Policy**

In an effort to enhance policy effectiveness; the Information Security team proposed changes to the password policy to fortify the strength and resiliency of the passwords utilized for system access. The proposed changes included password strength and expiry. The agreed upon changes allowed for the strengthening of the password policy while limiting the effect to normal business operations.

**MDM – Mobile Device Management**

Deployment provides management, monitoring, reporting of mobile devices / tablets owned by the City. These solutions allow us to deploy applications, enforce security controls and other settings, and report on various aspects. In addition, it allows for the management of the ever increasing mobile work force in order to effectively secure data and electronic devices throughout the City.

**Improving Accuracy of Customer Billing Model**

The FY2016 Budget is \$30,586,057, with a staff headcount of 136 authorized positions which includes 19 funded vacancies. The pooled cost section of the customer billing model is being eliminated with the start of FY2017. This was used to allocate overhead costs that could not be attributed to direct billable services. Upon further analysis, additional costs were identified as direct billable and the remainder is being allocated to the hourly billable rate. Additional staff rate categories have been established to more accurately reflect the cost of billable resources.