



Information Technology Department Business Plan

Fiscal Years: 2017 and 2018
(10/1/2016 through 9/30/2018)

Approved by:

A handwritten signature in black ink, appearing to be "Angel Petisco", written over a horizontal line.

Angel Petisco, Chief Information Officer/
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Delivering Excellence Every Day



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DEPARTMENT OVERVIEW

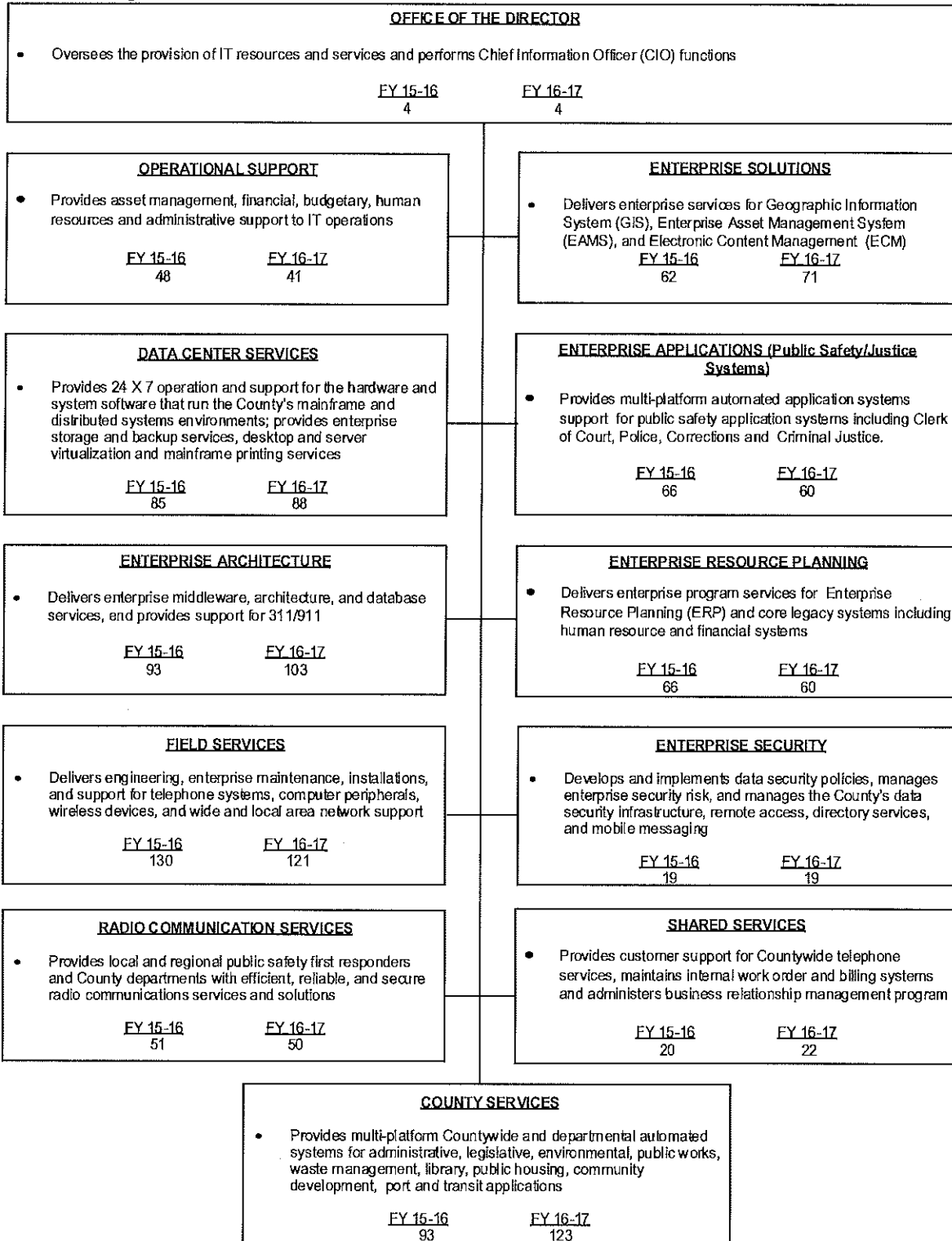
Department Mission

“At ITD, we provide technology, information, and business solutions that exceed customer’s expectations and enhance the quality of life in our community”

The Information Technology Department (ITD) is the central technology provider for Miami-Dade County. ITD provides information technology services that enable and support operations of County departments, external governmental agencies, residents and the public at large, including making information and services easily accessible to citizens and visitors of Miami-Dade County. ITD plans, develops, manages, and maintains a reliable and secure information technology infrastructure, including network, radio and hardware/software platforms, to support countywide and departmental specific applications and services. ITD partners with other County departments, management, and key technology providers to implement and maintain technology solutions that enable efficient operations, delivery of County services, and coordinates with the Information Technology Leadership Council (ITLC) on policy and practices. The Department establishes business processes to ensure that IT standards, methodologies, security, and project management are implemented in accordance with best practices. The department is able to achieve this level of support by leveraging technology which provides innovation and continuity of operations. Key stakeholders include all County departments, Miami-Dade County municipal governments, local, state, and federal agencies, elected officials, Miami-Dade County residents, businesses, visitors, and the public that visits the County’s website worldwide.



Table of Organization



The FY 2016-17 total number of full-time equivalent is 762 FTEs.



Strategic Alignment Summary

ITD directly or indirectly supports virtually every objective in the County's Strategic Plan. The objectives which ITD supports most directly include:

GG1-1	Provide easy access to information and services
GG1-2	Develop a customer-oriented organization
GG3-1	Ensure available and reliable systems
GG3-2	Effectively deploy technology solutions
GG3-3	Improve information security
GG4-2	Effectively allocate and utilize resources to meet current and future operating and capital needs
GG5-3	Utilize assets efficiently
GG2-2	Develop and retain excellent employees and leaders
GG2-4	Provide customer-friendly human resources services

Our Customer

ITD's principal internal customers are the County's departments and agencies. External customers include local and municipal entities, many of whom are public safety agencies, the State of Florida, the federal government, and the citizen population of Miami-Dade County. Our citizens have increasingly made use of technological avenues to obtain information and to perform business using the County's readily available technology and information. Miami-Dade County residents expect reliable, secure websites for conducting business with the County. Departments expect a readily available and secure computing and networking infrastructure to support their respective business. In addition, they seek cost-effective and timely solutions to address their business needs and communities of interest. Additionally, the use of self-service solutions through all channels of access is a priority for all customers.

The County's departments manage a myriad of unique businesses resulting in different requirements and needs. ITD continually evaluates the industry best practices for the technologies available and implements enterprise systems to meet the needs of customers. As systems and business processes evolve, ITD continually evaluates opportunities for modernizing the portfolio and implementing best practices.

A comprehensive map of all IT Services, their performance metrics and costs are outlined in all-inclusive Memorandums of Understanding (MOU) and Service Level Agreements (SLA) with County departments. The provisioning of services is assessed by the Business Relationship Management (BRM) team to ensure adherence to agreed-upon service levels and service effectiveness allowing the opportunity to gauge satisfaction with ITD services and make adjustments to better serve customer



needs, and ensure the integration of business strategies, and priorities into the IT strategy. In continuing to improve services, ITD will maintain a service catalog which clearly describes ITD's various lines of business and rates.

Customer trends include increased demand for self-service functionality, data analytics to enhance decision making, mobility, transparency, and enhance channels to simplify, integrate and streamline service delivery,. During FY2016-17 and FY2017-18, ITD will continue to execute the Mayor's initiative to implement information technology best practices into a consolidated environment, utilize the maximum efficiency of systems, staff and resources available to Miami-Dade County; consolidation of IT infrastructures and redundant functionalities county-wide is well underway. ITD continues to work with customers to identify opportunities to realize additional efficiencies and savings through technology.

ITD adheres to federal, state and local government regulations, including the federal Communications Commission (FCC), Health Insurance Accountability and Portability Act (HIPAA), Florida Department of Law Enforcement's (FDLE), U.S. OMB Circular A-87, National Incident Management System (NIMS) for Emergency Response, Florida statutes for the Public Records and Government in Sunshine laws, Payment Card Industry (PCI), NEIM (National Information Exchange Model) and with Criminal Justice Information System (CJIS) requirements.

KEY ISSUES

Representation from all divisions contributed to identifying key issues facing the department by performing a SWOT analysis. ITD has made significant progress and continues to work on its strengths, weaknesses, opportunities and threats.

Strengths

- Experienced and talented employees
- Infrastructure and cutting edge technology
- Business process knowledge – (departmental business process)
- Employee commitment and longevity
- Established customer relationships- internal/external
- Strong technical, analytical, and information gathering skills

Weaknesses

- Internal/External customer service skills – addressed with *on-going training*
- Communication of strategic plan across the organization (*sharing value proposition*)
- Limited documentation of business processes to assess enhancement opportunities.
- Limited department-wide planning
- Lack of measures– *addressed through appropriate technology tools and standardization*
- Succession planning strategy
- Rigid HR policies and procedures
- Shortage of contemporary, business, and project management skills



Opportunities

- Software as a service (SaaS) offering efficiencies and cloud service solutions
- Business process re-engineering through implementation of best business practices
- Expansion of Portfolio Management Office
- Agile developmental workforce
- Organizational alignment
- Development of quantitative measures to ensure effective service delivery
- Centralized IT Service Desk to include business area knowledge base
- Further cost effectiveness and efficiencies as a result of IT consolidation
- Develop an organic organization with contemporary IT classifications/skills
- Development and management of customer Memorandums Of Understanding (MOU)
- Department realignment and IT consolidation creating opportunities for succession planning

Threats

- Future economic and fiscal environment
- Loss of institutional knowledge through attrition and retirement
- Rapidly changing cybersecurity threat landscape
- Lack of adherence to IT governance
- Ability to adapt to rapidly changing technology advancements

PRIORITY INITIATIVES

Bi-Modal organization

The Bi-Modal IT organization model postulates that the IT enterprise organization structure would support two modes of operation – one to preserve the foundation and structure that maintain existing core disciplines focused on stability and efficiency, the other mode will respond to the new innovating, emerging and changing technology demands focused on time-to-market, rapid application evolution, and, tight alignment with business units. In FY 16-17 and FY 17-18, ITD will continue the evolution of the IT enterprise organization structure to exemplify the bi-model concept and methodologies.



IT Innovations Center

ITD will continue the organizational structure modernization with the foundation of an IT Innovations Center which will promote agile development methods and tools, introduction of new software bundles and a concentration on mobile systems development. The Innovations Center will incorporate the Modern IT roles of an Agile Coach, Innovations Center Manager, and an Information Technology Internship program.

Enterprise Portfolio Management Office

ITD had effectuated positive change in provision and centralization of the County's technology service, by establishing the Enterprise Portfolio Management Office (EPMO), focusing on understanding the needs of the County's IT initiatives, prioritizing and ensuring strategic IT projects are aligned with current technology and project standards, and endorsing the appropriate monitoring of resources for the quality delivery of strategic IT projects. The EPMO will concentrate on the provision of program management in the areas of ERP, Code Enforcement and Permitting, and Criminal Justice System modernizations, as well as providing strategic project management services.

IT Consolidation

During FY2016-17 and FY2017-18, ITD will continue to execute the Mayor's initiative to implement information technology best practices into a consolidated environment to utilize the maximum efficiency of systems, staff and resources available to Miami-Dade County. From launch of consolidated efforts through January 2016, IT functions in the following County departments have been consolidated under ITD: Regulatory and Economic Resources (RER), Internal Services (ISD), Animal Services (ASD), Public Works and Waste Management (PWWM), Transit (MDT), Police (MDPD), Corrections and Rehabilitation (MDCR), Seaport (SP), Parks and Recreation and Open Spaces (PROS), Library (LB), Public Housing and Community Development (PHCD) and Communications (GI). Upcoming departments that will be consolidated are Community Action and Human Services (CASHD), Finance (FN), Water and Sewer (WS), Medical Examiner (ME), Fire Rescue (FR), Aviation (AV), and Elections (EL).

As the IT consolidation initiative progresses, County departments will continue to be analyzed and consolidation recommendations implemented to obtain not only additional cost savings and cost avoidances to the County, but also achieving simplification of processes and standardization of products and IT methodologies. This ongoing effort will produce operational efficiencies, expanded capabilities, improved continuity of operations, and better collaboration and information sharing.

In addition, information technology contract consolidation is ongoing, allowing the County to leverage its procurement volume to achieve more favorable pricing terms and lower operational costs. Under this state, ITD manages the contracts countywide for the purchase of IT products and services. Departments with an existing allocation under a current contract term will continue to issue purchase orders against their existing allocations until they exhaust their allotment for that term.



IT Service Center

The IT Service Center is part of a comprehensive plan to deliver quality services and enhance, promote and strengthen current and future customer IT Support Program and relationships. As part of the ongoing IT consolidation initiative, ITD resumed direct responsibility of the IT Service Desk, the first phase in a planned expansion for an enterprise IT service center with greater emphasis for customer reliance on self-service. The initiative, sanctioned by the ITLC, is for an enterprise service center for all IT services, with a focus in providing quality services while building customer relationships. Working together with the BRM team, ITD continues to provide customer communications and service opportunities to improve the customer experience.

During FY 16-17, the service request intake process will be enhanced with the provisioning of a self-service portal for customers. Additionally, customers will have access to service delivery performance reporting dashboards to monitor IT services.

Business Relationship Management (BRM)

The Business Relationship Manager is a critical role that enhances the relationship between technology and business stakeholders. Overall, the BRM team will work with customers to shape technology initiatives, collaborate with the different IT areas to make sure their services meet customer expectations, discuss key IT risks/vulnerabilities or issues with operational areas to achieve negotiated resolutions, promote standards, provide guidance to business units on IT matters, and enable and advocate for IT changes. Moreover, BRMs will work with customers to review their technology portfolio, track performance and assess financial standing while developing Memorandum of Understanding (MOU) on an annual basis along with detailed key accomplishments, major projects planned for the following year, and cost comparison with forecasts. Service level agreements (SLAs) within these MOUs are continuously reviewed and renewed with customers.

IT Service Catalog

The IT services catalog, with built-in, self-evaluating mechanisms including gathering customer feedback, defines the services ITD provides in terminology that is comprehensible and meaningful to County departments as part of their businesses. As a web based, self-service portal, the catalog will provide the means by which customers can understand the specifics of any IT service, make a request to receive that service, inquire on the progress of the processes needed to deliver the service, and provide feedback on the experience. The catalog will be integrated with back office technology solutions to achieve greater efficiencies through automation and ensure that all the information about a request for service is most current. As County departments and other customers refine their business operations and make IT requests, ITD can identify trends that can impact operations and address these in the most efficient manner. The services catalog continues to be developed through the Remedy system and augmented with different types of services as the IT consolidation process continues and departments provide ITD with specific service needs.



Smarter Cities Initiatives

ITD has implemented IBM Smarter Cities-based technology in partnership with other County departments, vendors and the private sector that will modernize and improve the predictive management capabilities of systems tied to law enforcement, transportation and water. ITD will leverage the already completed Initiatives which include:

- Completed the upgrade of the Intelligent Operations for Water to the latest revision for Parks, Recreations and Open Spaces (PROS). The upgrade included; new servers, more features to allow the customer ease of use administration, better graphical user interface to access new reports, redesigned interactive dashboards, real-time alerts and more self-service options.
- Completed proof of concept and implementation on the first phase of the Intelligent Video Analytics project for PROS Gould's Park. Currently conducting site survey for several other locations.
- Completed first phase of the analytic data discovery model for the Homestead Exemption fraud project. In the process of engaging IBM Counter Fraud Management Platform Team to refine the solution.
- Provided the Police Department with workshops and knowledge sharing on the Intelligent Video Analytics and Management tool. Continued to provide guidance on the Integrated Law enforcement solution.
- Completed proof of concept on the Intelligent Operation for Transportation with the Transit Department using data analytics to discover patterns and trends in the data as it relates to Bus Bunching. The project was a success as it assisted in improving the bus schedule and business process of the bus driver's logistics.

Centers of Excellence (CoE)

A CoE is a Competency or Expertise Center; comprised of expert staff, a CoE promotes collaboration of staff and the use of best practices surrounding a specific focus area to drive business results. A CoE delivers:

- Support by offering corroboration to the business lines in their respective area of focus through the provision of services needed, or by making available subject matter experts (SMEs)
- Guidance through standards, best practices within the organization, methodologies, tools and knowledge repositories
- Shared Learning via training and certifications, skill assessments, team building and mentoring
- Governance, thereby ensuring organizations invest in the most valuable projects and create economies of scale for their service offerings; assist with the best allocation of limited resources (e.g., funding, personnel) across all possible uses; and coordinate countywide interests to deliver IT value

Enterprise Resource Planning (ERP)

ERP is a suite of fully integrated financial, procurement and human capital management systems that will replace disparate legacy systems currently used and deliver substantial efficiencies, increased accountability and responsiveness to the County. A fully implemented ERP system will improve transparency of business, enhance financial planning, and improve management and reporting. An



ERP system manages the business process from 'procurement to payment', and 'hire to retire', and allows for financial transactions and reporting.

The County selected the Oracle PeopleSoft, Hyperion, and Business Intelligence products as its ERP platform and implemented the ERP financial and procurement modules in the Water and Sewer and Aviation Departments. The goal for future ERP implementation is to improve organizational effectiveness through process efficiency and self-service, and to facilitate improved talent acquisition and staff retention. A governance structure will be established to support the ERP and ensure that the software remains current as the ERP software applications evolve. The implementation is planned over a four year timeframe and is expected to begin in FY2016-17.

Preparation and readiness activities for the Countywide ERP began in late FY15-16, and will continue throughout FY16-17. These readiness initiatives include documenting current business processes and system interfaces, along with data preparation for conversion. In FY2016-17, the Hyperion/Business Analysis Tool (BAT) solution will be upgraded to the latest Oracle version in time for the FY17-18 budget process.

Enterprise Content Management (ECM)

ITD has completed the implementation of software and hardware in support of modern Enterprise Content Management technology. This technology enables the automated capture, management and retention of documents. Plans are to employ agile methodologies utilizing a hybrid of open source technology combined with robust content repository features to develop new systems that will facilitate access to multiple documents via the Internet and mobile devices. Additional capabilities will enable the integration of ECM with new and current systems to improve indexing, retrieval, retention and archiving functions.

Business Intelligence Analytics Center of Excellence (ACE)

An Analytics Center of Excellence (ACE) promotes and provides delivery enablement through a consistent set of Business Intelligence (BI) skills, standards and proven practices. ACE enables repeatable successful BI and Analytics deployments through the development and focus of people, technology and process in ways that make sense to an organization as a whole, rather than a single project. Following established standards and best practices, the core BI ACE includes all technologies for the development of business intelligence and analytics. ACE has marketed the use of analytics and provided enterprise training to continue expanding this technology. As a result of current implementations, such as dashboards for employee data, public safety and sustainability, other new enterprise implementations were developed, such as the Invoice Workflow Accounts (IWA) Payable, along with planned web-based reporting capabilities for Financial Disclosure, Cone of Silence and Permitting statistics. Enterprise business analytics will continue to be upgraded to the most current versions and available to all county departments on the web and via mobile devices, and a geographical location analytics tool is available to enhance dashboards with mapping information.

As more IT staff is consolidated into ITD, the objective is to establish a data-driven culture that encompasses business analytics into all new and existing applications to enrich decision making. The implementation of additional critical business functions are required to provide a higher level of program support. These include data warehouse modeling, and the creation of enterprise data



warehouses. Having these critical functions facilitates integration with major countywide core technologies to include Enterprise Resource Planning (ERP), Enterprise Content Management (ECM), Enterprise Asset Management (EAM) and Geographical Information Systems (GIS).

Geographic Information System (GIS)

The County's GIS CoE is a mature competency center serving County departments, external government agencies, residents and businesses. Specialized services include but are not limited to the provisioning of the County's central repository of geographic information, maintenance of base layers, such as streets, addresses, parcels, imagery, administration of GIS infrastructure, GIS solution and mobile development, integration, project management, vendor management, and GIS portal administration. The GIS CoE maintains a base street foundation presently containing over one thousand layers of information, over 571 thousand addresses, nearly 320 thousand sub-addresses, and over 104,000 street segments. The competency center researches and evaluates new GIS technologies and environments, supports the GIS user's group and promotes countywide GIS education via presentations, events and its GIS portal presence on miamidade.gov. The GIS CoE continues to expand the geographic based Open Data site delivering readily accessible live spatial information and map services that provide location centric government data via web self-service.

The CoE will promote the real time collection of data and the immediate sharing of that data through GIS web based and mobile solutions. Plans are to continue to enhance operations for field crews to capture and update both tabular and spatial information via smartphones and tablets using the built-in GPS capabilities of the device, or by simply tapping on a map. Integration with Waze-generated incident and slow-down information will enhance field collection and routing applications utilized by the County's mobile workforce. GIS is a technology used to engage and communicate with residents for reporting of problems, locating services, and supporting initiatives. Through story maps and web scenes and the development of a 3D multidimensional base layer, GIS will facilitate outreach to residents and further transparency in such areas as resiliency and urban and transportation planning

Parks, Recreation and Open Spaces Marina Reservation Management System

Miami-Dade County Parks, Recreation and Open Spaces (PROS) department manages six full-service marinas with wet slips, dry storage, boat ramps, transient dockage, fuel, bait and tackle shops, boat rentals and diving and landing facilities. The current in-house developed and supported software used to manage the reservations and other services provided is antiquated and lacking functionality. As part of the IT modernization effort, a cutting edge Marina Management Software vendor has been engaged. The new integrated solution is currently used in over 100 marinas worldwide. It provide the required functionality to manage boat slip reservations and movement, customer accounts, Waiting Lists, Berth Permits processing, service and supply point of sale. The software is scheduled for deployment during the summer of 2017.



Offender (Jail) Management System

Miami-Dade County Corrections and Rehabilitation (MDCR) Department operates the eighth largest jail system in the nation and includes seven detention facilities. Inmates housed in these facilities are awaiting trial or serving sentences of 364 days or less. MDCR currently utilizes legacy mainframe platform applications, as well as numerous vendor and County developed applications in different technologies to maintain their facilities and supervise their inmates. An effort is underway to implement a vendor package, Offender Management System (OMS) that will automate the intensive manual processes through MDCR and interface to existing vendor applications to record, verify, inspect and evaluate operational aspects of the facilities, including inmates. The OMS will also comply with regulatory and legislative mandates; the project is estimated to take approximately two years. The implementation will follow a phased approach. Phase 1 will include the deployment of the Classification, Housing, Incident, Discipline and Grievance modules. The scheduled implementation date for Phase 1 is summer of 2016. Phase 2 will automate other business processes within MDCR that will provide efficiencies with possible business process reengineering.

Criminal Justice Information System (CJIS) Modernization

The analysis phase of the Criminal Justice Information System (CJIS), the system of record for Miami-Dade County that tracks the life cycle of cases from arrest to disposition, is complete. The analysis included documenting the present state of over 14 functional areas; identifying high-level requirements for a new CJIS and reviewing over 3,000 documents for relevancy to identify requirements to comply with Supreme Court of Florida No. AOSC13-48, *Electronic Filing of Criminal Cases in the Trial Courts of Florida via the Florida Courts e-Filing Portal*. Findings, estimated costs and recommendations were presented to the Criminal Justice Modernization Policy Committee representatives. The Request for Proposal (RFP) was also completed.

Daily Activity Report

The (DAR) is a worksheet application which captures the starting and ending times of all activities and incidents handled during a police officer's tour of duty. In an eight hour shift, the officer is responsible to account for 480 minutes. All of the entries from the worksheet are summarized into the Time Analysis section of the report. The average time an officer spent writing the manual DAR totaled to approximately 30 minutes per day. The average time with the automated DAR has been reduced to 15 minutes or less by not only making the information available electronically for approval but also by interfacing to other applications; thereby, reducing data entry. Eliminating the supervisor's task of entering their squad's DAR information from paper to Microsoft Excel has saved on average 90 minutes per day.

Court Cost Recovery (CCR)

The CCR Application tracks costs the Miami Dade Police Department (MDPD) incurs by officers and equipment used for investigations where MDPD can seek expense recovery. It will allow for decentralized data entry by the officers and integrate with other applications such as with Criminal Justice Information System (CJIS) and Traffic Information System (TIS) to ensure the most current



and valid data is available and to relieve the work load on Court Services Bureau which currently must perform research manually against the multiple systems.

Community on Patrol Application (COPA)

In collaboration with Microsoft, the Mobile Community on Patrol (COP) Application was created for citizens to be able to report tips that may require police assistance. ITD developed an in-house application providing the Real Time Crime Center the ability to manage such tips.

Electronic Offense Incident Report (eOIR)

The electronic Offense Incident Report (eOIR) was automated; eliminating illegible reports and manual data entry into other law enforcement applications by crime analysts and other personnel. The eOIR may potentially include the following supplemental forms: Offense Incident (OI) Lead Sheet, Persons Report, Vehicle Report, Property Report, Illegal Document Report, Narrative Continuation Form, Officer Assaulted/Killed Supplement and Domestic Violence Supplemental Report. Electronic workflows have been incorporated to expedite the approval and completion of reports.

Inmate Medical Claims and Billing System

Miami-Dade Corrections and Rehabilitation (MDCR) is responsible for providing inmates with health care that is consistent with a level of care that would be received in the community. MDCR contracts with outside health care providers for patient services. This application includes checks and balances to insure that claim forms are complete and accurate as MDCR pays health care providers for appropriate and authorized medical services to inmates.

Municipal Plans Review

A pilot was completed to standardize the municipal plan review and permitting process in Miami Dade County. The project will enable time and cost savings to customers by reducing the time and cost, and minimizing the need to travel to County facilities to conduct plan review and permitting business activity as well as allowing multiple review areas to review the plans concurrently. The goals of the project are to increase the efficiency of the plan review and permitting process by leveraging existing MDC computer applications/services by offering customers (developers, design professionals and citizens) a phased deployment plan. Deployment has been completed at the Cities of Miami Lakes, Miami Beach, and Cutler Bay; ITD is in the process of collaborating with North Miami Beach to expand the program further.

Enterprise Permitting

ITD is in the process of soliciting proposals for an enterprise land use management, licensing, permitting, plan review, inspections, and code enforcement solution. The solution will be used county-wide for land use management, licensing, permitting, plan review, inspections, and code enforcement business processes that will leverage the existing GIS infrastructure, provide mobile technology for remote work in the field, provide a workflow based user interface for administrative and support staff



usage, and a citizen portal that will streamline these business processes for the public. The solution will expedite the business processes and facilitate data sharing and reporting.

Desktop and Application Virtualization Services

ITD will continue to offer a desktop and application virtualization solution to deliver highly flexible personal desktop environments that are accessible from any device, anywhere, anytime and to realize greater efficiencies from ITD's infrastructure. Costs can be minimized by reducing human workload, electricity consumption, support calls and eliminating security threats which adversely affect productivity by the manner in which personal computer systems and software are managed.

Voice over IP Enterprise Telephony (Voice Gateway Expansion)

ITD implemented an enterprise telephony solution to address future needs of all County departments. The implementation of the Cisco IP telephony platform standardized administrative telephony requirements throughout the County by creating a telephony transport layer that rides the redundant County fiber optic infrastructure. The goal of the project is to consolidate all County voice service on the Cisco enterprise system. The expansion of the IP voice infrastructure allows the County to take advantage of the Voice over Internet Protocol (VoIP) technologies in the replacement of legacy phone systems as defined by the County's strategic objectives. ITD will continue migrating the remaining Miami-Dade Police Department districts and County Courts in FY2016-17 and FY2017-18.

Enterprise Call Center and Interactive Voice Response (IVR) Consolidation

ITD implemented an enterprise telephony solution to address future needs of all County departments. The implementation of the Avaya Voice Portal platform standardized administrative telephony requirements throughout the County for Call Center and IVR services leveraging the County transport layer that rides the redundant County fiber optic infrastructure. The goal of the project is to consolidate all County call center and IVR applications under one (Avaya) enterprise solution. Present tenants on the system are 311 Answer Center, Elections, Animal Services, Transit, Finance, Public Housing and Community Development Departments, Property Appraiser's Office, State Attorney's Office, Water and Sewer Department, and the RER Miami-Dade Permitting and Inspection Center. ITD will continue migrating service by moving the Public Defender Office and County Courts in FY2016-17.

Enterprise Video Management & Analytics Consolidation

There are a diversity of video management systems (VMS) being used in the County without standardization that are installed for security surveillance, traffic surveillance, or other video related service. ITD will continue the enterprise initiative for a video management system which will serve as the foundation for the County going forward. This platform can be expanded in the future by adding needed additional servers, disk storage and user licenses to implement customer requests to support standardized video cameras, and recorders. To streamline, ITD will research ways to consolidate existing VMS with the accepted (Genetec) VMS and define a strategy to strive to consolidate all video resources into one solution that can be accessed from mobile devices over the network by public safety and other users granted access to specific video resources when a major incident or disaster occurs. With this solution, ITD can integrate video when new technology solutions are designed to improve the efficiency of customers' operations, as well as, the safety and security of County citizens.



Transportation and Congestion Management

Implement coordinated mobile and other technologies that provide easy access to Transportation Information and options, and support reliable and safe mobility services across the tri-county region in FY17-18 this will include: signage with predictive arrival technology to facilitate delivery of real time arrival/departures at selected transportation hubs; infrastructure upgrades, mobile technologies that facilitates fare purchases, parking, transportation information and technology that improves County wide coordinated mobility.

The County currently operates approximately 2,800 traffic signal intersections with an incremental rate of approximately 30 intersections annually. These signals are managed at the County's Traffic Management Center (TMC) facility via a centralized software using a combination of digital lines and wireless technology at the intersections cabinets. The County migrated landline circuitry to wireless technology, reducing recurring circuit costs. Approximately 2,520 traffic signals have been migrated and are using wireless. The rest are already 4G LTE. Video cameras for traffic monitoring have been deployed using 4G LTE wireless services at approximately 90 intersections out of 100 planned at this time.

During FY 17-18, ITD will continue to work with Traffic Operations Engineers to implement a hybrid communications solutions to include Intelligent Transportation System (ITS) devices. These hybrid communications solutions will support higher bandwidths. The ITS devices will be integrated with the County's ATMS platform to support modern functions, including remote equipment malfunction diagnosis, video-based traffic flow surveillance, congestion management/mitigation, integrated multi-modal transportation network, and integrated operation of freeways and arterials. In addition, through integration with the County's ATMS, additional Transit vehicles and corridors will be equipped with Transit Signal Priority technology allowing for improved performance in bus services.

Cyber-security Services

ITD is responsible for maintaining the confidentiality and integrity of County and citizen data and ensuring the availability of systems and data to County departments and citizens they serve. This is accomplished through a continual process of implementing, reviewing and enhancing County cyber-security technologies, standards and procedures to mitigate risk to the greatest extent possible. ITD utilizes multiple technologies, including firewalls, anti-virus, automated security updates, intrusion detection and prevention, and security event and information monitoring, correlation and alerting, vulnerability assessment and penetration testing tools and has implemented technical and policy controls to ensure continued compliance with multiple security standards including Payment Card Industry (PCI), Criminal Justice Information Systems (CJIS) and Health Information Portability and Accountability Act (HIPPA). Ongoing enhancements address modernization of MDPD and Enterprise (MetroNet) security architecture, prevention, identification and notification of inadvertent and intentional disclosure of sensitive information, improving security for employees accessing County systems while away from the office or from mobile devices and implementation of encryption for County owned mobile devices.



Radio Systems Enhancement Initiatives

The objective of the radio systems enhancement initiatives are to increase radio communication capabilities within Miami-Dade County. The 800 MHz modernization project was completed which transitioned Miami-Dade County to new state of the art P25 digital networks servicing all County agencies, municipalities, state and federal agencies. The initiatives include evaluating communications coverage with a focus on improving the historically low coverage radio communication areas, expanding new radio infrastructure sites, and upgrading subscriber user hardware. New radio infrastructure sites have already been activated in the Key Biscayne and Cutler Bay areas. The Key Biscayne site has greatly improved communications for first responders in the village by expanding radio coverage on the island and surrounding waters. The Cutler Bay site has greatly enhanced communications in the South Dade area to include portions of the Everglades National Park.

During FY2016-17, new radio infrastructure sites were activated in northeast and west Miami-Dade County. The northeast site, Industrial Communications, is a full transmit and receive site and is designed to improve radio coverage for all radio users in northeast Miami-Dade County. The west site, Trail Glades, was converted to a full transmit and receive site to enhance radio coverage in western and Hammocks region of the county. Both of these sites were prioritized to address areas of historically low radio coverage.

In FY2017-18 and beyond, the focus will be the addition of a transmit and receive site within the Doral area as well as other areas of less than optimal radio coverage. The evaluation of the radio coverage expansion will continue with plans to make enhancement recommendations which may include the addition of other radio sites in order to support the approximately 30,000 radio devices in use today.

FUTURE OUTLOOK

Service Management Initiatives

As the County continues with IT consolidation, the importance of having a comprehensive, evolving and on-going plan is crucial. As ITD modernizes and implements new technologies, the Department has addressed the manner in which business is conducted and has begun restructuring and redesigning its customer service business strategy to improve service delivery management while working with customer departments and agencies to provide better services. As ITD expands its services countywide, the IT service center will become the central gateway for customers to strategically plan and order IT services. Embracing IT consolidation effectively within a complex organization such Miami-Dade County will challenge ITD for a more centralized and better managed IT environment that will support a more customer oriented service delivery strategy for the future. ITD will continue to establish value-added relationships and communications with its users/customers to improve its insight of business requirements, allowing for the establishment of standards to promote consistency, allocation and matching of costs to specific business units, and increasing awareness and visibility for IT service provisioning, as well as, maximizing existing and future investments by leveraging enterprise solutions.



Applications Initiatives

ITD will continue to work toward simplification of the County's applications portfolio by implementing enterprise and contemporary technologies and upgrading and augmenting skill sets to support current and future County applications. This will be accomplished through the growth of enterprise solutions, or through development or acquisition of new ones. This modernization effort will also require updating the skill sets of the IT professionals in emerging applications technologies while simultaneously ensuring adequate ongoing support for legacy systems until such time as these systems can be modernized. Reducing complexity in the applications portfolio, leveraging technology and expanding the availability of self-service components will enhance County staff and citizen access to data in a more timely and cost-effective manner. Specific areas of application modernization include:

- Full County-wide roll-out of ERP, which will replace FAMIS, ADPICS, Time and Leave, Human Resource, and Payroll applications with an integrated solution that will stream-line business processes, and automate electronic approval workflows throughout the County
- Identify funding to begin the Criminal Justice Information System (CJIS) modernization effort, which includes the advertisement of a Request for Proposal (RFP) for a commercial-off-the-shelf (COTS) Criminal Case Management System and development efforts for the other components that will make up the new Public Safety Eco System.
- Implement Phase 1 of the Jail Management System (JMS) for the Miami-Dade County Corrections and Rehabilitation (MDCR) department to streamline processes through automation, reduce paperwork and increase safety throughout the facilities with available comprehensive information for decision making. Phase 1 includes the following functionality: Classification of Inmates, Discipline and Grievances, Keep Separates
- Advertise the Request for Proposal (RFP) for a multi-discipline Public Safety Computer Aided Dispatch (CAD) system. The goal is to procure a next-generation 911 (NG911) system to take advantage of capabilities such as text and video messaging to support both the Miami-Dade Fire Rescue (MDFR) and Police (MDPD) Departments. This will allow an extensive communication network to instantly be activated to properly route the call to all of the necessary agencies for dispatch.
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- Implement the Laboratory Information Management System (LIMS) to support Miami-Dade Police Department's (MDPD) crime laboratory operations, including the management of property and evidence.
- Complete the analysis for a Records Management System (RMS) for Miami-Dade Police Department (MDPD). The RMS analysis will identify agency-wide requirements for the storage, retrieval and retention of information records, documents and files pertaining to law enforcement operations. Requirements will cover the entire life span of records development from initial generation to its completion. Implement Project Management methodologies and Governance to manage major projects such as ERP, CJIS and other business critical applications
- Expand the use of the online tool (Oracle Policy Automation) for citizen to open new businesses, sign up for Social services or access certain HR benefits



- Augment the County's eCommerce services with the addition of Interactive Voice Response (IVR) applications, using the enterprise AVAYA infrastructure. The new service will improve and automate the County's payment processes even further, as it will provide functionality to our residents and payers to submit payments via telephone, following voice prompts. The IVR applications will interface with the County's Payment Gateway to complete the payment process, and will accept credit card and eCheck payments.
- ITD will support the AT&T Spotlight Project, an initiative through the Mayor's and the CIO's office to provide Public Safety and Community based Internet access via Wi-Fi to two agreed upon Public Housing locations.
- Implementation of the Elite Inventory module which will allow for better management and control of Public Housing inventory.

Infrastructure Initiatives

Expansion of County Cloud:

The County has continued to expand its cloud capabilities and is in the position to provide its cloud services to non-County entities including municipalities, State and federal agencies operating within Miami-Dade County. Successful implementation of expanded cloud services should yield significant savings/cost avoidance benefits, and increase the County's ability to leverage its investment in its cloud infrastructure to generate incremental revenue from external sources.

As new cyber-security technologies are implemented and existing technologies refreshed and migrated to a shared IP environment, ITD will continue to provide guidance to enable secure access to these resources. Working with departments, internal stakeholders, and the IT Leadership Council, ITD will continue to improve security through the implementation of technology, policy and standards to ensure the County's risk exposure is minimized.

