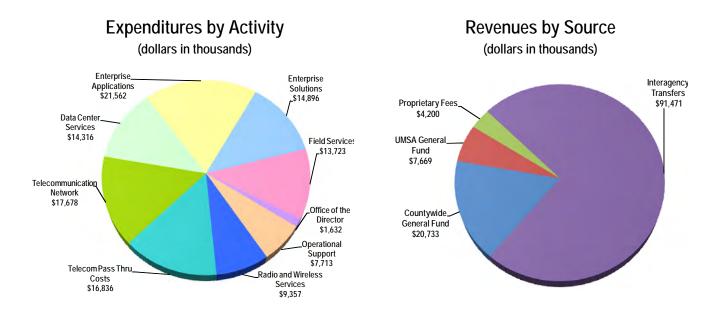
## Information Technology

The Information Technology Department (ITD) provides information technology (IT) enterprise and infrastructure services that support the operations of all County departments.

As part of the General Government strategic area, the Department deploys emerging technologies in support of County government operations and services to the public. ITD provides a reliable and secure IT infrastructure, including network and hardware/software platforms, to support departmental applications and enterprise services. ITD partners with other County departments and management to implement and maintain technology solutions that enable efficient operations and delivery of County services, to include telecommunications and radio operations. ITD ensures that its services improve government access, efficiency, and effectiveness through the implementation of appropriate IT standards, methodologies, security, and project management practices.

The Department's stakeholders include all County departments, elected officials, Miami-Dade County residents, local businesses, visitors, and anyone who visits the County's website.

## FY 2011-12 Adopted Budget



#### TABLE OF ORGANIZATION

#### **OFFICE OF THE DIRECTOR**

Oversees the provision of IT resources and services; oversees the County's cyber-security policies; performs Chief Information Officer (CIO) functions; oversees shared services development

FY 10-11 FY 11-12

#### **ENTERPRISE APPLICATIONS**

 Provides multi-platform Countywide and departmental automated application systems

<u>FY 10-11</u> <u>FY 11-12</u> 145

#### **OPERATIONAL SUPPORT**

 Provides asset management, financial, budgetary, personnel and administrative support to operations

FY 10-11 FY 11-12 31

#### **FIELD SERVICES**

 Delivers engineering, enterprise maintenance, installations, and support for telephone systems, computer peripherals, wireless devices, and networks

> FY 10-11 94 FY 11-12 92

#### TELECOMMUNICATIONS NETWORK

 Provides Internet Protocol (IP) voice and data network services for County departments

FY 10-11 FY 11-12 62

#### **ENTERPRISE SOLUTIONS**

 Delivers enterprise program services for 311/911, Enterprise Resource Planning (ERP), Geographic Information System (GIS), Enterprise Asset Management System (EAMS), and Electronic Data Management System (EDMS)

FY 10-11 FY 11-12 62 66

#### **RADIO AND WIRELESS SERVICES**

 Provides local and regional public safety first responders and County departments with efficient, reliable, and secure radio communications services and solutions

> <u>Y 10-11</u> <u>FY 11-12</u> 57 57

#### **DATA CENTER SERVICES**

 Provides 24 X 7 operation, maintenance, and support of the hardware and system software (host and network operating systems software, database, middleware, and distributed systems) that run the County's multi-mainframe, multiplatform computer environment and peripheral devices (storage and print)

<u>FY 10-11</u> <u>FY 11-12</u> 86

### FINANCIAL SUMMARY

	Actual	Actual	Budget	Adopted
(dollars in thousands)	FY 08-09	FY 09-10	FY 10-11	FY 11-12
Revenue Summary				
General Fund Countywide	27,204	25,667	23,293	20,733
General Fund UMSA	11,112	10,484	7,763	7,669
Proprietary Fees	906	869	804	800
Recording Fee for Court	0.070	2.054	2.500	2 200
Technology	2,372	2,054	2,500	2,200
Traffic Violation Surcharge	1,256	1,035	1,100	1,200
Carryover	355	590	0	0
Interagency Transfers	88,340	86,654	90,392	91,471
Total Revenues	131,545	127,353	125,852	124,073
Operating Expenditures				
Summary				
Salary	56,361	53,679	53,255	52,413
Fringe Benefits	13,977	12,399	13,748	10,044
Court Costs	0	1	0	0
Contractual Services	1,882	1,371	2,013	2,257
Other Operating	47,408	45,853	42,897	39,137
Charges for County Services	2,676	2,746	5,445	8,596
Grants to Outside Organizations	0	0	0	0
Capital	5,567	7,795	4,683	5,266
Total Operating Expenditures	127,871	123,844	122,041	117,713
Non-Operating Expenditures				
Summary				
Transfers	0	0	0	2,632
Distribution of Funds In Trust	0	0	0	0
Debt Service	3,083	3,512	3,811	3,728
Depreciation, Amortizations and Depletion	0	0	0	0
Reserve	0	0	0	0
Total Non-Operating Expenditures	3.083	3,512	3.811	6.360
Total Non-Operating Experiultures	3,003	3,312	3,011	0,300

	Total F	unding	Total Pos	sitions
(dollars in thousands)	Budget	Adopted	Budget	Adopted
Expenditure By Program	FY 10-11	FY 11-12	FY 10-11	FY 11-12
Strategic Area: General Governr	nent			
Office of the Director	2,021	1,632	11	11
Data Center Services	16,951	14,316	84	86
Enterprise Applications	22,430	21,562	145	147
Enterprise Solutions	15,430	14,896	62	66
Field Services	13,031	13,723	94	92
Operational Support	7,190	7,713	28	31
Radio and Wireless Services	9,345	9,357	57	57
Telecommunications Network	19,243	17,678	66	62
Telecom Pass Thru Costs	16,400	16,836	0	0
Total Operating Expenditures	122,041	117,713	547	552

## SELECTED ITEM HIGHLIGHTS AND DETAILS

	(dollars in thousands)									
Line Item Highlights	Actual	Actual	Budget	Actual	Budget					
	FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12					
Advertising	13	3	1	1	1					
Fuel	110	130	220	158	241					
Overtime	1,292	768	1,335	833	1,091					
Rent	1,834	1,864	2,539	2,596	2,636					
Security Services	0	0	3	0	3					
Temporary Services	2,866	1,467	1,497	1,144	1,648					
Travel and Registration	137	28	81	49	78					
Utilities	1,631	1,697	1,674	1,869	1,663					

CAPITAL	BUDGET	<b>SUMMARY</b>
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(dollars in thousands)	PRIOR	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FUTURE	TOTAL
Revenue									
2005 Sunshine State Financing	4,300	0	0	0	0	0	0	0	4,300
2008 Sunshine State Financing	7,000	0	0	0	0	0	0	0	7,000
Capital Asset Series 2004A Interest	1,000	0	0	0	0	0	0	0	1,000
Capital Asset Series 2007 Bond Proceeds	485	0	0	0	0	0	0	0	485
Capital Asset Series 2009 Bonds	6,391	0	0	0	0	0	0	0	6,391
Total:	19,176	0	0	0	0	0	0	0	19,176
Expenditures									
Strategic Area: General Government									
Computer Equipment	335	150	0	0	0	0	0	0	485
Departmental Information Technology	11,790	2,601	0	0	0	0	0	0	14,391
Projects									
Infrastructure Improvements	3,952	348	0	0	0	0	0	0	4,300
Total:	16,077	3,099	0	0	0	0	0	0	19,176

#### CAPITAL HIGHLIGHTS AND OPERATIONAL IMPACTS

- In FY 2010-11, the Department completed the optical network upgrade, replacing aging fiber optic infrastructure to ensure continued reliability and performance of enterprise systems and the supporting core network (\$201,000 from Capital Outlay Reserve); completed public safety infrastructure projects at various radio tower sites; improved electrical grounding at Miami International Airport (MIA); improved ventilation of the battery room and completed construction of a high-security perimeter fence at the Telecommunications Control Center (TCC); 80 percent of the upgrades to the TCC and the Interama tower sites essential for the successful implementation of the new P25 radio system were completed in FY 2010-11 and completion of the remaining work is expected no later than the second quarter of FY 2011-12
- During FY 2010-11, ITD began to upgrade Miami-Dade County's access network (Ethernet Edge Switch) to a state-of-the-art secure
  architecture for the delivery of data, telephony, and video services (\$1.985 million funded from reprogrammed Capital Asset Bond 2007
  proceeds); Phase I of the upgrade was completed in FY 2010-11 and provides secure access for County users and enables separate and
  secure internet access for vendors, contractors, and visitors to County facilities through both wireless and wired connections for users at the
  Stephen P. Clark Center (SPCC) and the Data Processing and Communications Center (DPCC); additional implementations will be ongoing
  through FY 2011-12 and beyond
- In FY 2011-12, ITD, in partnership with the Finance Department, anticipates completing the procurement of a new Enterprise Content
  Management (ECM) solution (\$485,000), funded by reprogrammed Capital Asset Bond proceeds, that will provide capacity for growth and
  additional workflow functionality not available in the County's current Electronic Document Management System (EDMS); the solution will
  facilitate the Finance Department's effort to create an integrated workflow accounts payable solution and serve as the core repository for official
  County documents; implementation will take place throughout FY 2011-12
- In FY 2010-11 and continuing into FY 2011-12, the Department is proceeding with the implementation of Phase 2 of the Cyber Security plan to minimize security risks in the County's computing and networking infrastructure (\$1 million from earned interest and \$6.391 million from Series 2009 Capital Asset Acquisition Bonds); in conjunction with the edge switch upgrade, the Enterprise Security Office (ESO) is implementing Network Access Controls for wired and wireless connectivity, which will ensure only approved County devices are able to access the County's network (MetroNet); secure guest internet access for the public and vendors/business partners will be also provided through this upgrade; the ESO is also implementing additional Intrusion Detection/Prevention technologies and Security Information and Event Management, which provides the automated ability to monitor and alert on Information Security Events for investigation for critical internal and external systems
- The Department's FY 2011-12 Adopted Budget includes a transfer to the Capital Outlay Reserve (COR) to fund new and ongoing Enterprise IT
  capital projects (\$2.632 million), including inventory and computer aided design software improvements at Park, Recreation and Open Spaces,
  an updated Laboratory Information Management System and Civil Process Bureau system for Miami-Dade Police Department, and the
  extension of the Family Court Odyssey system to Civil Court for the Administrative Office of the Courts

### DIVISION: OFFICE OF THE DIRECTOR AND OPERATIONAL SUPPORT

The Office of the Director and the Operational Support Division are comprised of the Director's Office, the IT Enterprise Security Office, and Operational Support Services; the Director's Office is responsible for the oversight of IT goods and services; the IT Enterprise Security Office is responsible for establishing the County's cyber-security policies and procedures; the Operational Support Services area encompasses ITD's procurement, accounting, budget and management, human resources, customer service, and project management functions.

- Oversees the development and use of technologies in order for County departments and their service partners to deliver quality customer service to the public
- Directs strategic enterprise-wide integration of new technologies into the County's IT infrastructure and oversees IT resources and services
- Provides asset management, financial and administrative support; manages personnel activities
- Provides County residents with electronic access to public records and information
- Endeavors to reduce risk exposure present in the County's computer infrastructure by establishing mitigation programs, to include cyber security and business continuity planning
- Provides information security services management for the County's security infrastructure, including firewalls, intrusion detection and
  prevention, anti-virus, Domain Name Services (DNS), and Internet proxy infrastructure, to ensure the security of Miami-Dade County IT assets
- Provides IT project management oversight to better manage funding, improve project outcomes, and increase customer satisfaction

- ITD, working with the Finance Department, successfully implemented a new payment gateway system for use by all departments processing
  credit card transactions through the County's website in FY 2009-10; in January 2011, ITD also migrated the electronic storage of all payment
  card information offsite to ensure the County's ability to continue to comply with Payment Card Industry (PCI) standards
- The FY 2011-12 Adopted Budget the Operational Support division received a number of internal transfers resulting in a net increase of three
  positions
- For FY 2011-12, the payment for the Enterprise Security Office's access management software is being funded from the cyber security capital project resulting in a reduction of \$305,000 to the operating budget; the Office's budget also includes a one-time reduction of IT Funding Model expenses totaling \$173,000 as a result of a re-alignment of the end dates of software maintenance payments in order to make these coterminus with the County's fiscal year
- The FY 2011-12 Adopted Budget includes a reduction in budgeted overtime (\$288,000), telecommunication pass-through expenses (\$448,000), and Countywide telecommunications expense (\$1.18 million inland lines, long distance and cellular) due to reduced customer demand

#### **DIVISION: DATA CENTER SERVICES**

The Data Center Services Division is responsible for the 24 X 7 operation, maintenance, and support of the hardware and system software (host and network operating systems software, database, middleware, and distributed systems) that run the County's multi-mainframe, multi-platform computer environment and peripheral devices (storage and print).

- Manages operating system software, including performance tuning and capacity planning
- Monitors and supports production systems
- Supports test and production systems using ORACLE, DB2, IDMS, and SQL database operating systems across multiple platforms
- · Provides systems administration over operating systems (AIX, Solaris, Linux) and hardware in support of distributed systems and applications
- Manages network protocols, system software, and enterprise management monitoring systems
- Administers the County's web and employee portal systems and their supporting middleware software systems (Websphere, Cognos, etc.)

Strategic Objectives - Me	easures							
<ul> <li>GG3-1: Ensure</li> </ul>	available and reliable systems	3						
Objectives		FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12		
Objectives	ivieasure	Measures			Actual	Budget	Actual	Target
Optimize use of	Percentage of effective mainframe capacity utilized	IN	$\leftrightarrow$	90%	74%	90%	77%	80%
operational resources	UNIX processors supported per full-time equivalent (FTE)*	EF	<b>↑</b>	41	53	50	41	N/A

<sup>\*</sup> Measure will change to "Images per full-time equivalent (FTE)" in accordance with industry practices; FY 2011-12 will serve to create a baseline and a target will be determined for FY 2012-13.

Objectives	Measures			FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12
Objectives	IVICasul Cs	)		Actual	Actual	Budget	Actual	Target
Ensure availability of critical systems	Production systems availability	OC	<b>↑</b>	100%	99%	99%	99%	99%

- In FY 2009-10, ITD received \$1.279 million from Miami-Dade County's allocation of Energy Efficiency and Conservation Block Grant (EECBG) funds for the Pilot Desktop Virtualization Project, which replaces traditional desktop personal computers with 'thin clients' that consume 90 percent less electricity; the Department has purchased the necessary servers, licenses, storage, and virtual desktop devices; 850 virtual desktops have been deployed Countywide as of the end of September 2011, with deployment of additional devices ongoing in FY 2011-12
- In FY 2009-10, the Department initiated an Invitation to Bid (ITB) to replace end-of-life mainframe printers; funds originally budgeted for printer
  maintenance are being reprogrammed to fund the acquisition of the new equipment over a four-year period, resulting in improved reliability and
  longer life with no increase in annual cost; the procurement process is expected to be completed by the second quarter of FY 2011-12
- The FY 2011-12 Adopted Budget includes one internal transfer into the Division and an additional Operating Systems Programmer position funded by a Service Level Agreement with the Clerk of Courts (COC) to provide distributed systems support to the server consolidation and conversion project for the COC SPIRIT system
- In FY 2011-12, the Data Center will realize savings of \$560,000 due to technical adjustments that resulted in lower IBM monthly software usage charges and negotiated savings on SAS software maintenance; a one-time reduction of expenses totaling \$1.113 million as a result of a re-alignment of the end dates of software maintenance payments in order to make these co-terminus with the County's fiscal year; and, a one-time reduction of expenses totaling \$716,000 due to pre-payment of certain software license and hardware maintenance
- The FY 2011-12 Adopted Budget includes reductions totaling \$259,000 due to negotiated savings, replacement of aging mainframe printing
  equipment with more efficient, cost-effective options, the reduction of one on-call rotation, and the retirement of a senior Division Director
  whose position will be filled at a lower cost

#### **DIVISION: ENTERPRISE APPLICATIONS**

The Enterprise Applications Division provides multi-platform Countywide and departmental automated application systems.

#### Strategic Objectives - Measures GG3-1: Ensure available and reliable systems FY 08-09 FY 09-10 FY 10-11 FY 10-11 FY 11-12 Objectives Measures Actual Actual **Budget** Actual Target Efficiently respond to Average calendar days to OC 9 resolve reported 15 10 26 12 technology problems problems\*

<sup>\*</sup> During FY 2010-11, several requests for new services, which take longer to meet, were incorrectly logged as problems, generating the 26 above.

GG3-2: Effective	ly deploy technology solutions							
Objectives Measures		FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12		
Objectives	IVICasul Cs	ivieasui es			Actual	Budget	Actual	Target
Efficiently respond to technology problems	Percentage of application batch jobs completed successfully	EF	<b>↑</b>	99.3%	99.3%	99.2%	99%	99%

- In February 2011, with the approval of the Florida Supreme Court, Miami-Dade County officially ceased to print subpoenas for Traffic, Parking and Criminal Justice Court Cases for law enforcement and other public safety personnel; eNotify, a web-based application subpoena creation/notification system implemented in January 2010 has enabled this transition; significant savings in paper and transportation costs have been realized by the County through the elimination of printing and distribution of 730,000 subpoenas annually
- The Miami-Dade County Association of Chiefs of Police (MDCACP) Countywide Prisoner Processing project will streamline the prisoner booking process through the creation of an electronic Arrest Affidavit Form (A-Form); the application will be accessible across partner agencies with interfaces to existing systems within the State Attorney's Office, the Public Defender's Office, Clerk of the Courts, Miami-Dade Police Department, and the County's Criminal Justice Information System; ITD is responsible for the project management activities and implementation throughout the three-year span of the American Recovery and Reinvestment Act of 2009 grant (\$5.23 million) awarded to the Florida Department of Law Enforcement; a needs assessment was completed to document current processes and new system requirements and the RFP was awarded in FY 2010-11; in order to support this project, the FY 2011-12 Adopted Budget adds two Senior Systems/Analyst Programmer positions to the Division, one of which is transferred from Miami-Dade Fire Rescue
- In June 2010, ITD launched a web-based dashboard for the Corrections and Rehabilitation Department to present daily jail population statistics for the County's 5,800 inmates; the dashboard graphically presents multiple breakdowns of the current jail population (including criteria such as race, age, offense type, charge status, sex and ethnic origin); drill down reports are available to the level of the individual inmate; a .pdf version of the main dashboard page is automatically e-mailed each morning to management personnel; multiple enhancements to the original dashboard were made during the third guarter of FY 2010-11
- In April 2011, ITD implemented a web-based query to provide Corrections kitchen staff with real-time counts of meals by type and inmate
  location; the counts provided a breakdown of regular meals and all special diet meals (low salt, faith-based) by physical location for each of
  Miami-Dade's inmates; inmate movement throughout the day makes this a critical function for the accurate production and delivery of meals
  within the multiple locations of the County's correctional facilities
- ITD developed a new web application to assist the Community Action and Human Services (CAHS) Department, the Early Learning Coalition and Florida International University with the daily collection of the Ages and Stages Screening Assessment (ASQ) results; each year, the ASQ is used to screen 20,000 children from four months to five years of age to identify potential developmental problems; previously, CAHS prepared and mailed the ASQ test packages to over 1,400 providers, and, at the end of each month, collected the tests and manually transferred the results to "bubble sheets" that were later delivered to FIU for manual scanning and scoring; the new application allows for direct entry of information via the Web, resulting in enhanced functionality and savings; the application was launched in January 2011 with enhancements added in May 2011
- The FY 2011-12 Adopted Budget includes a one-time reduction of expenses totaling \$22,000 as a result of a re-alignment of the end dates of software license payments in order to make these co-terminus with the County's fiscal year, and a one-time expense reduction of \$5,600 due to pre-payment of a software license

#### **DIVISION: ENTERPRISE SOLUTIONS**

The Enterprise Solutions Division is responsible for delivering consolidated enterprise services.

- Delivers program services Countywide for 311/911, Enterprise Resource Planning (ERP), Geographic Information System (GIS), Enterprise
  Asset Management System (EAMS), Electronic Document Management System (EDMS), and the new Electronic Content Management (ECM)
  system
- Implements enterprise programs and delivers operational support

Strategic Objectives - Mea	Strategic Objectives - Measures											
GG2-4: Provide customer-friendly human resources services												
Objectives	Monguros			FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12				
Objectives	IVIEASULES	Measures		Actual	Actual	Budget	Actual	Target				
Effectively track Enterprise Resource Planning (ERP) activity	Employees on electronic payroll and attendance record (ePARs)	ОС	<b>↑</b>	5,843	8,021	17,054	17,054	21,060				

GG3-2: Effective	ly deploy technology solutions							
Objectives	Measures			FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12
Objectives	Measures			Actual	Actual	Budget	Actual	Target
Effectively track Enterprise Asset	System users - EAMS	IN	$\leftrightarrow$	1,860	3,412	3,150	4,301	4,500
Management System (EAMS) activity	Assets tracked - EAMS (in thousands)	IN	$\leftrightarrow$	116	147	140	165	173
Effectively track Electronic Document	Documents managed - EDMS (in millions)	IN	$\leftrightarrow$	35.0	40.4	36.9	44.0	47.0
Management System (EDMS) activity	System users - EDMS	IN	$\leftrightarrow$	5,730	5,663	5,000	6,700	6,700
Effectively track Geographic Information	Visits to GIS applications (in thousands)*	IN	$\leftrightarrow$	2,882	2,807	2,900	N/A	N/A
System (GIS) activity	Street segments and address ranges maintained quarterly - GIS	OP	$\leftrightarrow$	103,204	103,540	103,246	104,297	104,000

<sup>\*</sup> This measure will be replaced for FY 2011-12

- ITD continues to deploy the Electronic Asset Management Solution (EAMS) to key County departments; in FY 2010-11, Water and Sewer and Miami-Dade Fire Rescue (MDFR) completed the final phase of implementation for current modules; the Aviation Department is in the process of procuring integration services for work order and preventive maintenance modules
- ITD is working with the Sustainability, Planning and Economic Enhancement Department and the Internal Services Department to integrate enterprise asset sustainability, improving the ability to monitor and reduce energy and greenhouse gas emissions in County facilities; in partnership with the University of Miami, an independent assessment is underway to monitor and make recommendations for energy reduction in two County facilities; a solicitation has been completed for the procurement of an Enterprise Utility Billing Management Solution and Phase 1 of the Asset Sustainability project is expected to be completed in FY 2011-12
- The FY 2011-12 Adopted Budget includes funding for aerial photography, required by the State of Florida and needed for enterprise GIS
  technology; at present, a maximum of \$500,000 has been allocated from the IT Funding Model; ITD intends to partner with the Florida
  Department of Revenue in order to obtain the images at a reduced price
- In collaboration with County departments, the GIS Portal on miamidade.gov has been enhanced with the addition of flood zones, business incentives, capital improvements, code violations, crime mapping and a GIS self service system; in FY 2011-12, in partnership with the Office of the Property Appraiser, ITD will launch a new property search application
- During FY 2010-11, ITD and the Human Resources Division of the Internal Services Department continued to roll-out ePARs, a web-based
  application that eliminates the hard copy Payroll and Attendance Record (PAR) and reduces printing expenses and costs associated with PAR
  distribution, collection, data entry, and storage; as of September 2011, approximately 63 percent of full-time employees were on ePAR; in FY
  2011-12, the Electronic Personnel Change Document tool will be rolled out
- During FY 2010-11, ITD, in partnership with the Human Resources Division of the Internal Services Department, implemented a pilot
  deployment of PeopleSoft Discipline Tracking in eight departments with plans to deploy to all other departments in FY 2011-12; deployment of
  the e-Performance, e-Learning and the Oracle Rules Engine software suite will begin in FY 2011-12
- In FY 2010-11, ITD and the Human Resources Division of the Internal Services Department worked with Oracle to conduct an assessment of PeopleSoft HR modules to develop a strategic roadmap for implementation; this engagement was completed in May 2011; implementation of the remaining HR modules will be contingent on funding availability
- Electronic paystubs were made available online in June 2009; as of the end of September 2011, over 27,800 employees (92 percent) have opted out of receiving paper paystubs
- The FY 2011-12 Adopted Budget includes the transfer of a Senior Systems Analyst Programmer performing enterprise GIS-related functions
  from the Office of Emergency Management; the position will be funded by the IT Funding Model; the Division also received three other
  positions from internal transfers
- The FY 2011-12 Adopted Budget includes a reduction of \$547,000 from IT Funding Model expenses due to increased customer revenue expectations and a re-assignment of resources previously engaged in enterprise initiatives to customer-funded projects; a reduction of \$561,000 from IT Funding Model expenses due to reductions in funding for interns, reduction in software maintenance and negotiated savings; a one-time reduction of expenses totaling \$601,000 due to pre-payment of certain software license expenses; and, a one-time reduction of expenses totaling \$857,000 as a result of a re-alignment of the end dates of software maintenance payments in order to make these coterminus with the County's fiscal year

#### **DIVISION: FIELD SERVICES**

The Field Services Division is responsible for engineering, managing and maintaining the County's data and voice telecommunications equipment infrastructure, encompassing telephone systems, telephone devices, personal computing devices, wireless devices, print devices, mainframe terminals, and auxiliary peripheral devices.

- Delivers equipment maintenance and support services to County departments and agencies
- Provides support 24 X 7 for the 911 and 311 call centers
- Provides equipment procurement, installations, and training for telephone, wireless, and computer peripherals
- Provides enterprise coordination for the National Communications System emergency restoration program for wireless, telephone, and telecommunications circuits
- Provides enterprise disaster recovery support to County departments and agencies
- Maintains enterprise telephone and wireless inventory records
- Provides network and voice design and engineering services; services range from the addition of a single network connection for an existing
  facility to the design and engineering of voice and data services for new multi-tenant facilities with over 1,000 users

Strategic Objectives - Me	asures							
GG3-1: Ensure	available and reliable systems							
Objectives Measure			FY 08-09		FY 09-10	FY 10-11	FY 10-11	FY 11-12
Objectives	ivieasures	•		Actual	Actual	Budget	Actual	Target
Efficiently respond to equipment repair	Percentage of computer equipment repairs completed within 48 hours	EF	1	95%	97%	92%	95%	92%
requests	Percentage of telephone equipment repairs completed within 48 hours	EF	1	91%	91%	92%	94%	92%

Objectives	Moncuros			FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12
Objectives	Measures			Actual	Actual	Budget	Actual	Target
Ensure Completion of Energy Efficiency	Percentage of participation in County-wide "Power IT Down" initiative	OC	1	N/A	38%	50%	57%	60%
Initiatives	Percentage of new computer equipment purchased that meets Energy Star Standards	OC	1	N/A	98%	95%	100%	98%

- During FY 2010-11, 100 percent of computer purchases were compliant with Energy Star Standards; ten percent of new telephone purchases were compliant with the restriction of hazardous substances (RoHS) directive; 100 percent of telephone equipment purchases for repairs were refurbished; and 30 percent of surplus wireless equipment was donated to the Dial-A-Life program, which will continue through FY 2011-12
- During FY 2011-12, the Department will continue implementing the Media Gateway Project, which will enable the majority of telephone traffic between County facilities to travel through the existing internal fiber optic network, thus allowing for the consolidation of external telephone traffic to a smaller number of large trunk lines; the resulting savings will be used to purchase upgraded telephone switches for County facilities, beginning with the Stephen P. Clark Center in FY 2012-13 and eventually replacing all out-of-date switches over the next several years
- In FY 2010-11, ITD continued its after-hours power-down policy, initiated in FY 2009-10, to save energy and money by turning off available computers, monitors, and printers for the night; the program will continue through FY 2011-12
- The FY 2011-12 Adopted Budget includes a reduction of expenses funded by the IT Funding Model by \$81,000 due to the re-assignment of one position to customer-funded activities
- The FY 2011-12 Adopted Budget includes the transfer of two positions to other Divisions

#### **DIVISION: RADIO AND WIRELESS SERVICES**

The Radio and Wireless Services Division is responsible for providing local and regional public safety first responders and County departments with efficient, reliable, and secured radio communications services and solutions.

- Develops strategic direction of the County's 800 MHz Radio Communication Systems
- Provides 24 X 7 support of the radio infrastructure
- Provides repair and installation of vehicle emergency lighting and mobile communications equipment
- Coordinates interoperability plans in the Southeast Florida region
- Coordinates communications talkgroups
- Provides radio engineering and design services
- Provides carrier-class wireless point-to-point, point-to-multipoint, fixed outdoor or mobile Broadband, and Wi-Fi / WiMax services

Strategic Objectives - Measures									
GG4-2: Effectively allocate and utilize resources to meet current and future operating and capital needs									
Objectives	Measures		FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12		
	ivicasui es			Actual	Actual	Budget	Actual	Target	
Ensure availability of critical systems	Cost of portable radio unit repair*	EF	$\rightarrow$	\$161	\$167	\$198	\$172	\$198	

<sup>\*</sup>Targets represent industry provider cost

GG5-2: Provide well maintained, accessible facilities and assets								
Objectives	Measures		FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12	
Objectives	ivicasures			Actual	Actual	Budget	Actual	Target
Ensure availability of critical systems	Percentage of vehicle installations completed on time	EF	1	100%	95%	95%	95%	95%

- In January 2010, the Board of County Commissioners approved the 800 MHz rebanding settlement between the County and Sprint/Nextel; the Radio System Modernization Project (RSMP) is well underway; as of the end of September 2011, over 4,400 radios have been deployed with a target of deploying the remaining new radios by the end of the third quarter of FY 2011-12; this is the first major step to migrating all radio users from the old radio network to a state-of-the-art digital Land Mobile Radio system that adheres to industry standards; tower upgrades, equipment shelter improvements, deployment of remaining radios, and installation of the first of five major P25 systems will be completed by the end of FY 2011-12
- In partnership with the Parks, Recreation and Open Spaces Department and the Transit Department, ITD has deployed wireless technology that is improving County services to citizens and visitors; four of Miami-Dade County's largest public parks (Tropical, Tamiami, Goulds and Amelia Earhart) are providing free municipal Wi-Fi wireless service to residents and visitors as part of a pilot program that began in 2008; since then, over 150,000 users have logged on; the County expanded wireless service to Metrobus and Metrorail by installing 250 Wireless Mobile Routers on trains and buses; this creates a wireless network inside and around each vehicle, providing residents and visitors free, municipal Wi-Fi service; plans exist for an additional 700 wireless mobile routers, pending identification of funding
- ITD has deployed a private broadband network to provide wireless communications between traffic signals and the Advanced Traffic Management System (ATMS) managed and operated by the Public Works and Waste Management Department (PWWM); every second, 252 wireless routers installed inside equipment cabinets at traffic signals throughout the County deliver traffic signal information to the ATMS system 24 hours a day, 7 days a week; this wireless network has saved over \$270,000 a year in carrier based leased circuit costs and it is presently providing net savings to the PWWM of more than \$135,000; operating costs will be further reduced in FY 2011-12 as an additional 400 traffic signals are migrated to wireless broadband communications
- ITD is also leveraging advances in technology to further reduce costs and improve efficiency by replacing commercial land lines with cellular modems at traffic signal locations outside of the radio coverage "ring" of the commercial broadband network; 250 traffic signals have been converted from carrier "landline" leased circuits to cellular modems; this conversion has yielded a savings of more than 50 percent relative to commercial leased costs; an additional 150 traffic signals are planned to be converted to carrier cellular service by the end of FY-2011-12

#### **DIVISION: TELECOMMUNICATIONS NETWORK**

The Telecommunications Network Division provides Internet Protocol (IP), voice, and data network services for all County departments.

- Provides Internet service connectivity for County websites, e-commerce, webcasting, and constituent access to online services
- Provides electronic mail (e-mail) for communications including mobile messaging (BlackBerry) within the County and with external entities, agencies, and constituents while protecting against virus attacks and unsolicited commercial e-mail (SPAM)
- Provides MetroNet network connectivity for all departments for access to voice, video, and data services, including access to applications such
  as the Internet, Enterprise Asset Management System (EAMS), Enterprise Document Management System (EDMS), Enterprise Resource
  Planning (ERP), Geographic Information System (GIS), Criminal Justice Information System (CJIS), and mainframe applications, and
  connectivity to many other applications
- Manages a carrier class core fiber optic network, as well as the routed and switched network configuration and support, connecting over 600 sites to MetroNet

GG3-1: Ensure	asures available and reliable systems							
	Measures			FY 08-09	FY 09-10	FY 10-11	FY 10-11	FY 11-12
Objectives				Actual	Actual	Budget	Actual	Target
Ensure availability of critical systems	911 availability	ОС	$\uparrow$	99.9%	99.9%	99.9%	99.9%	99.9%
	Data Center Network availability	OC	<b>↑</b>	99.3%	99.7%	99.7%	99.9%	99.9%
	Core Network availability	ОС	<b>↑</b>	100%	100%	100%	100%	100%

- During FY 2010-11, the Department continued to replace stand-alone computer servers with lower cost, higher energy-efficiency virtual servers; as of the end of October 2011, ITD had deployed 262 Intel virtual servers for an average monthly power savings of \$19,000; systematic review of the entire server infrastructure will continue into FY 2011-12
- In FY 2010-11, the Department implemented co-location services enabling Jackson Health Systems (JHS) to migrate equipment from the Network Access Point (NAP) of the Americas to the County owned Integrated Command Facility Building (ICFB), as well as potentially providing video conferencing support and Internet Access for JHS; this agreement is anticipated to extend through FY 2011-12
- The Department's FY 2011-12 Adopted Budget includes one additional Operating Systems Programmer position funded by a Service Level Agreement with Miami-Dade Police Department (MDPD) to provide support for 911 systems
- In FY 2010-11, the Department implemented co-location services enabling County departments to migrate equipment from smaller, less reliable data centers to the County owned Integrated Command Facility Building (ICFB); the Permitting, Environment and Regulatory Affairs Department and the Miami-Dade Transit Department are among the departments that will be utilizing these services through FY 2011-12
- The FY 2011-12 Adopted Budget includes a reduction of \$600,000 resulting in a one-year postponement of the server backup equipment
  purchase cycle; the reduction may result in decreased performance, reliability, and energy efficiency of the County's stock of servers and
  backup equipment
- The FY 2011-12 Adopted Budget includes a non-recurring reduction of expenses funded by the IT Funding Model totaling \$1.419 million as a
  result of the re-alignment of the end dates of software license and hardware maintenance payments in order to make these co-terminus with
  the County's fiscal year
- The FY 2011-12 Adopted Budget includes the internal transfer of five positions to other Divisions

## **Department Operational Unmet Needs**

	(dollars in the		
Description	Startup Costs/	Recurring Costs	Positions
	Non Recurring Costs		
Hire one GIS Graphic Technician 2 to maintain parcel-based layers	\$0	\$35	1
Hire three Senior Systems Analyst/Programmers for the Innovations Competency Center to create new development strategies, processes, and procedures for effective use of new tools and technologies	\$0	\$225	3
Hire one Systems Analyst Programmer 1 and provide funding for temporary resources to improve the level of data maintenance for the County's street network data	\$0	\$155	1
Provide funding for recapitalization of aging equipment to enhance the performance, reliability, and energy efficiency of the County's stock of servers and back-up equipment	\$600	\$0	0
Hire one Operating Systems Programmer to resolve issues related to Blackberry, mobile messaging, and mobile data support	\$0	\$72	1
Hire one Senior Systems Analyst/Programmer to address increased demand for Business Intelligence infrastructure interface and architectural support	\$0	\$75	1
Hire one Systems Analyst Programmer 2 to provide IT support in the Citizens Services area	\$0	\$69	1
Hire one Technical Support Analyst to support GIS infrastructure needs	\$0	\$62	1
Total	\$600	\$693	9