

Appendix B – Information Technology Department Rates

Enterprise Applications and Solutions

Services encompass the creation of new systems as well as the on-going support required to maintain systems on an enterprise, consortium, or departmental basis. Types of services include system maintenance, enhancements, development of new systems, integration services, vendor package implementations, project management, and special requests. Services are billable at rates provided below. Services and support provided include but are not limited to the following technologies:

- Geographic Information Systems (GIS)
- Enterprise Content Management (ECM), also known as Electronic Document Mgmt. System (EDMS)
- Enterprise Asset Management Systems (EAMS)
- Enterprise Resource Planning (ERP) - PeopleSoft
- Interactive Voice Response Systems (IVR)
- Mobile Applications for Handhelds, Smart Phones, Blackberries
- Electronic Commerce Systems
- Business Intelligence (BI) – Dashboards and Report Authoring
- Web / Portal Systems Development
- Criminal Justice Systems

Applications Services Rates

ITD offers customers a choice of an hourly rate (time and materials or “T&M”) or an annual service level agreement (SLA) for a dedicated position by professional classification available through a full-time, half-time, or one-quarter of a full-time equivalent (FTE). T&M customers will be billed for hours associated with activities related to their projects, including project management and administration. Additionally, fixed rates can be provided on a per project basis for new development or implementations.

Overtime costs and costs related to staff assigned to on-call duties (24-hour support) will be added where appropriate and will be subject to prior customer approval.

The rates for FY 2014-15 are below. These rates are for work performed by County employees. Rates for contractors may be higher and will be quoted at time of engagement.

ITD Applications Services Hourly Labor Rates	
Subobject: 26110	
Service	ITD T&M Rate
GIS Graphic Technician / Mapping	\$90
Product Configuration (GIS Routing, Mobile, Dashboards, etc.)	\$100
Project Management	\$115
Systems Programming (Operating & Technical) and Database Administrator	\$125
Analysis and Programming	\$120
On Call Service	10%

Applications SLA Annual Rates Subobject: 26110			
Position	Annual Rate	Semi-Annual Rate	¼ Annual Rate
Junior Programmer Analyst	\$145,000	\$72,500	\$36,250
Intermediate Programmer Analyst	\$155,000	\$77,500	\$38,750
Senior Programmer Analyst	\$170,000	\$85,000	\$42,500
IT Project Manager	\$165,000	\$82,500	\$41,250
Systems Programmer	\$185,000	\$92,500	\$46,250

Geographic Information System (GIS)

ITD provides the following enterprise-wide Geographic Information System (GIS) services (funded via the IT Funding Model):

- Licensing of the Environmental Systems Research Institute (ESRI) suite of GIS software
- Use of the County's enterprise GIS infrastructure and the GIS portal environment to include hosting of departmental applications using the County's enterprise infrastructure and maintenance of the development/test environment utilized by departments
- Use of enterprise GIS plotters
- Access to countywide imagery such as ortho-photography and oblique imagery (Pictometry)
- Maintenance of GIS base layers such as streets and addresses and general layers not owned by departments
- Maintenance of central geographic data repository
- Use of GIS standardized integration tools
- Access to GIS virtual campus training and workshop opportunities

ITD also provides the following GIS services that are ***not included*** in the IT Funding Model and are charged on a project or time and materials basis:

- Map creation and layer development
- Data analysis, report and chart generation
- GIS integration and consulting
- Customized routing solutions
- Application development and maintenance of department-specific applications
- Departmental infrastructure costs

Enterprise Content Management (ECM) / Electronic Document Management System (EDMS)

ITD provides the following services for the County's Electronic Document Management System (EDMS), also known as Enterprise Content Management (ECM), funded via the IT Funding Model:

- Licensing of Electronic Document Management suite of document management software to include scan, store and retrieval capabilities
- Use of the County's enterprise EDMS infrastructure to include hosting of departmental applications using the County's enterprise infrastructure

The following services are ***not included*** in the IT Funding Model; therefore, departments anticipating use of these services in FY 2014-15 should budget for them separately:

- Implementation costs paid to an outside vendor
- Disk storage
- Departmental infrastructure costs
- Application development
- Maintenance of departmental specific applications such as custom forms and workflows

Enterprise Asset Management System (EAMS)

ITD will provide the following services for the County's Enterprise Asset Management System (EAMS) (funded via the IT Funding Model):

- Licensing of Infor Asset Management software to include core functionality designed to ensure that physical assets are maintained properly and efficiently. Core functions include tracking of work orders, asset cost history, warranties, claims, meters, permits, etc.
- Deployment of mobile devices, call center, inventory, GIS integration, fleet, purchasing, scorecards, audit, analysis, and reporting capabilities
- Use of the County's enterprise EAMS infrastructure to include hosting of departmental applications using the County's enterprise infrastructure

The following services are ***not included*** in the IT Funding Model; therefore, departments anticipate use of these services in FY 2014-15 should budget for them separately:

- Implementation costs paid to an outside vendor
- Configuration
- Disk storage
- Departmental infrastructure costs
- Integration of department-specific applications
- Advanced Mobile and Advanced Reporting

Enterprise Resource Planning Applications (ERP – PeopleSoft)

PeopleSoft has been established as the enterprise resource planning tool (ERP) for financial, procurement, and human resources systems. ITD will provide the following services for the County's Enterprise Resource Planning application (ERP) (funded via the IT Funding Model):

- Human Resources – PeopleSoft e-Recruiting
- Countywide deployment of the PeopleSoft Time & Labor (e-PARs)
- PeopleSoft e-Performance Module
- PeopleSoft e-Learning Management Module
- Human Resource Grievance Tracking and Discipline Tracking modules
- System and security administration, deployment, maintenance, and upgrades

The following services are not included in the IT Funding Model; therefore, departments anticipating using these services in FY 2014-15 should budget for them separately:

- Functional and technical training courses (available for all PeopleSoft modules from various partner providers)
- Additional PeopleSoft modules (cost quoted on request)
- Costs associated with project management, storage or archiving solutions; and
- Support to departments that have implemented ERP financial and procurement modules (available on chargeback basis).

Business Intelligence

Business intelligence (BI) is the ability of an organization to collect, maintain, and organize knowledge; essentially turning data into information. The goal of business intelligence deployments is to support better operational decision-making. BI technologies provide historical, current and predictive views of business operations. Common functions of business intelligence technologies are query, reporting, business performance management (scorecards and dashboards), analytics, data mining, benchmarking, predictive and prescriptive analytics.

ITD provides Business Intelligence (BI) services under the Cognos Enterprise License agreement. Charges for using BI services will be determined on a case-by-case basis depending on the anticipated resource usage. Departments **must budget for and fund** any new BI projects to include project management costs, disk storage, BI support charges and any associated infrastructure hardware, database and software license costs. Recurring annual costs include but are not limited to hosting charges for infrastructure hardware and software license costs, databases, installation, and storage. These costs may vary based on the size of the database and nature of the support required.

Enterprise Computing and Network Infrastructure

The Enterprise Computing and Network Infrastructure provides 24/7 operational maintenance and support for countywide data center operation, telephone (cellular, landlines, aircards and data circuits), network, microwave, and fiber optic systems to meet the communications and information management objectives of the County. It also plans, designs, and implements the infrastructure to provide information technology service to County departments; provides 24/7 maintenance and

support to critical operational and communications systems on multiple computing platforms. Services include, but are not limited to:

- Network Architecture and Engineering Design Services
- Network/Application Load Balancing Services
- Connectivity Services, Remote VPN Access, Wireless Mobility, NetMotion
- E-mail and Messaging Services (Microsoft Exchange and Blackberry)
- Utilization and Availability Reporting
- Active Directory Domain Services and Domain Name System (DNS)
- Security Updates, Patching and Remote Software Deployment
- Mainframe Security -- Resource Access Control Facility (RACF)
- Firewall Management, Antivirus Protection, and Internet Content Filtering
- IP Address Management
- Web Services Secure Socket Layer (SSL) Certificate Management

Infrastructure Services Rates

ITD offers customers a choice of an hourly rate or a Service Level Agreement (SLA). ITD provides SLAs which specify service hours and response time to reported requests for service. SLAs can be enhanced to include specialized services and weekends or after hours coverage. Costs vary based on the service hours, response time, and number of locations and specialized requirements. Hourly customers will be billed on a time and material basis associated with activities related to their service requests or projects including any overtime costs.

The hourly rates for FY 2014-15 are shown below. These rates are for work performed by County employees. Rates for contractors may be higher and will be quoted at time of engagement.

ITD Infrastructure Services Hourly Labor Rates	
Subobject: 26110	
Service	Rate
Network Design, Engineering, and Consulting Services	\$120
Telecommunications Technicians	\$90
Communication Service Representatives (billed in 30-minute increments)	\$70
Equipment and Parts Multiplier for Engineering and Design Project Services*	10%
Contractor Multiplier for Engineering and Design Project Services*	15%

**The Equipment and Parts and Contractor Multipliers will not be applied for straight pass-through purchases processed by ITD on behalf of customers.*

Communication Service Representative rates apply to billable work which includes project work as well as moves/changes of existing telephone service and provisioning of new or additional telephone services. Examples of non-billable work are customer billing inquiries, consulting with customer regarding telephone services (other than for large projects involving numerous

moves/disconnects); updating of telephone records due to employee terminations or new employee assignment to existing telephone services; issuance or deactivation of passwords for voicemail, conference bridge or long distance access; and coordination of repair/removal of coin telephones (payphones).

Engineering and Design Services

ITD provides telecommunication consulting and installation services that include but are not limited to the following: engineering and design of new facilities, Local Area Network solutions, IP voice Solutions, video solutions, computer telephony integration applications, interactive voice response (IVR) solutions, call center solutions and design, voice traffic study, communication system infrastructure grounding/bonding, cable TV distribution system, low voltage communication system infrastructure wiring, and outside plant fiber optic communication infrastructure design. Customers will be billed on a time (hourly) and material basis associated with activities related to service requests or projects and will include associated overtime costs. The above stated services are priced on request (POR) and specialized telephony applications such as call centers and IVR will require monthly recurring maintenance and circuit cost. The customer is responsible for the monthly cost.

Internet Proxy Logs Reporting

The Enterprise Network Access unit manages the web proxy systems that provide content filtering for web traffic as well as logging Internet traffic and usage on a per user basis. The unit collects these logs and archives them for up to two years. The charge for obtaining a copy of a user's Internet traffic logs are as follows:

Internet Proxy Logs Reporting	
Service	Rate
Internet usage reports requested for the current month	No Charge
Internet usage reports for data prior to current month*	Priced on request*

** There is no charge for reports requested for usage within the current month. For data prior to current month, costs depend on the whether the data must be recovered from disk or tape as well as the number total users for which logs are requested. Cost estimates will be provided on request.*

Data Center Services

Data Center Services provides 24/7 operational support and hosting services for Mainframe and Distributed systems and applications on various Operating System and virtualization platforms (Windows, AIX, Sun, Linux, Z/OS, Z/VM, and Z/Linux, XenServer, VMWare), Enterprise Infrastructure Change Control, and Mainframe Change Control to effectively manage the County's enterprise system resources. Process Scheduling Services through Tivoli Workload Scheduler on all platforms are supported by Data Center technical, administrative and operations staff. Enterprise Operations services cross multiple operating platforms and include, but are not limited to, completion of nightly production schedules; off-hours help desk; print, post-processing and distribution services and network and systems performance monitoring for the IBM Z10 mainframe, SUN, Wintel, Unix, and P7 Eclipse (AIX) platforms. Mainframe Technical support staff provides off-site disaster recovery services for the County's legacy mainframe applications. The Desktop Virtualization team provides

provisioning and support services for CITRIX Virtual Desktops and CITRIX XenApp applications virtualization. Enterprise Cloud Services team provides Storage, Wintel Server, and VMWare Server Virtualization services including backup, offsite vaulting, SAN, NAS provisioning, tape backup and recovery services, Wintel/AMD server provisioning, support, and recapitalization service, and Co-Location or hosting services. All services provided are fully supported 24x7 with onsite or oncall staff.

Data Center Co-Location / Hosting

ITD is responsible for managing and coordinating space allocation at both the Data Processing and Communications Center (DPCC) and the Integrated Command Facility Building (ICFB also known as "Lightspeed") data centers for departments wishing to co-locate equipment or for ITD to provide hosting services. Typically, services such as disaster recovery for department's business systems or simply space allocation at a fully supported, secure, off-site, redundant location are excellent candidates for the service provided. Departments will be provided with alternative costing once requirements are defined. In a co-location scenario, departments who have their own IT staff could access their devices at the facility directly. In the hosting alternative, ITD would provide turn-key services and support. ITD will provide cost estimates on request based on customer requirements.

Backup and Off-Site Vaulting Services Using Symantec's NetBackup Product

Enterprise Cloud Services (ECS) provides backup services using Symantec's NetBackup product and is currently backing up approximately seven petabytes of data yearly. NetBackup provides an enterprise level heterogeneous backup and recovery solution, providing cross-platform backup/recovery functionality to a large variety of Windows, UNIX, and Linux operating systems. NetBackup utilizes hardware devices like tape drives, tape libraries, and SAN connected disks. It can, with the necessary licenses, also support hot backups for major database products like Oracle and Microsoft's SQ, and can natively backup and restore the virtual machines of major virtualization products like VMware and has the capability of electronic tape vaulting.

Benefits to using ITD's Backup Services include:

- Ability to backup and store computer files from anywhere in County facilities using countywide fiber optics network
- Ability to create off-site tapes by utilizing ITD's automated electronic vaulting service
- Reduces staff required to maintain backup infrastructure
- Enable timely recovery of data via totally interconnected sites within the County Network
- Provides the option to generate multiple copies and store at multiple secure off-site locations.

Back-up and Vaulting Rates	
Service	Rate
Back-Up Services (per GB)*	\$0.50
Back-Up Services minimum charge per year per server.	\$600.00
Back-Up Services for electronic tape vaulting at the NAP of the Americas (per GB).	\$0.50
Back-Up Services Capacity License charge is a one-time fee (per GB)**	\$2.20
Back-Up Services for \\miamidade\\NASx File storage is charged at a flat rate per GB for each GB of allocated storage, (plus the one-time charge noted above)***	\$0.30

*This rate is based on number of gigabytes backed up during each backup run and assumes a minimum backup service requirement of once a month.

**Capacity License one-time fee. Example: 1,000GB of [\\miamidade\\NASx](#) File Share storage purchased. 1,000GB x \$2.20 per GB = \$2,200

*** To be eligible for the flat rate back-up services charge of \$0.30/GB/month, a one-time Capacity License fee and is assessed on every gigabyte of [\\miamidade\\NASx](#) File Share storage purchased.

Disk/SAN (Storage Area Networks) Storage

ITD's Enterprise Cloud Services (ECS) unit currently manages and supports SAN (Storage Area Network) storage arrays AND FileShare Storage with a total capacity of over 1.3 petabytes (1,300 terabytes). These arrays are located at four County facilities and at the NAP of the Americas. The deployment of storage arrays and amount of storage capacity varies from site to site. The largest install base is located at the RDPCC facility. The sites are connected by a high-speed DWDM fiber channel ring, which offers the capability of remote data replication and a number of other advanced storage features. ITD offers three different classes of storage. Tier 1, Tier 2 and Tier 3 are SAN connected storage. File Share Storage is offered in Tier 3, and is also available with replication services.

Storage is priced in three tiers:

- Tier 1 – available 99.999% of the time and is predominately associated with AIX applications. All AIX data is Tier 1. Tier 1 is also available to Windows and Linux applications
- Tier 2 – available 99.99% of the time and is predominately associated with Windows and Linux and Solaris applications
- Tier 3 (SAN/NAS) – available 99.99% of the time. It is lower duty cycle/lower performance and is only appropriate for data that has minimal access and is targeted for archival or is static data (not changing) or for file level storage access and file shares

Disk/SAN (Storage Area Networks) Rates Subobject: 24512	
Service	Pricing
Disk Storage Tier 1	\$0.70
Disk Storage Tier 2	\$0.50
Disk Storage Tier 3	\$0.20
Protected File Storage (includes backup using a predefined backup policy)	\$0.50
Long term storage of any type or combination of types	Priced on request

Cost includes the provisioning and management of the storage as well as all maintenance and recapitalization expenses. All storage is billed on a monthly basis.

Intel/AMD Server Provisioning/Management/Co-Location Services

ITD Enterprise Cloud Services (ECS) unit provides provisioning and management services for INTEL and AMD servers running the Windows and Linux Operating Systems.

Physical Servers - Provisioning of physical servers (Discrete and Blades) normally takes three to six weeks and is priced on a case-by-case basis based on the configuration. Discrete servers are machines that are stand-alone units that are normally rack mounted and require their own power and network connections. Blade servers are more cost effective and plug into an enclosure with shared network and power connections. These servers are less expensive per unit, have economics of scale associated with their operation, and are less costly to maintain.

Virtual Servers - There are four classes of virtual servers. All of the virtual server offerings include Ethernet and Fiber Channel connectivity as well as automatic failover (high availability) in the event of a hardware problem. Provisioning of virtual servers will occur within 48 business hours of request. Virtual servers are “leased” on a month-by-month basis.

Server Management - Management of Discrete and Blade servers is billable on a yearly basis and includes all costs associated with the functioning of the server (network connections, power, air conditioning, rack space, operating systems maintenance, hardware maintenance, and recapitalization).

Managed Server Co-Location Services - ECS also offers managed co-location services to house customer-owned servers. With this service, ITD provides rack space and environmental support (such as power, network connections and temperature control). The customer is responsible for providing the machine hardware and all software licenses and software media. ECS will install, manage, and maintain the server **with the exception of recapitalization and a hardware maintenance** contract. Should a failure occur, ITD will respond and manage the incident to its resolution. Cost of this service for a “standard pizza box” server (2U or less) (one “U” is approximately 1 7/8 inches) is \$500 one-time installation cost (\$250 per U) and an annual recurring cost of \$1,980. See table below for costs. All other types of servers/support options are quoted on a case-by-case basis. Should the customer require server hosting without the managed services, a rack with power and network connectivity can be provided, with secure, customer only card key

access. ECS will not assume responsibility for downtime associated with server hardware failure, troubleshooting or repairs. It is recommended that customers obtain hardware maintenance contract to cover hardware failures and repairs. For more details on this service see the Data Center Co-location / Hosting Section of this document.

Intel/AMD Server Provisioning/Management Rates		
Service	Cost	Subobject
No new Class 1 Virtual Servers will be provisioned. MS Operating System minimum requirements for Windows Server 2008 require 2 GB RAM minimum)	N/A	N/A
Class 2 Virtual – 2GB RAM 1-2 v CPU 60GB System Drive	\$120 / month	24571
Class 4 Virtual – 4GB RAM 1-2 v CPU 60GB System Drive	\$240 / month	24571
Class 6 Virtual – 6GB RAM 1-2 v CPU 60GB System Drive	\$360 / month	24571
Class 8 Virtual – 8GB RAM 1-2 v CPU 60GB System Drive	\$480 / month	24571
Discrete Server and Blade Server Provisioning	Available upon request	24571
Discrete Server Management and Recapitalization	\$3,800 / year	24571
Blade Server Management and Recapitalization – BL460 Dual 6-cores, 32GB memory, (2) 146GB 15K Drives	\$2,600 / year	24572
Blade Server Management and Recapitalization – BL460 Dual 8-cores, 256GB memory, (2) 300GB 10K Drives	\$3,200 / year	24572
Blade Server Installation Charge – HP BL460 blade server one-time installation charge \$2500 per blade enclosure slot plus one-time network setup charge \$1000	\$3,500 one-time charge	24571
Discrete Server Installation Charge – Intel Server one-time installation charge \$250 per “U” (1.78 inches), includes power, portion of rack, KVM switch, patch panel access, network connections and labor	Based on the size of the server	24571
Co-Location Installation Charge - Intel Server one time installation charge \$250 per “U” (1.78 inches), includes power, portion of rack, KVM switch, patch panel access, network connection, etc.	Based on the size of the server	24571
Co-Location – Annual recurring charge	\$1,980 / year	24571
Co-Location (non-managed)	\$1,500 / year	24571
Server Support Hourly rate for non-contract customer	\$125 / hour	24572

Midrange Hardware and Hosting

Hosting services involve the operation of a customer's application on ITD hardware. ITD provides Midrange Hardware and Hosting support on a variety of platforms such as AIX, LINUX (including LINTEL, and P-LINUX). The rate structure is determined by the number or fraction of processors allocated. All other hardware components are a fixed rate based on the processor usage. Departments must budget and fund for any new and existing Midrange Hosting requirements to include project management costs, disk storage, system support charges, and any associated license costs. Recurring annual costs include, but are not limited to, hosting charges for infrastructure hardware and software license costs, databases, installation, and storage. Costs vary based on the size of the logical partition (LPAR), number of processors, memory requirements and the nature of the support required.

If hardware resources are available, provisioning of Logical Partition AIX Servers (LPARs) will typically occur within ten business days after the request has been approved by the Distributed Systems Manager (plus additional network and storage cabling time for VIO (Virtual Input Output) servers network zones outside of your purview. If hardware resources are not available, the cost will depend on the prevailing vendor rates at the time of purchase, and the time to provisioning will depend on the time required for procurement and product availability from the vendor.

Following are the representative classes of servers supported on the P-series infrastructure. These configurations can be modified to meet specific customer needs. When dealing with a software vendor, the Distributed Systems team will convert requirements in the Relative Performance (Rperf) on AIX based servers. Contact the Midrange Hardware and Hosting Manager for custom configuration quotation.

There are four classes of servers supported on the Enterprise p-Series Power 7 complexes:

Class 1 - Virtual Client Cluster Servers with Shared Resources - two redundant LPARs for light I/O workloads with high availability with one processor and 4GB of memory each, sharing of network connectivity and storage connectivity through an existing enterprise I/O server (VIO), AIX Operating System (AIX7 or higher) PowerHA software for automatic failover and licenses (based on one processor) for failover within the same physical, initial cluster configuration and setup, GPFS software and licenses (based on one processor), C compiler software and licenses (based on one user), 8GB paging space (based on 4GB of memory).

Class 2 Stand-alone Shared Resource Server - one LPAR for light I/O workloads with one processor and 4GB of memory, sharing of network and storage connectivity through an existing enterprise I/O server (VIO), GPFS software and licenses (based on one processor), C compiler software and licenses (based on one user), 10GB paging space (based on 4GB of memory). Live Partition Mobility configuration is available, to possibly move this LPAR to another frame within the same physical building without an outage in case of maintenance.

Class 3 Basic LPAR Server - one LPAR for light I/O workloads with 0.1 processor and 2GB of memory, sharing of network and storage connectivity through an existing enterprise I/O server (VIO), installed with AIX Operating System on p-Series Operating System. Live Partition Mobility configuration is available, to possibly move this LPAR to another frame in the same physical building without an outage in case of maintenance.

Class 4 Basic LINUX LPAR Server - one LPAR for light I/O workloads with 0.1 processor and 2GB of memory, sharing of network and storage connectivity through an existing enterprise I/O server (VIO), installed with Red Hat Linux on p-Series Operating System.

All server (LPAR) configurations include operating system installation (latest AIX and/or Linux versions), configuration of O/S according to ITD standards, O/S backups, on-line storage of the last O/S image, basic monitoring of the server, AIX system activity report performance collection, redundant network connectivity, redundant storage connectivity, SAN booting, ability to participate in processor pooling, basic paging space, operating system licenses, operating system maintenance, basic system administration Live Partition Mobility (LPM) tasks performed by a system administrator and O/S software. Processor speeds are presently 4.25 GHz on the Power 7 processor.

If a custom solution is required, please contact the Midrange Manager for configuration quotation. All costs indicated are for Power 7 hardware. If a platform change occurs during FY 2014-15, all new solutions will be considered custom configurations and will have to be quoted. If the workload requires the provisioning of new network zones, this will add to the costs quoted below.

Costs are based on active inventory. Prevailing maintenance rates will be charged in for the hardware, processors and memory resources and operating systems, PowerHA (formerly HACMP) and GPFS is included as part of the software stack. SAN storage and application backup is quoted separately by the Storage Configuration team. Additional options and custom configurations are available and quoted upon request.

P-Series additional permanent or temporary use of resources beyond initial sizing will incur charges for the use of the additional resources (processors and/or memory). Examples are the additional memory required for the collection of taxes during the month of November and during the last five days of each month from December through May and the need for additional temporary resources to accommodate development or testing activities. See table for daily and monthly rates. Additional processors may require additional software licenses, and these must be procured in advance; fees for these additional licenses will be quoted directly by the vendor, and will be charged back to the requesting unit.

Midrange Hardware and Hosting Rates			
Distributed Server Provisioning/Management (P-series only)	Year 1 Annual Lease Rates	Year 2 Annual Lease Rate	Year 3 Annual Lease Rate
Class 1 Enterprise Cluster Servers	\$94,748	\$40,968	\$40,968
Class 2 Virtual Client Cluster Servers with Shared Resources	\$32,374	\$20,484	\$20,484
Class 3 Stand-alone Shared Resource Server	\$15,327	\$14,837	\$14,837
Class 4 Basic LINUX LPAR Server	\$17,938	\$16,848	\$16,848
Additional 4.2GHz Processor (Does not include Middleware or application software license)	\$15,300	\$3,300	\$3,300
Additional 1/10 of a 4.2GHz processor	\$1,530	\$330	\$330
Additional Gigabyte of Memory	\$150	\$150	\$150
Estimated Costs for Fourth Year and Beyond (Based on Pricing Currently Available from Vendors)			
Estimated Yearly Hardware & Software Maintenance Per Processor			\$2,328
RER (DERM) - Oracle Consolidated AIX resources on P7 Eclipse			\$17,600
WASD - AIX for CCB, MWM, PIP, CIS			\$163,100
WASD - Full FTE For CCB AIX including on-call			\$203,500
WASD - AMI Senus Smartmeter Pilot LINUX Licenses			\$1,430
WASD - AMI LINUX ¼ FTE and on-call Support			\$50,875
Parks Pro's LINUX Licenses			\$5,720
Property Appraiser - CAMA AIX Hardware/Software Maintenance based on resources allocated on November 2013			\$10,500
Property Appraiser - AIX Memory charges based on 320GB of allocated memory as of November 2013			\$48,000
Clerk of Courts - SPIRIT AIX Memory Charges based on 72GB of allocated memory			\$10,800
Clerk of Courts - SPIRIT AIX Hardware/Software Maintenance (Prod MIR and Consolidated Courtroom, Test and Development)			\$12,400
Clerk of the Courts - SPIRIT AIX 1/6 OF on-call charges			\$3,117

Rates for Temporary Usage of Additional Resources	
Temporary Capacity On Demand Processor Day (daily rate) With 1 Hour Labor for Activation (Does not include middleware or application software licensing)	\$142
Temporary Capacity On Demand Processor 30 Days (monthly rate) With 1 Hour Labor for Activation (Does not include middleware or application software licensing)	\$635
Temporary Capacity On Demand Memory Day (daily rate) with 1 Hour Labor for Activation	\$126
Temporary Capacity On Demand Memory 30 Days (monthly rate) with 1 Hour Labor for Activation	\$155
Red Hat Linux License Yearly Subscription 24 x7 Premium Support	\$1,430
Red Hat Linux License Yearly Subscription 24 x7 Standard Support	\$880

**Refer to cost for Intel Servers*

All configurations exclude application storage space (see Disk/SAN costs for Tier 1 storage), application backups, network setup fees, and post charges. Pricing for these services is included in other sections of the ITD portion of this document. Note that adding incremental memory to an LPAR requires an increase in page space for the associated LPAR. This is calculated as 2X the amount of memory which is being added.

P-Series Replication Services - ITD will have a p-Series presence at the ICFB building by mid-2014. The implementation of the p-Series at ICFB will provide Miami-Dade County the ability to replicate data to an alternate facility, mitigating disaster recovery and continuity of operations risks for ITD and the County. In the event of an extended outage at either the RDPCC or ICFB facility, County data resources will be available from the other site with minimal data loss and impact to County services. These replication and recovery services will be designed to the specific requirements of the customer. All workload and recovery procedures will be exercised semi-annually. Setup of this service will require customized design, advanced planning and testing to verify all functionality is operating properly. Pricing for this service will be based on the design agreed upon.

Mainframe Printing to Network Attached "Remote" Printers

Mainframe remote printers are charged a license and support fee of \$100 per printer per year. New mainframe remote printers allocated during the fiscal year will be prorated at a cost of \$10 per month for each month remaining in the fiscal year (to a maximum of \$100).

Mainframe Online Report Viewing (OnDemand)

Users requiring access to the Mainframe Online Report Viewing function (OnDemand) are charged a license and support fee of \$144 per person per year.

Mainframe Terminal Emulation using Personal Communicator (PComm) or Host-On-Demand (HOD)

Mainframe terminal emulation customers using PComm or HOD are charged a license and support fee of \$144 per person per year. Customers using BOTH services will be billed for both.

CITRIX Desktop and Application Virtualization Provisioning & Support

Thin Client Virtual Desktops - ITD offers a Virtual Desktop (VD) option in addition to the traditional PC desktops. Instead of having a discrete PC for each workstation, the software, memory, and CPU power are consolidated into larger servers that will host these elements for end-users. To the end-user, the VD workstation has the same look and feel of a traditional PC and is equipped with a mouse, keyboard, and network device that will provide access to the software, memory, and storage hosted on an enterprise server. While VDs may not be appropriate for all Desktop installation, they work for the large majority of County users.

Advantages of VDs:

- VDs are less expensive to purchase and operate than traditional desktops
- VDs are 90% more energy-efficient than traditional desktops and will result in less landfill waste at end-of-life
- one enterprise server can replace approximately 80 traditional desktops
- VDs simplify upgrade and patching processes where changes are made to one shared server
- Thin client workstations are expected to last eight to ten years, and the annual fee includes funding for the repair or replacement of the Thin Client
- VD users can access their VDs (including all applications and data files) directly from any computer including laptops, MAC and iPad devices
- A VD session can follow the user from office to home computer (including Mac), to laptop to iPad with no interruption in processing

Customers with a “full-service” Desktop Support SLA through ITD’s Field Services area may be entitled to Desktop Virtualization Services for their employees at no addition cost as long as the SLA remains in effect. Please consult with John Concepcion (305-596-8368) or Adrienne DiPrima (305-596-8492) to determine if your agency or location is eligible for this support.

CITRIX Virtual Desktop Services	
Service	Cost
Thin Client Hosted VD - includes one user ID, Thin Client device, keyboard and mouse, 2 GB of memory, 15GB of SAN storage with backup and recovery service. Free replacement of any nonfunctioning thin client device is included	\$275 per USERID per year
Hosted VD - includes one user ID, 15GB of SAN storage with backup and recovery service. This Virtual Desktop can be accessed from a standard PC, laptop or iPad	\$250 per USERID per year
Additional memory for the Thin Client Hosted VDs. above the standard 2 GB per device	\$50 per GB per device per year

CITRIX Application Virtualization Services – CITRIX Application Virtualization services are available to centrally host departmental applications enabling authorized users to access them from any internet-enabled computer. The annual fee and initial installation and configuration charges are listed in the table below. Ongoing support for Application Virtualization is available on a Time and Materials basis or by SLA for ongoing support and on-call services. Note that the first 40 hours of installation and setup time or ongoing support time are included in the annual fee for this service.

CITRIX Application Virtualization Services and Remote Desktop Access	
Service	Cost
Annual fee for Application Virtualization service for non-GIS departmental applications includes Application Virtualization user ID and server hardware allocation. Storage and Backup fees and database support services are not included. Installation, configuration and application customization is free of charge up to 40 hours. Up to forty (40) hours of application upgrades and other systems programming services are provided annually. Additional support and configuration services will be billed at the standard Senior Systems Programmer hourly rate.	\$394 per User ID per year
Annual fee for GIS Application Virtualization Services is based on concurrent users and includes server hardware allocation. Storage and Backup fees and database support services are not included. Installation, configuration and application customization is free of charge up to 40 hours. Up to forty (40) hours of application upgrades and other systems programming services are provided annually. Additional support and configuration services will be billed at the standard Senior Systems Programmer hourly rate.	\$394 per Concurrent User per year
Virtual Remote Desktop Access (vRDP) - allows a user to access a standard desktop remotely from any internet-enabled computer through cloud.miamidade.gov using the Remote Desktop Protocol (RDP). <i>(Note that similar service is available through standard VPN internet access at no charge.)</i>	\$150 per user ID per year
TOAD Application Access - allows a user to execute the application TOAD from any internet-enabled computer through cloud.miamidade.gov. Note that the TOAD software is licensed separately by Database Administration.	\$150 per user ID per year

CITRIX Charges and Licensing – Note that CITRIX charges are cumulative; i.e. customers using CITRIX Application Virtualization and a CITRIX Thin Client VD will be charged for both services. All software provided on the VD must be fully licensed software. Proof of license for Windows and Microsoft Office Suite for each desktop must be provided or purchased at the time of installation. Any specialized software that is properly licensed and compatible will be hosted on the virtual desktop. Each Virtual Desktop request will be reviewed before installation to ensure that a VD is the most appropriate solution to meet your desktop needs.

Enterprise Middleware, Database and Web Services

The Enterprise Middleware Unit provides infrastructure support services in the following areas:

- The County's Internet portal applications, miamidade.gov and enet.miamidade.gov, including ability for customers to perform on-line functions, including on-line payments and pervasive device technical support
- IBM WebSphere software suite including guaranteed messaging (Message Broker) and interactive voice response (IVR) infrastructures hosting Java applications
- Avaya Aura Platform for IVR applications
- Enterprise IIS 6 and IIS 8 web server infrastructures hosting Microsoft DotNet application
- Microsoft SharePoint 2010 and 2013, including the migration of content from 2010 to 2013
- Microsoft Team Foundation Server 2012, including migration of content from 2010 to 2012
- Enterprise distributed FTP (file transfer protocol) and secure FTP infrastructures Web services administration including web services monitoring and support for legacy web services development
- Enterprise SAP Crystal Reports infrastructure
- Enterprise Microsoft SQL Reporting Services infrastructure

If a department is leveraging countywide enterprise infrastructure, the cost of these services is included in the enterprise IT Funding Model. For departmental or project specific implementation of any of these services, charges will be determined on a case-by-case basis depending on the required scope. Departments must budget and fund all costs for any department-specific need, including but not limited to:

- | | |
|----------------------------|--|
| • Project management costs | <input type="checkbox"/> Software license costs |
| • Technical architecture | <input type="checkbox"/> Hardware licenses costs |
| • Disk storage | <input type="checkbox"/> Training |
| • Database creation | <input type="checkbox"/> Staff labor |

Enterprise Middleware staff time for any departmental or project-specific implementation will be charged at the time and materials rate listed under the "Services Rates" section in this document, unless otherwise negotiated via service level agreement.

Database Administration

ITD provides basic support for existing databases on countywide database infrastructure platforms for a fee that varies depending on how the database is hosted. Basic support is defined as unlimited restructures of 10 records or less for Oracle, SQL Server, or UDB databases, one to two restructures regardless of size for IDMS databases, vendor recommended upgrades and patches, problem resolution, back-up and recovery, capacity planning, database monitoring and tuning, and systems documentation. Services beyond this scope, i.e., replication, disaster recovery, standby, database mirroring, streaming, will incur additional database costs as well as related hardware and software license costs. Departments with databases running on independent infrastructures must budget for recurring licensing and database support staff costs billed on a yearly or monthly basis, either on a Service Level Agreement (SLA) or on a Time and Materials basis.

Departments must budget for and fund costs related to any new databases including project management costs, disk storage, database support staff, installation costs, and any associated infrastructure hardware and software license costs. Where new databases result in separate (non-countywide) platforms, recurring hardware and software license costs as well as database support staff costs should be budgeted. These costs will vary based on the size of the database and nature of the support required. On average, the charge for a new Oracle database set is \$3,000; the charge for a new SQL or UDB database set is \$1,000. A database set includes the following databases used to support a given production database: one each sandbox/development, test, staging, production. Additional databases will incur additional fees.

Departments must budget for and fund any databases requiring disaster recovery services at the Network Access Point (NAP) or at the Integrated Command Facility Building (ICFB), previously known as the LightSpeed facility. Annual costs of \$10,000 per database include charges for infrastructure hardware and software license costs, databases, installation, and storage. Where databases require separate (non-countywide) platforms at the NAP, recurring hosting costs as well as database support staff costs should also be budgeted. These costs vary based on the size of the database and the nature of the support required. Database licensing costs are listed in the following section.

In the absence of a Service Level Agreement, database services for department-specific infrastructures (separate from the countywide infrastructures) will be billed at the Time and Materials rate (listed in the Services Rates section of this document) as services are delivered. Otherwise, SLAs are billed as contracted based on the rates shown for a "Systems Programmer" under the Services Rates section. For a complete cost analysis, please contact the Database Manager.

Enterprise Architecture Services

ITD provides the following enterprise architecture services (funded via the IT Funding Model):

- Leads the collaborative effort required for the creation of information technology architecture standards
- Reviews solution designs for compliance with the current architecture
- Conducts the architecture exception request process
- Publishes and revises the reference tools and documents used to document the enterprise architecture
- Publishes and revises documentation to be used with all procurements that have information technology requirements

ITD also provides the following architecture services that are ***not included*** in the IT Funding Model and are charged per project or on a time and materials basis:

- Proof of concept, proof of technology efforts for department-specific (non-enterprise) solutions
- Department-specific (non-enterprise) architecture initiatives

Pass-through License Rates and SSL Certificates

Autodesk, Oracle, SQL, Exceed, and TOAD License Costs

Autodesk, Oracle, SQL Server, and Exceed software licenses are renewed yearly based on countywide co-terminus renewal dates. The schedule of license costs below includes estimated FY 2014-15 costs based on the inventory registered as of October 2013. Please advise ITD immediately of any anticipated changes in the number of licenses required. Additional licenses may be purchased at the prevailing rates for that product. Note, while the Tool for Oracle Application Developer (TOAD) ELA doesn't expire until September 30, 2015, the next three-year ELA negotiations will take place during FY14-15 for which funds will need to be budgeted. The estimated costs for the new three-year ELA renewal based on current usage is listed in the table called Autodesk, Oracle, Exceed and TOAD ELA License Renewal Charges. Net new license costs for TOAD for Oracle and TOAD for SQL before the new ELA is in place will cost approximately \$1,380 and \$2,760 respectively, in FY 2014-15.

SQL SERVER LICENSES	
Department	FY 2014-15 Rate
Clerk of Court (Odyssey)	\$48,000
Elections Voters Registration	\$34,000
ITD	\$193,000
GIS – Spatial Data Engine (SDE)*	See note below
RER – Cogsdale*	See note below

**Note: Software maintenance payments will begin in FY 2015-16 after conclusion of the current Microsoft Enterprise License Agreement.*

Autodesk, Oracle, Exceed and TOAD ELA License Renewal Charges				
Department	Autodesk	Oracle*	Exceed**	Toad ELA
Subobject	24520	24520	24520	24520
Aviation	\$35,035	\$63,614		\$32,000
Community Action and Human Services	\$2,792			
Community Information and Outreach	\$189	\$46,667		
Clerk of Courts		\$41,485		
Cultural Affairs	\$726			
Finance - Tax Collector		\$571		
Fire		\$60,919		\$9,400
ITD	\$6,006	\$813,985	\$5,423	\$450,000
ITD-ASP-EAMS		\$18,712		
ITD-ASP- ECM (formerly EDMS)		\$37,424		
ITD-ASP-ERP		\$298,926		
ITD-ASP-Finance DW		\$34,265		
ITD-ASP-GIS		\$221,691		
ITD-ASP-PIN		\$30,330		
ITD-ASP-Remedy		\$27,012		
ITD-ASP-Security		\$9,876		
ISD (formerly GSA)		\$72,774		
Miami-Dade Transit	\$8,788	\$224,198		\$37,000
Parks, Recreation and Open Spaces	\$14,946			
RER (formerly DERM)	\$2,083			
RER (formerly DP&Z)	\$2,188			
PHCD			\$196	\$4,400
Police		\$196,347		\$49,000
Port of Miami	\$14,515	\$96,599		
Property Appraiser		\$33,945		\$13,000
PWWM (formerly Public Works & SWM)	\$50,012	\$1,980	\$327	
WASD	\$49,907	\$743,782	\$131	

** This product was formerly known as Hummingbird.

Microsoft License Costs

In 2011 Miami-Dade County established an Enterprise License Agreement (ELA) with Microsoft that offers full desktop software bundle with software assurance that provides the latest versions available for the term of the five-year agreement for Windows/OS, Client Access Licenses for Exchange, SCCM, SharePoint, Windows and Office Professional Plus. All server and application products enrolled under the Microsoft ELA also include software assurance for the term of the agreement. The Microsoft ELA Entitlement Benefits include:

1. Software Assurance - free software upgrade to the latest version of software
 - a. Operating System
 - b. Office Professional Plus
 - c. All Server products enrolled
 - d. All Visual Studio product enrolled
 - e. LYNC CAL (Office Communicator Service) included at no additional cost
2. Microsoft Home Use Program for County employees now available for \$9.95 includes Office Pro Plus, Project Pro, and Visio Pro. Details are available by using the Program Code 335884F828 at the Microsoft Home Use Program Page:
<http://www.microsoft.com/hupus/home.aspx>.
3. Microsoft E-Learning available at no cost at Microsoft.com. Access Codes for courses E-Learning Applications (Word, Excel, Project) IWO518FCEF
E-Learning Systems (Windows XP, Windows Vista) CLO3DD4456
E-Learning Server (Windows Server, Exchange, SQL) SRODA80C8C
4. Visual Studio 2010 with MSDN SA Benefits - Technical staffs are eligible to access media download for Visio Studio Pro 2010 and access technical support, news group and online concierge. Also available are webcasts, videos, virtual labs, and podcasts by product and topic.
5. Microsoft SA TechNet Benefits - Technical staffs are eligible to access 24x7 Problem Resolution Support Web & Phone access technical support, news group and online concierge.

Microsoft Enterprise Annual License Costs per Unit – Subobject: 24571	
Product Description	Annual Rate
Microsoft Full Desktop Renewal	\$150
Visual Studio Ultimate with MSDN Renewal	\$1,774
Visual Studio Professional with MSDN Renewal	\$325
Visual Studio Premium with MSDN Renewal	\$814
Microsoft Standard Server Renewal	\$126
Microsoft Enterprise Server Renewal	\$410
Microsoft SQL Standard Server Renewal	\$1,246
Microsoft SQL Enterprise Server Renewal	\$4,775
True-Up Prices	On request

Microsoft Enterprise Licensing True-Up Schedule:

- Year 1 – May 1, 2011 thru April 30, 2012
- Year 2 – May 1, 2012 thru April 30, 2013
- Year 3 – May 1, 2013 thru April 30, 2014
- Year 4 – May 1, 2014 thru April 30, 2015
- Year 5 – May 1, 2015 thru April 30, 2016

Software License True-Up allows for the purchase of the software products required and join the Microsoft ELA with full access to benefits. It is a one-time charge with no annual recurring for the term of the contract term.

Enterprise Secure Socket Layer (SSL) Certificates for External Websites

The Secure Sockets Layer (SSL) protects data transferred over the Internet using encryption enabled by a websites SSL Certificate. An SSL Certificate contains the information used to encrypt the user session and data and allows the user to decipher it. When a browser points to a secured domain, an SSL handshake authenticates the server and the client and establishes an encryption method. The County website and external client can then begin a secure session that protects message privacy and message integrity.

ITD purchases and renews SSL Certificates for all departments and agencies that host an external website requiring an encrypted connection. Encryption is required when the website requests for sensitive data such as passwords, credit card number, user id, social security number, or other personally identifiable information. These SSL Certificates are requested and issued from a trusted authority, the Certificate Authority (CA). The County utilizes Comodo as our CA. External Certificates cost \$155/year. Certificates can be purchased for multi-year periods. Pricing is based on the annual cost multiplied by the number of years requested for the certificate.

Computer and Telecommunications Services

ITD provides administration, installation, and maintenance services for the County's computer and telecommunications equipment infrastructure, encompassing telephone systems, telephone devices, personal computing devices, wireless devices, print devices, mainframe terminals, and auxiliary peripheral devices. This includes on-call emergency maintenance services 24-hours-a-day, 365 days-a-year.

ITD offers customers the option of entering into a Service Level Agreement (SLA) or accessing services on a Time and Materials basis. Telephone installations that require physical rearrangements or reinstallations of wiring, telephone jacks, instruments, and/or maintenance of non-standard County issued telephone equipment will be billed on a time and materials basis, as shown in the Service Rates section under Enterprise Computing and Network Infrastructure Hourly Rates.

Provisioning of PC Desktops

Field Services coordinates the purchasing and provisioning of PC Desktop computers and computer peripherals. Costs are based on market price. ITD will also obtain quotes for custom computer configurations or special equipment upon request.

PC Desktop Provisioning and Set-up Rate*	
Service	Rate
Desktop set-up charge per device. Includes delivery, installation, configuration (mapping to network drives and peripherals) as required backup/transfer all locally stored files and removal of old device.	\$90

** Departments should budget annually for Microsoft and other software licenses. See Pass-Thru License Rates section for pricing.*

Video Conferencing Services

Video Conferencing Services include the ability to host interactive video conferencing and web collaboration sessions. This service can be used to hold on-line meetings, share presentations, conduct online training sessions, and collaborate on documents. This service is available to desktop clients as well as Video-enabled conference rooms allowing for maximum flexibility and reducing the necessity for travel expenses. Estimates of the cost of acquiring video conferencing equipment (desktop, room-based, or mobile cart) are available upon request.

Video conferencing services within the County network are funded via the IT Funding Model, and users will not be charged for the call. Calls involving one or more participants outside of County network will incur charges for the external connection. Cost for these calls will be quoted on request based on the prevailing rates for the third-party providers.

The charges for all participants will be billed back to the meeting organizer. For assistance in setting up a video conference, contact the Enterprise IT Help Desk at (305) 596-HELP.

Cable Television with Digital Content

ITD provides Cable Television (CATV) services for new and existing County facilities. CATV services consist of physical plant, end point products, design, and installation services. CATV services, depending upon facility location, are Miami-based COMCAST Television, or Atlantic Broadband. ITD designs carrier-class CATV infrastructure to include multicasting and digital television. Selecting the best CATV solution requires an optimal balance between speed, distance, price, and scalability. ITD offers a range of professional services to support the County's expanding CATV infrastructure including:

- **Analysis and Planning for New Infrastructure:** ITD will develop a plan that meets business needs in a cost effective manner by translating service, performance and budgetary requirements into a recommended solution. Customers will be billed on a time (hourly) and material basis associated with activities related to their service requests or project including any overtime costs.

- **Deployment and Implementation of New Infrastructure:** ITD offers end-to-end project management including system acquisition, implementation, and contractor management. Customers will be billed on a time (hourly) and material basis associated with activities related to their service requests or project including any overtime costs.
- **Maintenances and Support of CATV Infrastructure:** Cost for the on-going support and maintenance of CATV infrastructure will be billed to departments on a monthly basis per end point/TV outlet connection and onetime acquisition / implementation costs.

Maintenances and Support of CATV Infrastructure Monthly Charge per Port Subobject: 31018	
Service	Rate
CATV Maintenance	\$6

Expansion of existing CATV in Facility – Cost for CATV cable installation outlet to the nearest distribution point is dependent on the required cable length and generally costs between \$200.00 and \$325.00. Rates do not include concrete penetration, installation of conduit pathway, concrete coring, structural analysis, amplification or signal hardware and permitting. These items will need to be determined at an additional cost. The above cost reflects pricing if ports are available on the CATV infrastructure. ITD will provide price estimate for all labor and equipment at time of system design.

New CATV Service to Facility – Costs associated with installation of new CATV service to a facility is dependent on the distance and complexity of the project and are quoted on request. Installation costs will include both Comcast charges and ITD one-time charges for design, project management and implementation.

Interactive Voice Response (IVR) Services

ITD offers the Enterprise Avaya Aura Experience Portal solution to customers seeking IVR services. The AAEP provides the following supported features for application design: Web services (Voice XML, CCXML), JAVA API, INTUITY Response API, Dialog Designer API, Media Source Control Protocol, Interactive Voice Response, Out-Bound feature, Pluggable Data Connectors, SIP trunking, and Text to Speech. It is a goal to leverage this new enterprise communications architecture solution to reduce duplication of services and overall operational costs by consolidating telephony resources.

The enterprise IVR monthly hardware maintenance cost is \$50 per port. The IVR will be provisioned with the required number of phone lines or SMS capability required by the customer's IVR application to meet the customer's mission critical business needs. ITD will be responsible for maintaining the hardware, network, phone lines and text messaging services on the AVAYA enterprise IVR platform with one hour response on 24/7/365 basis to meet customer departments' critical business requirements.

In addition to the IVR monthly hardware maintenance cost, the customer is responsible for the monthly cost for phone circuits, text messaging (SMS), application development, and application maintenance.

IVR Monthly Maintenance Charges	
Services	Monthly Rate
Enterprise IVR Hardware Maintenance	\$50 per port
AT&T Phone Circuit (Inbound and Outbound Lines)	Available upon request
Text Messaging (SMS) Send and Received	Available upon request
Application Development	Available upon request
Application Maintenance	Available upon request

ITD offers a range of professional services to support the County's expanding IVR infrastructure services. ITD can assist customers with migration onto the Enterprise Avaya Aura Experience Portal solution for IVR services on a Time and Materials basis. ITD will work with the customer to develop a solution that meets business needs in a cost effective manner that leverages professional services and County resources. The customer is responsible for the one-time cost for engineering and application development and ongoing application maintenance costs. ITD can establish a customized Service Level Agreement (SLA) for ongoing application maintenance costs.

Telecommunication Rates

Services include local telephone service (31010), long distance (31011), wireless aircard charges (31009), directory listing (31023), mobile/cell charges (31015), and data circuits (31018). The service rates are listed in this section. See the section called Estimated Radio and Telecommunication Expenses for an estimate of FY14-15 charges for each department based on historical consumption.

Local Telephone Service/Device Charges - The table below lists the monthly charges per device as well as the monthly local service charge applied to each telephone landline. The Local Service fee is applicable if the telephone device (handset or soft phone) can receive an inbound call directly from outside the facility and/or can make a call outside the facility from the telephone device (handset or soft phone). The Local Service fee is also applied to telephone lines used for alarms systems, fax service, remote access, and other special applications that may only be used for one-way calling in some cases.

Local Telephone Services Monthly Charge per Device Subobject: 31010	
Service	Rate
Telephone Maintenance	\$8.30
IP Telephone Maintenance	\$7.30
Soft Phone Maintenance	\$5.30
IP Fax Maintenance	\$5.30
Local Service Charge* (per line)	\$16.00

Wireless Telephone Service Charges - The table that follows lists rates for wireless telephone services. The Aircard Limited rate is for usage not to exceed a maximum of 5 GB of data transfer monthly. For usage in excess of 5 GB, AT&T will automatically charge the unlimited rate, thus avoiding overage fees for that month, and then reset the charge for the following month back to the limited rate. Before choosing the unlimited rate, please contact ITD for a traffic analysis to determine if the unlimited rate plan is recommended.

Wireless (Voice & Data) Services - Monthly Charge per Device		
Service	Rate	Sub-object
Wireless Device Administration Fee (Per Blackberry, Cellular, Satellite Phone and Push-to-Talk device Smartphone, iPad)	\$5	31015
Wireless Device Administration Fee for AIRCARDS	\$5	31009
Zero Access Plan	\$0.06/min	31015
BlackBerry / iPhone Unlimited Voice & Data	\$84	31015
BlackBerry / iPhone Unlimited Data Only	\$30	31015
Voice Unlimited	\$54	31015
Push to Talk Unlimited	\$4	31015
AIRCARD Limited (up to 3GB data transfer monthly)	\$26.25	31009
AIRCARD Limited (up to 5GB data transfer monthly)	\$36	31009
AIRCARD Unlimited	\$39.99	31009
Unlimited Texting within AT&T network (text, MMS, and pictures)	\$5	31015
iPad Limited – 3GB plan	\$26.25	31009
iPad Limited – 5GB plan	\$37.50	31009
Additional Rate Plan Prices	Available upon request	31015
NETMOTION Infrastructure Charge	\$20	31015

* Please note that there is a onetime installation cost for new voice or data circuits that varies depending on the customer requirements for the deployment.

Data Circuit and Port Charges

The table below lists the monthly recurring charges for County-owned and private data circuits. Note that there is a one-time installation cost for new voice or data circuits that varies depending on the customer requirements for the deployment. The monthly fee of \$10 per Metronet or data center port is charged to departments in order to fund the upgrade of the County's edge switch

infrastructure. Edge switches are network devices that provide access to the network for end-users and peripherals. They comprise the access layer or first point of connectivity to Metronet. Upgrading the Ethernet edge switch infrastructure provides the following benefits:

- All Ethernet ports will provide one Gigabit per second connectivity (Gb/s), allowing for increased network performance
- Quality of service will be enabled on all ports, allowing for the prioritization of critical network traffic
- Security will be improved by enabling certain features available on the new state-of-the-art edge switch equipment
- Network Access Control will be enabled on all managed ports, ensuring that only Miami-Dade County approved users and peripherals are provided access to Metronet
- Power Over Ethernet will be available which will allow certain peripherals, i.e., Voice over IP phone handsets, to draw power from their network connection as opposed to a traditional power outlet
- An overall architecture improvement for the edge switch infrastructure

The upgrade of the edge switch infrastructure is occurring in phases; departments will be charged as their infrastructures are upgraded. ITD is planning the for upgrades that will take place during FY 2013-14, and will be contacting departments which will be impacted to conduct a port inventory, and provide port counts and estimated charges for FY 2014-15. For departments that have already been upgraded, the port count and estimated FY 2014-15 expenses are listed in the section, "Estimated Radio and Telecommunication Expenses".

Other Telecommunications Monthly Charges per Device*		
Service	Rate	Subobject
County Fiber – T1 (1.54Mb/s) Point-to-Point	\$240	26110
County Fiber –10 Mb/s Ethernet	\$850	26110
County Fiber –100 Mb/s Ethernet	\$1,400	26110
County Fiber –1,000 Mb/s Ethernet	\$2,500	26110
County – Port Charge	\$10	26110
AT&T DSL	\$215	31018
AT&T T1 (1.54Mb/s) Point-to-Point	\$280	<u>Appe</u>
AT&T - 10 Mb/s Ethernet	Available upon request	31018
AT&T - 100 Mb/s Ethernet	Available upon request	31018
AT&T - 500 Mb/s Ethernet	Available upon request	31018
Other AT&T Circuits	Available upon request	31018

**Please note that there is a one-time installation cost for new voice or data circuits that varies depending on the customer requirements for the deployment.*

High Speed Wireless Services

ITD provides carrier-class wireless point-to-point, point-to-multipoint, fixed outdoor or mobile Broadband, and Wi-Fi/WiMax services utilizing various licensed and unlicensed spectrum frequencies and technologies such as microwave, ruggedized Access Points Long Term Evolution (LTE) and mobile routers and gateways. These wireless connections provide secured data transfer as a cost effective alternative to commercial leased services and County-owned fiber (in cases where it is cost-prohibitive to run fiber) inter-building connectivity, campus environments, or backhaul. A typical wireless link provides a 100Mb/s duplex connection at a minimum, with uptime comparable to commercial leased services.

Selecting the best wireless solution requires an optimal balance between speed, distance, price, and scalability. ITD offers a range of professional services to support the County's expanding wireless infrastructure including those listed below.

Analysis and Planning: ITD will develop a preliminary business plan that meets business needs in a cost effective manner by translating service, performance, and budgetary requirements into a recommended solution. Customers will be billed on a time (hourly) and material basis associated with activities related to their service requests or project including any overtime costs.

Deployment and Implementation: ITD offers end-to-end project management including system acquisition, implementation, and contractor management. Customers will be billed on a time (hourly) and material basis associated with activities related to their service requests or project including any overtime costs.

Maintenance and Support: Cost for the ongoing support and maintenance of point-to-point and point-to-multipoint wireless connections will be billed to County departments based on the monthly charges listed in the table below. Certain capital equipment such as the cost of antenna/dish installation on existing structure (pole or rooftop) is included in the monthly rate. Costs to erect a new pole from the ground are not included. When the wireless service is shared among multiple agencies, maintenance, and support costs will be prorated.

High Speed Wireless Services - Monthly Charge per Point-to-Point Subobject: 26110	
Service	Rate
100 Mb/s Full Duplex Point-to-Point Microwave	\$1,400
100 Mb/s Full Duplex Point-to-Multipoint Microwave	Available upon request
Greater than 100 Mb/s Full Duplex Point-to-Point or Point to Multipoint Microwave	Available upon request
Fixed/Mobile Broadband Data Gateway and Wi-Fi / WiMax	Available upon request

**Rates are inclusive of labor related to ongoing maintenance and certain capital equipment costs*

Public Safety Radio Communication Services

The Radio Services Division provides radio engineering and design services, plans and develops communications talk groups, plans and coordinates interoperability plans in the Southeast Florida region, provides repair and installation of vehicle emergency lighting and mobile communications equipment, and provides 24/7 maintenance and support of the County's public safety radio infrastructure.

RF (Radio Frequency) Communication Services – ITD provides planning/ design, engineering, project management, installation maintenance and consulting services for the implementation and support of radio communications systems. Studies and engineering analysis required for new, expanded, or enhanced systems will be billed at the engineering rate (see Radio Service Rates table below).

Mobile/Portable Radio Maintenance and Installation –The ITD Radio Shop located at 6010 SW 87th Avenue provides full two-way radio service including sales, service and installation of portable and mobile radio equipment and associated emergency lighting equipment such as lightbars and sirens for emergency vehicles and police cruisers. Customized installation work is available for specialized vehicles such as command buses, motorcycles, undercover vehicles, and Fire/Rescue apparatus, etc. The Radio Shop maintains two pools of radios, one for emergency and disaster response use and a rental pool for special events. Services are charged on a time and materials basis (see Radio Rates table below). Departments may elect to enter into a Radio Maintenance Service Level Agreement (SLA). Please contact Patrick Burke at (305) 596-8055 for details.

Radio Systems – Departments that use the 800 MHZ radio system will be charged for the repair and maintenance of system infrastructure on a pro-rata basis (the number of radios that a department relative to the total number of 800 MHZ radios using the system). Departments who make use of the dual band (700/800 MHz) and expanded Mutual Aid network will be charged additional costs to pay for the maintenance and support of the additional infrastructure.

Radio Service Rates		
Service	Rate	Subobject
Universal Radio Rate (per 800 MHz Handheld/Mobile Device)	\$22.20 per unit per month	26130
Installer Rate	\$85 / hour	24630
Telecommunications Technicians	\$90 / hour	24630
Radio Engineering / Design	\$120 / hour	24630
Equipment and Parts Multiplier	10%	N/A
Contractor Multiplier	15%	N/A

Universal Radio Rate

Departments that use the 800 MHZ radio system are typically charged a monthly Infrastructure Rate” per active radio. An active radio is defined as any radio with an active Logical Identity (LID) in the 800 MHZ system.

Effective in FY 2013-14, the monthly infrastructure charge covers all routine repair and maintenance for active subscriber radios. This Universal Radio Rate (URR) covers parts and labor for portable, mobile and desktop radio repairs, thus eliminating the time and material charges for covered repairs for customers paying the URR. Municipalities and other entities that do not pay a Radio Infrastructure fee in FY 2013-14 may enter into a separate agreement with ITD, typically a Memorandum of Understanding, to provide radio repair services.

The URR covers time and materials for routine radio repairs, including drive-ins. Exclusions which will continue to be billed on a time and materials basis are:

- Purchase and repair of radio accessories such as microphones, batteries, etc.
- Physical damage, water damage, and radios beyond economical repair
- Radios with multiple problems or radios that have evidence of tampering
- Mobile radio installation and vehicular strip outs
- Off-line spare radios that have been deactivated
- Installation related repair work such as wiring, antennas, etc.
- Project work and large scale radio reprogramming
- Work performed outside normal working hours or locations
- Desktop installation and antenna systems
- Repair of Bi-Directional Amplifiers and distributed antenna systems

The URR only applies to active radios. Inactive radios, or off-line spares, are subject to time and material rates. Radios in non-working condition without active LIDs must first be repaired to be eligible for the universal rate.

Note that departments should continue to budget for any anticipated new purchases, such as radio equipment, accessories or antenna systems.

Radio Rebanding Charges

As a part of the County Radio Rebanding efforts, certain departments with proprietary divisions are impacted by the FCC-driven settlement. The Radio Rebanding charges are currently under development and will be provided to departments by OMB in a separate document.

Estimated Radio and Telecommunications Expenses

Charges Table below for estimated charges based on actual charges incurred over the last 12-month period for accounts managed by ITD. For departments that pay their mobile/cellular invoices independently, the amounts in the table below reflect only the costs associated with loaner units provided by ITD.

Departments that recently experienced significant changes in personnel counts, or usage or anticipate such changes will occur during FY 2013-14 or FY 2014-15 are encouraged to contact their Communications Service Representative for assistance in developing estimates of FY 2014-15 telecommunications charges or for any billing-related questions.

Please note: It is the responsibility of the user departments to notify ITD of any operational changes that will impact the need for or the billing of telecommunications or radio services. This includes, but is not limited to, events such as a reduction in the number of active lines or radios needed, index code changes, or transfer of individuals or devices from one department to another. Departments will be responsible for any charges incurred as a result of failure to notify ITD of any such changes in a timely manner.

Tip:



Telephone installations that require physical rearrangements or reinstallations of wiring, telephone jacks, instruments, and/or maintenance of non-standard County issued telephone equipment will be billed on a time and materials basis, as shown in the table above titled “Enterprise Applications and Programs Hourly Rates”

ITD FY 2014-15 Communications Services Estimated Charges	Universal Radio Rate (URR) Charges **		Telephone Line Charges		Wireless Aircard Charges	Mobile Cellular Charges	Long Distance Charges	Circuit Charges	MetroNet Port Charges	
	Units	\$22.20	Units	\$16.00					Units	\$10.00
SubObject Charged:		26130		31010	31009	31015	31011	31018		26110
Departments										
ADMINISTRATIVE OFFICE OF THE COURTS	32	\$ 8,525	2,329	\$ 475,16			\$ 51,77	14,386	29	\$ 3,4
ANIMAL SERVICES DEPARTMENT	28	\$ 7,459	60	\$ 12,249	14,495	\$ 13,477	\$ 2,46	14,149		
AUDIT AND MANAGEMENT			100	\$ 20,400		\$ 1,525	\$ 1,653	3,485	32	\$ 3,8
AVIATION	1,075	\$ 286,380				\$ 2,212				
CITIZEN'S INDEPENDENT TRANSPORTATION TRUST			27	\$ 5,508		\$ 2,069	\$ 173		16	\$ 1,9
CLERK OF COURT	11	\$ 2,980	1,972	\$ 402,28	8,035	\$ 2,472	\$ 27,71	48,597	391	\$ 46,92
COMMISSION ON ETHICS AND PUBLIC TRUST			10	\$ 2,040		\$ 55,318	\$ 95		28	\$ 3,3
COMMUNITY ACTION AND HUMAN SERVICES	90	\$ 23,976	1,456	\$ 297,02	2,363	\$ 53,900	\$ 10,47	84,627	43	\$ 5,1
COMMUNITY INFORMATION AND OUTREACH	7	\$ 1,865	178	\$ 36,312		\$ 9,928	\$ 1,721		206	\$ 24,72
CORRECTIONS & REHABILITATION	3,420	\$ 911,088	1,888	\$ 385,153	1,476		\$ 9,877	141,237		
COUNTY ATTORNEY			314	\$ 64,05	60	\$ 69,312	\$ 2,185		164	\$ 19,6
COUNTY COMMISSION			337	\$ 68,71	492	\$ 82,204	\$ 4,98	2,192	222	\$ 26,6
CULTURAL AFFAIRS			283	\$ 57,732		\$ 7,635	\$ 2,888		96	\$ 11,5
ELECTIONS			1,034	\$ 210,936	36,741				8	\$ 9
FINANCE DEPARTMENT			741	\$ 151,164		\$ 43,699	\$ 1,67	14,528	208	\$ 24,98
FIRE RESCUE	723	\$ 192,617	79	\$ 16,156	331,525	\$ 20,269	\$ 4,43	16,416	22	\$ 2,6
GENERAL GOVERNMENT							\$ 77	4,980		
HOMELESS TRUST			28	\$ 5,112					14	\$ 1,6
DEVELOPMENT							\$ 280			
HOUSING FINANCE AUTHORITY	10	\$ 2,684							12	\$ 1,4

ITD FY 2014-15 Communications Services Estimated Charges	Universal Radio Rate (URR) Charges **		Telephone Line Charges		Wireless AirCard Charges	Mobile Cellular Charges	Long Distance Charges	Circuit Charges	MetroNet Port Charges	
	Units	\$22.20	Units	\$16.00					Units	\$10.00
SubObject Charged:		26130		31010	31009	31015	31011	31018		26110
Departments					\$	\$	\$	\$		
HUMAN RESOURCES DEPARTMENT			119	\$ 24,276		\$ 2,029			228	\$ 27,36
HRD - HUMAN RIGHTS AND FAIR EMPLOYMENT			21	\$ 4,284		\$ 740	\$ 1,03	4,866	15	\$ 1,8
INFORMATION TECHNOLOGY DEPARTMENT	183	\$ 48,751	1,385	\$ 283,355	14,610	\$ 189,838	\$ 20,716	299,917	1,356	\$ 162,72
INTERNAL SERVICES DEPARTMENT	399	\$ 106,244	2,077	\$ 423,705	37,392	\$ 74,118	\$ 3,046	147,604	1,512	\$ 181,4
JUVENILE ASSESSMENT CENTER			207	\$ 42,225	2,460	\$ 17,045	\$ 5,923	6,362		
LIBRARIES	30	\$ 7,992	709	\$ 144,635	2,952	\$ 14,129		\$ 395,306		
MEDICAL EXAMINER	24	\$ 6,344	379	\$ 77,315	1,968	\$ 3,575	\$ 1,875	10,153	220	\$ 26,40
METROPOLITAN PLANNING ORGANIZATION			27	\$ 5,508		\$ 1,808	\$ 294		24	\$ 2,88
MIAMI-DADE ECONOMIC ADVOCACY TRUST			27	\$ 5,508		\$ 893	\$ 390		18	\$ 2,1
MIAMI-DADE POLICE DEPARTMENT	7,593	\$ 2,022,775	6,086	\$ 1,241,545	10,454	\$ 9,777	\$ 38,653	1,245,661	380	\$ 45,60
MIAMI-DADE TRANSIT AGENCY	2,710	\$ 721,944	3,404	\$ 694,415	171,968	\$ 97,674	\$ 130,55	450,650		
OFFICE OF INSPECTOR GENERAL	6	\$ 1,398	10	\$ 2,045	4,805	\$ 902	\$ 209		51	\$ 6,1
OFFICE OF MANAGEMENT AND BUDGET			169	\$ 34,476			\$ 1,495		182	\$ 21,8
OFFICE OF THE MAYOR			70	\$ 14,280		\$ 26,201	\$ 1,586		134	\$ 16,0
PROPERTY APPRAISER			379	\$ 77,315	984	\$ 11,205	\$ 18,755	3,084	590	\$ 70,80
PARKS, RECREATION AND OPEN SPACES	745	\$ 198,468	1,362	\$ 277,845	16,466	\$ 56,437	\$ 3,246	114,723	558	\$ 66,96
PUBLIC DEFENDER			1,472	\$ 300,245	2,460	\$ 11,272	\$ 15,925	33,687		
PUBLIC HOUSING AND COMMUNITY DEVELOPMENT			956	\$ 195,024	4,248	\$ 64,474	\$ 15,855	5,322	50	\$ 6,0
PUBLIC WORKS AND WASTE MGMT	1,290	\$ 343,656	1,025	\$ 209,105	529,147	\$ 83,335	\$ 18,235	2,249,450	738	\$ 88,56
REGULATORY AND ECONOMIC RESOURCES	68	\$ 18,115	2,281	\$ 465,324	100,887	\$ 116,386	\$ 12,555	30,843	987	\$ 118,4
SEAPORT	399	\$ 106,244	550	\$ 112,210	8,364	\$ 86,359	\$ 3,246	15,612		
STATE ATTORNEY'S OFFICE	52	\$ 13,853	2,741	\$ 559,165	10,824	\$ 28,292	\$ 17,755	52,973	819	\$ 98,28
VIZCAYA	42	\$ 11,189	72	\$ 14,688		\$ 4,225	\$ 1,49	20,156	72	\$ 8,64
WATER AND SEWER	1,696	\$ 451,814	271	\$ 55,284		\$ 63	\$ 3,130		31	\$ 3,72
TOTALS	46,763	\$ 5,496,653	67,649	\$ 7,474,388	\$ 2,381,142	\$ 1,295,811	\$ 352,252	\$ 5,461,985	35,566	\$ 1,134,730

*Actual charges will be based on actual usage and level of service

**Based on current inventory/counts, contact your departmental liaison for updates (Units • 12 Months •Monthly Rate)

IT Funding Model Charges

Funding Model Charges for enterprise IT services for FY 2014-15 are currently under development and will be provided to departments by OMB in a separate document.