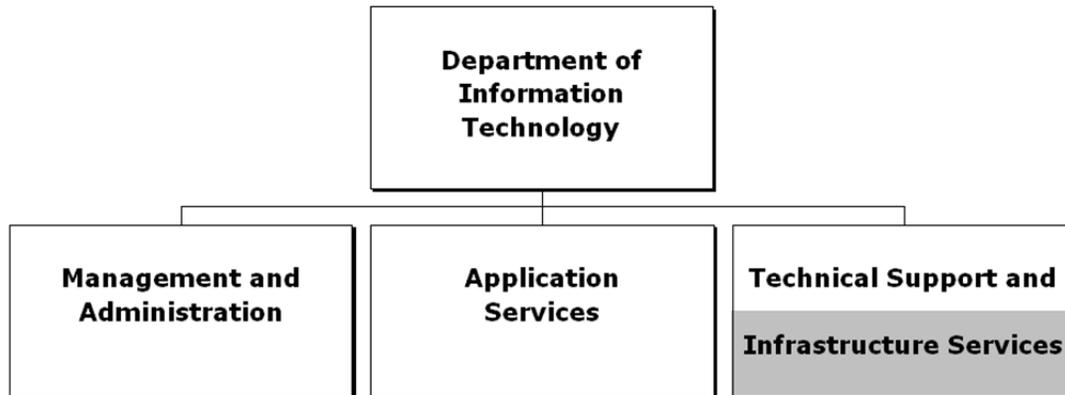


Fund 60030 Technology Infrastructure Services



- Department of Information Technology, General Fund. All staffing and operating support for the Department of Information Technology is found in Volume 1, Legislative/Executive/Central Services.
- Fund 60030, Technology Infrastructure Services. All staffing and operating support for the Infrastructure Services is found in Volume 2, Fund 60030.

Mission

To provide a reliable and secure technology infrastructure foundation required to support County business processes and systems that strengthen the public service commitment of Fairfax County.

Focus

Fund 60030, Technology Infrastructure Services, provides the underlying technology foundation supporting information systems and communications for Fairfax County government. This consists of the enterprise portfolio of computers, data communications equipment, radio systems, the data center operations, and other critical infrastructure providing the essential foundational technology that supports Fairfax County government. The Department of Information Technology (DIT) coordinates all aspects of information technology for the County and plays an enabling role in advancing the strategic value of technology to transform work processes and provide quality services to customers. DIT manages technology as an enterprise asset and is responsible for direction and execution of information technology and communications systems by supporting and managing services and Fund 60030.

The County's centralized approach to common infrastructure systems and operations provides economies and efficiencies through consolidation and leveraging of resources. Optimum performance is achieved by automated information technology (IT) support processes and enterprise-wide security tools, ensuring data integrity and system-use accountability. County IT architecture employs industry-standard products and best practices for efficient solution delivery and support. Fund 60030 includes technology activities and communication services that support systems and operations for County agencies, including the management of County end-user computers (PCs , laptops and tablets), servers, storage systems, enterprise office-productivity software, e-mail and messaging system (Microsoft Suite), and, databases (Oracle and SQL). Fund 60030 also supports the operations of the County's primary data center and off-site disaster recovery, monitoring and maintenance of enterprise data communications networks, and the Public Safety and Service Radio System and Radio Center services.

DIT also provides intra-governmental services including the operation and maintenance of the County data center, mainframe, servers and data storage and back-up 24 hours per day, seven days per week. DIT is also responsible for the safeguarding of County software license obligations, data repositories and information assets, and the on-going maintenance of County data and radio communication networks.

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The County's enterprise network provides bandwidth securely connecting County agencies to the vast array of business applications available on the County mainframe or server platforms (over 16,000 end-user end-point devices, over virtual 900 servers and 600 production databases on consolidated virtual server farms). Based on energy efficiency initiatives, DIT was able to achieve major goals in server consolidation, which provided cost efficiencies in supporting applications and databases.

One of the County's major technology assets is the fiber Institutional Network (I-Net) which provides a private secure network infrastructure connecting over 400 County and Fairfax County Public Schools (FCPS) buildings serving data, voice and video transport. DIT manages the I-Net infrastructure and services. I-Net equipment and related maintenance is directly supported from the I-Net program funds from Fund 40030, Cable Communications, through an annual transfer to Fund 60030.

Technology Infrastructure Services supports the following County Vision Elements:



Maintaining Safe and Caring Communities



Creating a Culture of Engagement



Connecting People and Places



Maintaining Healthy Economies



Exercising Corporate Stewardship

New IT projects are implemented through Fund 10040, IT Projects, while some other IT systems are implemented by agencies. However, all new IT systems require infrastructure services, and thus may incrementally increase supporting infrastructure service obligations, which, depending on requirements, may result in upward pressure on infrastructure costs. Protective measures such as network security tools are typically incorporated in the infrastructure portfolio.

Fund 60030 is an internal service fund supported by revenues from County agencies and other entities such as the FCPS. Expenditures are primarily driven by the customer agencies' use of the IT utility, software licenses, data center operations, computer equipment refresh, PC Replacement Program, network carrier services, Radio Center, and support staff. In addition, the chargeback also includes enterprise-wide applications on the platforms in the data center, including the Fairfax County Unified System (FOCUS), which is a joint system for Fairfax County Government and FCPS for the finance and procurement systems, and the County human resources system on a contemporary enterprise resource planning (ERP) application suite. The few remaining legacy mainframe systems are in process of being converted to open systems platforms and are projected to be completed by 2016.

Another activity within Fund 60030 is the management of the PC Replacement Program, which ensures that funding is available for scheduled PC, laptop, tablets, etc. device technology refreshes. The regularly scheduled replacement of this equipment is reviewed periodically with the long-standing goal of maintaining optimal performance and productivity, and, operational reliability for County agencies. In FY 2014, the PC Replacement Program underwent a comprehensive review that included a review of the total County PC inventory, industry innovation, and replacement cycle structure. The cost per PC in the program includes PC hardware, required software licenses, security requirements, protected disposal, and desk-side staff support. Adjustments to the Fund 60030 budget and non-General Fund supported funds have been included in FY 2015 for the PC Replacement Program to reflect both updated inventory

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counts and revised costs, primarily associated with licenses and software requirements; however, General Fund agency adjustments were deferred and will require larger increases in future years to meet the redefined requirements of the program.

The County's program has been recognized as a cost-effective value, best-practice model in the governmental and commercial sectors, fully optimizing the allocation of IT assets and providing efficient and predictable desktop maintenance and support. DIT continually reviews various service options for efficiencies in the acquisition and deployment of equipment, while ensuring that the program remains cost effective and competitive against other options. The updated program strategy being implemented in FY 2015 takes into consideration a more fluid evolutionary process of industry innovation, agencies and worker requirements including mobility and COOP plans.

Finally, Fund 60030 also supports the equipment, maintenance services, and staff positions dedicated to the County's radio systems and devices used by public safety, public works, other County agencies and FCPS. Radio communications are the primary dedicated critical infrastructure relied upon by public safety organizations world-wide, and like Fairfax County, it is managed locally. These systems have proven through many emergency events to be optimally reliable, surviving and sustaining operational integrity through extreme weather such as the Derecho, as well as other regional emergency and high security events while commercial telecommunications carrier networks were jammed or compromised. The Radio Center staff also work on regional interoperability initiatives and Department of Homeland Security national strategy to ensure effective communication between local, state and federal partners for responders. To support the operational and maintenance requirements of the systems, costs are recovered from the County user agencies and FCPS.

Budget and Staff Resources

Category	FY 2013 Actual	FY 2014 Adopted	FY 2014 Revised	FY 2015 Advertised	FY 2015 Adopted
FUNDING					
Expenditures:					
Personnel Services	\$6,993,006	\$7,001,965	\$7,068,762	\$7,307,080	\$7,375,470
Operating Expenses	23,988,345	20,395,197	25,580,143	24,531,559	24,531,559
Capital Equipment	247,832	3,861,150	3,861,150	5,081,668	5,081,668
Total Expenditures	\$31,229,183	\$31,258,312	\$36,510,055	\$36,920,307	\$36,988,697
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)					
Regular	73 / 73	73 / 73	73 / 73	73 / 73	73 / 73

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Technology Infrastructure Services

<u>Communication/Infrastructure</u>	<u>Data Center Services</u>	<u>Radio Center Services</u>
<u>Program Management</u>		
1 Info. Tech. Program Director III	1 Info. Tech. Program Manager II	1 Info. Tech. Program Manager II
2 Network/Telecom Analysts IV	1 IT Systems Architect	1 Network/Telecom Analyst IV
1 Management Analyst I	1 Systems Programmer III	3 Network/Telecom Analysts III
	5 Systems Programmers II	4 Network/Telecom Analysts II
	1 Systems Programmer I	2 Network/Telecom Analysts I
	1 Programmer Analyst III	
<u>Server/SAN Infrastructure</u>	1 Programmer Analyst II	
2 Network/Telecom Analysts IV	1 Database Administrator II	
2 Network/Telecom Analysts I	1 Business Analyst I	<u>Network/I-Net</u>
	1 IT Technician II	1 Info. Tech. Program Director I
<u>Desktop Support/</u>	1 Network/Telecom Analyst III	1 Info. Tech. Program Manager I
<u>PC Replacement</u>	1 Network/Telecom Analyst I	1 Network/Telecom Analyst IV
1 Network/Telecom Analyst III		7 Network/Telecom Analysts III
22 Enterprise IT Technicians		4 Network/Telecom Analysts II
		1 Info. Security Analyst IV
TOTAL POSITIONS		
73 Positions / 73.0 FTE		

FY 2015 Funding Adjustments

The following funding adjustments from the FY 2014 Adopted Budget Plan are necessary to support the FY 2015 program. Included are all adjustments recommended by the County Executive that were approved by the Board of Supervisors, as well as any additional Board of Supervisors' actions, as approved in the adoption of the budget on April 29, 2014.

- ◆ **Employee Compensation** **\$156,612**
 An increase of \$156,612 in Personnel Services includes \$88,222 for a 1.29 percent market rate adjustment (MRA) for all employees and \$68,390 for a 1.00 percent salary increase for non-uniformed employees, both effective July 2014.
- ◆ **Personnel Services** **\$216,893**
 An increase of \$216,893 in Personnel Services is required primarily to support increased fringe benefit costs based on actual experience in the fund.
- ◆ **PC Replacement** **\$2,432,689**
 An increase of \$2,432,689 is included for PC Replacement related costs based the development of a long-term PC replacement strategy. As part of the FY 2014 Adopted Budget Plan, a one time savings of \$1.5 million was generated through minimal hardware replacements while a detailed inventory was undertaken and future program requirements were developed. As a result of this process, both the number of endpoint computer units and software licenses included in the program were increased. The new program reflects a five year replacement cycle and includes a total of 14,000 PCs, (up from 11,481) of which 11,500 are desktops and 2,500 are laptops. One of the critical points of this review was to ensure the County updated the number of software licenses it possesses. The County previously had approximately 11,000 device-based licenses, but in the new PC Replacement Program, the County will shift to individual-based licenses (estimated at 12,500 standard and 1,500 academic/library), with each individual being able to have up to 5 devices per user. This will ensure long-term compliance and provides much greater flexibility going forward. The increased number of endpoint computer units and software licenses results in increased replacement costs.

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- ◆ **Software Requirements** **\$779,000**

An increase of \$779,000 is included for critical software requirements. Of this total, \$314,000 is for costs associated with software maintenance contracts; \$135,000 is for additional Symantec Mobile Device Management licenses which allow mobile devices to securely access the enterprise network; \$97,000 is for additional customer relationship management software licenses; \$80,000 is for additional data storage backup and retrieval capabilities; \$80,000 is for storage equipment designed to reduce overall storage requirements; and, \$73,000 is for replacement and partial upgrade of components in the racks used to house enterprise servers and other equipment.

- ◆ **Other Operating Expenses Adjustments** **\$749,673**

An increase of \$749,673 is included for various operating requirements. Of this total, \$650,000 is required for the multi-year disaster recovery (DR) plan. This funding will allow the agency to finalize efforts to transition from the current mainframe DR process to a solution and remote site that has the required experience, knowledge, and technical requirements. Having and exercising an off-site system recovery capability is an industry best practice, and internal and external audit requirement. This funding will provide DR capability for over thirty enterprise applications and tools, such as the County's e-mail and antivirus tool and over fifty agency applications such as the courts scheduling system and the HIPAA system used by the Health Department. This funding will provide hot-site replicated system including all hardware, software builds, network, facilities, monitoring and administration, dedicated commercial high-speed network connection to the remote site DR data center facility, and application and system recovery within 24 hours. In addition, an increase of \$99,673 is required due to increased costs associated with the installation of communication equipment in public safety vehicles.

- ◆ **Library Wireless** **\$260,000**

An increase of \$260,000, including \$175,000 in Operating Expenses and \$85,000 in Capital Equipment, is included for the Library Wireless project. This project will provide the public and staff with wireless capabilities throughout all libraries in the County, in order to expand access to information, resources and services.

- ◆ **Capital Equipment** **\$4,996,668**

Funding of \$4,996,668 is included for Capital Equipment. Of this total, \$3,796,668, fully supported by a transfer from Fund 40030, Cable Communications, reflects funding to support the third year of a multi-year refresh plan of core elements of the I-Net in alignment with the County's approved IT principles for sustaining a secure and supportable technology infrastructure and to ensure the I-Net remains a functional IT asset for both the County and Schools. The remaining \$1,200,000 is included for the purchase of new capitalized equipment, primarily associated with the replacement and/or upgrade of network equipment, servers and storage area network capacity.

Changes to FY 2014 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2014 Revised Budget Plan since passage of the FY 2014 Adopted Budget Plan. Included are all adjustments made as part of the FY 2013 Carryover Review, FY 2014 Third Quarter Review, and all other approved changes through April 30, 2014.

- ◆ **Carryover Adjustments** **\$5,251,743**

As part of the FY 2013 Carryover Review, the Board of Supervisors approved funding of \$5,251,743, including \$66,797 in Personnel Services for a one-time compensation adjustment of \$850 for merit

Fund 60030 Technology Infrastructure Services

employees paid in November 2013, \$4,534,946 in encumbered funding, and \$650,000 to enable the disaster recovery (DR) program to provide fault-tolerant, high availability, near real-time database replication in a certified, rated data center environment for over thirty enterprise applications and tools, such as the County's e-mail and antivirus tool, and over fifty agency applications such as the courts scheduling system and the HIPAA system used by the Health Department. This funding will provide hot-site replicated system including all hardware, software builds, network, facilities, monitoring and administration, dedicated commercial high-speed network connection to the remote site DR data center facility, and application and system recovery within 24 hours.

Key Performance Measures

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2011 Actual	FY 2012 Actual	FY 2013 Estimate/Actual	FY 2014	FY 2015
Technology Infrastructure Services					
Business days to fulfill service requests from initial call to completion of request for non-critical requests	4	4	4/4	4	4
Business days to fulfill service requests from initial call to completion of request for critical calls	2	2	2/2	2	2
Business days to fulfill Telecommunications service requests for emergencies	1	1	1/1	1	1
Percent of calls closed within 72 hours	75%	56%	60%/86%	86%	86%
Percent of first-contact problem resolution	68%	84%	85%/95%	95%	95%

A complete list of performance measures can be viewed at www.fairfaxcounty.gov/dmb/fy2015/adopted/pm/60030.pdf

Performance Measurement Results

The percentage of calls that could be resolved upon first contact and closed within 72 hours increased from 56 percent in FY 2012 to 86 percent in FY 2013 primarily due to a decrease of FOCUS-related calls that were more challenging and time consuming than previous IT service desk calls. Strengthened enterprise-wide management and image control processes have reduced the time required for resolving end-user workstation requests. In FY 2013 the first contact resolution rate was 95 percent, exceeding both the FY 2012 actual level and the FY 2013 performance target. Customer satisfaction generally continues to be strong due to internal quality control measures and remote resolution capabilities. Efforts in FY 2014 and FY 2015 will focus on enhanced remote resolution and IT Service desk system-workflow services to streamline routine processes. With no additional FOCUS project phases planned, it is anticipated that the number of support calls to the IT Service Desk in FY 2015 and in future years will stabilize.

Fund 60030

Technology Infrastructure Services

FUND STATEMENT

Fund 60030, Technology Infrastructure Services

	FY 2013 Actual	FY 2014 Adopted Budget Plan	FY 2014 Revised Budget Plan	FY 2015 Advertised Budget Plan	FY 2015 Adopted Budget Plan
Beginning Balance	\$5,195,024	\$2,467,073	\$7,336,957	\$2,760,771	\$2,760,771
Revenue:					
Radio Services Charges	\$700,981	\$618,363	\$618,363	\$618,363	\$618,363
PC Replacement Charges	5,884,782	5,884,782	5,884,782	6,960,000	6,220,523
DIT Infrastructure Charges					
County Agencies and Funds	20,447,459	19,952,379	20,669,176	20,690,601	20,758,991
Fairfax County Public Schools	1,717,591	1,786,295	1,786,295	1,857,747	1,857,747
Subtotal DIT Infrastructure Charges	\$22,165,050	\$21,738,674	\$22,455,471	\$22,548,348	\$22,616,738
Total Revenue	\$28,750,813	\$28,241,819	\$28,958,616	\$30,126,711	\$29,455,624
Transfers In:					
Cable Communications (40030) ¹	\$4,620,303	\$4,475,253	\$4,475,253	\$5,870,771	\$5,870,771
Total Transfers In	\$4,620,303	\$4,475,253	\$4,475,253	\$5,870,771	\$5,870,771
Total Available	\$38,566,140	\$35,184,145	\$40,770,826	\$38,758,253	\$38,087,166
Expenditures:					
Infrastructure Services	\$23,293,472	\$24,813,634	\$28,811,029	\$27,750,804	\$27,800,966
Radio Center Services	1,186,110	1,169,896	1,196,201	1,290,891	1,300,955
Computer Equipment Replacement Program ²	6,082,430	4,374,782	4,324,544	6,978,612	6,986,776
Technology Infrastructure Equipment	667,171	900,000	2,178,281	900,000	900,000
Total Expenditures	\$31,229,183	\$31,258,312	\$36,510,055	\$36,920,307	\$36,988,697
Transfers Out:					
General Fund (10001) ²	\$0	\$1,500,000	\$1,500,000	\$0	\$0
Total Transfers Out	\$0	\$1,500,000	\$1,500,000	\$0	\$0
Total Disbursements	\$31,229,183	\$32,758,312	\$38,010,055	\$36,920,307	\$36,988,697
Ending Balance³	\$7,336,957	\$2,425,833	\$2,760,771	\$1,837,946	\$1,098,469
Infrastructure Replacement Reserve (CERF) ⁴	\$5,830,635	\$871,412	\$1,250,494	\$346,281	\$354,445
PC Replacement Reserve ⁵	1,506,322	1,554,421	1,510,277	1,491,665	744,024
Unreserved Balance	\$0	\$0	\$0	\$0	\$0

Fund 60030

Technology Infrastructure Services

¹ Funding of \$1,814,103 reflects a direct transfer from Fund 40030, Cable Communications, to support staff and equipment costs related to construction of the I-Net. In addition, in FY 2015 an amount of \$3,796,668 is included reflecting the third year of a multi-year commitment to replace and refresh core elements of the I-Net, and \$260,000 reflects support for the Library Wireless project.

² The PC Replacement program was delayed in FY 2014 and will permanently move from a four year to a five year replacement cycle as part of a long term PC replacement strategy. A one-time Transfer Out to the General Fund of \$1,500,000 was included in FY 2014 based on a lower number of hardware replacements.

³ The fluctuation in ending balance is primarily due to the operation of the PC Replacement and Computer Equipment Reserve Programs. The programs collect funding each year, hold it in reserve until needed, and then expend the funds for replacement equipment. The time period for this action varies based on the needs of the programs.

⁴ This reserve is designed to assist in the scheduled replacement of enterprise computer and network assets. The funds are held in this Computer Equipment Replacement Fund (CERF).

⁵ The balance in the PC Replacement Reserve fluctuates annually based on scheduled PC replacements which are now permanently moving to a five-year replacement cycle in FY 2015 as part of a long term PC replacement strategy.