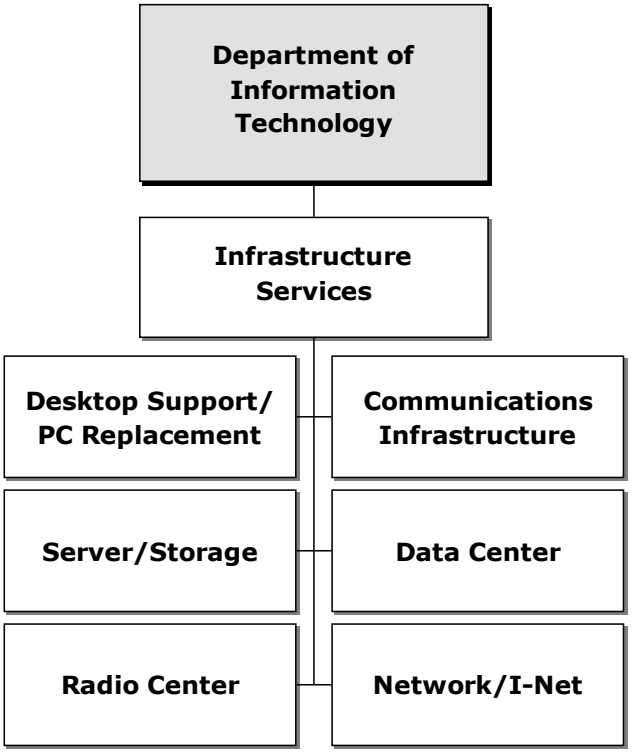
Fund 60030
Technology Infrastructure Services



- 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.

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 technology (IT) applications, platforms, hardware, and communications systems for Fairfax County government. This consists of the enterprise portfolio of computers, data communications equipment, radio systems, data center operations, voice communication systems and other critical infrastructure. The Department of Information Technology (DIT) coordinates all aspects of IT for the County and plays an essential enabling role assisting County agencies in advancing the strategic value of technology to transform work processes and provide quality services. Technology infrastructure is

Technology Infrastructure Services supports the following County Vision Elements:

- *Maintaining Safe and Caring Communities*
- *Connecting People and Places*
- *Practicing Environmental Stewardship*
- *Exercising Corporate Stewardship*

managed as an enterprise asset, and this approach results in the delivery of technology infrastructure services that function 24 hours per day, seven days per week.

Fund 60030 is an internal service fund supported by revenues from County agencies and other entities such as the Fairfax County Public Schools (FCPS). Expenditures are primarily driven by customer agencies' use of the IT infrastructure utility including enterprise and major cross-agency software licenses, data center operations, computer equipment refresh, the PC Replacement Program, telecommunication carrier services, the Radio Center, staff support positions and outside services. 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 finance and procurement system for Fairfax County Government and FCPS, and the human resources system for the County. The technology backbone of FOCUS is a contemporary enterprise resource planning (ERP) application suite.

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 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. Through energy efficiency initiatives, DIT has achieved major goals in server platform consolidation, which provides significant technology infrastructure cost and operational efficiencies. New IT projects are implemented through Fund 10040, Information Technology, and some IT systems, applications, and data repositories are implemented directly by agencies, however, all new IT systems require IT infrastructure, thus may incrementally increase supporting infrastructure service obligations possibly resulting in higher infrastructure costs. Growth in digitization, industrial systems automation and visual data are key contributors.

Technology infrastructure activities in Fund 60030 support systems and operations for County agencies and include the management of County end-user computers (PCs, laptops and tablets), voice communication systems, servers, storage systems, enterprise office-productivity software, e-mail and messaging system (Microsoft Office Suite), and databases (Oracle and SQL). In FY 2018, the e-mail/calendar/messaging applications were transitioned to the Microsoft Office 365 Cloud, a cost-effective best practice in government with expanded enterprise functionality and storage capacity. Fund 60030 also supports the operations of the County's primary data center, a disaster recovery capability hosted off-site, the management of the Public Safety and Public Service Radio Systems, Radio Center services, administration of authorized County software license obligations for certain applications, data repositories, the safeguarding of stored data assets, and the enterprise-wide communication networks. Protective measures such as network security and user access tools are typically incorporated into the infrastructure portfolio. In addition to the data center—including the associated server hardware, software, database administration, data storage systems, subscription services for 'cloud' hosted software, and other operational support—the other major infrastructure activities of note are:

- The County's enterprise-wide data communications network which incorporates both commercial networks and the fiber-optic Institutional Network (I-Net) infrastructure providing bandwidth and access security connecting County agencies to the vast array of business applications available on the County's server platforms (over 16,000 end-user end-point devices and over 1,000 virtual servers and 600 production databases on consolidated virtual server farms). The I-Net provides a private and secure network infrastructure connecting over 400 County and FCPS buildings and serving data, voice and video transport.

- The PC Replacement Program provides a funding mechanism for scheduled PC, laptop, tablets, etc., device technology refreshes. The cost per PC in the program includes PC hardware, required software licenses, security requirements, protected disposal, service desk and desk-side staff support. This program has been recognized as a cost-effective and 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 devices, while ensuring the program remains cost effective and competitive against other options. In FY 2018, DIT began the process of reviewing alternative Microsoft Office license requirements. DIT identified users that do not use the full functionality of the Microsoft suite of applications, and therefore provides an opportunity for the conversion to a "light" license for those only using a fraction of Microsoft applications. This is anticipated to result in reduced funding requirements for the program.

- The County's radio systems, devices and support services are used by public safety, public works, other County agencies, the Fastran and Connector bus fleets, and FCPS. Radio communications operate over dedicated critical infrastructure systems relied upon by public safety organizations worldwide, and as is the case with the County, they are managed locally. These systems have proven through many emergency events to be optimally reliable, surviving and sustaining operational integrity through extreme weather such as hurricanes and the Derecho, as well as other regional emergency and high security events while commercial telecommunications carrier networks were jammed or compromised. In FY 2019, the general government agencies and FCPS will continue the transition to the now available smart phone 'push-to-talk' radio functionality. This will reduce costs associated with operating a separate traditional, private radio system, and add significant functionality and range. The Radio Center staff also work on regional interoperability initiatives and on the Department of Homeland Security national strategy to ensure effective communication between local, state and federal partners for responders. The radio communications platform is evolving, and staff is looking to the next generation of solutions as appropriate for general County agency use. To support the operational and maintenance requirements of the systems, costs are recovered from the County user agencies and FCPS.

- In FY 2017, voice telecommunications utility costs were moved from the DIT agency general fund to Fund 60030. The telecommunications architecture uses 'voice over internet protocol' (VoIP). DIT continues to evaluate shifts in marketplace technology to include convergence of voice and data, and advancement in wireless and Wi-Fi. Activities include system installations and provisioning moves, adds and changes that result from reorganizations and new hiring. DIT recovers the expense for telecommunications via annual and quarterly chargebacks to user agencies.

Fund 60030
Technology Infrastructure Services

Budget and Staff Resources

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
FUNDING				
Expenditures:				
Personnel Services	$6,505,752	$7,931,704	$7,931,704	$8,236,528
Operating Expenses	28,007,365	30,535,138	33,499,112	30,967,871
Capital Equipment	1,159,293	2,592,340	4,514,050	4,800,000
Total Expenditures	**$35,672,410**	**$41,059,182**	**$45,944,866**	**$44,004,399**
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	73 / 73	73 / 73	69 / 69	69 / 69

Communication/Infrastructure Program Management
1 Info. Tech. Program Director III
2 Network/Telecom. Analysts IV

Server/SAN Infrastructure
2 Network/Telecom. Analysts IV
2 Network/Telecom. Analysts I

Desktop Support/ PC Replacement
1 Network/Telecom. Analyst III
22 Enterprise IT Technicians

Data Center Services
1 Info. Tech. Program Manager II
1 Systems Programmer III
5 Systems Programmers II
1 Systems Programmer I
1 Programmer Analyst III
1 Programmer Analyst II
1 IT Technician II
3 Network/Telecom. Analysts I

Radio Center Services
1 Info. Tech. Program Manager II
1 Network/Telecom. Analyst IV
3 Network/Telecom. Analysts III
4 Network/Telecom. Analysts II
1 Network/Telecom. Analyst I

Network/I-Net
1 Info. Tech. Program Director I
1 Info. Tech. Program Manager I
1 Network/Telecom. Analyst IV
7 Network/Telecom. Analysts III
4 Network/Telecom. Analysts II
1 Info. Security Analyst IV

TOTAL POSITIONS
69 Positions / 69.0 FTE

FY 2019 Funding Adjustments

The following funding adjustments from the FY 2018 Adopted Budget Plan are necessary to support the FY 2019 program.

- **Employee Compensation** **$304,824**
  An increase of $304,824 in Personnel Services includes $178,717 for a 2.25 percent market rate adjustment (MRA) for all employees and $126,107 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2018.

- **Software Adjustment** **$432,733**
  An increase of $432,733 in Operating Expenses includes $30,000 for the NEOGOV learning management module, $135,000 to cover the recurring costs associated with position description software, $192,733 to cover the recurring costs associated with the new travel module, and $75,000 to cover the recurring costs associated with Payment Card Industry compliance. This is being charged to Agency 70, Department of Information Technology, from Fund 60030.

- **Capital Equipment** **$4,800,000**
  Funding of $4,800,000 is included for Capital Equipment. Of this total, $2,900,000 reflects a direct transfer from Fund 40030, Cable Communications, to support the start of a new multi-year commitment to replace and refresh core equipment elements of the I-Net in alignment with the County's approved IT principles for sustaining a secure and supportable technology infrastructure. In addition, $1,100,000 is required to purchase replacement equipment, primarily servers and storage systems, to be installed within the data center and elsewhere. The remaining $800,000 is to address recurring IT infrastructure costs.

Changes to FY 2018 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2018 Revised Budget Plan since passage of the FY 2018 Adopted Budget Plan. Included are all adjustments made as part of the FY 2017 Carryover Review, and all other approved changes through December 31, 2017.

- **Carryover Adjustments** **$4,885,684**
  As part of the *FY 2017 Carryover Review*, the Board of Supervisors approved funding of $4,885,684, of which $4,051,284 was due to encumbered carryover supporting data center operations, disaster recovery, computer equipment, and various maintenance requirements, and $834,400 was due to unencumbered carryover for PC replacement program computer purchases.

- **Position Adjustments** **$0**
  During FY 2018, the County Executive approved the redirection of 4/4.0 FTE positions to other departments due to workload requirements.

Key Performance Measures

Indicator	Prior Year Actuals FY 2015 Actual	FY 2016 Actual	FY 2017 Estimate/Actual	Current Estimate FY 2018	Future Estimate FY 2019
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	83%	82%	83%/81%	84%	82%
Percent of first-contact problem resolution at IT Service Desk	94%	94%	94%/93%	94%	94%

A complete list of performance measures can be viewed at
https://www.fairfaxcounty.gov/budget/fy-2019-advertised-performance-measures-pm

Performance Measurement Results

The Technical Support Center Help Desk (IT Service Desk) requests for service decreased slightly in FY 2017. The number of calls remained relatively high based on a significant number of service calls related to rolling out the latest generations of Microsoft Windows and Office, unified messaging, and increased deployment of mobile devices. Strengthened enterprise-wide management and image control processes have allowed resolution of end-user desktop requests quickly. Customer satisfaction generally continues to be strong due to internal quality control measures and remote resolution capabilities. Efforts in FY 2019 will focus on enhanced remote resolution, new mobile devices/apps, and IT Service desk system-workflow services to streamline routine processes.

Fund 60030
Technology Infrastructure Services

FUND STATEMENT

Fund 60030, Technology Infrastructure Services

	FY 2017 Actual	FY 2018 Adopted Budget Plan	FY 2018 Revised Budget Plan	FY 2019 Advertised Budget Plan
Beginning Balance	**$5,306,532**	**$1,841,198**	**$9,404,873**	**$2,882,114**
Revenue:				
Telecommunication Charges	$5,595,669	$5,000,000	$5,000,000	$5,000,000
Radio Services Charges	782,666	850,000	850,000	850,000
PC Replacement Charges	6,286,648	6,276,810	6,276,810	6,276,810
DIT Infrastructure Charges				
County Agencies and Funds	21,589,494	22,758,845	22,758,845	23,496,402
Fairfax County Public Schools	1,970,883	2,030,009	2,030,009	2,030,009
Subtotal DIT Infrastructure Charges	$23,560,377	$24,788,854	$24,788,854	$25,526,411
Total Revenue	$36,225,360	$36,915,664	$36,915,664	$37,653,221
Transfers In:				
Cable Communications (40030)[1]	$3,545,391	$2,506,443	$2,506,443	$4,714,102
Total Transfers In	$3,545,391	$2,506,443	$2,506,443	$4,714,102
Total Available	**$45,077,283**	**$41,263,305**	**$48,826,980**	**$45,249,437**
Expenditures:				
Telecommunication Services	$5,434,923	$5,000,000	$5,455,638	$5,000,000
Infrastructure Services	21,831,498	26,438,991	30,015,831	29,384,208
Radio Center Services	1,282,031	1,382,895	1,389,642	1,382,895
Computer Replacement Program	6,021,710	7,137,296	7,971,698	7,137,296
Technology Infrastructure Equipment	1,102,248	1,100,000	1,112,057	1,100,000
Total Expenditures	$35,672,410	$41,059,182	$45,944,866	$44,004,399
Total Disbursements	**$35,672,410**	**$41,059,182**	**$45,944,866**	**$44,004,399**
Ending Balance[2]	**$9,404,873**	**$204,123**	**$2,882,114**	**$1,245,038**
Infrastructure Replacement Reserve[3]	$8,033,032	$204,123	$2,882,114	$1,245,038
PC Replacement Reserve[4]	1,371,841	0	0	0
Unreserved Balance	**$0**	**$0**	**$0**	**$0**

[1] Funding of $1,814,102 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 2019 an amount of $2,900,000 is included, reflecting the start of a new multi-year commitment to replace and refresh core equipment elements of the I-Net. The continuation of the equipment refresh effort will help to ensure I-Net continues to operate effectively.

[2] 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.

[3] This reserve is designed to assist in the scheduled replacement of enterprise computer and network assets.

[4] The balance in the PC Replacement Reserve fluctuates annually based on scheduled PC replacements which permanently moved to a five-year replacement cycle in FY 2015 as part of a long-term PC replacement strategy.