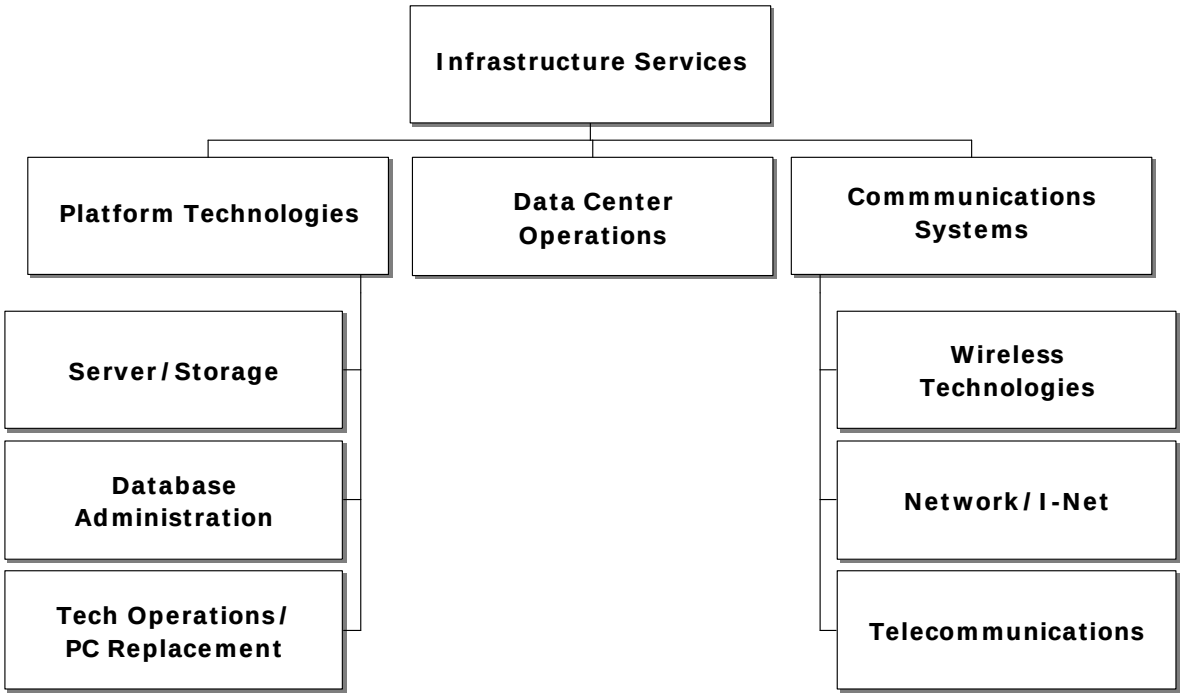
Fund 60030
Technology Infrastructure Services



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 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.

Technology Infrastructure Services supports the following County Vision Elements:

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

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

including enterprise and major cross-agency software licenses, data center operations, computer equipment refresh, the PC Replacement Program, telecommunication carrier services, the Wireless Technologies 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. The resulting infrastructure service obligations can result in higher infrastructure costs over time. 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 2018-2019, 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 County's Radio Systems, Wireless Technologies 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 type of 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 which will continue in FY 2019 and FY 2020. Working with agencies, DIT is identifying 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 appropriate.

- 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, as well as other regional emergency and high security events while commercial telecommunications carrier networks were jammed or compromised. In FY 2019 and FY 2020, 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 Wireless Technologies 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.

- Voice telecommunications utility services are supported by 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.

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Budget and Staff Resources

Category	FY 2018 Actual	FY 2019 Adopted	FY 2019 Revised	FY 2020 Advertised	FY 2020 Adopted
FUNDING					
Expenditures:					
Personnel Services	$6,761,071	$8,236,528	$7,636,528	$8,436,421	$8,527,950
Operating Expenses	30,790,960	30,967,871	37,359,916	30,967,871	30,967,871
Capital Equipment	2,941,075	4,800,000	6,951,222	4,600,000	4,600,000
Total Expenditures	$40,493,106	$44,004,399	$51,947,666	$44,004,292	$44,095,821
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)					
Regular	69 / 69	69 / 69	67 / 67	67 / 67	67 / 67

	PC Replacement
10	Enterprise IT Technicians

	Wireless Technologies
1	Network/Telecom Analyst IV
4	Network/Telecom Analysts III
4	Network/Telecom Analysts II
1	Network/Telecom Analyst I

	Data Center Services/ IT Service Desk
1	IT Program Director III
2	Info. Tech. Program Managers II
1	IT Tech. II
1	Programmer Analyst III
1	Systems Programmer III
5	Systems Programmers II
1	Systems Programmer I
1	Network/Telecom Analyst III
5	Network/Telecom Analysts I
12	Enterprise IT Technicians

	Network/I-Net
1	Info. Tech. Program Director I
1	Info. Tech. Program Manager I
1	Info. Security Analyst IV
5	Network/Telecom Analysts IV
6	Network/Telecom Analysts III
3	Network/Telecom Analysts II

TOTAL POSITIONS
67 Positions / 67.0 FTE

FY 2020 Funding Adjustments

The following funding adjustments from the FY 2019 Adopted Budget Plan are necessary to support the FY 2020 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 May 7, 2019.

- **Employee Compensation** **$291,422**
  An increase of $291,422 in Personnel Services includes $174,735 for a 2.10 percent market rate adjustment (MRA) for all employees and $116,687 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2019.

- **Capital Equipment** **$4,600,000**
  Funding of $4,600,000 is included for Capital Equipment. Of this total, $3.5 million is for I-Net related costs including $2.9 million for the I-Net refresh, and $600,000 for recurring upgrades and refresh of local area network and county enterprise data network equipment. Also included is $1.1 million for infrastructure replacement costs.

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Changes to FY 2019 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2019 Revised Budget Plan since passage of the FY 2019 Adopted Budget Plan. Included are all adjustments made as part of the FY 2018 Carryover Review, FY 2019 Third Quarter Review, and all other approved changes through April 30, 2019.

- **Carryover Adjustments** **$4,905,767**

  As part of the *FY 2018 Carryover Review*, the Board of Supervisors approved funding of $4,905,767, including $1,600,020 in encumbered funding and an appropriation of $3,305,747 from FY 2018 fund balances to support Payment Card Industry Data Security Standard (PCI DSS) compliance, security requirements, and the PC Replacement Program, as well as expand software for the Help Desk team.

- **Position Adjustments** **$0**

  During FY 2019, the County Executive approved the redirection of 2/2.0 FTE positions to other departments due to workload requirements.

- **Third Quarter Adjustments** **$3,037,500**

  As part of the *FY 2019 Third Quarter Review*, the Board of Supervisors approved a General Fund transfer of $3,037,500, for which $2,387,500 is associated with the offsite data center consolidation project, $500,000 to provide support for the PC Replacement Program, and $150,000 to continue the conversion from the legacy IQ and Seibel systems over to the cloud-based Microsoft Dynamics Customer Relationship Management (CRM) system.

Key Performance Measures

Indicator	Prior Year Actuals FY 2016 Actual	Prior Year Actuals FY 2017 Actual	Prior Year Actuals FY 2018 Estimate/Actual	Current Estimate FY 2019	Future Estimate FY 2020
Business days to fulfill service requests from initial call to completion of request for non-critical requests	4	4	4/5	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	82%	81%	84%/80%	81%	81%
Percent of first-contact problem resolution at IT Service Desk	94%	93%	94%/92%	94%	94%

A complete list of performance measures can be viewed at
https://www.fairfaxcounty.gov/budget/fy-2020-adopted-performance-measures-pm

Performance Measurement Results

The Technical Support Center Help Desk (IT Service Desk) requests for service decreased slightly in FY 2018. 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 2020 will focus on enhanced remote resolution, new mobile devices/apps, and IT Service desk system-workflow services to streamline routine processes.

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FUND STATEMENT

Fund 60030, Technology Infrastructure Services

	FY 2018 Actual	FY 2019 Adopted Budget Plan	FY 2019 Revised Budget Plan	FY 2020 Advertised Budget Plan	FY 2020 Adopted Budget Plan
Beginning Balance	$9,404,873	$2,882,114	$9,029,309	$2,486,466	$2,486,466
Revenue:					
Telecommunication Charges	$4,597,703	$5,000,000	$5,000,000	$5,000,000	$5,000,000
Wireless Technologies	726,824	850,000	850,000	850,000	850,000
PC Replacement Charges	7,111,808	6,276,810	6,276,810	7,134,367	7,134,367
DIT Infrastructure Charges					
County Agencies and Funds	22,644,755	23,496,402	23,496,402	23,496,402	23,787,824
Fairfax County Public Schools	2,030,009	2,030,009	2,030,009	2,030,009	2,030,009
Subtotal DIT Infrastructure Charges	$24,674,764	$25,526,411	$25,526,411	$25,526,411	$25,817,833
Total Revenue	$37,111,099	$37,653,221	$37,653,221	$38,510,778	$38,802,200
Transfers In:					
General Fund (10001)	$500,000	$0	$3,037,500	$0	$0
Cable Communications (40030)[1]	2,506,443	4,714,102	4,714,102	4,714,102	4,714,102
Total Transfers In	$3,006,443	$4,714,102	$7,751,602	$4,714,102	$4,714,102
Total Available	$49,522,415	$45,249,437	$54,434,132	$45,711,346	$46,002,768
Expenditures:					
Telecommunication Services	$5,365,055	$5,000,000	$5,238,459	$5,000,000	$5,000,000
Infrastructure Services	26,715,618	29,384,208	32,341,905	29,248,836	29,315,938
Wireless Technologies	1,351,990	1,382,895	1,443,644	1,457,228	1,470,699
Computer Replacement Program	6,566,949	7,137,296	9,913,793	7,198,228	7,209,184
Technology Infrastructure Equipment	493,494	1,100,000	3,009,865	1,100,000	1,100,000
Total Expenditures	$40,493,106	$44,004,399	$51,947,666	$44,004,292	$44,095,821
Total Disbursements	$40,493,106	$44,004,399	$51,947,666	$44,004,292	$44,095,821
Ending Balance[2]	$9,029,309	$1,245,038	$2,486,466	$1,707,054	$1,906,947
Infrastructure Replacement Reserve[3]	$6,789,562	$1,245,038	$2,486,466	$1,707,054	$1,906,947
PC Replacement Reserve[4]	2,239,747	0	0	0	0
Unreserved Balance	$0	$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 2020 an amount of $2,900,000 is included, for 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.