

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.

Connection to the Countywide Strategic Plan

The Fairfax County Board of Supervisors adopted the first-ever Countywide Strategic Plan on October 5, 2021. The Countywide Strategic Plan serves as a road map to help guide future work, focusing on the 10 Community Outcome Areas that represent the issues of greatest importance to the community. In February of 2023, the first Annual Report on the work of the strategic plan was released to the public. The report contains point-in-time progress highlights for each of the proposed plan strategies, plus a sample data dashboard and data story that is being replicated across all of the outcome areas, and a number of additional initiatives to embed the elements of the plan within department-level work. The report also includes a Year Two Implementation Model, which focuses on identifying the specific strategies that will move forward to implementation under the guidance of the Board of Supervisors. For more information on the Countywide Strategic Plan, please visit www.fairfaxcounty.gov/strategicplan. Fund 60030, Technology Infrastructures Services primarily supports the following Community Outcome Area:



Community Outcome Area	Vision Statement
Effective and Efficient Government	<i>All people trust that their government responsibly manages resources, is responsible to their needs, provides exceptional services and equitably represents them.</i>

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.

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, wireless technologies, staff support positions, and outside services. In addition, the chargeback also includes enterprise-wide applications on the platforms in

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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 systems (Microsoft Office Suite), and databases. Fund 60030 also supports the operations of the County's offsite data center, the management of the County's 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 include:

- The County's enterprise network is a private dedicated fiber-optic metropolitan area network (MAN), often referred to as the Institutional Network (I-Net). The County's network is also supplemented with commercial services for Internet peering points as well to locations without I-Net. The I-Net is available at over 400 County and FCPS locations. The enterprise network is a carrier class service provider network owned and operated by DIT. This private cloud-like network provides scalable bandwidth and controlled security access connecting the County agency users access to the vast array of business applications available in the County managed data centers. The data center's server resources connect over 17,000 end-user end point devices and over 1,900 virtual servers, 90 physical ESXi servers and 1,000 production databases in a hyper-converged environment. In FY 2022, DIT began work on upgrading the County's wireless (Wi-Fi) infrastructure to bring it up to current industry standards. This will improve the County's Wi-Fi security posture, improve location-based services, and provide significantly improved reliability and coverage.
- The PC Program provides a funding mechanism for scheduled PC, laptop, tablets, and other 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

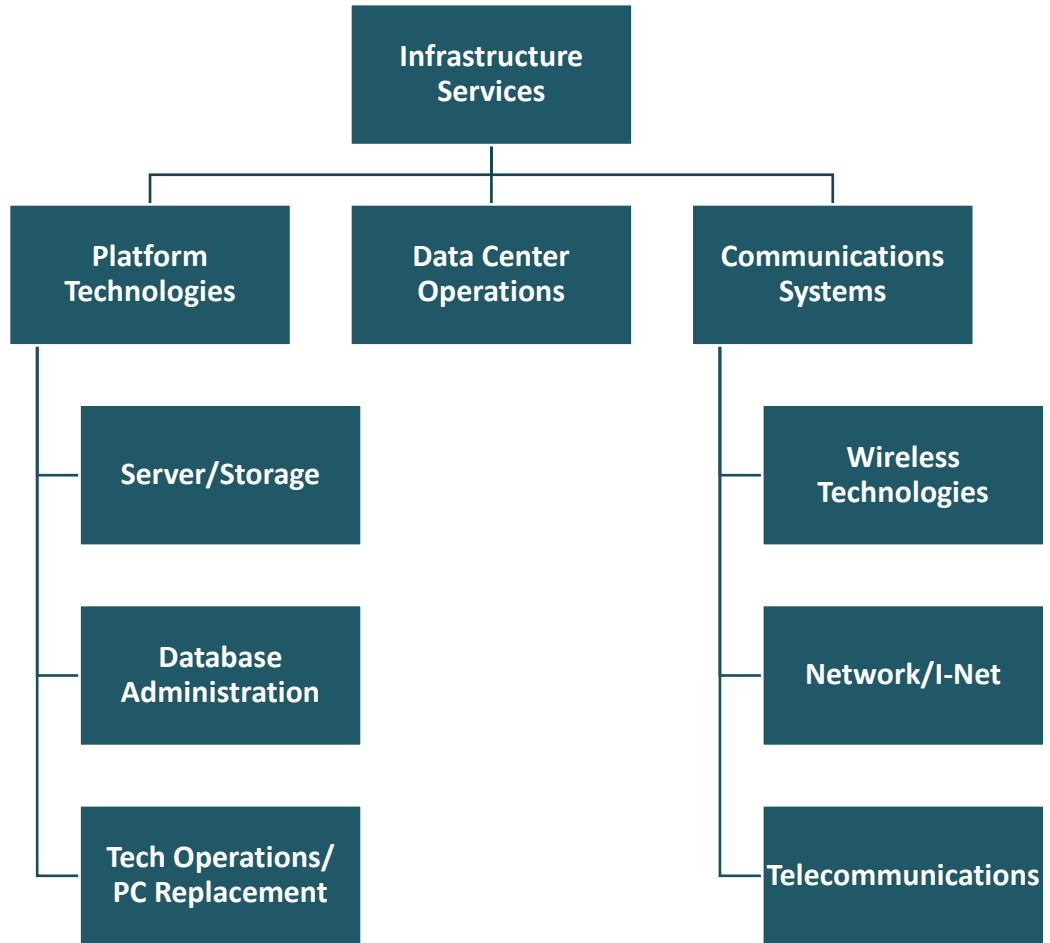
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and deployment of devices, while ensuring the program remains cost-effective and competitive against other options. The COVID-19 pandemic has substantially transformed the way many County employees are working, requiring DIT to pivot to accommodate the requirements of a more mobile workforce. This has impacts on a program such as the PC Program where DIT is required to purchase a higher proportion of laptop computers with more advanced and costlier Microsoft licenses to provide full mobile functionality, including Teams and associated accessories.

- The County's radio systems, devices and support services are used by public safety, public works, the County's bus fleets, FCPS, and other County agencies. 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. The Wireless Technologies staff will continue to work on regional interoperability initiatives and on the U.S. 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 also supported by Fund 60030. DIT continues to evaluate shifts in marketplace technology to include convergence of voice and data, and advancements in wireless and Wi-Fi. DIT is in the process of upgrading its current Private Branch Exchange (PBX) digital phone system, resulting in the implementation of a hybrid system that will include both Avaya enterprise solution and Microsoft Teams/Anywhere 365 depending on agency/job function. Teams has become the primary phone for many County employees and job functions. This also lays the foundation for non-emergency resident hotline 311 to Anywhere 365 for modernization strategies within the County. This upgraded system has several improved features that will provide a more mobile workforce with additional flexibility and options. In addition to the voice communications function, the Interactive Voice Response (IVR) function and the associated applications it supports has been incorporated into the Telecommunications Branch. This organizational change will allow for a more tightly integrated unified communications team. Other activities supported by this branch include system installations and executing 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. It is anticipated that a revised chargeback methodology to recover costs will be developed once the new hybrid phone system is fully implemented.

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Organizational Chart



Budget and Staff Resources

Category	FY 2022 Actual	FY 2023 Adopted	FY 2023 Revised	FY 2024 Advertised	FY 2024 Adopted
FUNDING					
Expenditures:					
Personnel Services	\$7,604,663	\$9,100,720	\$9,292,313	\$10,000,529	\$10,320,329
Operating Expenses	38,730,632	37,041,052	46,202,006	43,694,728	43,695,622
Capital Equipment	1,555,168	2,500,000	12,985,321	2,800,000	2,800,000
Total Expenditures	\$47,890,463	\$48,641,772	\$68,479,640	\$56,495,257	\$56,815,951
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)					
Regular	70 / 70	70 / 70	69 / 69	69 / 69	69 / 69

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FY 2024 Funding Adjustments

The following funding adjustments from the FY 2023 Adopted Budget Plan are necessary to support the FY 2024 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 9, 2023.

Employee Compensation **\$1,219,609**

An increase of \$1,219,609 in Personnel Services includes \$505,727 for a 5.44 percent market rate adjustment (MRA) for all employees and \$150,480 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2023. The remaining increase of \$563,402 is included to support employee retention and recruitment efforts that will reduce pay compression and align the County's pay structures with the market based on benchmark data.

Department of Vehicle Services Charges **\$1,971**

An increase of \$1,971 in Department of Vehicle Services Charges is based on anticipated billings for maintenance and operating-related charges.

General Fund Transfer

A General Fund transfer of \$3,221,580 is included in FY 2024 in order to support employee compensation increases and address the impacts of inflation on operating requirements.

Operating Expenses **\$6,652,599**

A net increase of \$6,652,599 is included to address significant increased costs associated with software, storage, support, and other related infrastructure requirements, including \$2,000,000 to address inflationary impacts and demand-driven cost increases for both technology products and contracted services. Many of these costs can be directly traced to the need for additional remote access, software licenses and enhanced mobility and business continuity requirements. Additionally, the increase addresses increased hardware and licensing requirements in the PC Program.

Capital Equipment **\$300,000**

Funding of \$2,800,000 is included for Capital Equipment, which reflects an increase of \$300,000 from the FY 2023 Adopted Budget Plan. Of this total, \$2,000,000 is directly associated with the I-Net Refresh and \$800,000 reflects recurring upgrades of sites and refresh of local area network switches and related County enterprise data network equipment and gear that allow user access to County applications and internet services.

Changes to FY 2023 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2023 Revised Budget Plan since passage of the FY 2023 Adopted Budget Plan. Included are all adjustments made as part of the FY 2022 Carryover Review, FY 2023 Third Quarter Review, and all other approved changes through April 30, 2023.

Carryover Adjustments **\$15,146,275**

As part of the FY 2022 Carryover Review, the Board of Supervisors approved funding of \$15,146,275, primarily due to the appropriation of \$8,137,143 in balances to support PC program costs, IT infrastructure costs, I-Net Refresh requirements, and contracted support for the integration of customer relationship management (CRM) with County telephony. The remaining \$7,009,132 is associated with encumbered carryover of \$4,509,132 for the purchase of network hardware, contracted support, computer equipment, telecommunications hardware, and various maintenance requirements and an increase of \$2,500,000 to support the replacement of network switches and uninterruptable power supplies. In order to offset the expenditure increases for the network switches

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and uninterruptable power supplies, the FY 2023 General Fund Transfer In was increased by \$2,500,000.

Third Quarter Adjustments \$4,691,593

As part of the *FY 2023 Third Quarter Review*, the Board of Supervisors approved funding of \$4,691,583 due to increases of \$4,500,000 included for the replacement of the County's software storage system and \$191,593 to support employee retention and recruitment efforts that align the County's pay structures with the market based on benchmark data.

Position Adjustment \$0

As part of an internal reorganization of positions approved by the County Executive, a total of 1/1.0 FTE position has been redeployed to Agency 40, Department of Transportation, to provide additional support for critical County programs in FY 2023.

Position Detail

The FY 2024 Adopted Budget Plan includes the following positions:

TECHNOLOGY INFRASTRUCTURE SERVICES – 69 Positions			
PC Replacement			
10	Enterprise IT Technicians	2	IT Technicians II
Wireless Technologies			
1	Network/Telecom Analyst IV	4	Network/Telecom Analysts II
4	Network/Telecom Analysts III		
Data Center Services/IT Service Desk/Platform Technologies			
1	IT Program Director III	5	Systems Engineers II
2	Info. Tech. Program Managers II	1	Systems Engineer I
2	IT Technicians II	5	Network/Telecom Analysts I
1	Programmer Analyst III	12	Enterprise IT Technicians
2	Systems Engineers III		
Network/I-Net			
1	Info. Tech. Program Director I	1	Info. Security Analyst IV
1	Info. Tech. Program Manager I	3	Network/Telecom Analysts IV
2	Systems Engineers III	5	Network/Telecom Analysts III
1	Systems Engineer II	3	Network/Telecom Analysts II

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Performance Measurement Results by Community Outcome Area

Effective and Efficient Government

The Technical Support Center Help Desk (IT Service Desk) requests for service remained largely consistent in FY 2022; however, due to the needs of a hybrid workforce, it often took longer to resolve certain types of issues. With the implementation of additional Enterprise Service Manager Platform (ESMP) workflow services and the evolving requirements support of a hybrid workforce, support calls are projected to increase slightly in FY 2023 and 2024. Efforts will focus on enhanced remote resolution and IT Service desk system-workflow services to streamline routine processes to help improve service efficiencies.

Community Outcome Area	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
Effective and Efficient Government						
Effective Technology and Quality Facilities						
Business days to fulfill service requests from initial call to completion of request for non-critical requests	5	5	5	5	5	5
Business days to fulfill service requests from initial call to completion of request for critical calls	3	2	2	2	2	2
Business days to fulfill Telecommunications service requests for emergencies	1	1	1	1	1	1
Customer Satisfaction with County Services						
Percent of calls closed within 72 hours	71%	74%	73%	73%	74%	74%
Percent of first-contact problem resolution at IT Service Desk	94%	97%	96%	97%	97%	96%

A complete list of performance measures can be viewed at
<https://www.fairfaxcounty.gov/budget/fy-2024-adopted-performance-measures-pm>

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FUND STATEMENT

Category	FY 2022 Actual	FY 2023 Adopted Budget Plan	FY 2023 Revised Budget Plan	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
Beginning Balance	\$11,217,943	\$1,400,365	\$18,793,207	\$4,746,567	\$4,746,567
Revenue:					
Telecommunication Charges	\$3,992,997	\$3,900,000	\$3,900,000	\$4,100,000	\$4,100,000
Wireless Technologies	575,638	700,000	700,000	600,000	600,000
PC Replacement Charges	12,079,056	12,727,197	12,727,197	12,829,056	12,829,056
DIT Infrastructure Charges:					
County Agencies and Funds	\$24,961,103	\$25,246,771	\$25,246,771	\$25,246,771	\$25,246,771
Fairfax County Public Schools	2,284,793	2,353,337	2,353,337	2,423,937	2,423,937
Subtotal DIT Infrastructure Charges	\$27,245,896	\$27,600,108	\$27,600,108	\$27,670,708	\$27,670,708
Total Revenue	\$43,893,587	\$44,927,305	\$44,927,305	\$45,199,764	\$45,199,764
Transfers In:					
General Fund (10001)	\$6,858,038	\$0	\$7,191,593	\$2,900,886	\$3,221,580
Cable Communications (40030) ¹	4,714,102	2,314,102	2,314,102	3,814,102	3,814,102
Total Transfers In	\$11,572,140	\$2,314,102	\$9,505,695	\$6,714,988	\$7,035,682
Total Available	\$66,683,670	\$48,641,772	\$73,226,207	\$56,661,319	\$56,982,013
Expenditures:					
Telecommunication Services	\$4,419,094	\$5,102,182	\$6,298,195	\$6,081,201	\$6,081,201
Infrastructure Services	28,247,934	27,906,128	40,114,791	35,232,820	35,467,501
Wireless Technologies	1,203,489	1,447,681	1,462,947	1,533,121	1,580,797
Computer Support and Replacement Program	12,719,668	12,785,781	15,803,707	13,648,115	13,686,452
Technology Infrastructure Equipment	1,300,278	1,400,000	4,800,000	0	0
Total Expenditures	\$47,890,463	\$48,641,772	\$68,479,640	\$56,495,257	\$56,815,951
Total Disbursements	\$47,890,463	\$48,641,772	\$68,479,640	\$56,495,257	\$56,815,951
Ending Balance²	\$18,793,207	\$0	\$4,746,567	\$166,062	\$166,062
Infrastructure Replacement Reserve ³	\$18,793,207	\$0	\$4,746,567	\$166,062	\$166,062
Unreserved Balance	\$0	\$0	\$0	\$0	\$0

¹ Funding of \$3,814,102 reflects a direct transfer from Fund 40030, Cable Communications, to support staff and equipment costs related to construction of the I-Net, and to 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 Infrastructure Replacement Reserve (PC Replacement and Computer Equipment Reserve Programs). These 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.