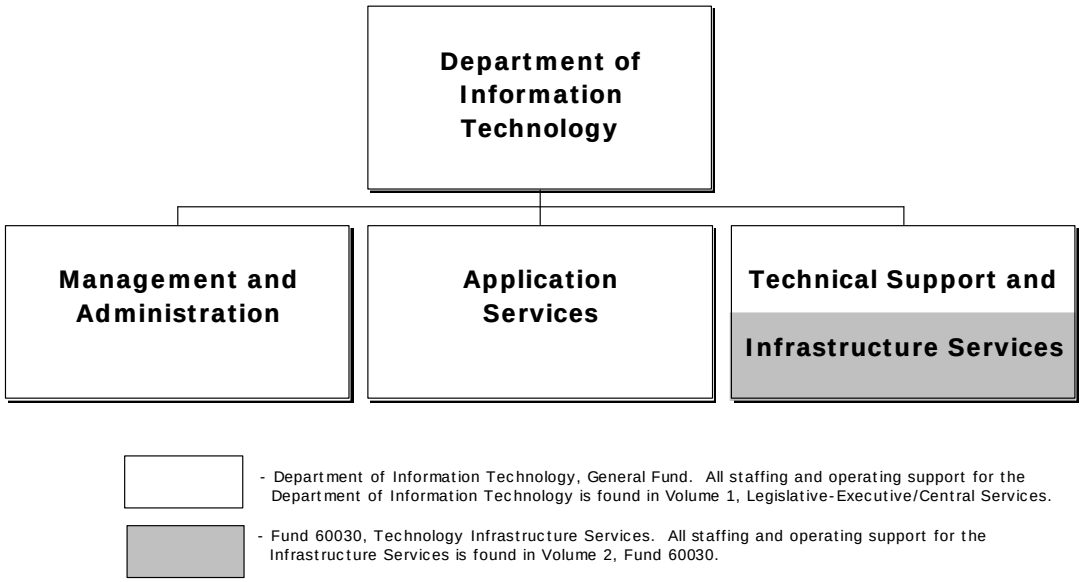
Department of Information Technology



Mission

To deliver and support an innovative technology environment to strengthen the public service commitment of Fairfax County.

AGENCY DASHBOARD			
Key Data	FY 2013	FY 2014	FY 2015
1. Fairfax County Web Site Use - Number of users visiting/conducting business	17,911,663	19,252,748	19,105,379
2. GIS Mapping Public Use Transactions (includes GIS Data Warehouse queries, PDF maps served, and Virtual Fairfax 3-D map sessions)	3,415,359	4,330,139	5,427,022
3. Public Mobile Applications	13	17	24
4. Data Storage (By Terabytes)	4,487	4,889	7,230
5. Mobile Devices (includes Blackberries, other smart phones, mobile computers used by Fire & Rescue EMTs, County Inspectors, etc.)	6,702	8,790	12,266
6. IT Security (includes: blocked web transactions with malware, email with malware attachments, and malware on system end points)	7,841,131	7,173,155	7,717,330

Focus

The Department of Information Technology (DIT) is a central technology provisioning agency that designs, manages, and implements all aspects of information technology solutions and supporting infrastructure that enable County agencies to deliver information and services. In that role, DIT is responsible for overall IT policy, governance, and enforcement for the deployment and use of Countywide IT assets and resources. DIT also performs application development and integration and provides IT project management oversight for technical execution of agencies' major/core business applications. Goals for County technology include that solutions leverage IT investments across the enterprise, ensure the integrity of the County's information systems and data, and enable secure access to County information and services. The DIT General Fund budget provides for staff and service resources based on technology specialty subject matter expertise, including systems analysts and software developers that support revenue systems (tax); corporate systems; human services agencies; land development, public works and zoning; public safety/judicial administration; Library; Park Authority; Facilities Management, and others. DIT is also responsible for the multi-channel e-Government program, a specialized courtroom technology group, countywide telecommunications, data networks and radio systems, and the countywide information security program. DIT fosters an environment that harnesses new information, communication and social technologies in order to empower the public services of tomorrow.

The Department of Information Technology supports the following County Vision Elements:

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

Despite staff, service, and resource reductions over the last several years, DIT continues to manage growth in demand for County agencies' needs through prudent resource planning, use of selected sourcing opportunities and investment in IT support automation tools. DIT strives to accommodate agencies' needs as they implement their strategic plans, automate business processes and introduce new technology capabilities. In addition, DIT implemented enterprise-wide programs such as mobile device management, enhanced internet capabilities such as social/new media, enhanced wireless infrastructure, and Geographic Information Systems (GIS). DIT also supports major business transformation and cross agency initiatives such as the Tri-Court Courtroom Technology collaborative, land based system processes, inspections, code enforcement, FOCUS, public safety interoperability, Integrated Human Services and Diversion First.

DIT continues to strengthen the County's information security and disaster recovery posture which protect the County's technology assets, business operations, and data from rapidly advancing cyber-attacks and IT disaster events. DIT also has a major emergency support function in its role to support the County Emergency Operations Center during natural and other disaster situations. The demands of the regional collaborative work continue to grow, and with this expansion it is especially important to leverage IT resources and assets. Often times, Fairfax County is the lead jurisdiction for technical design and implementation of regional capabilities that support public safety and homeland security critical infrastructure and applications which are deemed best practices. The work of DIT is primarily performed by County staff in direct execution, project management and asset management roles. DIT

utilizes private sector expertise to augment the overall capacity to develop and implement projects, and to support operational activities, and competitive contracts are used for major project efforts and commercial solutions. In addition to the General Fund, other components of the IT enterprise functions are supported by funding in other DIT funds:

- Fund 60030, Technology Infrastructure Services, includes data center operations, enterprise automated productivity tools and email, the enterprise data communications network, the countywide desktop PC replacement program, servers, data storage, radio communications network and Radio Center services. The County has been recognized for successful IT infrastructure and power management projects that decreased the County's carbon footprint, achieved enterprise-wide IT efficiencies and cost savings.

- Fund 60020, Document Services, which supports the Print Shop and the Multi-Functional Digital Device (MFDD) program. The MFDD solution incorporates copying, printing, faxing and scanning via the County's network throughout the County government, providing flexibility and document printing and digitizing efficiencies. The Print Shop provides digital printing, offset printing and bindery services to the County and Fairfax County Public Schools. In FY 2012, DIT implemented a strategy that consolidated Print Shop and Data Center output operations, improving operations, coverage, utilization of staff and reduced cost. In addition, as part of the FY 2017 Adopted Budget Plan, the County Archives and Mail Room operation are being consolidated within Fund 60020, Document Services. This will consolidate several similar functions within a single organization and result in overall efficiencies for the County.

- Fund 10040, Information Technology, supports technology-related programs that provide benefits to agencies, citizens and employees and optimize enterprise-wide resources. Projects include e-Government and GIS initiatives; County agencies' business modernization and inter-agency applications in financial systems, land development, Human Services and Public Safety business areas, and enterprise technology infrastructure modernization projects in communications; document management, and server platform consolidation/virtualization and 'cloud' technologies.

DIT also manages significant technology programs in other funds, including supporting technology for Fund 40090, E-911; capital construction for technology infrastructure tasks in Fund 30010, General Construction and Contributions; the fiber institutional network (I-Net) in Fund 40030, Cable Communications, that serves over 400 County and school sites, and several Department of Homeland Security UASI grants for the National Capital Region (NCR) interoperability and cyber security initiatives for which Fairfax is a major stakeholder and DIT conducts the technical work and program management for the related projects.

DIT continually seeks to find the appropriate balance between a stewardship role in leveraging County technology investments and a strategic role in pursuing and embracing opportunities to innovate and strengthen technology use that will result in high value County services and optimized cost. In fulfilling its mission, DIT builds partnerships with internal and external stakeholders. DIT uses a strategic planning process and a collaborative business and technical execution model to ultimately provide the County with the best available return on investment that facilitates the ability to meet County growth and demand for services economically. The results are manifest in modernizing processes for County operations, greater efficiencies and effectiveness in service delivery, improved opportunities for data sharing and decision making, embracing new internet based capabilities and mobile apps for public

access to information and services, transparency, and improved utility and security of County technology and information assets.

Strategically, DIT employs a broad strategy that uses technology and policy to enable cohesive public access to information and services through the use of contemporary web-based and communication solutions. The e-Government program, recognized as a national model, is a multi-channel solution that includes the County's website, Interactive Voice Response (IVR) system, mobile access solutions, emergency alerts via text messaging, Customer Relationship Management (CRM) initiatives and broadcast cable television. The County embraced social media in its e-Government program, utilizing podcasts, RSS newsfeeds, moderated discussion sessions, and County presence on YouTube, Facebook and Twitter and others as e-Government tools to interact with all audiences. Social media platforms are employed to expand and redefine interactive communication and information dissemination efforts. The e-Government program also delivers mobile apps for its *'Government in the Palm of Your Hands'* initiative. The County expanded government-to-citizen transparency through leadership and collaboration with the Office of Public Affairs in the adoption of capabilities and initiatives that enhance customer experience that will continue in FY 2017 and beyond.

Another key technology platform is Geospatial Information Systems (GIS). Over 25 County agencies, including Public Safety agencies, Land Development Services and the Health Department use GIS in their operations. The GIS portfolio includes "Virtual Fairfax", a 3D visualization tool, with zoom in capability for County buildings and terrains with links to County land information systems and Northern Virginia Regional Routable Centerline Project in collaboration with five other Northern Virginia jurisdictions, recognized by the Commonwealth as a best practice.

DIT also supports internal and regional interoperability for communications and secure data sharing. The County has a significant leadership role in developing the architecture and standards that are being adopted through the National Capital Region (NCR) in regional geospatial map views, situational awareness and data and communications interoperability. This architecture also is a key foundation for the County's technology strategy that ties together agency-based independent applications and enables them to share data.

In ensuring the integrity and viability of the County's technology assets, DIT executes the County's security policy through strategies that build a secure technology infrastructure with security architecture and processes. The objectives of the information security program are to ensure confidentiality of information, integrity of data, systems and operations, technical compliance for the Federal Health Insurance Portability and Accountability Act (HIPAA), Payment Card Industry (PCI), and other privacy mandates, and to ensure the availability and security of the County's networks, systems and data. Security architecture uses 'defense-in-depth' designed to provide protection for all levels of County information processing resources and includes application of industry best practices for overall risk reduction. Over the years, the County's security program has been nationally recognized as a best practice and based on vigilant enforcement and implementation of modern security tools, breaches or wide-scale vulnerabilities have been kept below appreciable levels.

The County's overall technology programs continue to be recognized with many honors for innovation and contribution to excellence in public service, and are routinely referenced in the industry as best practice examples, to include WEB, mobile apps, IT Security, government cloud, green initiatives and 'cloud'. The center for Digital Government's 2015 Digital Counties Survey ranked Fairfax County as best in the nation in 2015 for using information and communications technology for jurisdictions with populations of 500,000 or greater. Fairfax County has been ranked in the top five for five consecutive

years, earning first place two times during this span. This follows from prior recognition for the Fairfax County IT program including in recent years awards in the "IT as an Efficiency Driver - Government to Citizen" category for "Paying Taxes using your Smartphone Mobile Applications, and Tax Bill QR Codes" and the "Cross-Boundary Collaboration" category for "National Capital Region Identity and Access Management Service (IAMS)" from the Commonwealth of Virginia Information Technology Symposium (COVITS). Fairfax County also received two National Association of Counties (NACo) 2014 Achievement Awards in the category of Information Technology innovation: "Emergency Damages Assessment Tracking" and "Next Generation Security Program."

As part of the FY 2017 Adopted Budget Plan, staff reviewed the telecommunication billing process to determine if efficiencies could be generated. Based on this review, the task of performing telecommunication related billings is being transferred to Fund 60030, Technology Infrastructure Services, which is responsible for performing similar billings. The consolidation of billing related activities within Fund 60030, Technology Infrastructure Services, should reduce staff workload and result in other efficiencies.

Budget and Staff Resources

Category	FY 2015 Actual	FY 2016 Adopted	FY 2016 Revised	FY 2017 Advertised	FY 2017 Adopted
FUNDING					
Expenditures:					
Personnel Services	$20,988,034	$23,000,325	$23,000,325	$23,747,722	$23,747,722
Operating Expenses	18,339,233	15,080,210	16,505,375	8,874,887	8,874,887
Subtotal	$39,327,267	$38,080,535	$39,505,700	$32,622,609	$32,622,609
Less:					
Recovered Costs	($6,128,530)	($6,791,873)	($6,791,873)	$0	$0
Total Expenditures	$33,198,737	$31,288,662	$32,713,827	$32,622,609	$32,622,609
Income:					
Map Sales and Miscellaneous Revenue	$20,072	$23,088	$23,088	$23,088	$23,088
Total Income	$20,072	$23,088	$23,088	$23,088	$23,088
NET COST TO THE COUNTY	$33,178,665	$31,265,574	$32,690,739	$32,599,521	$32,599,521
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)					
Regular	252 / 252	250 / 250	250 / 250	250 / 250	250 / 250

FY 2017 Funding Adjustments

The following funding adjustments from the FY 2016 Adopted Budget Plan are necessary to support the FY 2017 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 26, 2016.

- **Employee Compensation** **$608,807**
  An increase of $608,807 in Personnel Services includes $305,905 for a 1.33 percent market rate adjustment (MRA) for all employees and $302,902 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2016.

- **Compensation Related Chargebacks** **$240,930**
  An increase of $240,930 in Operating Expenses covers compensation-related adjustments for information technology staff supporting Fund 60020, Document Services and Fund 60030, Technology Infrastructure Services that are being charged through this agency.

- **Software Maintenance** **$430,620**
  An increase of $430,620 is included for ongoing software maintenance costs related to the County's Talent Management System which includes five distinct modules: Applicant Management (Insight/E-Recruit), the Learning Management System (LMS), Onboarding, Performance Management, and the Employee Management System (EMS). These integrated modules are designed to maximize operational efficiencies by consolidating independent talent management business processes, streamline work functions by increasing self service capabilities, eliminate work-around systems used to provide functionality, increase capabilities for real-time data analysis and provide greater flexibility in transparency and reporting capabilities. This is being wholly charged through to DIT from Fund 60030, Technology Infrastructure Services.

- **Information Technology Security Positions** **$253,590**
  An increase of $253,590 and an additional 2/2.0 FTE positions are included in the Department of Information Technology to address issues related to IT security. Of this total, 1/1.0 FTE IT Security Analyst IV position is required as the Information Security Office (ISO) regularly participates in coordinating and fulfilling requests for electronic data initiated through Freedom of Information Act (FOIA), litigation, law enforcement, internal audit, and personnel investigations. Due to the urgency and frequency of these requests, as well as the confidentiality and complexity of locating and acquiring electronic data that may be relevant, these requests typically take significant resources. This position will assist with the fulfillment of these requests and with the development of overarching electronic discovery and FOIA policy and procedure development. An additional 1/1.0 FTE IT Security Analyst IV position is required to assist with Incident Response capabilities related to Data Loss Prevention, the implementation of a Security Information and Event Management (SIEM) application used for continuous security monitoring, and assisting with the architectural design of next-generation security infrastructure that can help the County adjust to evolving cyber security challenges related to cybercrime and compliance demands. It should be noted that an increase of $93,570 in Fringe Benefits funding is included in Agency 89, Employee Benefits, for a total cost of $347,160 in FY 2017. For further information on Fringe Benefits, please refer to the Agency 89, Employee Benefits, narrative in the Nondepartmental program area section of Volume 1.

- **Telecommunication Related Efficiencies** **($200,000)**
  A decrease of $200,000 is included based on efficiencies generated through the telecommunication billing process. As part of the FY 2017 Adopted Budget Plan, this task is being transferred to Fund 60030, Technology Infrastructure Services, which is responsible for performing similar billings. This consolidation should reduce staff workload and result in other efficiencies. In addition, DIT has finalized the implementation of a software designed to analyze telecommunication related bills to ensure their accuracy and to assist in the billing process. This software is anticipated to reduce staff costs associated with telecommunication bill review.

- **Elimination of Unfunded Positions** **$0**
  As a result of a review of positions that have been vacant for an extended period, 2/2.0 FTE positions have been eliminated. Funding for these positions had been eliminated as part of prior budget reductions so there is no funding adjustment associated with this position reduction.

Changes to FY 2016 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2016 Revised Budget Plan since passage of the FY 2016 Adopted Budget Plan. Included are all adjustments made as part of the FY 2015 Carryover Review, FY 2016 Third Quarter Review, and all other approved changes through April 30, 2016.

- **Carryover Adjustments** **$1,425,165**
  As part of the *FY 2015 Carryover Review*, the Board of Supervisors approved encumbered funding of $1,375,165 primarily for maintaining and operating the County's technology programs. In addition, unencumbered funding of $50,000 was approved as part of the Incentive Reinvestment Initiative that allowed agencies to identify savings and efficiencies in FY 2015 and retain a portion to reinvest in employees.

Cost Centers

The General Fund supports three Department of Information Technology cost centers; Management and Administration, Application Services, and Technical Support and Infrastructure Services.

Management and Administration

The Management and Administration cost center manages the operations of the Department of Information Technology to ensure that all technology programs are run in a safe and efficient manner.

Category	FY 2015 Actual	FY 2016 Adopted	FY 2016 Revised	FY 2017 Advertised	FY 2017 Adopted
EXPENDITURES					
Total Expenditures	$12,673,534	$14,954,253	$15,493,300	$15,298,119	$15,298,119
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)					
Regular	59 / 59	59 / 59	57 / 57	62 / 62	58 / 58

Policy, Planning & Administration
1 Director of Information Technology
2 Deputy Directors
2 Info. Tech. Program Directors I
2 Financial Specialists III
3 Financial Specialists II
2 Management Analysts IV
2 Management Analysts I
2 Business Analysts I
1 Human Resources Generalist III
2 Administrative Assistants V
3 Administrative Assistants IV
2 Administrative Assistants III

E-Gov. & Enterprise Architecture
1 Data Analyst III
1 Data Analyst II
1 Info. Tech. Program Director I
1 Info. Tech. Program Manager I
1 Internet/Intranet Architect IV
2 Internet/Intranet Architects III
4 Internet/Intranet Architects II (-1)
1 IT Systems Architect
2 Business Analysts IV
1 Business Analyst II
3 Programmer Analysts III
1 Info. Tech. Technician III

IT Security Office
1 IT Security Program Director
3 Info. Security Analysts IV (2)
2 Info. Security Analysts III
3 Info. Security Analysts II
1 Info. Security Analyst I

Courtroom Technology
1 Courts IT Program Director
2 Network/Telecom. Analysts IV
1 Network/Telecom. Analyst I
1 IT Systems Architect

TOTAL POSITIONS
58 Positions (1) / 58.0 FTE (1.0)

(-) Denotes Abolished Positions
( ) Denotes New Positions

Application Services

The Application Services cost center provides for the design, implementation and maintenance of information systems for all County business areas, including GIS.

Category	FY 2015 Actual	FY 2016 Adopted	FY 2016 Revised	FY 2017 Advertised	FY 2017 Adopted
EXPENDITURES					
Total Expenditures	$10,551,009	$6,929,880	$7,069,450	$6,566,273	$6,566,273
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)					
Regular	112 / 112	110 / 110	115 / 115	110 / 110	115 / 115

	Business Systems		Geographic Information Services		Enterprise Services
1	Info. Tech. Program Director I	1	Info. Tech. Program Director I	1	Info. Tech. Program Director III
2	Info. Tech. Program Managers II	2	Info. Tech. Program Managers II	1	Info. Tech. Program Director II
1	Info. Tech. Program Manager I	1	Info. Tech. Program Manager I	2	Info. Tech. Program Managers II
6	Programmer Analysts IV	4	Geo. Info. Spatial Analysts IV	6	Programmer Analysts IV
20	Programmer Analysts III	7	Geo. Info. Spatial Analysts III	19	Programmer Analysts III
6	Programmer Analysts II	4	Geo. Info. Spatial Analysts II	6	Programmer Analysts II
17	IT Systems Architects	4	Geo. Info. Spatial Analysts I	1	Network/Telecom. Analyst IV
1	Business Analyst IV			1	Internet/Intranet Architect III
1	Business Analyst I				

TOTAL POSITIONS
115 Positions / 115.0 FTE

Technical Support and Infrastructure Services

The Technical Support and Infrastructure Services cost center functions include management of the County's enterprise-wide network and local area network (LAN) environments, server and data storage platforms, database administration, telephone systems and the Data Center. It also includes the Technical Support Center ("help desk"). This cost center also provides operational and contingency services for telecommunication support to the Department of Public Safety Communications' 911 Call Center.

Category	FY 2015 Actual	FY 2016 Adopted	FY 2016 Revised	FY 2017 Advertised	FY 2017 Adopted
EXPENDITURES					
Total Expenditures	$9,974,194	$9,404,529	$10,151,077	$10,758,217	$10,758,217
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)					
Regular	81 / 81	81 / 81	78 / 78	78 / 78	77 / 77

	Platform Technology		Telecommunications/Voice		Desktop Support
1	IT Program Director II	2	Info. Tech. Program Managers II	1	Network/Telecom. Analyst IV
2	Info. Tech. Program Managers II	2	Network/Telecom. Analysts IV	4	Network/Telecom. Analysts III
3	Network/Telecom. Analysts IV	2	Network/Telecom. Analysts III	6	Network/Telecom. Analysts I
8	Network/Telecom. Analysts III	6	Network/Telecom. Analysts II	2	Info. Tech. Technicians III
10	Network/Telecom. Analysts II (-1)			1	Info. Tech. Technician II
			PSTOC	15	Enterprise IT Technicians
	Database Management	1	Network/Telecom. Analyst IV	2	Info. Tech. Program Managers II
3	Database Administrators III	2	Network/Telecom. Analysts III		
3	Database Administrators II	1	Network/Telecom. Analyst II		

TOTAL POSITIONS
77 Positions (-1) / 77.0 FTE (-1.0)

(-) Denotes Abolished Positions

Key Performance Measures

Indicator	Prior Year Actuals FY 2013 Actual	FY 2014 Actual	FY 2015 Estimate/Actual	Current Estimate FY 2016	Future Estimate FY 2017
Management and Admin.					
Percent risk of unauthorized network perimeter access including network security breaches and inbound network worm attacks	2.00%	2.00%	2.00%/2.00%	2.00%	2.00%
Application Services					
Percent change in GIS service encounters	28.11%	26.78%	5.00%/25.33%	10.00%	10.00%
Percent of revenue collected on applicable E-Government platforms	8.00%	9.00%	10.00%/9.92%	10.00%	10.00%
Technical Support and Infrastructure Services					
Business days to fulfill service requests from initial call to completion of request for: Non-critical requests	4	3	4/4	4	4
Business days to fulfill service requests from initial call to completion of request for: Critical requests	2	2	2/2	2	2
Business days to fulfill service requests from initial call to completion of request for: Emergency requests	1	1	1/1	1	1
Percent of calls closed within 72 hours	86%	86%	86%/83%	86%	85%
Percent of first-contact problem resolution	95%	95%	95%/94%	95%	94%

A complete list of performance measures can be viewed at www.fairfaxcounty.gov/dmb/fy2017/adopted/pm/70.pdf

Performance Measurement Results

A key program within the Management and Administration cost center is IT Security policy and compliance. All County IT systems are attached and accessed through the network, with strict policies and controls to safeguard County IT resources from threats and unauthorized access. As with all major organizations, the County IT systems receive millions of security threats per day. Only the most serious threats are fully investigated by the Information Security team. The threats reported on a daily basis increase as new technology is better able to identify these threats. Additionally, malicious activities are projected to increase with the advent of social media and email growth. DIT successfully identified and stopped all major security threats during FY 2015. Of note, the County enterprise network experienced 99.99 percent uptime, a sustained achievement due to the resilient network design and cyber security program.

The County is a leader in the use of GIS technologies with the most gigabytes in the GIS database among large jurisdictions and other Virginia localities according to International City/County Management Association (ICMA) benchmarks. The introduction of additional GIS applications and tools as well as changes to the calculation methodology to fully capture service encounters resulted in significant increases during FY 2012 through FY 2015. This trend is anticipated to continue as additional GIS data is now available through enhanced applications such as the Virtual Fairfax tool. Service encounters consist of counter sales, internal work requests, GIS projects, zoning cases, right of way projects, parcel related work, server connections, and spatial database usage.

The Technical Support Center Help Desk (IT Service Desk) requests for service increased in FY 2015, with much of this increase attributed to additional requests for service calls in support of rolling out the Windows 8.1 platform. 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 2017 will focus on enhanced remote resolution, new mobile devices/apps, and IT Service desk system-workflow services to streamline routine processes.