

INFORMATION TECHNOLOGY

Description

The Department of Information Technology is responsible for serving all computer-oriented information processing needs of County agencies. This includes information and office automation equipment selection, application development and/or software selection assistance, ongoing hardware and software maintenance, and data and telecommunications network development and support. The computer center now operates twelve hours a day, five days a week. Major areas of service include Finance, Community Development /Operations Agencies, Human Resources, and all Public Safety agencies. IT provides a help desk to provide assistance to agency personnel on any computer related problems.

The Department also administers and maintains the County's telecommunications infrastructure including telephone systems, mobile devices, and the voice and data plant. In addition, the Department is responsible for the maintenance and support of the Emergency E-911 system for Public Safety and the management of the County's Geographic Information System (GIS).

Objectives

- To provide enterprise server based computer capabilities to County agencies.

- To assist County agencies in increasing efficiency and effectiveness through the use of advanced technological tools for administrative and field operations.
- To provide application development and/or software selection services.
- To maintain operational efficiency through the use of state-of-the-art equipment and software.
- To administer the Department's information technology resources in a manner that best serves the County's operational and customer service needs.
- To maintain the highest level of proficiency of staff in all areas of technical support.
- To host and support various enterprise applications, including email and Internet connections, to all County agencies.
- To monitor, maintain, and upgrade the County's local and wide area network (LAN/WAN) as efficiently and effectively as possible.

Annual Fiscal Plan

Description	FY15 Actual	FY16 Original	FY17 Approved	Change 16 to 17
Personnel	\$ 8,144,222	\$ 8,890,041	\$ 9,091,227	2.3%
Operation	3,242,301	3,461,449	3,595,595	3.9%
Capital	569,252	522,215	522,215	0.0%
Total	\$ 11,955,775	\$ 12,873,705	\$ 13,209,037	2.6%
 Personnel Complement*	 90	 90	 91	 1

*One Technology Support Specialist IV position was added to IT's complement in FY2016-17.

Performance Measures

	FY15	FY16	FY17	Change 16 to 17
Workload Measures				
Website Visits	2,311,049	2,618,308	2,809,444	191,136
Website Unique Visitors	1,250,498	1,373,534	1,488,911	115,377
Website Page Views	7,263,391	7,230,287	7,447,196	216,909

- To manage GIS technology to enhance coordination of Community Development services among County departments.
- To provide the County with an efficient and dependable telecommunications network.

Budget Highlights

The Department of Information Technology's (IT) FY2016-17 budget totals \$13,209,037, which represents an increase of \$335,332 or 2.6 percent from the previous approved budget. The personnel component increased by \$201,186 or 2.3 percent and reflects updated estimates for personnel including a 2.372 percent salary increase for FY2016-17 and rising health care costs. This increase also reflects the addition of a Technology Support Specialist IV position that would be assigned to the Courts building to assist in converting multi-media received from various sources including footage from Police body cameras to a format that can be used on standard computers or display/audio devices.

The operating component totals \$3,595,595 for the FY2016-17 budget and reflects an increase of \$134,146. Funding of \$120,946 has been provided for forecasted contractual increases associated with several vendors and additional costs associated with audit requirements. Adjustments of \$9,700 for education and training classes and \$3,500 for tuition reimbursements are also included in the operating component. Funding associated with these adjustments was previously captured in a central reserve and have been reallocated to the department's budget. The capital component remains constant, totaling \$522,215, which will allow for the purchase of new and replacement computer equipment as well as furniture replacement needed for the department.

During FY2016-17, the Department of Information Technology will continue to expand its virtual server environment. Currently IT has approximately 350

virtual servers running on 21 physical servers. The County has 136 physical servers. In keeping with IT's movement toward the use of VMware, the Database Team has moved 83 percent of over 294 databases to Microsoft SqlServer 2014. This version will be supported by Microsoft for at least the next five years. All Police reporting systems, Computer Aided Dispatch, the Sheriff's Office Medical Service, Libraries, and Circuit Court Land Record databases are now running in a high availability architecture at multiple facilities. This architecture allows one facility to suffer a catastrophic anomaly but permits the databases to continue to operate.

Disaster recovery databases have been created on the standby Oracle Database Appliance running off of County Training Center (CTC). IT will be able to recover their production databases on the new site in case of disaster on their primary site. Servers serving the Oracle Applications frontend were migrated to the virtualized VMware environment. During the next year the focus would be on development and migration of custom financial applications using newer supported Oracle technology. Work will be performed on the Oracle Application's Internet security replacing an older environment with a newer technology and migrate from myhenrico.org to employees.henrico.us. During the next half of 2016 the department will be working on the implementation of newly acquired Oracle Internet Expenses module for online employee expense reporting.

In FY2015-16, Information Technology is in the process completing the upgrades of the County's data network infrastructure in the primary data centers, located in both the Information Technology Department offices and the E911 Center, which includes new routing and switching gear for both the main distribution networks and the server networks. Information Technology is also in the process of moving all of the County's phones from the legacy NorTel PBX to a new Cisco Voice Over Internet Protocol (VoIP) platform. At this point, the rollout is

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roughly 75% complete, with an anticipated completion in the Spring of 2016. Included with the VoIP rollout is a conversion of the voice circuits from legacy copper-based PRI circuits to new fiber-optic SIP trunks. In addition, Information Technology is implementing physical redundancy to each of the network closets in the Western Government Center (WGC), by utilizing the new fiber-optic cable between WGC and County Training Center to “dual-home” the network closets between buildings. Information Technology also added buried fiber-optic cabling on the WGC campus to add the 8600, 8602, 8604 Staples Mill Road buildings to the overall campus network. Currently, this provides these buildings 10Gbps of throughput to the County’s backbone network with \$0 in monthly recurring costs.

In collaboration with Police, IT enhanced the TEMPO dashboard to include individual officer statistics based on the number of reports generated by report type. This allows an officer to verify the submitted reports are correctly categorized and complete. A new application was written to maintain a database of individuals banned from properties throughout the county and ensure Letters of Authority are readily available. Previously the lists of individuals were maintained in numerous spreadsheets and not available for integrated real-time querying. Currently over 2,000 individuals are banned from 40 apartment communities and 15 businesses throughout Henrico county.

The Web Team continues to restructure and redesign the website to make it easier to use for our end users. Several projects were launched to better organize content such as Services and Capital Projects. Department pages were reviewed and reorganized to remove content from silos and to better present content in functional areas. These update pages automatically pull in structured data (projects, events, services) to provide visual consistency through the site. The reorganization project is nearly complete, and the redesign of the website is currently in the works. An employee portal (employees.henrico.us) was developed in conjunction with HR to better organize HR content. The Web team has been working heavily to implement SharePoint in the County, working with several departments and internally to train users and gather feedback.

IT built five new in-house Oracle Application Express (APEX) systems for four different agencies. These include the Facilities Inspections and Drill System for Mental Health & Developmental Services, Septic

Pump-out/Inspection Program system for Public Works, Budget Development system for Finance, MS4 Municipal Management Area Tracking system for Public Works and a Time Tracking system for Circuit Court. New APEX projects are in the works for four different agencies including the Training and Compliance system for Public Utilities, Media Tracking system for Information Technology, Card Access Request Tracking system for General Services and a Time Tracking system for the Commonwealth Attorney’s Office. The APEX team also provided support for tracking Police costs during the 2015 UCI World Championships. IT supports over forty APEX applications used by every agency in the County.

The IT Community Development & Services team upgraded Accela Tidemark Advantage to the latest version, ensuring the stability of this enterprise system. The upgrade included installation of the Tidemark client software on more than 300 computers, migration to a new Oracle database, new virtual servers, development of a new Paymentus IVR application, and upgrade of the Selectron InspecTrack system.

The Cad24x7 system received numerous enhancements during the past year. Specific customizations were made to the system to accommodate processes related to the UCI bike races. These included the implementation of a dynamic roadway barrier system which allowed for street blockages to be managed via a web map. This enabled the system to more easily take roadway closures into account in determining the closest units to a call for service. During the UCI races the County roadway network had upwards of 180 active roadway barriers at various points in time. These would activate/deactivate according to date time criteria allowing for a very dynamic expression within the system. Also, a new duplicate call check feature was implemented to assist dispatchers to more easily identify duplicate calls for a single incident. Also the new ASAP alarm interface expanded during the past year to include alarms from EDT, Inc. which basically doubled the number of alarm calls the system accepts electronically.

A new Fire alerting system is expected to be implemented during the year. The new system will include a digital voice feature which announced the call for service both over the radio and locally in the fire station. The new Fire alerting system is intended to roll out over three to four years. During this time the Cad24x7 system will need to be able to interface

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to both the new and old Fire alerting systems. IT will spend considerable time and effort developing a custom alerting interface program which will allow the dispatchers to manage both the old and new Fire alerting systems from a single program. The new fire alerting system has already been implemented on Fire Station #10.

The GIS Office has upgraded the County's ArcGIS platform to version 10.3, providing enhancements to GIS desktop and server capabilities. County agencies now have access to several cloud-based GIS solutions, as the GIS Office has implemented both ArcGIS Online for Henrico County and pictometry oblique aerial photography. Additionally, plans have been finalized for bi-annual aerial photography and base-mapping updates for the next several years. The GIS

office has worked hand in hand with the web team to enable a web map in support of a new capital projects web page. It is hoped that this will serve as a template for future projects. The GIS Office worked hand in hand with Fire and others from IT to assist running the command center at the UCI races. An ArcGIS Online site was central to the management of the Public Safety presence at both the UCI races and the NASCAR races.

Support for the Division of Fire included significant IT presence for both the UCI and NASCAR races. Also, IT is participating in two RFP development projects with DOF. The first is for a replacement records management solution for both NIFRS and PPCR reporting; the second is for another Fire Alerting system.