

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 operates 24 hours a day, 7 days a week. Major areas of service include Finance, Public Utilities, General Services, Human Resources, and all Public Safety agencies. A Customer Service Center, with help desk and work station support services, is available to provide assistance to agency personnel on computer related problems.

The Department also administers and maintains the County's telecommunications infrastructure including telephone systems, cell phones, pagers, and the voice and data plant. In addition, the Department is responsible for the maintenance of the Emergency E-911 system for Public Safety.

Objectives

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

Annual Fiscal Plan

<u>Description</u>	<u>FY09 Actual</u>	<u>FY10 Original</u>	<u>FY11 Approved</u>	<u>Change 10 to 11</u>
Personnel	\$ 8,080,248	\$ 8,477,200	\$ 7,979,753	(5.9%)
Operation	3,437,710	4,310,173	3,636,297	(15.6%)
Capital	355,923	552,915	463,680	(16.1%)
Total	\$ 11,873,881	\$ 13,340,288	\$ 12,079,730	(9.4%)

Personnel Complement* 89 89 83 (6)

*One existing IT position was transferred to Human Resources during FY2009-10 and five vacant positions were eliminated from the complement.

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Performance Measures

	FY09	FY10	FY11	Change 10 to 11
Workload Measures				
Henrico Internet Pages Accessed	16,629,902	17,523,600	19,590,025	2,066,425
Henrico Internet Number of Visits	2,280,415	2,362,270	2,387,300	25,030
Efficiency Measures				
Central Computer Average Uptime	99.80 %	99.80 %	99.80%	0.00 %

- To provide the County with an efficient and dependable communications network.

Budget Highlights

The Department of Information Technology’s (IT) FY2010-11 budget is \$12,079,730, which represents a decrease of \$1,260,558 or 9.4 percent from the previous approved budget. The personnel component decreased by a net difference of \$497,447 or 5.9 percent from the previous approved fiscal year as a result of the elimination of five vacant positions from the complement as well as budgeted vacancy savings. The decrease was also impacted by the transfer of an Office Assistant III position to Human Resources during FY2009-10. These reductions were offset by the rising VRS, VRS life insurance, and health care expenditures for remaining personnel.

Although the personnel component is a driver of the decrease, operating expenditures played an important role as well. The operating component is forecasted to decrease by a net difference of \$673,876 or 15.6 percent from the previous approved budget. This portion of the budget reflects the County-wide adjustment in travel, tuition, technology replacement, and telecommunications. The combined impact of these adjustments reduced the operating component by \$51,835. It is important to note that funding of \$346,191 was removed from lease/rent of equipment and funding of \$295,000 was eliminated from computer maintenance service contracts as these accounts have been trending downwards in recent years as a result of operational efficiencies implemented by the department. These reductions are offset by an increase in computer software of \$20,000, which was transferred from the Planning department in order to centralize the cost associated with the Geographic Information System software.

The capital component allows for the purchase of new and replacement computer equipment as well as replacement telecommunications equipment and is forecasted at a total cost of \$463,680. This total represents a decrease of \$89,235 or 16.1 percent from the previous approved budget. The adjustment was required to meet expenditure reductions and will not impact service delivery due to increased efficiencies implemented by the department.

During FY2010-11, the Department of Information Technology will focus on its central data center network architecture to enable a more robust hardware platform for a virtual server environment.

During the past year Information Technology began researching this new network architecture. To operate efficiently, the fundamental Henrico network requires changes to meet modern standards. This involved changing the network settings for over 3,000 personal computers, 4,000 users and 240 servers. At the same time all users were migrated to a newer, more functionally rich email platform. This process has taken over a year to plan and put into production.

The data center revitalization project continues and the County’s central network switches will be replaced, which will significantly increase the overall speed and health of Henrico’s infrastructure.

As a central part of this improvement is the move to a virtualized server environment. A large percentage of the 240 plus servers currently supported by IT use little processing power – 1.0 percent to 5.0 percent of the total available “horsepower” on each box – to run their respective applications. Multiple virtualized servers can run on each server in this new environment. Currently IT has approximately 45 virtual servers running on four

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physical servers. The goal of Information Technology is to virtualize the entire data center to be running in fewer than 15 physical servers.

This consolidation will greatly reduce the overall administrative overhead and backup/restoration time for IT's operations. Additionally, it is a move toward a "green" computer room and will reduce the total energy requirements for day to day operations and cooling.

During the past year, substantial annual savings have been realized through reduction of telecommunication costs. Information Technology supports over 6,000 telephone ports throughout the County. During an average month, the County's telephone systems handle over 400,000 calls excluding intra-building calls.

While large savings have already been achieved, IT will continue monitoring telecommunication costs to determine additional means of reducing monthly and annual surcharges to the County. The bankruptcy of Nortel, the primary telecommunications provider, is being watched carefully to provide insight to the County's future telecommunication strategy.

The protection of the County's data assets is one of the prime concerns of Information Technology. In furtherance of this objective, IT has begun a feasibility study for developing an off-site backup and recovery site and a remote operations center in the event of a disaster or catastrophic failure in the main computer center.

One of the strong features of the VMWare virtual technology is the ability to easily replicate data at an off-site location and quickly restore data to an operational center once the damaged or destroyed hardware has been replaced.

Also in the coming year the Department will continue to review new technology. Some of these new technologies are LTE (faster mobile wireless), VOIP (phones using the data network), desktop PC virtualization, Windows7 desktop operating system, and Open Office software, which may eliminate the need to purchase individual software packages.

The County has been replacing mainframe legacy applications with more robust commercial solutions over the past several years. These new applications include solutions for:

- General Ledger and Purchasing,
- Cashiering,
- Human Resources,
- Document Management,
- GIS, and
- Utility Billing

This effort will continue in the upcoming fiscal year. The Department of Finance is scheduled to replace their legacy billing systems with a single third-party product. Additionally, the County anticipates the implementation of a new 911 emergency response system by the end of 2010.