LOB #305:
PC REPLACEMENT

Purpose

The PC Replacement Program LOB provides a funding mechanism and asset management for the regularly scheduled replacement of end-user devices (desktop PCs, laptops and tablets) and associated software and support for all County agencies. This equipment replacement program ensures that County agencies have supportable equipment designed to use the County's enterprise-wide and agencies' specific software applications and access to WEB based services securely and at the most efficient cost.

Description

The PC Replacement Program is a single, discrete county-wide program under the management of the Department of Information Technology (DIT). It was established as a key program at the inception of DIT to ensure standards and that funding is available on a regular cycle for replacement of the authorized inventory of PCs, laptops, tablets, etc., devices. The cost per PC in the program includes PC hardware, required software licenses, security requirements, protected disposal, service desk and desk-side staff support.   DIT works with individual County agencies to determine the device type best match to the type of work performed by the designated end-user and to his or her remote access and mobility requirements.

DIT continually reviews industry options for efficiencies in the acquisition and deployment of devices, while ensuring that the program remains cost effective and competitive against other options, and with the long-standing goal of maintaining optimal performance, reliability and productivity for County agencies. The updated program strategy implemented in FY 2015 took into consideration a more fluid evolutionary process of industry innovation and agency and worker requirements, including mobility and plans for continuity of operations (COOP).

During FY 2014, the PC Replacement Program underwent a comprehensive review that included a review of the County PC inventory, which had expanded over the years. Expansion typically occurs as agencies have new needs that requires devices, which includes mobility, telework, public access initiatives, and dedicated devices needed for utility systems, etc.   The review included an examination of industry innovation, the replacement-cycle structure, and new workplace requirements including mobility and COOP plans. Also during FY 2014, a new agreement was negotiated for the required Microsoft user licensing program previously on a per device basis to a per user basis. This allows for multiple deceives to be operated by the same user under a single license. This contributed to significant cost avoidance and supports software license compliance. The program also includes a five year warranty program. Adjustments were included in FY 2015 for the PC Replacement Program to reflect both updated inventory counts, flexibility in device type selections, new software licensing structure, and revised costs.

At present, there are approximately 14,000 computers in the program. Each agency pays into the program a set amount per authorized computer over the (current) five-year replacement cycle. The cost per PC in the program covers the expenses associated with the PC hardware; extended warranties; desktop-productivity software licenses (e.g., Microsoft and Adobe); security software and threat monitoring; protected equipment disposal; and staff support for the preparation and installation of the replacement computers, as well as for the removal and temporary storage of the old equipment. Various external and internal factors can affect the number of replacements that actually occur in a fiscal year. These factors include the timing of the release of new products, work requirements of individual customer agencies, and the balance between supply and demand within the PC, laptop and tablet markets. In the new plan, DIT has the flexibility to purchase more or less computers in a given period depending on prices and obsolescence factors. Apart from these factors, which can change continually, the overall program objective is to replace one-fifth of the computers in the program each fiscal year. Since there are currently approximately 14,000 computers covered by the program, the target number for annual replacements is 2,800. Sometimes DIT may accelerate a replacement if deemed necessary to sustain supportability.

There are 12 positions directly funded in this program that conduct asset management, inventory control and installation activities on a business day schedule. The staff sometimes work outside business hours as needed for agencies to reduce downtime while new PCs are in the process of being installed.

The work of the PC Replacement team includes installation of the approved standard County software image, plus agencies' specific applications. The software image installation includes installing the Commonwealth of Virginia Department of Social Services on about 1,000 state provided PCs to the Fairfax County Department of Family Services. The state issued PCs support associated assigned staff for County access to enterprise systems, which if not, would mean another 1,000 PCs would have to be added to the PC Replacement Program.

Benefits

This program leverages County resources and implements standards for the best overall productivity and cost to provide and sustain end-user computer equipment.   The County's program has been recognized as a cost-effective, best-value and best-practice model in the governmental and commercial sectors. The key strengths of the program are that it fully optimizes the allocation of IT assets and it results in an efficient and predictable level of effort to provide desktop maintenance and support.

- County end-users are able to perform their day-to-day tasks using equipment and software that is up-to-date and secure, and the equipment is protected against failure by extended warranties.

- The centralized nature of the PC Replacement Program allows the County to avoid costs through bulk purchases of equipment and software.

- By having staff members who are trained for and dedicated to PC Replacement, DIT is able to perform this function more efficiently and with greater effectiveness than would be the case if each agency had to deal with this process on its own.

- DIT also has the expertise and resources required to select properly configured equipment, test it before deployment and modify the equipment setup to ensure that it will operate properly and securely within the County's IT enterprise environment.

- Individual agencies do not have to seek periodic one-time increases to their budgets to cover the expense associated with a large-scale equipment replacement effort. Conversely, agencies also do not have to deal with the compatibility issues that might result from more frequent replacements on a smaller scale.

- Software licenses are also included and purchased on an enterprise-scale for best cost and accountability, allowing flexibility for the number of licenses needed, ensuring licensing compliance and continuity for industry audits.

Mandates

This Line of Business is not mandated.

Trends and Challenges

In the end-user device arena, the trend is to move away from traditional desktop PCs to mobile laptops and tablets that may be more appropriate for certain jobs. The new workforce will be expecting a more mobile workplace environment, which also enables increased productivity. End-users are interacting among themselves and with their customers and clients via a variety of devices, and some of this interaction occurs outside of the traditional workplace environment. The County also views remote access as part of a strategy to address environmental and quality-of-life issues. The deployment of tablets in the County as well is expanding each year.

In the market, manufacturers try to preserve their profits by accelerating obsolescence so that customers have to buy new computers through the inclusion of new features and functionality. The software companies try to keep their products relevant by introducing enhancements designed to take advantage of the improved hardware capabilities. Software manufacturers such as Microsoft are finding themselves in direct competition with web service providers who can offer users similar products via web-based applications.

Wearable devices may become available for County workers and may require interfaces with their end-user devices.

Challenges

- Security threats continue to increase at a rapid rate, and defending against them requires an increase in the level of expertise among the County's IT analysts. End-users also have to accept more responsibility for the physical security of their devices than was previously the case.

- Deciding which desktop, laptop and tablet models represent the best value for the County in terms of being able to satisfy end-user expectations at a reasonable cost.

- Rapid change in technology - selecting the software products and web-based services that will maintain the productivity of County employees with little or no increase in annual expense.

- Ensuring that end-user devices and software are compatible with the security safeguards adopted by the County, and making sure that end-users are extremely diligent when it comes to reporting lost and stolen devices.

- Anticipating how end-user requirements might be shifting and subsequently helping customer agencies select the right mix of devices.

- Ongoing issue of inclusion of contractor staff in the inventory assignment.

Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
LOB #305: PC Replacement			
FUNDING			
Expenditures:			
Compensation	$655,971	$637,716	$674,555
Benefits	229,619	236,024	223,254
Operating Expenses	2,614,314	5,689,651	6,006,725
Total Expenditures	$3,499,904	$6,563,391	$6,904,534
Transfers Out:			
Transfer Out to General Fund	$1,500,000	$0	$0
Total Transfers Out	$1,500,000	$0	$0
Total Revenue	$5,884,782	$6,225,252	$6,243,148
POSITIONS			
Authorized Positions/Full-Time Equivalents (FTEs)			
Positions:			
Regular	12 / 12	12 / 12	12 / 12
Total Positions	12 / 12	12 / 12	12 / 12

Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
Percent failure rate of devices in PC Replacement Program	1%	1%	1%	1%	1%
Number of PCs and Devices in the Program	12,800	13,680	14,000	14,000	14,200
Ratio of support staff in program to devices compared to industry standard which is 300:1	1,066:1	1,140:1	1,167:1	1,167:1	1,183:1

Due to optimal quality that supports multiple applications and built in warranty protection, the failure rate for Fairfax is better than the industry standard failure rate of 3 percent for similar sized organizations.

In FY 2015, the PC replacement program was reviewed and PCs, laptops and tablets and associated required licensing that had been acquired by agencies that were not in the program were added. DIT anticipates growth in tablets and dedicated PCs for industrial systems and for secure access by contractors. Mobility for County agencies is growing. DIT estimates that there may be additional equipment and software licenses required to be added in FY 2017. The numbers take into account reductions in equipment due to staff reductions in some agencies. Cost is optimized since standards are enforced thus volume buying power is leveraged, and the new licensing program is based on users, not the number of devices. Each County employee user has up to 5 devices per license potential, which includes software on tablets and smart phones.

DIT staff resource handles three times the recommended industry standard for support staff to number of devices supported, with reasonable response time performance.