

The County uses master lease financing to acquire equipment, rolling stock, furniture, and technology purchases that have useful lives ranging from three to ten years. Master lease financing is very flexible, allowing the County to finance projects with minimal transaction costs and on an “as needed” basis over the term of the master lease. Because of the short-term maturities of master lease financing, interest rates are typically lower than rates on long-term bonds. The County typically procures equipment using temporary funding sources, and then draws funds from the master lease financing institution to reimburse the temporary sources. The projects discussed below are recommended to be financed through the master lease program with related debt service costs funded through the General Fund Non-Departmental budget or the charge backs from the Auto Fund as appropriate.

FY 2018 Master Lease Funded Project Costs (\$ in 000's)

Public Safety Mobile and Portable Radios	\$4,275
Computer Aided Dispatch (CAD) Replacement Planning	350
Sheriff Live Scan System	225
Fire Command Vehicle Technology	150
Sheriff In-Car Cameras	150
Subtotal Public Safety	\$5,150
End User Computing (formerly PC Replacement)	2,125
Network Core Sustainability	1,395
Server/Backup System/Data Storage	500
Public Safety Network Equipment	275
Enterprise Wireless	262
Video Conferencing	181
Subtotal Enterprise Technology and Equipment	\$4,738
General Fund: Program Costs	\$9,888
Auto Fund: Fire Vehicles	\$2,928
TOTAL Project Costs	\$12,816

The FY 2018 list of projects will replace aged and critical technology infrastructure and public safety equipment. The FY 2018 debt service budget of \$7.6 million in the General Fund Non-Department budget for master lease is a three percent increase from the FY 2017 adopted level. Various public safety equipment, previously funded through one-time federal and state grants and other sources, have reached their end of life and must be refreshed. This annual debt service budget level will cover the financing costs (principal and interest) of the General Fund’s base program projects listed in the table above and continue to cover debt service costs of capital projects previously approved.

The Master lease equipment financing also covers Fire Department vehicles that are budgeted through the Auto Fund. The debt service for these vehicles are paid from the Auto Fund and

recovered through charge-backs to the department via the auto rental book charges in the annual budget.

Public Safety Mobile and Portable Radios **\$4,275,000**

Mobile radios, used by public safety, are radios that are installed in County vehicles as well as used in the Emergency Communications Center (ECC) as part of the dispatch system. They provide way communication between the Emergency Communications Center and public safety vehicles. Portable radios are hand-held radios that allow for two-way communication with the Emergency Communications Center and all public safety agencies throughout the National Capital Region. Both mobile and portable radios for the Police Department, Sheriff’s Department and Office of Emergency Management are due for replacement as these devices are reaching the end of their support on December 31, 2018 (FY 2019). Relying on equipment past the end of support increases the vulnerabilities posed to operational staff as equipment failure will reduce communication options between first responders and dispatch personnel and may increase response times to critical events. By planning in advance, funding of the radios can be phased over two years to allow for easier transition, training, and budget management. The FY 2017 funding covered the first half of the total costs. The second half is included in the FY 2018 proposed budget. The radios have a useful life of seven years. The total cost is \$8.55 million and covers approximately 1,005 portable radios and 354 mobile radios and the supporting equipment such as batteries, chargers, cases, and microphones.

Computer Aided Dispatch (CAD) System Planning **\$350,000**

The CAD is the core system used by ECC to receive requests for service and resources and transfer information to first responders. The system will be outdated by FY 2020 and will require an entire overhaul. In addition, Next Generation 9-1-1 technologies will force changes to CAD as well as every other critical technology system to public safety. This will lead to a modification, either small or large, on nearly every single technological platform. The FY 2018 request is for funds to assess the system and plan for its needs ahead of implementation.

Sheriff Live Scan and Portable Live Scan system **\$225,000**

Virginia State Code requires the fingerprinting for all individuals arrested using a Live Scan system. This funding will replace the existing Live Scan and Portable Live Scan systems which are past their end of life. The system is tied to the State Police database and sends fingerprints obtained at the Detention Facility to the State Police automatically to provide identification of the individual.

Sheriff In-car Cameras **\$150,000**

The Sheriff’s Office currently has 10 in-car camera systems in the Warrant/Civil Process vehicles. This funding will replace the existing camera systems that are past their end of life. These cameras record activities inside and around the vehicles during calls for service. This provides an added layer of protection and accountability for deputies and the public.

Fire Command Vehicle Technologies **\$150,000**

The Fire Mobile Command Vehicle is used during planned special events such as the Marine Corps Marathon and Army 10 Miler. The technology-based equipment inside the vehicle allows the incident commander to communicate in an array of different formats to units operating on the scene of the incident. The vehicle is also capable of becoming a mobile office space to support the Fire department or other County departments and can serve as a giant data port or Emergency Communications Center in the event of local, land-based communications failures due to natural or man-made events.

Technologies needing refreshment include servers, radios, personal computers and peripheral devices.

End User Computing **\$2,125,000**

The End User Computing replacement program (formerly known as PC Replacement) works by refreshing the County's end user devices (PC's, laptops, tablets, etc.) on a four to five-year replacement cycle. This approach minimizes large capital outlays for these devices and keeps a large percentage of the inventory within warranty while being responsive to emerging technological trends. The Department of Technology Services (DTS) will continue to work with customers to identify the most appropriate devices necessary for the users' business needs. These funds will be used to replace approximately 1,700 devices.

Network Core Sustainability **\$1,395,000**

Funds for network core sustainability provide for continuous refreshment of County network equipment as it reaches end of life and/or requires enterprise-level feature enhancements and upgrades. This equipment supports the entire enterprise and includes routers and switches that are the base for the County's voice, video, and data systems. Without sustainment funds, the voice and data network runs the risk of failure as equipment reaches end of life and/or becomes obsolete. This funding will be used to replace eight end of life hub switches, upgrade end of life optics (lasers) from 10G to 100G bandwidth for increased network core capacity, and the first year of equipment maintenance costs.

Server Refreshment **\$500,000**

The server refreshment program replaces the County's storage servers based on a five-year replacement cycle. Without replacement, the applications that reside on these devices are at risk of failure. The FY 2018 budget will be used to replace approximately 10 physical host servers with the capacity of supporting 100 virtual servers along with associated software licenses, such as virtualization software, operating system, backup agents, and security software.

Public Safety Network Equipment Replacement **\$275,000**

This funding replaces the existing radio equipment that supports the public safety network. This equipment will no longer be supported by the manufacturer after April 2019. Initial funding was approved in the FY 2017 adopted budget for \$500,000 and the FY 2018 funding of \$275,000 will complete the project so that the public safety network can be fully tested and operational before it is no longer supported.

Enterprise-wide Wireless Connectivity Expansion **\$262,000**

These funds will be used to improve indoor wireless access and provide secure wireless coverage to all County-owned and staff occupied buildings, and public facing locations like community centers and libraries. The goal is for all of these facilities to have full wireless coverage by FY 2020.

Expanded Video Conferencing Capabilities **\$181,000**

These funds will be used to address the growing need for County staff to convene in conference rooms for collaboration, interviews, training sessions and meetings using web conferencing services. Vendors, contractors and other County partners are increasing their usage of web conferencing

services to interact with County staff and conduct County business. Approximately eight conference rooms are targeted for upgrade during this phase.

Auto Fund – Fire Vehicles

\$2,928,000

The fire pumpers were replaced in FY 2010 and have reached the end of the seven-year useful life. The \$2,928,000 funding request will replace the six fire pumpers and also takes advantage of the back credit from the trade in of the old pumpers.