



City of Alexandria, Virginia

Body-Worn Camera (BWC) Proposal

The purpose of this proposal is to outline the potential needs and fiscal impact for the City of Alexandria should it decide to implement a Body-Worn Camera (BWC) program for the Alexandria Police Department (APD), Alexandria Sheriff's Office (ASO), and the Alexandria Fire Department's (AFD) Fire Marshals.

OVERVIEW

Oftentimes, jurisdictions do not realize the true extent of costs to implement a program that is based on deploying technology devices. The belief that the costs are solely the devices and associated licensing fees leads to disastrous results when the ripple effects of that technology are felt. The proliferation of cloud-based technology solutions actually adds to the impression that the cost of the desired "e-widget" is all that is needed for consideration. In few areas could the purchase of technology in one agency have a huge impact across many others the way that BWC programs do.

The purpose herein is to ensure that a more holistic assessment of the costs and caused increases in workload, purchases, technology upgrades, and staffing are laid out. A governing body should not make an informed decision regarding the substantial and permanent recurring costs of a BWC program without examining the substantial (and legally compelled in the case of prosecutors) increases in staff positions necessary to support that program. The gear cost itself is actually not as substantial in the overall costing of the program. The staffing increases in five City agencies and cloud storage fees are the real costs over time. As has been discovered, there are minimum levels of staffing caused by BWC program workload that are critical to the program existing and without which the program will fail, resulting in more serious consequences.

The Department of Information Technology Services (ITS) has recommended, as has been echoed by nearly all regional agencies having BWC programs, that the City implement only a cloud-based solution to avoid the substantial costs of internal network-based storage and issues with bandwidth, security, back-up, retention, and upgrades. Regardless of the vendor chosen, there will remain the potential for significant IT infrastructure upgrades and their associated costs (see page 7).

Regional Comparison

The City is one of the few remaining law enforcement agencies in the NCR who do not employ BWC, though many agencies are phasing in and not yet fully deploying BWC to their staff due to unrealized costs and the need for additional staffing that were not funded. This is a list of regional law enforcement agencies who answered a request for their BWC status.

Agency	Vendor	Started
Arlington PD	Axon	Expected 2021
Arlington SO	Axon	(same as Arlington PD)
Fairfax City PD	Axon	Late 2016
Fairfax County PD	Axon	2018 pilot, 2020 full
Fairfax County SO	Axon	Later 2021
Falls Church PD	<i>N/A</i>	<i>Does not use BWC</i>
Fauquier County SO	<i>N/A (In-car only)</i>	<i>2005 (in-car only)</i>
Herndon PD	Panasonic	2017 (BWC, in-car, and IR)
Leesburg PD	Motorola	Late 2019
Loudon County SO	Motorola	2015 (originally Axon)
Manassas PD	Axon	Late 2017
Prince William County PD	Axon	Late 2017
DC Metropolitan PD	Axon	2015 pilot, 2016 full
Montgomery County PD	Axon	2016
Prince Georges County PD	Panasonic	2018 start, full by FY2022
Prince Georges County SO	Panasonic	2018 pilot (still)
Charles County SO	<i>N/A</i>	<i>Does not use BWC</i>
<i>PD = Police Department, SO = Sheriff's Office</i>		

Scope of Deployment

The APD proposes to eventually deploy BWC to every sworn member, except those at the police training academy during initial training, for a total of about 325 BWC in eventual active use. The ASO stated that they would need to deploy about 175 BWC. The AFD would need to deploy 7 BWC for their Fire Marshals. Which agencies deploy BWC is a decision made by the local governing body. The deployment to APD, City Attorney's Office, Courts, and Commonwealth's Attorney Office represent the "base-line" level of deployment. The ASO and AFD inclusion into the BWC program will add incrementally to the Commonwealth's Attorney and City Attorney workloads, as reflected below.

Separation of Systems and Administration

The Police Department should be the lead administrator of the BWC program given it will have the highest number of BWCs and likely high use of video recordings. Each agency affected will have to be responsible for its positions (salary, benefits, and other costs aside form licensing).

Each of the three agencies with law enforcement authority are their own “custodian of records” under Virginia laws, and as such, each agency must have its own program administrator and coordinator for BWC videos. Each agency has a different effect on the workload of the City Attorney’s Office (CAO) and Commonwealth’s Attorney (CA) offices, none more so than the Police Department. Each agency will need to have additional positions added to support the increased workload represented by the BWC program. While each agency may realize unique needs and uses, the primary purpose of any BWC program is to record the interactions between forward-facing law enforcement and the community. APD will by far have the most interaction with the CAO (FOIAs) and the CA criminal prosecutions.

Program Initiation/Consultant Firm

The City regularly employs outside expert consultant firms to help guide the technical aspects of initiating a significant and complex technology-based program. The costs are estimated at \$150,000 to \$200,000 in consulting fees at the outset. The consultant’s scope of work should be focused on systems engineering, vendor installation, and such, not on policy or benefit analysis – the question of whether the City should or should not start a BWC program is no longer relevant – only whether the City can afford to do so. The City can save some of those costs by piggy backing existing BWC contracts in the region. Depending on the technical aspects of the gear from the vendor chosen, ITS may need additional consultant support in order to address additional issues created by limits to its existing network infrastructure. There will be a need to have an independent IT security consultant run separate security audits related to the BWC system – one within the first year of program implementation and another a few years later to up test system security.

Body-Worn Camera Equipment, Storage, and Licensing

With the expected deployment to 325 members of APD, 175 members of ASO, and 7 in AFD, the estimated equipment costs vary widely due to differences in how each major vendor approaches storage, licensing, device survivability/replacement, and warranty issues. All devices, regardless of vendor, will require their proprietary docking stations at each agency HQ (and also at the Courthouse for ASO) sufficient to handle both the incoming and outgoing shifts. All vendors have a higher first-year costing structure to cover the costs of initial gear like docking stations, network connections, end-user training, and redaction/admin user services.

Cloud storage is a significant consideration. The BWC program needs to must have unlimited storage to be able to fully employ camera video without artificial limits having unintended effects on its ability to retain needed files. After a few years when the contracts need to be renewed, the City can measure more effectively the amount of storage use and retention its experience to realistically understand use rates and make changes as needed then. All of the vendors use CJIS-compliant cloud storage.

There will be specialized licensing and software required for administrators and redactions, depending on the system selected. There will need to be full redaction software and/or licenses for APD, the City Attorney's Office, Commonwealth's Attorney's Office, ASO, and those in AFD who manage the program or need to exercise review and oversight of those deploying BWC. The redaction-capable and admin-level licenses cost more, up to \$9,000 per user (depending on vendor), but this is a smaller set of users dependent on how the vendor's specific permission system is set up (could be up to 29 special user licenses).

First-year costs (equipment and licenses) for all three agencies with a full deployment together could reach \$875,000 depending on vendor chosen. This is not an a-la-carte opportunity - the more expensive gear has lower license fees and the less expensive gear vendors often have higher annual licensing costs. Also, vendors vary in how the end-user covers the cost of replacement and service. Some are part of the annual user fees and others are a separate program. In terms of contract negotiation, each vendor approaches the process looking at the contract as a whole term cost, broken down in the manner best suiting the jurisdiction. For the purposes of this proposal costs are show per-year annualized basis.

Court Technology Upgrade Costs

Each courtroom in the court building would need to have City network connectivity along with a laptop or PC along with a LCD TV monitor for presentation of BWC video to the judge and juries. While network connections are present, they would also need to be evaluated for bandwidth since the video would need to be able to stream from the cloud service in court. For a total estimated cost for ten courtrooms of \$24,000. Each laptop and monitor combination may need its own view/access license for the purposes of tracking authorized views and preventing unauthorized access, for a total of 10 licenses (up to \$2,000 annually).

In subsequent conversations, Courts revealed that they are undergoing a technology upgrade related to remote jury and hearing capacity and the new solutions to be installed in each courtroom might be able to access BWC video. This potential should not be the default fiscal position, rather it demonstrates how outside factors may provide certain relief from initiatives within the establishment of this program. Once the City has a vendor and data in their cloud to test, it should test the court systems for viability, with the expected estimated \$24,000 in equipment costs.

Staffing Increases

The BWC program will cause substantial workload increases across several agencies that are affected by the existence of BWC video in administrative, technological, and legal ways. For each position listed as created in the first fiscal year of the program, the costs are increased the following years to account for the annual in-step increases for each position. The increase in staffing also means that office space will need to be

addressed. Each section below addresses the office space needed and listed solutions, based on coordination with the Department of General Services (DGS).

Police Department Staffing Increases

In order to manage the workload, increase from a BWC program, dedicated staffing with the proper level of authority, responsibility, and training must be in place. Agencies deploying BWC have to address the issues of training (which is recurring), maintenance, replacement, Freedom of Information Act (FOIA) requests, internal admin-level software support, program contract oversight, and internal review and community complaint processes. With 325 BWC to be deployed, depending on how deployment is set out, we can anticipate a staffing increases of two sworn Police Sergeants and one civilian IT Coordinator. The staff will perform the review, redaction, coordination, training, and auditing of BWC videos in support of the accountability, public information, oversight coordination, and FOIA processes. APD would also be the lead contract administrating agency for BWC and aid the other agencies as needed. Additionally, APD staff assigned to the BWC program will provide technical assistance and training (in gear operation) to the Alexandria Fire Department. APD does have existing space within APD headquarters to locate the new staffing and BWC gear (docking stations, etc.). The only potential needs would be for ITS (bandwidth, cables) or power (if a location's circuits will not support the power load. Most of the gear does not use much electrical power, but large groups of low-draw items can have a significant effect.

Commonwealth's Attorney's (CA) Office Staffing Increases

Any BWC program compels certain duties and workload onto the prosecutors for that jurisdiction. The formula adopted formally by the Virginia Commonwealth's Attorneys workgroup was one Attorney per 75 BWCs in the field. This is because there is a statutory requirement in Virginia that prosecutors must review all BWC footage in its entirety related to any incident they prosecute. By this formula, Commonwealth's Attorney determined that minimum staffing needs would be increased by four Attorney positions and at least one IT Support Engineer II. The four Attorney positions would also create the workload necessary for an additional Legal Secretary II position. It should be considered that, depending on experienced workload for criminal prosecutions, the actual number of Attorneys needed could increase even further in years further out. Experience of other jurisdictions has shown that the prosecuting attorney's office is the highest user of BWC footage.

The Commonwealth's Attorney's Office does not have the physical space or furnishings for the five additional positions necessitated by the BWC program. There is no additional room within the court building, leaving only the leased space option.

By way of comparison, the Fairfax County Commonwealth's Attorney is requesting nearly 30 additional Attorney positions to manage their estimated case and BWC workload.

City Attorney's Office Staffing Increases

The City Attorney's Office (CAO) estimates an increased need of one Attorney and one Paralegal/Law Clerk II position. Fairfax County, which experience a similar media attention and public focus on its governance, surprisingly has only experienced to date a slight increase in the number of FOIA requests, but requests with BWC video do require much more time to process, review, and redact. With about 250 to 275 FOIA requests sent to the Alexandria Police Department annually, this can result in the increased need to review a similar number of video hours and redaction work based on the nature of the requests (close to 500 staff-hours of work above current levels). The corresponding increases in workload at the City Attorney's Office to review those same hours, both in raw and redacted form by the paralegal and attorney, justifies a need for additional staffing. The increased amount of video produced by all of the agencies will add to that workload, further filling in the need for those positions to manage both FOIA and potential civil cases where BWC video (not just from APD) is germane to the City's cases. The City Attorney's Office does not have the physical space or furnishings for the additional two positions.

Sheriff's Office Staffing Increases

With about 175 BWC to be deployed, the Sheriff's Office anticipates needing staff increases of one sworn Deputy Sergeant and one civilian IT Coordinator. The staff will perform the review, redaction, coordination, training, and internal investigative, and auditing of BWC videos in support of the accountability, public information, oversight coordination, and FOIA processes. The Sheriff's Office stated that they have existing space within their headquarters to locate the new staff and space for BWC gear (docking stations, etc.) at both their headquarters and courthouse. The only potential needs would be for ITS (bandwidth, cables) or power (if a location's circuits will not support the power load).

Fire Department Staffing Increases

With seven (7) BWC to be deployed, the Fire Department did not anticipate needing a dedicated staff person for this program, relying instead on APD for technical support. Existing Fire Marshal staff would absorb the workload to review, redact, coordinate, train, conduct internal investigative and auditing of BWC videos in support of the accountability, public information, oversight coordination, and FOIA processes.

Additional Space Issues

Two of the agencies directly impacted by the BWC program do not have any remaining office space to locate the positions necessitated by the program – the Commonwealth's Attorney and the City Attorney's Office (totaling seven new staff persons). Following the request for likely setting out maximum potential costs, DGS estimates the following first-year costs:

Item Description	First-Year Cost
Building Modifications at APD HQ	\$ 150,000
Building Modifications at Public Safety Center	\$ 70,000
Lease Space Modification/Outfitting	\$ 207,000
Lease Space (phone line, computer, mobile)	\$ 77,104
Total	\$ 504,104

The annual leased space costs would be \$78,000 per year thereafter. See Costs chart.

Information Technology Infrastructure and Support

ITS staff have identified anticipated start-up and recurring costs to support a 500-unit BWC program. Estimates were based on an order of magnitude calculation developed from programs implemented in the region and IT best practices.

To ensure the BWC program runs effectively and does not have a negative impact on other aspects of the City network, ITS recommends one-time funding totaling \$755,000 to purchase and install internet circuits, IT racks, switches, and related hardware as well as Server OS and SQL licenses. Also included in the above figure is \$130,000 for staffing increase technology costs such as computers, monitors, and necessary hardware for the 12 new staff proposed for each of the various departments. Known recurring costs for hardware and software are estimated at \$102,000 annually for software licenses and annual circuit maintenance. ITS also warned that there is a potential one-time \$500,000 purchase for a temporary network storage or staging area for video files as they await uploading to the vendor cloud. These costs will depend on the selection of the vendor for the BWC program. In addition to hardware and software costs, ITS recommends one Network Engineer (\$175,000) to provide assistance with the complexity of managing the infrastructure and hardware related to the BWC program.

ITS proposes two contractors, a Business Analyst and Project Manager to oversee the implementation of the BWC program for ITS deliverables. Once implementation is complete, these resources will no longer be necessary. The cost for these consultants is estimated at \$335,000 over the span of three years.

ITS recommends an additional \$75,000 for security audits to be completed initially at implementation and again every three years. ITS also recommends a Security Engineer contractor (\$95,000) be hired after those audits to aid the City in addressing any vulnerabilities exposed by the audits. It is a standard practice for ITS to audit all new systems and have used independent consultants to perform this function as needed.

Chart of Anticipated Costs

Based on the below chart, the first-year program starting costs include the contractors start-up costs, BWC equipment and licensing, and staffing costs for the positions needing to be in place for the program. The second-year (or third-year) costs include staffing increases, recurring licensing fees, and start-up costs for the remaining two agencies.

See below charts:

BWC Program Phase-In

This scale of a BWC program is fiscally significant. The City should phase-in BWC in steps across the three user agencies and three support agencies to lessen the initial fiscal impact. Phasing-in also would enable staff to learn and gain experience on a smaller scale and fine-tune the program before rolling out a full BWC program. The following cost tables reflects an aggressive phase-in of the program:

Scenario 1 - FY 2 ASO Pilot Program						
Total BWC Program Costs	FY1	FY2	FY3	FY4	FY5	FY6
APD FTE and Contract Costs	830,000	878,000	887,000	898,000	909,000	920,000
ASO FTE and Contact Costs	-	65,000	498,000	485,000	490,000	497,000
AFD Contract Costs	-	-	33,000	10,000	10,000	10,000
Program Consultant Costs	200,000	-	-	-	-	-
Court Technology and Licenses Costs	44,000	20,000	20,000	20,000	20,000	20,000
Commonwealth Attorney FTE and Non-personnel Costs	375,000	589,000	605,000	624,000	645,000	666,000
City Attorney FTE Costs	206,000	208,000	214,000	220,000	226,000	233,000
Space Needs Costs	505,000	78,000	78,000	78,000	78,000	78,000
Anticipated IT Costs	2,070,000	615,000	615,000	280,000	1,355,000	280,000
Total	4,230,000	2,453,000	2,950,000	2,615,000	3,733,000	2,704,000