VILLAGE OF ANTIOCH POLICE DEPARTMENT

Office of the Chief of Police

DATE: October 23, 2020
TO: Elected Officials
CC: Administrator Keim
RE: In-Squad & Body Cam Project

The purpose of this memo is to provide an overview of the proposed in-car / body worn camera project that will be presented publicly at the October 28th Committee of the Whole meeting, with a request for board action to follow at the November 9th meeting.

History

The Department purchased its first in-squad camera system early in 2000. Shortly after, we purchased additional in-squad cameras with a primary goal of improving the prosecution of driving under the influence of alcohol cases. These systems consisted of a windshield mounted camera, which was connected to a VHS tape recorder in the trunk of the squad car.

In 2007, our in-squad camera initiative was expanded, as in-squad cameras became a staple in police vehicles. The Department purchased its current digital in-squad camera system, by L3 Communications, which at the time used newer digital technology. No longer did officers have to physically remove VHS cassettes from their trunk recorders as we moved into the realm of wireless data uploads into a secure server.

Status of our In-Squad System

While the current L3 system served our needs well, approximately five years ago components began to fail. Because components were no longer supported by L3, over the last several years we have resorted to purchasing used components on e-bay to keep as many our systems functional as possible. Currently only 9 of our 12 patrol vehicles have functional camera systems, and many of those can be described as unreliable. In addition to the in-squad equipment itself failing, our current Mobile Audio Video (MAV) server has reached a point where Amy Pisciotto (Information Technology Manager) is no longer able to obtain service or updates because it is beyond its supported lifespan. Taking the above factors into account, the current MAV system has not only reached, but exceeded its end of life.

Selection of Proposed New System

Having received direction from the Board to explore body-worn cameras, we recognized that a primary feature for any new MAV system would be its ability to effectively integrate a body-worn camera platform into the MAV platform.

At the 2019 Illinois Chiefs of Police Association annual meeting and tradeshow, members of the Command staff were able to network with several camera vendors and learn about their systems. The tradeshow also allowed a rare opportunity to see each system side by side to learn about their capabilities.

Having information from the tradeshow in hand, our next conversation was with our current squad equipment up-fitter, Ultra-Strobe. Through conversations with their technicians, we were able to eliminate products after learning that some of them have several flaws, such as repeated failures and poor manufacture support. It was during these conversations that the Panasonic Arbitrator platform began to emerge as a frontrunner. Ultra-Strobe reported a low incidence of technical issues with Panasonic, and reported that generally, Panasonic provides solid support of their products~~,~~ and works to quickly resolve customer needs.

With the assistance of Amy, we explored the pro's / cons of systems that use on-site storage, such as the Arbitrator, and those that use exclusively cloud-based storage, such as the Axon platform. We learned that one of the primary concerns with the Axon system is the unpredictable cost of storage on their cloud-based servers. As demonstrated in the attached quotes, the total cost for hardware for on-site storage is $18,945. According to Amy, this storage hardware will have a lifespan of five to seven years, before some of the components need to be evaluated for replacement. We received an annual cost estimate for storage from Axon in excess of $40,000 with a three-year commitment of $120,000. Axon would not speculate on future storage costs beyond the original three-year agreement, but if history tells us anything, costs for cloud-storage are on an upward trajectory. Another identified concern related to Axon's cloud-based storage would be separating from Axon if the Village decided to move to a different vendor. As part of their agreement, we must remove all our stored data from Axon's servers, which according to Amy, would result in significant time expended and costs to be incurred.

Having answers to our storage questions, and the Arbitrator at the top of our product list (State of Illinois Master Contract, CMS5848520), we began working with CDS Office Technologies, our authorized Panasonic Arbitrator vendor. After multiple meetings with our representative, Mark Gottlieb, we identified several other departments of varying sizes in Illinois who are currently using the Arbitrator platform. We reached out to each of these agencies and received overwhelmingly positive feedback on both the product platforms and support. Most agencies reported minimal technical issues with the product. One agency did report that after several months of use, they unexplainably had three body-worn cameras with a motherboard issue, however Panasonic quickly sent replacement units, and this agency reported no further problems or issues.

Selection Summary

- ✓ Integrates body-worn and in-squad camera platforms
- ✓ Positive end-user feedback in terms of reliability and support
- ✓ Third party (Ultra-Strobe) positive feedback on product and support
- ✓ Control of our video / audio data
- ✓ State master contract listed
- ✓ Reviewed by Village IT Manager

Initial Costs

Item Description	Cost
In-Squad Camera System (5-year licensing)	$90,596
Body-Worn Camera System (5-year licensing)	$46,630
Back-up batteries and charging station	$2,204
Server and Storage Equipment	$18,945
Identify Redaction Software (5-year licensing)	$13,334
Service and Support (1-year term)	$5,568
Total Cost	**$177,277**

Project Funding

Funding Source	Amount
DUI Restricted Fund (anticipated source)	$70,000
IPRF Grant Award (unanticipated source)	$10,469
Additional Funds Requested	$98,808
Budgeted Amount	$166,734 less projected offset= **$96,734**

Projected Future Costs

- Anticipated lifespan for body worn cameras = 3-5 years
  - In year four, begin budgeting to replace 1/3 of cameras each year. Based on current pricing projected yearly cost for replacement cameras= $7,200.
  - We can anticipate occasional battery replacement of camera batteries at a cost of $185 ea.
- Anticipated lifespan for in-squad camera systems = 7-10 years
  - It is difficult to project replacement of squad cameras. Many current users of the platform continue to use their squad cameras after 10+ years with minimal problems. Each in-squad camera system currently costs approximately $5,000 (plus installation).
- Anticipated lifespan for the server/storage/redaction workstation
  - Replace every 5-years the NAS at an estimated cost of $4,000
  - Replace every 5-years the redaction pc at a cost of $2,500
  - Replace every 5-years the wireless AP at a cost of $500
  - Replace every 7-years the server at a cost of $8,000

- Estimated licensing costs = 5-year licenses are included with initial purchase.
    - In-Squad cameras = $695 per camera ($8,340 fleet cost) 5-year license based on today's cost
    - Body Worn cameras = $245 per camera ($7,300 all sworn staff) 5-year license based on today's cost
    - ID Redaction Software = $13,334 for a 5-year license based on today's cost
        - Estimated licensing costs every 5 years= $28,974 based on today's costs (there are different term lengths available).

There are options for future licensing on an annual basis ≈ $6,000 - $7,000 per year

Implementation Timelines

While it is impossible to predict delays in product delivery due to pandemic related issues, CDS Office Technologies believes that based on today's lead times, we will have all components on-site and installed in six to eight weeks. We can expect delays in the role-out of the in-squad camera platform due to a significant back log of squad up-fitting which was caused by the Ford Motor Company delays in shipping squads last year. We will have a need to schedule end-user training and to educate our staff on the body worn camera policy (currently in development). All divisions of the Department will also need a solid understanding of the Illinois Body Worn Camera Act, which controls retention, redaction, and areas such as when an officer may and may not record. Based on all the above, I would anticipate a partial implementation by the beginning of March and a full implementation later in the Spring.

Related Note

Along with this memo, I have included a copy of an article titled "The latest body-worn camera systems", featured in Septembers issue of Police Magazine. You will see that the Panasonic Arbitrator iPro is one of five products the magazine suggests departments might want to consider.

If anyone has any questions, please contact me directly.

Attachments:
Integrated camera systems quote
Police Magazine article

THE LATEST BODY-WORN CAMERA SYSTEMS

NEW FEATURES ARE IMPROVING THE EVIDENCE CAPTURE AND REAL-TIME INTELLIGENCE CAPABILITIES OF BODY CAMERAS.

David Griffith

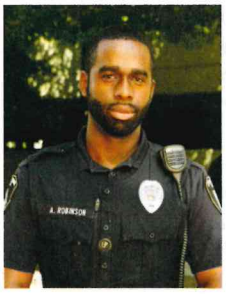
Body-worn cameras have become the must-have police equipment. Agencies that already have body cams probably need more of them; agencies that don't have body cams are likely waiting on the funding to come through so they can buy them. In such a dynamic and evolving market, manufacturers are constantly trying to develop new features to distinguish their products from their competitors. Here's a look at what some of them are offering in 2020.

MOTOROLA SOLUTIONS (WATCHGUARD)

The Motorola Solutions (WatchGuard) V300 offers swappable battery packs for extended operations. Video files are encrypted on the device and can be wirelessly uploaded to the WatchGuard Evidence Library on the cloud or to on-premise servers. The WatchGuard V300 can also be integrated with WatchGuard's 4RE in-car video, allowing for the capture of synchronized video of an incident. Also, the system features WatchGuard's patented Record-After-the-Fact, which can recover video from an incident, even when a recording was not activated. www.watchguardvideo.com

PANASONIC I-PRO

Panasonic i-Pro Sensing Solutions' latest body-worn camera features a user-swappable battery with up to 12 hours of life, so officers facing long missions such as protest events and barricade situations can carry spare batteries and increase their recording time. An officer can now grab and carry a swappable spare battery to go well beyond 12 hours when the mission requires. The new Panasonic BWC also features an LCD status screen that provides detailed information on the unit's operating modes and status. The LCD screen shows battery life, recording capacity, operation mode, status, and more. Users can switch the video resolution between 1080p and 720p as needed. The BWC 4000 meets MIL-STD 810G. security.us.panasonic.com/public-safety



UTILITY

Utility's BodyWorn camera is one element in the company's "Intelligent Ecosystem." BodyWorn incorporates real-time communications, as the body camera is built into an Android smartphone. That architecture gives the BodyWorn all the capabilities of its phone host. The system offers GPS, BOLO alerts, CAD activation, Geofence activation, officer down alert and activation, and real-time video streaming. The smartphone architecture of the system also allows for immediate technology updates of firmware and software. www.bodyworn.com

AXON

Axon's Body 3 features enhanced low-light capabilities and a video system that adjusts rapidly to changing light conditions while maintaining image clarity. Other features include cellular connectivity for live streaming, reduced motion blur, four microphones for capturing clearer audio, 1080p video resolution, pre-event buffer that can capture up to two minutes before the system was activated, and ruggedized construction. www.axon.com

10-8 VIDEO

The BC-2 Body Camera from 10-8 Video is both a video camera and a radio mic. 10-8 says its goal in developing the product was to give officers the ability to have body cameras without having to add additional equipment to their uniforms. The BC-2 has a push-to-talk button on one side of the unit and the video recorder activation button on the other. It works with Kenwood and Motorola radios and the company is hoping to add more brands soon. Features include: automatic infrared for capturing evidence in total darkness, 1080p video resolution, 16-megapixel still image capture, audio-only capture ability, cordless standalone recorder mode, 32GB of memory, and an LCD screen for on-scene review. www.10-8video.com