Cost of Ownership of Body-Worn Video

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When U.S. President Barack Obama announced on December 1, 2014, that the federal government would commit $75 million to local law enforcement to purchase body-worn video cameras (BWCs), many community activists and politicians supported the movement as an investment that would expose officers to more scrutiny in the wake of a series of highly publicized police-involved death cases. The commitment also ignited fierce competition among BWC manufacturers vying for their share of the federal dollars. The promise of free money from Washington increased pressure on local agencies to put a BWC on every street cop to demonstrate that police can police the police. Now, more than a year into the post-Ferguson BWC experiment, many agencies are discovering the true cost of owning and maintaining a BWC infrastructure.

Cost of Video Data Storage

"Most people think you simply turn it on to record citizen contact and then turn it off when you’re done, but that’s not a realistic view of the cost of owning a BWC," says Chief Scott Haug of the Post Falls Police Department in Idaho. Chief Haug, whose agency is now eight years into BWC deployment, was one of the early adopters of putting cameras on cops. He says the impact of operating an effective BWC infrastructure directly impacts departmental resources, from IT and records to patrol. One of the most critical considerations is whether to store video data on-site or remotely in the cloud. Chief Haug explained, "We chose to store our BWC video on-site because we were concerned that, if we stored our evidence in the cloud and later decided to terminate that contract, the cost of getting that data back was a real unknown."

For many departments, the investment in BWC systems can be manageable. Lieutenant Chris Olson of the Oro Valley Police Department in Arizona reports that his agency stores about 100 GB per officer, per year, in the cloud, but he admits that budgeting storage costs can be a bit of a gamble at the beginning. His agency records only those citizen contacts that meet a specific criteria or are potentially violent. "You won’t know how much storage you will need until you create the video based on your agency’s policies. You just can’t know. At the beginning, determining storage needs is just a best guess." One of the unanticipated expenses Olson discovered was related to the management of events. Officers are required to tag data by incident type in order to properly manage, track, and audit the movement of evidence, while at the same time allowing non-relevant data to be auto-deleted after a coded retention time (normally after nine months). Olson continued, "The process of tagging kept officers in the office for an hour or more each day. We eventually invested in portable tablets for each officer, so they could tag events while on the road."

Cost of Disclosure Requests

For many agencies, the cost of ownership goes beyond storage and maintenance. The Seattle, Washington, Police Department (SPD) found itself inundated by Freedom of Information Act (FOIA) requests from the public for video from its in-car video fleet. A literally interpreted public disclosure ruling from the state’s supreme court directed the department to provide requesters with copies of any and all demanded video that was not subject to protection. The court directed that no request was overbroad. As a result, the SPD was swamped with requests for terabytes of data. Recent relief came when the court allowed the department to charge a fee for producing video copies. Nevertheless, the demand for public disclosure remains high, and the relief may be only temporary, as the courts will reevaluate that decision in two years. By then, SPD expects to have a fully integrated BWC program wherein all uniformed officers will be wearing cameras. After the successful 2015 BWC pilot project, an RFP (request for proposals) is about to hit the streets, says Brian Maxey, SPD’s chief operating officer. Maxey anticipates a rollout of BWCs starting in Q4 of this year. Maxey insists, "Storage costs are the least of our concerns at this time. Hiring people to manage the video for disclosure requests and redactions may prove to be prohibitively costly. I can foresee a world in which we’d have to shut down a BWC [body-worn video] program if FOIA rules become over-burdensome."

Cost of Dealing with Video Evidence

At the Federal Bureau of Investigation (FBI) National Academy in Quantico, Virginia, one of the academic forensic classes examines the thesis that the most prolific source of evidence available to law enforcement comes from video images often produced by the police themselves. The class discusses that, now more than ever, police are creating their own video evidence. Agencies are recording in-car videos, interrogation videos, jail videos, public surveillance videos, and now body-worn videos so ubiquitously that, in many communities, the majority of contacts between a cop and a citizen are captured to video.

"The class is a real eye-opener for the students who are mostly senior police managers," says Charles McGinnis, program manager for forensic science training at the FBI National Academy. "The officers are exposed to the realities and responsibilities of owning visual evidence collection technology. Most of the students report back to me that, until the class, they had no idea how valuable video evidence can be. One of the big takeaways is that, without a qualified video analyst on staff to accurately interpret and process the evidence, video is often either understated by investigators or, in some cases, it is missed in the courts."

"Our officers are given guns, radios, cameras, and other equipment, but so few agencies have developed the ability to deal effectively with video evidence, which is the largest source of evidence we get every day," said Lt. John Teachout, who works with Chris Olson in Oro Valley. After graduation from the FBI National Academy in March 2016, he made it one of his first priorities to start to develop in-house expertise in order to more effectively deal with the massive amount of video evidence his agency is producing and collecting daily. Teachout remarked, "I was shocked at how unprepared we are in law enforcement to deal with video evidence. I want my investigators to understand the limitations and opportunities of video. Since they're investigating so many events captured to video these days, they need the technology and the analysis training to deal with it correctly."

Cost of Admitting Video Evidence

Detective Sergeant Jim Young, a Certified Forensic Video Analyst for the Michigan State Police, notes the exponential increase in requests for disclosure of BWC evidence by both the prosecution and defense.

Agencies that fail to develop in-house video analysis expertise will jeopardize their BWC investment since, in the event of a challenge in court, they will have to pay huge sums of money to private companies to adequately preserve their evidence for trial. BWCs like every other...
Anticipating the increased responsibility of owning and operating in-car and BWC technology, the Michigan State Police dedicated four full-time investigators to become certified in forensic video examinations. Each of their technicians and analysts are certified by the Law Enforcement & Emergency Services Video Association.

The Michigan State Police, like thousands of other agencies, says Young, has also invested wisely in technical equipment capable of meeting the demands of processing the many hundreds of types of proprietary digital video evidence created or seized by police, including BWC footage. Doug Perkins, Vice President of Sales for Ocean Systems, a Maryland-based company providing video analysis and reduction technology to the Michigan State Police and other agencies, says that the investment in BWC systems is driving small to mid-sized departments to seek low-cost video examination technology to support their BWC infrastructure.

Perkins says that most agencies will first purchase their operational video technology, such as BWCs and in-car video, and later realize that they also need to obtain video processing and analysis technology to make sense of it all during an investigation and when preparing their evidence to be presented in court.

Often, the decision to purchase the tools necessary to ensure that an agency’s investment in video technology survives a court challenge is the last financial consideration to the cost of ownership, but it is often the least costly and the most critical.

Conclusion
As BWCs and other police-generated video evidence continues to mature, the universal experience among agencies is that the technical costs of ownership are generally higher at the beginning of a program and will ease over time. However, the costs associated with staffing in order to fully manage the assets and their potential will continue to grow.

Notes:
2Scott Haug (chief, Post Falls Police Department, Idaho), telephone interview, April 6, 2016.
3Chris Olson (lieutenant, Oro Valley Police Department, Arizona), telephone interview, April 5, 2016.
5Brian Maxey (chief operating officer, Seattle Police Department, Washington), telephone interview, April 6, 2016.
6Charles McGinnis (program manager for forensic science training, FBI National Academy), telephone interview, April 3, 2016.
7John Teachout (lieutenant, Oro Valley Police Department, Arizona), telephone interview, April 5, 2016.
8Jim Young (detective sergeant, Certified Forensic Video Analyst, Michigan State Police), telephone interview, April 2, 2016.
10Young, telephone interview, April 2, 2016.
12Doug Perkins (vice president of sales, Ocean Systems), telephone interview, April 3, 2016.