

IT Science Case Study: Scalable Storage for Law Enforcement Surveillance

Body-worn cameras, dash cam and static surveillance are causing video sprawl, exploding storage needs and its costs. Law enforcement agencies are being squeezed for more efficient storage.

[Chris Preimesberger](#) May 01, 2018



Here is the latest article in a new *eWEEK* feature series called [IT Science](#), in which we look at what actually happens at the intersection of new-gen IT and legacy systems.

Unless it's brand new and right off various assembly lines, servers, storage and networking inside every IT system can be considered "legacy." This is because the iteration of both hardware and software products is speeding

up all the time. It's not unusual for an app-maker, for example, to update and/or patch for security purposes an application a few times a month, or even a week. Some apps are updated daily! Hardware moves a little slower, but manufacturing cycles are also speeding up.

These articles describe new-gen industry solutions. The idea is to look at real-world examples of how new-gen IT products and services are making a difference in production each day. Most of them are success stories, but there will also be others about projects that blew up. We'll have IT integrators, system consultants, analysts and other experts helping us with these as needed.

Today's Topic: Finding Scalable Storage for Law Enforcement Surveillance

Name the problem to be solved: Body-worn cameras, dash cam and static surveillance are causing video sprawl, exploding storage needs and its costs. Law-enforcement agencies are running into significant unforeseen storage-related budget, management and compliance challenges as they begin to deploy BWCs.

While the actual cost of BWCs remains at around \$500 per unit or less, improvements in the video resolution create much larger files and exacerbates the spiraling cost of video-surveillance storage. This creates budget headaches for law enforcement management and municipalities, who have to scramble to find funds for this often-unplanned budget.

This is due mostly to increasing video quality and the volume and amount of video surveillance footage. There also are differing video surveillance retention-time requirements that vary from state to state and on regional and local levels.

Many cities and states set out [minimum retention times](#) for bodycam and surveillance video for law enforcement purposes, which in turn drives up the storage cost. Retention times vary from undefined to up to two years in cities such as Oakland, Calif., and New Orleans, La.

A [recent nationwide survey](#) by the Major Cities Chiefs Association and Major County Sheriffs' Association shows that 95 percent of the large police departments surveyed either are using body cameras now or are committed to using them.

Describe the strategy that went into finding the solution: Law enforcement agencies often find themselves with multiple independent storage silos, all managed and accessed separately. This is not a long-term scalable model, especially given the exponential rate at which bodycam and static surveillance video is growing.

Conventional storage deployments can take weeks or even longer of planning and calculations to determine storage requirements. To make matters worse, they often involve a forklift upgrade.

These factors create a perfect storm of video sprawl and runaway storage costs. This is why the Camden County prosecutors office in New Jersey selected Sunnyvale, Calif.-based [StorageCraft](#), which introduced StorageCraft for Law Enforcement to provide highly scalable, easy-to-manage storage and backup--plus data replication in the case of failure or disaster.

The solution includes OneBlox object-based scale-out storage, which is purchased based on existing storage needs to avoid over- or under-purchasing. This eliminates the downtime of forklift upgrades.

List the key components in the solution:

- An entry-level configuration of StorageCraft for Law Enforcement can be installed and available in less than 15 minutes and costs less than \$17,000, supporting about 30TB of BWC storage. Alternatively, for less than \$38,000, agencies can have a DR solution comprising two StorageCraft OneBlox 4312 scale-out distributed object store appliances to deliver both on-premises storage and off-site back up.
- All video storage is protected with OneBlox continuous data protection and distributed object store. In the event of a ransomware attack, for example, videos are protected with immutable snapshots so critical BWC files remain safeguarded and recoverable.
- As more storage is required, users simply add drives and the capacity dynamically expands the same global file system without interrupting applications or users. StorageCraft's multi-site replication feature provides recovery, in short order.

Describe the result, new efficiencies gained, and what was learned from the project:

- **Easy to manage and replicate:** Setting up remote replication can be done in three clicks. In under 15 minutes, a law enforcement agency can have a disaster-recovery infrastructure installed and replicating. The software is architected to make storage management and remote replication easy and efficient without the need for high-level IT expertise.
- **Cost-effective:** Typical storage products for this use case can cost hundreds of thousands of dollars over time. StorageCraft for Law Enforcement costs a fraction of that. Organizations experience significant savings in storage costs and dramatically increase their ability to store, manage and retain critical surveillance video.

- **Highly scalable:** Law-enforcement agencies can start with 10TB of storage and scale up to petabytes in the same cluster. They can add any number of drives, anytime and in any configuration, to meet their storage requirements. And, when they expand their available storage capacity, there is zero configuration required, and no application downtime is necessary.

If you have a suggestion for an eWEEK IT Science article, email cpreimesberger@eweek.com.