

SOLUTION BRIEF

Optimize Video Surveillance Data with Pure Storage

Enhance prevention, protection, investigation, and response to incidents and threats with data services and management solutions from Pure Storage.

Law enforcement, first responders, emergency management agencies, transportation security staff, facilities management, and many other organizations work to ensure the public safety of citizens at the state and local government levels. Universities, colleges, and schools do the same for students and staff. This includes protecting individuals, campuses, communities, facilities, and organizations from crimes, natural and human-caused disasters, and other potential threats to the well-being and prosperity of citizens.

Video surveillance is a highly effective tool in aiding public safety and law enforcement organizations in areas such as emergency response, crime prevention, investigation, providing invaluable evidentiary data, and solving cases.

Video Surveillance Data Volume Is Exploding

Technology advances have led to the collection of vast amounts of video surveillance data used by law enforcement and public safety personnel to assist them in their efforts. To improve public safety, government agencies and education institutions need the ability to access valuable video footage within and across agencies or institutions. They need to break down silos and rapidly and easily retrieve essential video surveillance data, enabling them to prevent or mitigate potential harm or risk and to solve crimes. This data must be consistently reliable and accessible—24 hours a day, seven days a week, 365 days a year.

Video surveillance plays a pivotal role in ensuring public safety and security. It can provide accurate information to help speed incident assessment and situational awareness—which can aid in determining the appropriate response—and ensure the protection of first responders. To get the most from video footage, organizations need modern data management solutions that are simple, seamless, and fast. In a recent Justice and Public Safety vertical report from Government Technology, 51% of respondents indicated that outdated technologies are negatively impacting their success, and 44.1% identified their most pressing challenge as technology modernization. Pure Storage® delivers modern data services and management solutions that enable public safety and law enforcement organizations to get the most from their data while reducing the complexity and expense of managing the infrastructure behind it.



Smarter Infrastructure for Video Surveillance and AI

Enhance video analysis, reduce errors, and save precious time.



Simplify Your Storage Ownership, Forever

[Evergreen//Forever™](#) delivers real IT agility, enabling you to buy your storage once and scale seamlessly and nondisruptively without penalty, virtually forever.



Tackle Unstructured Data Growth

Designed for unstructured data, FlashBlade//E™ delivers simple management, massive scalability, unparalleled density, and sustainability.

Data services and management solutions from [Pure Storage](#) are:

- Simple, requiring 60 minutes to install¹
- Seamless, with one data layer for all
- Fast, with 85% faster queries²
- Future-ready, with 30% lower total cost of ownership³
- Based on the proven, nondisruptive [Evergreen](#)® architecture

AI and Analytics for Video Surveillance

While video footage is a highly effective public safety and law enforcement tool, it's data-intensive. As a result, video technology has [evolved](#) from "simple monitoring, recording, and detection to powerful analytics and to a looming artificial intelligence (AI) architecture." AI can be applied to enhance video analysis, reducing errors and saving precious time for law enforcement. It assists investigators by scouring massive amounts of video data and deriving valuable insights that can lead to crime solving. By providing actionable and rapid insight, data analytics and AI provide vital, real-time information for crime, threats, and other emergency situations. A recent [study](#) found that technologies such as AI could help cities reduce crime by 30% to 40% and reduce response times for emergency services by 20% to 35%.

In addition to video surveillance footage, body-worn cameras (BWC) can provide a valuable source of evidentiary data. This technology is widely used by state and local law enforcement agencies for police oversight, accountability, and transparency. These files tend to be large, making storage a challenge as they grow in number, resulting in millions of hours of BWC footage stored on agency computers and cloud-based servers across the country.

The effective use of AI with video technology requires the total picture—a large part of which is analytics, whether that takes place on real-time video feeds or is used to gain insights from petabytes of archived video. While video footage can provide valuable situational awareness and evidentiary data, it also creates new issues around data storage, retrieval, and analytics. Footage from video is only valuable if law enforcement and public safety officials can monitor the data and then quickly access, search, and interpret it. With thousands of cameras in any given environment, monitoring video data poses a significant challenge. To make the best use of video technology, agencies and educational institutions must be able to efficiently store, rapidly access, and analyze video data. [Analytics](#) and [AI](#) solutions from Pure Storage deliver on these needs, driving faster time to insight and action.

Unleash the Value of Your Video Data Through Modern Analytics and AI

Data doesn't analyze itself, and legacy systems often can't support the massive AI data pipelines required for modern analytics. Pure Storage brings a massively parallel platform, capable of delivering ultra-fast, all-flash performance to billions of objects and files. Data analytics and AI solutions from Pure Storage enable public safety organizations to draw more insight faster, with an easy-to-deploy, high-performance data experience for the delivery of real-time modern analytics and AI.

Pure Storage solutions can help public safety officials derive valuable insight from massive amounts of data from video surveillance and BWC footage by simplifying operations, powering analytics, and transforming legacy infrastructure for agile delivery of unstructured data.



Tackle Unstructured Data Growth

Video is the [most prolific source](#) of evidence available to the police investigator today. The US video surveillance market size is projected to [reach \\$23.60 billion](#) by 2027 and \$39.5 billion globally by 2031, according to a recent [report](#). Pure Storage [FlashBlade//E™](#) helps manage this massive growth in unstructured data from video footage as well as from other sources. Pure Storage eliminates the complexities of disk for both file and object repository workloads. FlashBlade//E offers a better way to manage data growth efficiently, simply, and sustainably—delivering a best-in-class user experience and operating at the lowest long-term cost. It provides the environmental, ease-of-use, and reliability benefits of all-flash storage for unstructured data workloads, but at a cost competitive to disk-based storage solutions. It builds on the innovation of [FlashBlade//S™](#)—efficiency, density, and unified file and object—but with low acquisition costs and excellent TCO.

While FlashBlade//S is tuned for critical, high-performance workloads that consistently require cutting-edge high performance, FlashBlade//E addresses the capacity of all unstructured repository workloads while helping you address cost and power utilization. It's revolutionary today, but it's also extensible for tomorrow.

Bring the All-Flash Green Data Center to Life

Environmental aspects and energy use are the number one concern for organizations when it comes to their sustainability initiatives. The FlashBlade//E advantage offers⁴:

- Less than ~1W per TB
- Up to 1/5 the power
- Up to 85% less e-waste
- Up to 60% lower operational cost
- Up to 20x the reliability
- Up to 1/5 the space

Embracing the Cloud for Video Surveillance Data Services and Management

Many public safety and law enforcement organizations still store much of their data in legacy systems and on-premises servers. However, over the last decade, that strategy has shifted as they have embraced cloud technology. For law enforcement, the cloud can be “one of the most [powerful, efficient, and effective weapons](#) in the law enforcement arsenal.” Moving video data to the cloud is a safeguard in the event of a natural disaster or other incident and can also provide a reliable means for organizations to share data. This enhanced cross-agency collaboration can result in protecting citizens, preventing crime, and closing more cases. It enables agencies to draw correlations from crime patterns and work in concert to examine evidence from various sources to form a comprehensive picture of a criminal's actions, plans, and other pertinent information.

Accelerate Innovation and Agility with a Modern, Unified Cloud

Investment in cloud-based technologies is growing rapidly, with a strong shift toward hybrid cloud. There are, however, challenges to enabling application and data mobility across hybrid cloud. One of the biggest challenges is inconsistency in on-premises and public cloud infrastructure. Pure Storage delivers the cloud experience everywhere by enabling cloud-like agility on premises and improved ROI. Pure Storage enables public safety and law enforcement organizations to modernize with cloud-native tools and seamless [hybrid](#) and [multicloud](#) mobility with a unified data platform.



Set Your Organization Free from Private and Public Cloud Data Silos

Pure Storage helps accelerate innovation for cloud-native and virtualized applications with a modern data platform that unifies hybrid and multicloud ecosystems. Pure Storage cloud data services deliver seamless mobility with consistent storage services, resilience, and APIs across your hybrid-cloud environment. Simplify your hybrid-cloud journey with a single, consistent platform for any application—anywhere. Everything is managed, orchestrated, and protected consistently across clouds. With [Pure Storage Cloud Dedicated](#), [Portworx® by Pure Storage](#), and [Purity CloudSnap™](#), you can easily move apps between clouds, use public cloud for backup and disaster recovery, and run dev/test more efficiently.

Securing and Protecting Your Data

With Pure Storage, public safety and law enforcement organizations can be confident that their video data is stored securely and with high availability without sacrificing efficiency. All-flash arrays from Pure Storage have achieved certification by the National Information Assurance Partnership (NIAP)—the US component of the 25-nation Common Criteria consortium—providing the highest security standards. And [Evergreen//One™](#), an enterprise-grade storage-as-a-service subscription, offers a unique add-on service to mitigate risk with a [ransomware recovery SLA](#) that guarantees:

- Next-business-day shipping of clean recovery array(s)⁵
- 48 hours to finalize a recovery plan
- 8 TiB/hour data transfer rate
- Bundled services, including technical services engineering to finalize the recovery plan and an onsite professional services engineer from time of array arrival through replacement of infected array(s)

A crucial part of securing data is the built-in cybersecurity measures found within storage infrastructure. Pure Storage all-flash arrays come with several built-in features designed to keep data secure, including:

- End-to-end data protection (in-flight and at rest)
- Built-in ransomware protection with [SafeMode™](#) Snapshots
- Petabyte-scale recovery up to 270TB per hour with [Rapid Restore](#).

Pure Storage [Purity](#) incorporates software and hardware measures to meet the highest security standards, ensuring the safety of data. Meeting the ultra-high FIPS 140-2 security standard, Purity provides validated always-on encryption.

Financial Flexibility for Video Surveillance Data Management

Pure Storage uncomplicates video surveillance data storage with consumption-based storage as a service (STaaS).

Pure Storage [Evergreen//One](#) eliminates the complexity and cost associated with storage administration with a sustainable STaaS subscription. It delivers:

- **Financial flexibility:** With a STaaS cost model, you get cloud economics that eliminates waste by paying only for what you use in a unified subscription across on-premises, in a colocation facility, or in the public cloud.
- **Operational agility:** Bring cloud operations to on-premises storage with modern, sustainable technology backed by guaranteed SLAs for performance, capacity, availability, and energy efficiency, along with an AIOPs-driven monitoring tool.
- **Continuous innovation:** Leave the risk of ownership for a service that offers a cloud experience with a unique, nondisruptive architecture and the agility to scale up or down while maintaining a consistent quality of service.



With the [industry-first energy efficiency guarantee](#), Evergreen//One enables customers to subscribe to five critical enterprise-grade SLAs, including:

- No scheduled downtime for upgrades or maintenance
- 99.9999% uptime guarantee
- A 25% storage capacity buffer relative to usage
- Unrivalled storage performance aligned with service tier
- Efficiency measured by watts per tebibyte

Since Evergreen//One includes [FlashArray™](#) and [FlashBlade®](#) platforms, OPEX budgets can be used to consume block, file, and object storage services deployed anywhere, including in the cloud.

Simple, Efficient, and Reliable Video Data Management

Public safety and law enforcement organizations rely on Pure Storage video surveillance data services and management solutions to draw smarter insights and make faster decisions. Pure Storage solutions deliver intuitive simplicity and agility, enabling organizations to deploy once and upgrade nondisruptively. They deliver ultra-efficient technology with up to [85%](#) less energy consumption than competitive all-flash storage. And the longevity of Evergreen means less e-waste too, so agencies can meet their [sustainability](#) goals while saving on operating costs.

With proven dependability from Pure Storage, customers know they can rely on their storage for the long haul. FlashArray delivers 99.9999% uptime, including upgrades. Products Pure Storage sold 10 years ago are not only still in service today⁶ but have been continually modernized to the latest models, without disruption or additional customer expense, with our Evergreen subscription. Pure Storage solutions enable customers to save up to 65%⁷ with no storage rebuys, no migrations, and lower management and space costs. The entire Pure Storage portfolio is offered as a product purchase or fully as a service, on premises, hosted, and in the public cloud.

Additional Resources

- Find out more about how to get increased value from your data with [real-time analytics and AI](#).
- Learn the [Top Five Reasons to Switch to an All-flash Unstructured Data Repository](#).
- Read about how Pure Storage sets organizations [free from private and public cloud data silos](#).
- Learn how to [tackle unstructured data growth](#) forever.
- Explore how Pure Storage delivers effective, efficient, and mission-ready data management solutions for [data-driven governments](#).

1 | With professional services 2 | Actual results may vary based on the customer environment 3 | Based on 6-year TCO analysis 4 | Source: Pure Storage ESG report (not assuming any advantage in data reduction) 5 | If shipping to North America, Europe, or the UK. For Asia-Pacific, it will be 48 hours. 6 | Based on the company's internal data. 7 | Over six years based on acquisition costs and the savings from space, power and cooling, headcount, and refresh costs.