Performant Enterprise Storage Solution for Video Surveillance

The Challenge
Businesses that are implementing next-generation surveillance solutions must confront several technical challenges resulting from the raw power of new video equipment and components:

• Today’s high-definition cameras generate 10x the data of previous generations
• Surveillance has emerged as the #1 data generator in today’s enterprise
• Network Video Recorders are unable to handle the high duty cycle and extreme data rates, causing operational failures and lost data
• NVRs drive excessive operational workload and risk, limiting the capabilities of the overall system

The Solution
Even though the challenges can seem daunting, these key capabilities can turn obstacles into opportunity:

• Centralize on reliable, scalable, performance-led storage
• Achieve high throughput and low latency for applications and data-intensive workflows with enterprise storage solutions capable of handling 100s to 1,000s of camera feeds
• Store and recall video from on-premises storage while also archiving video to S3 cloud storage targets for an economical hybrid solution
• Decrease the learning curve and administrative overhead with storage that’s easy to use and operate

Future-proof storage
Video surveillance is undergoing a revolution, providing expanded features and capabilities such as higher resolution video and increased camera feeds at the expense of additional IT resources. Advances in artificial intelligence (AI) and machine learning (ML) are also helping companies leverage technology as a force multiplier in improving their security posture. However, AI and ML also must process a tremendous amount of data rapidly to provide accurate insights.

As surveillance moves beyond security-only applications and into intelligent video, businesses need a platform that can deliver large data streams to analytics engines instantaneously, regardless of the existing camera input workloads. Because of this, the next generation of surveillance solutions require robust and adaptable enterprise storage.

High performance can also be simple, affordable, and scalable
Performance also means being able to handle pixel storms from a high number of concurrent high-definition feeds without skipping a beat. It means serving up data to analytics engines or security personnel instantly on demand.

An industry undergoing digital transformation
Video Surveillance Storage

Without the right storage, you risk compromising your company’s security posture. A performant OpenDrives storage solution for video surveillance is your insurance policy against risk.

**Storage Pools** simplify management, allow multi-tenancy, and enable sharing with other applications. **Optimized for fast video ingest**, adaptive internal block size up to 1 MB drives performance and storage efficiency. **Automated storage tiering** simplifies storage management. **Comprehensive reporting and alerting** made simple. **Single namespace** as an option to facilitate growth without effort or complexity. **Low latency** helps AI-based analytics to run at full speed, with no waiting.

Reliability means never having to say you’re sorry. Murphy’s Law applied to surveillance predicts that the most critical content or high-value frames are the ones that are most likely to be lost or corrupted. Your business can suffer from increased risk and even legal liabilities in these situations. With OpenDrives’ hyper-reliable and self-healing storage solution for video surveillance, you never have to worry about retrieving critical video. It will be there when your users and applications need it.

**Robust & Performant Storage**
In the early 2000s the first movie production that was shot in 6K resolution created similar challenges for the entertainment industry. The “high performance” storage that was used for storing and managing video content was unable to serve the raw footage to the editing teams fast enough to meet schedules. After enduring the frustration of waiting for video clips and segments, it became obvious that a different type of storage was necessary—OpenDrives was founded on solving this problem.

OpenDrives’ enterprise storage solution for video surveillance provides high-speed handling of surveillance video and metadata, interfacing with video management servers and analytics applications that require rapid access to production or archived video assets.

OpenDrives is a different class of enterprise storage. We design our solutions from the bottom-up to deliver high-throughput, low-latency content. Video surveillance workloads involve hundreds of 4K, 8K, or higher resolution video feeds into a group of servers. The data that hits the storage system can be very “bursty” and at very high data rates, depending on the level of activity at the site. Without the right storage infrastructure, frame rates, retention, and camera counts are often limited, compromising the quality of an organization’s security posture.