

Dell EMC SCv3000 Series Storage for Video Surveillance

Surveillance solutions based on high-density storage platforms that provide the bandwidth, economics, and scalability to meet your retention needs.

Performance, scale, and value

The rapid evolution of surveillance technologies is creating new challenges for security staff and systems. Demand for high-definition and multi-megapixel cameras, extended retention requirements, event capture, and data analytics create a capacity, performance, and budget conundrum for security professionals.

Video surveillance solutions using Dell EMC™ storage, server, and networking products provide physical security experts with the flexibility, performance, and scale to support high camera counts, megapixel resolutions, high frame rates, and long retention times demanded by the industry. Dell EMC storage architecture is designed to provide the high availability required to meet the demands of today's IP-based video surveillance deployments.



Dell EMC SCv3000 Series storage surveillance solutions offer:

- Dependable, high-performance storage with bandwidth for HD and multi-megapixel environments
- Solutions for Fibre Channel, iSCSI, and SAS
- High efficiency, world-class density and scalability to handle extended retention time requirements
- Scalable building blocks for high video stream concurrency
- Flexible, modular architecture for scaling
- Full integration with Dell EMC servers, workstations, and networking

Video surveillance solutions at scale require a storage system that can provide deterministic performance, reliability, and ease of use, all at a value point that makes sense. Dell EMC storage can be deployed as either block or file solutions, enabling direct integration with video management software to match the size and scale of the solution requirement.

Surveillance does not come in one-size-fits-all solutions. The Dell EMC storage portfolio offers scale-up and scale-out models with tiering options to meet project requirements. In combination with Dell EMC servers, workstations, and networking, complete solutions can be deployed that are optimized for interoperability and are all supported through a single vendor.

Dell EMC, in partnership with your security consultant, can recommend appropriate elements of the Dell EMC storage portfolio including Fibre Channel, iSCSI, and SAS capabilities along with a broad offering of form factors and media types that can be tuned to specific workload requirements.

A single Dell EMC SCv3000 array can provide retention capacity for over one million HD camera hours.*

The Dell EMC storage portfolio meets performance expectations with compact footprints and value-oriented price points. This combines flexible architecture with resilient Dell EMC hardware to provide efficiency, quality, and durability. Additionally, Dell EMC PowerEdge™ rack servers, Dell EMC Networking S-Series iSCSI switches, and Dell EMC Networking N-Series Power over Ethernet (PoE) switches provide an infrastructure solution that can scale capacity and camera processing performance independently.

Whether you are upgrading an existing system or deploying a new IP camera system with extended retention times, a deployment solution should be designed and validated to provide high availability and fault tolerance at the application, network, and storage levels.

Sizing your solution

IP-camera-based surveillance solutions often deploy multi-megapixel cameras at frame rates up to 30 FPS for HDTV at 720p and 1080p resolutions or higher. The storage system sizing is driven by the aggregate data rate of the configured cameras and the total retention time. However, lower frame-rate requirements and features such as server-side motion detection might substantially decrease the effective data rate delivered to the storage system. The Dell EMC surveillance team will work to size and configure the storage based on your video management system (VMS) choices and physical architecture.

High-density designs

The Dell SCv3000 Series solution is ideally suited for the increased storage demands of HD and megapixel camera deployments because of its storage density and performance. Moreover, some I/O performance capability may need to be designed in or planned as future expansion for emerging analytics applications. Dell EMC has been delivering video surveillance storage solutions at leading companies and institutions in law enforcement, public transportation, retail, hotels, casinos, universities, and more. Engage with your Dell EMC sales team to find the right balance of performance, scalability, and value for your surveillance deployment.

*Based on internal Dell EMC testing with HD 720p resolution, 20 FPS, and 16K per frame.



Example 1.3 PB solution with S4048-ON iSCSI and N3048 PoE switches, R640 servers for VMS management/recorder/archiver, and an SCv3000 array with SCv360 enclosures.



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