Supporting camera-based edge storage

- enabling efficient and scalable video storage solutions

With edge storage support and Scalable Video Quality Recording™ technology, Milestone unlocks the full potential of edge storage, by enabling an efficient hybrid storage solution that spans camera-based storage and central storage. This makes it possible to design a flexible, efficient and scalable storage solution that optimizes the use of network and storage resources, improving performance and reducing the overall system cost.

Edge storage refers to the capability to store video recordings inside, or close to, the actual camera capturing the video. The use of edge storage unlocks a number of possibilities to optimize recording server performance and the use of network and storage infrastructure in a video surveillance installation. Edge storage technology can also be used as an ingredient when designing redundant systems.

Edge storage as a redundancy option

The principal advantage of edge storage, when used in a redundancy solution, is its close proximity to the data source. This means that edge storage is an excellent redundancy complement to central server-based storage, because it is resilient against failures in physical cabling, networking equipment or in the central recording and storage environment.

As a redundancy option, edge storage is configured to continuously record video. In the event of a network problem, video continues to be recorded to the camera edge storage. Once the connection is reestablished, the central recording server automatically retrieves missing video.

Edge storage also serves as a complement in a failover recording server configuration, where edge storage can be used to bridge the short interruption in recording during the actual failover. In this case, the missing video can be retrieved from the edge storage, which gives 100 percent continuous and uninterrupted recording.

Key benefits

- Provide additional recording redundancy during system failures or maintenance downtime

- Leave recordings on the camera until they are needed

- Postpone retrieval of recordings to off-peak hours to conserve network bandwidth for other use

- Increase system reliability over unstable connections like wireless networks

- Supply a superior solution for handling video data recorded by mobile units that go in and out of network coverage

Key features

- Automatic retrieval of edge recordings and audio when camera connection is restored

- Manual, event-driven or scheduled retrieval of video from edge storage

- Scalable Video Quality Recording enables retrieval of high-quality video recordings as a complement to existing centrally stored video
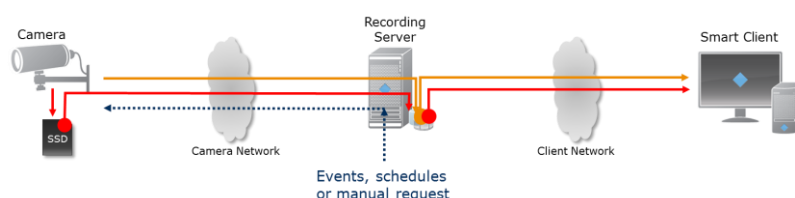
Optimizing network traffic

Using edge storage as the initial storage, and only storing recordings in the central recording servers when needed, significantly optimizes network traffic between the cameras and the servers. Using manual, event-driven or time-scheduled revival makes it possible to retrieve video from the edge storage when and if needed.

Optimized network traffic is even more evident when cameras are connected over slow or intermittent network connections, which for example is the case when using vehicle-mounted or body-worn cameras. In these situations video retrieval can be postponed until the camera comes within high-speed network coverage.

Scalable Video Quality Recording™ - SVQR

SVQR is a technology that fully explores the synergies between edge and central server-based storage, resulting in more efficient and cheaper video storage. SVQR makes it possible to record high-quality video to edge storage, while a low-quality reference video stream can be recorded centrally in the recording servers. In the event of an incident or investigation, the initial assessment can be made using the centrally stored low-quality reference video, while the high-quality video can be retrieved from the edge when and as needed.

SVQR enables efficient video storage by seamlessly combining edge and centrally stored video

SVQR significantly reduces the network traffic and central storage costs because customers can store high-quality video using edge storage and decide when to retrieve it. It's also a cost efficient way of capturing high-quality, pre-event recordings.

Supported Cameras

See the supported camera section on Milestone website for details on which edge storage cameras are supported.

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Feature availability

The capabilities described in this brief are available in XProtect Corporate, XProtect Expert and XProtect Professional+. For details please refer to the specification sheets of the individual products.

Milestone Systems is a global industry leader in open platform IP video management software, founded in 1998 and now operating as a standalone company in the Canon Group. Milestone technology is easy to manage, reliable and proven in thousands of customer installations, providing flexible choices in network hardware and integrations with other systems. Sold through partners in more than 100 countries, Milestone solutions help organizations to manage risks, protect people and assets, optimize processes and reduce costs.

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