

Solution Brief

EnGenius and QSAN Scale Up Video Surveillance Systems to Petabyte Level Efficiently and Economically

The Challenges

- Deploying manageable large-scale network that provides continuous service
- Achieving high-speed connectivity and demanding capacity on storage network for video streaming
- Scaling up capacity based on the demand of system expansion

How to deploy hundreds to thousands of IP cameras in a surveillance system or even a smart city project? The system efficiency would depend on the continuousness of video streaming. As video sources generating by IP cameras would be hosted by a storage platform, the device must stay available throughout the service, lest video frames should be disrupted owing to technical failure.

Surveillance systems are often deployed across a large area. Therefore, the installation of IP cameras should avoid extra power wiring, so that the system could adapt to terrain or physical barriers. In addition, the large number of end devices demands more on management. While the system should remain scalable for adjustment of cameras, the service of each camera must stay independent to prevent system corruption.

A Solution with Better Performance and Higher Availability

QSAN and EnGenuis jointly deliver a solution of large-scale surveillance with outstanding performance and availability. EnGenius 10GbE switches serve as the backbone of the system, providing stable connectivity between the data center and IP cameras. Moreover, Power over Ethernet (PoE) switches and extended mode reduce extra wiring configuration, which means cameras could be installed almost anywhere.

With QSAN storage serving as the data center of the system, cloud-enabled management further simplifies the deployment of end devices. The storage platform aggregates all the connections and therefore improves accessibility of IP cameras. The EnGenius switches doing a PoE power cycle prevents camera failure, with auto-reboot, from affecting video streaming, since the continuousness of service is ensured by the reliable data center.

EnGenius®

QSAN

The Solutions

- EnGenius advanced PoE and 10GbE switches provide high-speed connectivity with end-to-end coverage
- Cloud-enabled management improves the accessibility of the surveillance system
- QSAN storage delivers futureproof performance and flexible capacity by demand
- The storage platform offers economical scaling-up prospects with high-density expansion units

Owing to the inherent overhead through file system, the performance of NAS reaches its limit quickly as the amount of end devices increases. To achieve better efficiency on the data center, QSAN XCubeSAN series fulfills the requirements for large-scale surveillance. A SAN approach resolves the challenging workload of large-scale surveillance system while supporting further on-demand expansion. QSAN's innovative technologies reduce the complexity caused by enlarged storage capacity. Online RAID migration simplifies disk addition, while RAID EE shortens rebuild time of RAID configuration. In combination with high-density JBOD units, the system may achieve petabyte-level capacity on a single storage platform without requiring additional efforts on management.

The combined solution of EnGenius with QSAN storage platforms provides large-scale surveillance systems with exceptional performance and stable service. PoE connectivity, efficient management, and flexible expansion contribute to the availability of the system and, thus, make surveillance simple and affordable.

Recommended EnGenius Models



ECS1528FP



ECS1552FP



ECS5512

Recommended QSAN Models



XS1200



XS3200



XS5200

XCubeSAN Series

- Built-in 10GbE LAN ports to accelerate connectivity.
- Dual-active architecture to minimize downtime.
- Comprehensive backup options to protect digital assets.

EnGenius

QSAN

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