Simplified, scalable video management with Dell EqualLogic storage, Open-E Data Storage Software and Bosch Video Management System
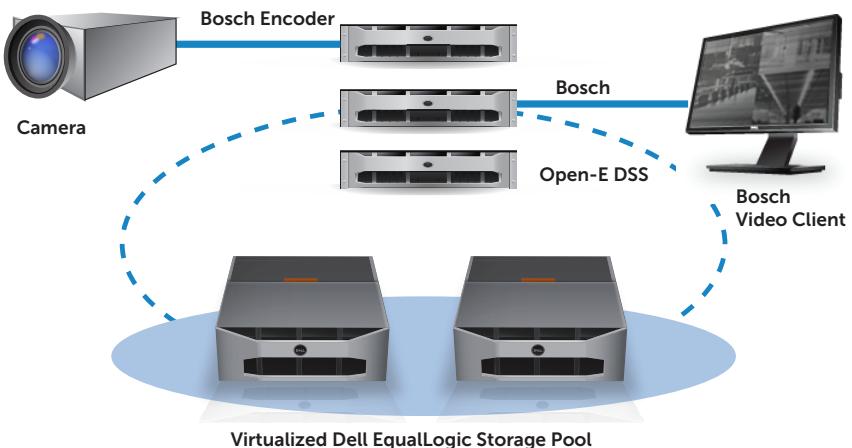
A video solution architected using Dell EqualLogic unified, virtualized storage, Open-E Data Storage Software and Bosch Video Management System can help simplify video data management operations. Specific benefits include:

- Reduced operating expenses, through simplified video, compute and storage operations

- High scalability, enabled by Dell EqualLogic peer storage architecture and live, nondisruptive administration

- Flexible deployment, through a modular architecture that allows a variety of video technologies, a mix of storage drives and automated storage load balancing

- Excellent investment protection, through an all-inclusive storage features policy and live, online maintenance and upgrade capabilities

Active collaboration among vendors of video systems has sparked the emergence of a robust, standards-based video solutions market. As affordable video equipment has proliferated, so have creative applications for organizations seeking to leverage video media for training, marketing, surveillance, and other operations.

But while the broad accessibility of video tools may appeal to enterprises and organizations, managing video data can pose challenges. Video data differs from most enterprise data, in that it often incorporates a mix of structured and unstructured components. Video files also typically require a great deal more storage – orders of magnitude more, in some cases – than image, email or other digital information. And because video operations usually require large-block, sequential streaming input and output (I/O), applications that take in, process and play back video can be extremely sensitive to performance constraints.

Organizations seeking to build affordable video solutions that offer high performance, seamless scalability and streamlined management can architect them with Dell EqualLogic unified, virtualized storage, Bosch client/server-based video management systems and Open-E Data Storage Software.

Virtualized Dell EqualLogic Storage Pool

Dell EqualLogic unified, virtualized IP storage, Open-E Data Storage Software and Bosch Video Management System enables affordable video management with simplified management and high scalability.

Simplified management of video data through virtualized storage

Because of video data's unique characteristics, implementation success requires that organizations minimize the costs – both capital and operating – of video data storage. With its unique peer storage architecture, highly automated operation and all-inclusive feature software licensing, EqualLogic virtualized storage offers an efficient and agile solution for managing data generated by video operations. Broad support for solid state, SAS and Nearline SAS (NL-SAS) technologies on EqualLogic storage arrays offer organizations high flexibility to optimize storage for a broad range of video applications. Automated load-balancing and tiering capabilities come standard with every EqualLogic array, which enables organizations to run both performance-hungry and capacity-intensive applications side by side.

In contrast with traditional, frame-based Fibre Channel storage solutions, EqualLogic storage scales linearly; each PS Series array added to an EqualLogic storage solution contributes processor power and I/O throughput, in addition to disk capacity. When organizations expand systems with additional cameras, linear scaling on EqualLogic systems virtually eliminates the performance bottlenecks that can affect some other storage systems.

Moreover, the all-inclusive EqualLogic feature software policy can help minimize costs throughout the solution life cycle; EqualLogic customers get access to all features – from OS and application integration modules and automated load-balancing to data protection and the SAN Headquarters performance monitoring utility – with every EqualLogic product. Customers with valid support contracts can even download firmware and software updates at their convenience, and activate any feature at any time.

Seamless management of video, audio and data

Organizations can further reduce costs by streamlining digital video and audio operations with the help of Bosch Video Management System (VMS) software. Bosch VMS is a Microsoft-Windows based video management system, designed to enable seamless management of video, audio and data across IP infrastructures. A single operator client lets users manage multiple recording platforms centrally; Bosch VMS gives users the option of leveraging some of the latest recording technologies available or of preserving investments in other (e.g., DiBos, VIDOS Network Video Recorder, etc.) infrastructures. Bosch VMS allows users to control the display of video content over multiple screens, to easily resize and rearrange image panes, and to customize views using a drag-and-drop interface. Standard event and alarm management features and system health monitoring on Bosch VMS help reduce operating costs by simplifying centralized operations.

Affordable, standards-based interoperability between video and storage operations

The third component of this solution, Open-E Data Storage Software V6 (DSS V6), provides economical, standards-based interoperability between the Bosch VMS and Dell EqualLogic platforms. A dynamic iSCSI initiator within Open-E DSS V6 enables Bosch VMS to connect seamlessly to Dell EqualLogic storage. Video administrators with minimal storage domain expertise can use the intuitive Open-E DSS V6 GUI management platform to create logical storage volumes on the EqualLogic system in the course of daily operations. Seamless integration with Bosch VMS and full compatibility with Dell PowerEdge servers and Dell EqualLogic storage make the Open-E DSS V6 a keystone component of simplified, scalable video solutions.

Standards-based solution simplifies both video and storage operations

The modular architecture of video solutions built upon Bosch VMS, Dell EqualLogic storage and Open-E DSS enable excellent scalability and deployment agility. The Bosch VMS server simplifies video file management by assigning metadata to individual video streams and then creating logical storage volumes through the Open-E DSS server. The Open-E DSS server then designates the EqualLogic unified, virtualized storage as the storage target for these streams.

Because expanding EqualLogic requires simply adding arrays to existing storage pools, organizations can quickly scale storage capacity and performance to accommodate the introduction of additional cameras at virtually any time. Organizations can also relocate or redeploy cameras easily, while keeping operations centralized, and without the need to rearchitect the solution's server or storage components.

As evolving standards continue to make video applications more accessible, business of all types will look to adopt new media tools to innovate and improve competitive differentiation. In doing so, organizations need to factor the capital and operating costs of storing and managing video data. By architecting video solutions using Dell EqualLogic, Bosch VMS and Open-E DSS V6, organizations of all kinds can simplify management, scale seamlessly, and better derive the full potential of affordable video media.

Simplify your video solution storage at equallogic.com/videostorage.