

Optimize Your HD Experience
at www.pelco.com/endura



THE TOP TEN REASONS

Why Endura Is The Choice for Surveillance Operators

BY DAVID AUS, MARKETING COMMUNICATIONS WRITER

IP video surveillance has ushered in exciting new possibilities that were either impossible or difficult to realize with CCTV systems. Disparate systems can now share data and securely communicate with each other over a ubiquitous IP infrastructure, savings thousands in the installation costs and paving the way for one system to control cameras, access, and building and process automation systems. Megapixel and HD cameras have shown what can be possible when more detail is captured and made available in every frame of video. Sophisticated video processing algorithms can now enhance the decision-making ability and effectiveness of a surveillance operator by presenting information that is relevant to the situation at hand. In order to take advantage of these advancements

in technology, a video management system must be designed to easily and gracefully accommodate any number of cameras, any size and type of camera, any number of operators, and any amount of storage without overloading components or sacrificing performance. What's more, a video management system must easily exchange information and data with other systems that comprise the security strategy for a given facility. The Endura architecture has been carefully engineered to provide surveillance operators the tools they need in a powerful yet extremely easy to use solution. Unbridled scalability, uncompromised performance, and open standards based, cutting edge technologies combine to make Endura the ideal choice for the most demanding applications.

Scalable to accept an unlimited number of HD and megapixel cameras, the Endura system is an intelligent, yet easy-to-use approach to video security that provides greater control, enhanced operational flexibility, improved management, and expanded recording, archiving, and integration capabilities compared to anything else available.

01 H.264

Endura is optimized for surveillance monitoring applications. As such, the system is designed to accommodate the expectation that video is always live and at the maximum resolution the camera can support. To mitigate the costs and maintain performance, Endura utilizes streaming video compression standards such as MPEG4 and H.264. H.264 delivers the same video quality at a fraction of the bit-rates and associated storage costs as traditional compression standards such as JPEG and even MPEG4. In addition, support for Baseline, Main, and High Profile H.264 means the system will have the flexibility and performance required to optimize the benefits that this new standard has to offer.

02 Complete End-to-End High Definition Video Solution

Endura is a complete system for managing, archiving, displaying, and distributing high definition video. While most manufacturers supply incomplete video management systems, relying on third-party components for a complete solution, Endura guarantees interoperability and performance by providing all components for a complete system including IP cameras, video encoders, recorders, decoders, client servers, management servers, and even rack mounting accessories. Leveraging purpose-built, known good hardware, Pelco engineers have been able to optimize the Endura software to extract optimal performance while minimizing total cost of ownership of the system.

03 EnduraView™

Pelco's unique EnduraView technology ensures that high definition video will not overload the workstation or other viewing devices that are displaying multiple live video streams, thus reducing the impact on the host system's CPU and the strain on the underlying network. Today's PCs lack the processing power to display multiple HD streams simultaneously. The results are video display artifacts, random pauses in the video stream or other workstation stability issues. EnduraView solves these issues. When the screen configuration changes to a multi-camera view, Pelco-patented EnduraView technology automatically subscribes to a lower bit-rate/resolution stream for display while continuing to record the higher resolution stream from the camera. This ensures that the system does not overwhelm the PC, which ultimately ensures that the operator's viewing experience is not disrupted. Further, because the camera streams are now lower bit-rate than a full HD stream, EnduraView minimizes the bandwidth impact on the network.

04 EnduraStor™

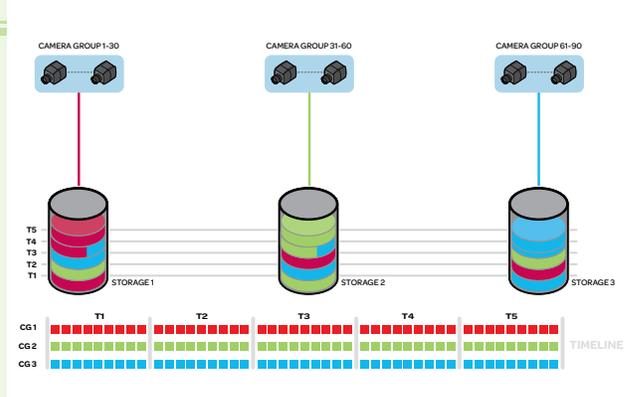
Patented EnduraStor technology optimizes system storage capacity, greatly increasing recording duration while keeping storage costs as low as possible. EnduraStor works on the proposition that the value to the user of recorded video diminishes over time. The system records all new video at 30 images per second. After a user-specified period, EnduraStor "prunes" the database and reduces the frame rate of recorded video to the I-frame interval specified in the camera/encoder's GOP (group of pictures) structure. Compared to other systems that typically record at a lower frame rate and "bump-up" on alarm to conserve storage costs, EnduraStor allows users to capture real-time video of important events that may not actually trigger an alarm, but are important nonetheless (i.e., slip and falls, hit and run, purse snatching, mugging, etc). This unique feature can be enabled or disabled as needed.



Endura



The Endura 2.0 Workstation Software offers the most user-friendly experience in an IP video system, hands down.



Storage pooling, unique to Endura, sets a new standard of reliability for network video recording.

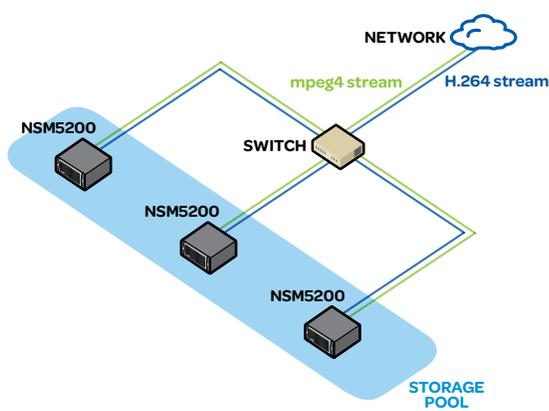
05 with Unmatched Fault Tolerance

The NSM5200 network video recorder hardware platform is designed to mitigate occasional component failures. Fault-tolerant features include: redundant power supplies, redundant fans for proper cooling, and a RAID6 recording structure that allows for two simultaneous drive failures while still protecting recorded video data. The Linux OS-based platform ensures maximum reliability and security. Storage pooling, unique to Endura, sets a new standard of reliability for network video recording. The NSM5200 utilizes advanced network load balancing in which groups of cameras are automatically recorded onto a storage pool consisting of multiple NSM5200s. Camera assignments are automatically rotated to ensure that all available storage is symmetrically utilized. In the unlikely event of an NSM5200 failure, cameras are automatically distributed across the remaining NSM5200s in the storage pool, providing active/active failover. Active/Active failover does not incur the wasted cost and operating/management expenses associated with hot standby failover schemes and allows customers to gracefully add as much insurance against recording disruptions, as their tolerance for risk will allow.

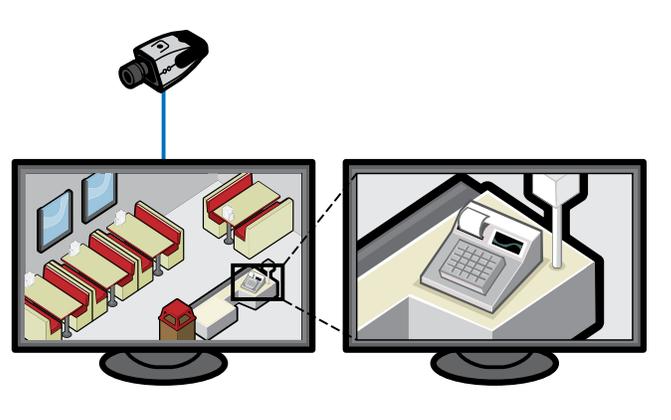
06 Configurable User Experience

The Endura Workstation Software offers the most flexible user-friendly experience of any IP video system on the market. The software easily accommodates today's high-resolution monitors as well as adjusts for 4:3 or 16:9 aspect ratio displays. The system allows users to comingle 4:3 and 16:9 images on the same display, preserving the proper aspect ratio of each stream, giving users a clear, undistorted view of all scenes. For unprecedented ease of use, the Endura workstation allows users to customize the format and display of their workspace to adapt it to their needs. With the software's unique tear-off capability, each section of the screen can easily be re-sized and moved from one area to another, supporting multiple cameras.





NSM5200 units record both MPEG-4 and H.264 streams.



Endura 2.0's Zone of Interest capability allows a user to maintain the panoramic view of the scene and designate zones of interest into which to independently zoom.

07 Zones of Interest

Customers often select megapixel cameras for their ability to replace several standard resolution cameras while providing powerful digital zoom capabilities. Endura's Zone of Interest capability allows a user to maintain the panoramic view of the scene and designate zones of interest into which to independently zoom. These zones can then be located anywhere on one of two monitors supported by the workstation and provide virtual camera views without incurring additional network or processing load for supporting multiple cameras.

08 Open Architecture for Third-Party Compatibility

Pelco provides a complete API (Application Programming Interface) for all Endura components, allowing other systems manufacturers to develop interfaces for and leverage Endura's capabilities. Additionally, Pelco has developed interfaces in Endura for several third-party IP cameras as well as fiber channel or iSCSI-based storage solutions, allowing system administrators to take advantage of SAN storage expansion for video recording.

09 Advanced Diagnostic Reporting

In the event that a failure occurs or is imminent, (e.g., early warning temperature fluctuations), all diagnostic alarms are reported within the advanced Endura workstation software program, giving operators an instant view of potential issues. Additionally, Endura supports SNMP v2 to integrate with third-party systems for network monitoring.

10 Endura Backward Compatibility

Endura 2.x components can be seamlessly integrated into existing systems, giving access to legacy products for complete backward compatibility.



by Schneider Electric

The recognized worldwide leader in video and security systems, Pelco boasts the most comprehensive array of products, services and expertise available in today's marketplace. And now as a member of the Schneider Electric family, Pelco brings a network of assets backed by the strength of a Fortune 500 company to help you define and achieve your business objectives.

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