

EMC DISTRIBUTED & CENTRALIZED SURVEILLANCE SOLUTIONS

Meeting the needs of an open, flexible, and enterprise surveillance storage infrastructure

ESSENTIALS

Simple

- 'Plug & Play' simplicity
- Remote storage management
- 2U dense form factor for distributed sites

Efficient

- Proven 5-9s Availability
- Supports leading VMS providers
- NAS, Fiber Channel & iSCSI options
- Low cost, high capacity drives
- Supports 100's to 1000's of cameras.

Affordable

- Priced for affordability
- Worldwide customer support
- Configured for Surveillance workloads
- Supports traditional IP networks infrastructure.

Integrated

- Validated with leading video surveillance partners
- Support for VMware and Microsoft virtualization with multiple points of integration

INTRODUCTION

The surveillance industry is an exciting, fast-growing market that has yet to realize its full potential, especially as we enter into the Big Data era. The market for video surveillance equipment is expected to reach \$24 billion in 2018 primarily made up of cameras, video management software, DVRs and NVRS and storage. The overall industry growth, predicted to be over 14% per year for at least the next few years is largely being driven by increased security concerns to combat terrorism and crimes, a market transition from analog technology to digital infrastructure, improvement in video content analytics, to new devices including drones and body cameras are all opening the door to new applications for surveillance and finally, especially high-growth of surveillance investments in certain emerging countries.

To that end, storage is a significant and important component of a surveillance solution, and represents an increasing proportion of the segment's investment mainly due to the following industry trends:

- Higher resolution cameras & growing number of camera feeds
- Growth in networked surveillance data
- "Big Data" – desire to do more analytics
- Storage at distributed sites (on or near the cameras)
- Serverless configurations – virtualized, embedded
- Ease of deployment – bundling, automated installation
- Private cloud – security, performance

DISTRIBUTED SURVEILLANCE SYSTEMS

Surveillance architectures are gravitating toward more of a distributed model. Factors such as nearly-ubiquitous availability of IP networks, industry standard components and communications, and the desire for higher resolution images moves more functionality and processing out "on the edge"—closer to camera locations. Distributed locations store surveillance data locally, and then periodically transfer the digital data set to a central storage platform.

In addition, systems in these distributed sites integrate the information with applications and other systems, such as access control and intrusion detection, without engaging a

central server. The resulting architecture reduces single points of failure and distributes processing requirements over many, smaller sites.

EMC's solutions cover the needs of the entire surveillance infrastructure, from distributed site components to a large, scalable central storage repository. The EMC VS1600 is best suited as a distributed storage platform, while EMC Isilon provides a highly scalable platform for centralized data center sites.

SURVEILLANCE STORAGE

As IP-based surveillance networks become more popular, data storage requirements are evolving to provide expanded functionality and increased security. Today, surveillance systems require:

- Scalability to accommodate capacities and growth
- Security options that prevent alteration or deletion of evidence and case files
- Capability of handling high resolution video from megapixel cameras
- Recording of higher frame rates without loss of data
- Support for management of the entire lifecycle of surveillance data sets

In addition, the Video Management Software (VMS) in use is a critical component of any surveillance solution. Video Management Software allows an enterprise to manage their surveillance network, recording equipment, cameras, and the storage system needed to store the video data set. EMC enterprise solutions are proven and lab certified for leading VMS applications.

EMC VSS1600: SURVEILLANCE STORAGE FOR DISTRIBUTED SITES

EMC® VSS optimizes the needs of both traditional surveillance systems and modern IP networks. The Next Generation EMC VS1600 surveillance storage is purpose-built for highly distributed surveillance environments delivering uncompromising bandwidth performance, "plug & play" simplicity, reliability, and affordability for demanding surveillance workloads. EMC VS1600 is pre-configured (capacity, protection, required bandwidth), simplifying deployment and reducing time to productivity. The cost efficient EMC VS1600 architecture is:

- Affordable scalable solution up to 400TB
- Dense 2U form factor for space efficiency
- Optimized for virtualization with VMware, and Microsoft—and multiple integration points including VAAI, VASA, SMB and ODX, to provide provisioning acceleration
- Able to support industry leading camera manufacturers
- Configured with FC or iSCSI support
- Validated with industry leading Video Management Software vendors
- Plug and Play simplicity with the award-winning Unisphere Management Suite, including single sign-on, multi-array monitoring and reporting, virtualization support, integrated service/support ecosystem, comprehensive dashboard views, and customization capabilities for video surveillance solutions

ISILON: SURVEILLANCE STORAGE SOLUTION FOR CENTRALIZED SITES

EMC® Isilon® Scale-out NAS storage is a simple, scalable, and enterprise-capable storage solution for managing and sharing surveillance assets at the Core. With built-in data protection and availability, Isilon substantially reduces risk of asset loss while lowering operational costs through simplicity of management and straightforwardness of infrastructure growth.

Isilon key benefits include:

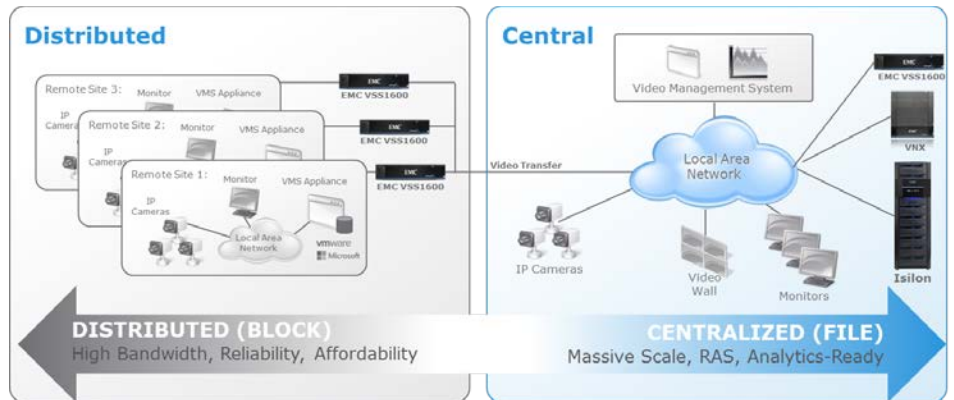
- **Ease of Use**—Isilon teams with leading video management software (VMS) vendors to create reliable, scalable, and easy-to-manage end-to-end solutions that have undergone rigorous interoperability testing and certification so you can focus on video surveillance rather than the technology that enables it.
- **Simplicity**—storage setup requires few people and fewer steps. Isilon is a powerful scale-out storage platform that is easy to expand, accelerate, protect and secure— all while driving down TCO. With Isilon scale-out NAS, you don't need to add storage administrators as your storage grows. One person can easily manage petabytes of data. Even security professionals with limited IT capabilities can take command of their video without having to focus on managing storage.
- **Scalability**—are you investing in new camera technology and more storage? Are retention time requirements increasing? Have camera count and resolution increased? All of these take more storage and it needs to be added quickly and as painlessly as possible. Keep pace with your growing video storage needs— from TBs to over 20 PB—through just-in-time storage provisioning with no downtime or disruption to your video surveillance activities.
- **Asset Protection**—your video assets are your livelihood. Isilon offers the industry's highest level of end-to-end data protection. From Data-at-Rest Encryption (DARE) and industry-standard self-encrypting drives to quadruple failure protection, video assets are protected from accidental, premature, or malicious alteration or deletion of critical data.
- **Efficiency**—efficiency directly translates to bottom line operational and capital expenses. Isilon's unmatched storage utilization (over 80%) means you can expand your surveillance workload while keeping budgets in check. Extending storage capacity, data protection, or performance is simple and cost-effective.

COMPREHENSIVE SURVEILLANCE STORAGE PORTFOLIO

EMC VS1600 and EMC Isilon provide an open, flexible architecture to address the needs of most large-scale enterprise surveillance deployments, from storage in distributed sites to a large, scalable central storage repository. EMC teams with industry-leading video management software (VMS) vendors to provide proven, secure, and cost efficient end-to-end solutions for surveillance data storage. These joint solutions are tested and validated at the EMC's worldwide Surveillance Test & Certification Labs—renowned for conducting rigorous test to fail interoperability and performance testing.

EMC VS1600 distributed surveillance storage and EMC Isilon for centralized surveillance storage combine to manage surveillance data from a wide range of sources and provide a highly scalable, efficient, and cost effective video surveillance storage portfolio. The

EMC solutions are ideally suited to meet the challenges of storing, managing, analyzing, and retaining large amounts of surveillance data while reducing cost of ownership.



CONTACT US

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