Avaya and Oracle Solutions for Video Surveillance

Networking and storage solutions for large surveillance installations

Video surveillance implementations are rapidly evolving. Not only is the transition from analog to digital systems accelerating, but also the number of cameras, frame rates, and camera resolutions is increasing. This creates many challenges, and two main issues are how to handle the network traffic and how to store all of the data generated by these new systems. Avaya and Oracle have scalable, easy-to-deploy, pretested solutions that meet both the network and storage challenges.

The Video Surveillance World is Changing

Traditional analog solutions are being replaced by network IP infrastructures. This transition to a digital environment creates new challenges for deploying and maintaining video surveillance systems. With a traditional analog system there may be little or no involvement of the IT department with security and video operations. There are also no network considerations, and the storage problem consists of finding a secure place to keep the vast volumes of VCR tapes that need to be cataloged in a space with fast and easy access. Network IP systems require security and IT functions to operate together seamlessly. They also require a robust network and an IT infrastructure that can support the reliable movement and storage of petabytes of data.

These challenges can be daunting, and are sometimes made more difficult because addressing them isn't part of the traditional security or IT functions. In addition, legacy network and storage solutions may not be optimized for this workload. The existing network infrastructure may not scale to accommodate 24/7 video workloads; and if not configured correctly, data storage can be prohibitively expensive.
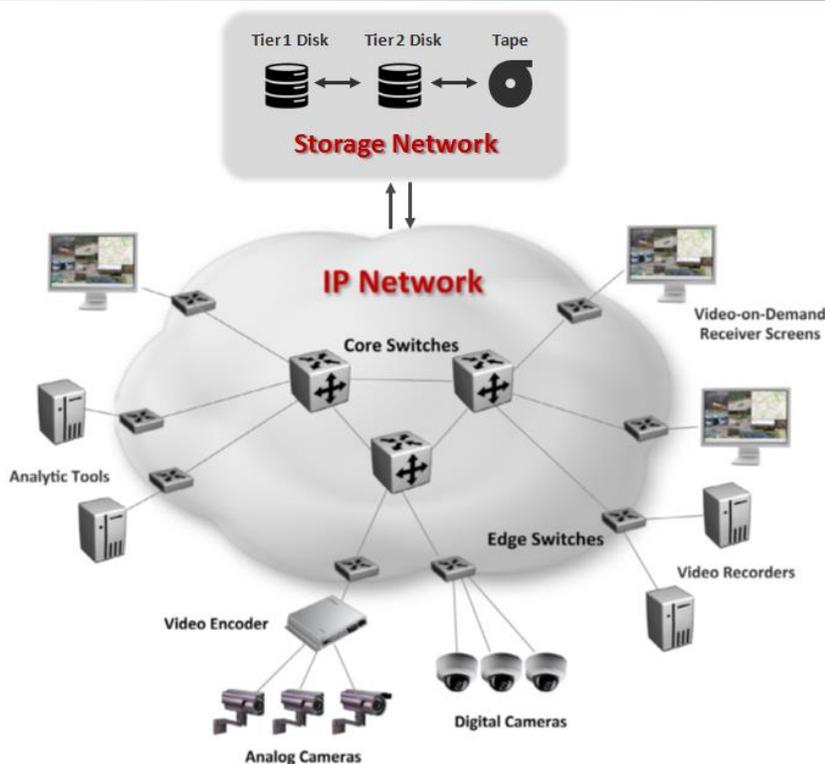
Some companies respond to these challenges by shortening their retention period and/or by living with a less than reliable network. But there are alternatives that enable you to build a reliable system that can scale to meet your budget and needs, from retention, resiliency, and scalability requirements to fast and efficient access to video surveillance traffic.

Avaya Fabric Connect

Avaya Fabric Connect technology underlies Avaya's advanced networking solution, which caters to the demands of modern IP video surveillance applications. This standards-based solution eliminates the complexity and limitations of traditional network offerings, allowing you to realize the full potential of your video surveillance equipment.

MEETING TODAY'S IP VIDEO SURVEILLANCE CHALLENGES

- Support for higher frame rates and resolutions
- Support for unicast and multicast routing
- Massive and highly economical storage for increased retention periods
- Security and immutability to meet chain of custody and other compliance requirements
- Fast provisioning and delivery of new network services

The Avaya Fabric Connect networking solution for video surveillance enables:

» Massive scalability for cameras and video streams — support tens of thousands instead of a few thousand

» Configuration of networks in minutes instead of weeks

» Simple, fast provisioning thanks to the elimination of complexities related to the design, deployment, troubleshooting, and scaling of IP multicast routing

» High performance with no dropped packets

» Lightning fast, subsecond recovery (<200 msec) to help ensure video is always available

Designed from the ground up to support modern IP video surveillance environments, Avaya Fabric Connect enables a dynamic, agile, and resilient network in which services are deployed at the edge. This eliminates networkwide provisioning practices and substitutes them with simple endpoint provisioning. While traditional IP network reconvergence takes anywhere from a couple of secondds to minutes, Avaya Fabric Connect offers subsecond recoveries for both unicast and multicast routing, thereby eliminating gaps in video streams.

Oracle Storage

Oracle provides a highly efficient, high-performance storage platform for video surveillance. Managed by Oracle's Hierarchical Storage Manager (Oracle HSM) software, Oracle's storage solution combines the highest levels of scalability and efficiency with high degrees of security and immutability to meet the requirements of the most demanding surveillance environments.
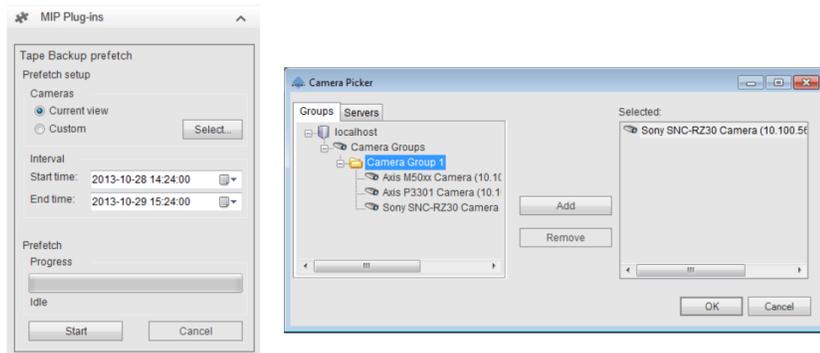
Hardware and Software, Engineered to Work Together

Milestone XProtect's Prefetch Plug-In for Oracle HSM

Milestone Systems' video prefetch plug-in gives you a simple way to stage data from digital tape using Oracle HSM software. It solves the problem of possible slow video retrieval times from digital tape in a tiered storage environment. When there is an event that you want to examine, you simply run a search using XProtect software and then specify the cameras and times of interest. Oracle HSM determines where the requested files are stored within the system, and any files on digital tape are prestaged back to a disk cache for fast access. Files already located on the disk cache are simply read in the same manner they would be on a common NAS storage system.

Prefetch plug-in screens

The Value of Oracle for Digital Video Surveillance Archiving

» **Increase surveillance video retention periods:** Most users keep surveillance video for 30 days or less. This is done primarily because the cost of keeping video longer is prohibitive, or because the solution does not provide enough scalability to keep additional data. With Oracle HSM, you can increase storage capacity simply by adding low-cost media and tape library capacity. This provides a massively scalable archive at a cost of pennies per GB.

» **Reduce storage costs:** Higher resolution cameras and higher frame rates are increasing the amount of required storage. In many cases budgets cannot keep up with this growth. Having a simple and automatic way to store video on low-cost tape media while keeping it online at all times enables you not only to keep up with storage capacity growth but also to reduce the amount of money you spend on storage.

» **Enable storage consolidation:** Storing data locally at many physical locations on individual DVRs or NAS storage devices is common. Oracle provides a software solution that enables video surveillance data to be collected at geographically separate locations and consolidated into a single archive. This enables data from many locations to be searched, viewed, and analyzed by a single application.

» **Achieve secure retention and protection:** It is vital that video is accessible at the time it needs to be retrieved. Oracle's solution keeps all video data online and available at all times, even when the data resides on digital tape for long-term storage. Oracle HSM also is the industry's leading end-to-end data integrity validation solution. This enables the archive to audit itself and self-heal if any files are found to be damaged, ensuring that the video is preserved and available when needed.

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Hardware and Software, Engineered to Work Together

The Value of Oracle and Avaya for IP Video Surveillance

Together, Oracle and Avaya address the two biggest problems in IP video surveillance: the network and storage. Oracle and Avaya provide an end-to-end solution that enables customers to provision and deliver new networkwide services quickly while increasing video retention periods from weeks to months — all without breaking the budget.

Contact Us

For additional details on Avaya's software solutions, please visit www.avaya.com. For additional details on Oracle's archive solutions, please visit www.oracle.com/goto/tape.

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