Solution at-a-glance

Company
StorageTek

Industry
Information technology

Employees
7,200 worldwide

Storage application
Security surveillance

StorageTek® solutions
- Security surveillance solution
- Digital video archive
- BladeStore disk subsystem

Related solutions
DVTel NVRS hardware and software

Business results
- Estimated increase in efficiency of investigations: 87 percent
- Decrease in cost of investigations: 93 percent
- Rise in recovered assets: $37,000 annually
- Savings on camera maintenance and administration: $13,000 annually

StorageTek® Surveillance

StorageTek security surveillance solution: a smart, secure investment.

"Video data is the currency of the security business," said Tawnia Wormell, StorageTek security systems coordinator. "It's what you use to investigate and to prevent losses. It's your eyes in the field."

That's why StorageTek® has more than 195 closed-circuit TV (CCTV) cameras strategically placed around its headquarters campus in Louisville, Colorado, and in offices across the United States, as well as in Puerto Rico.

Business issues
Until recently, monitoring and maintaining the video data from the CCTV cameras at StorageTek was a labor-intensive chore. Each time a theft or event occurred, the tape-viewing portion of an investigation took an average of four hours and cost $146 in personnel time. The time and expense for enterprises that use CCTV to assist in investigations are typical, and StorageTek was facing the same security budget challenges as others.

The solution
StorageTek implemented its own security surveillance solution — which combines the StorageTek BladeStore disk subsystem and DVTel's video encoders, decoders and NVRS (Network Video Recording System) software — to deliver a cost-effective security surveillance system.

Using technology that converts CCTV camera signals from analog to digital and compresses the data for trouble-free transmission, StorageTek is able to transmit its surveillance video data over its corporate network. DVTel NVRS software associated with the cameras provides:

- Event-based recording. All stationary cameras are set up to record only upon detected motion. Sensitivity limits are customizable by using a video grid and determining the number of blocks within the grid required to start and stop recording. In addition, the number of consecutive frames required helps with resolving false motion, such as, flickering from fluorescent lights.

- Activity sensing. Sensors detect motion and bring images to the attention of surveillance personnel. This feature can be scheduled to be active after hours for a more proactive response to potential incidents.

- Activity masking. Objects subject to motion — such as flickering computer monitor screens — won't trip activity sensors.

- Image caching. The cache allows the security team to determine how much pre- and post-activity footage to record.

- Event retrieval. Search features offer incredible flexibility and increase the ease of finding the exact incident. A search can be done by date/time, by synchronizing multiple cameras to piece together an event, by masking a specific area to find when the item was removed or tampered with, or a combination of the above.

- Remote viewing. Live or archived video can be viewed from any authorized PC using DVTel software or the browser application

- Video controls, The system can maximize each camera's recording and viewing abilities with storage settings (number of days), frame rate and event recording. DVTel has the unique ability to allow the user to set one frame rate for viewing and a different rate for recording, providing real-time viewing while reducing the amount of storage required.

The video recording is archived with StorageTek's digital video archive by using the StorageTek BladeStore, an innovative technology that bands together multiple ATA (Advanced Technology Attachment) disks on a single blade and combines them with an intelligent drive control to deliver high performance, the reliability required for a 24 x 7 operation, flexibility and storage density.

StorageTek chose to implement this redundant system because with two BladeStores, each in a different building on the Louisville campus, and with the disks mirrored, the video is recorded in both locations at the same time.

"Given that the storage requirements for a security surveillance system can be significant, if it weren't for BladeStore, we couldn't justify the cost to upgrade our security surveillance system. It would have been too expensive, despite what we're achieving with our functionality and performance," said Tamara Miller, security systems administrator for StorageTek.

According to Bobby Kocol, chief financial officer at StorageTek, "We're expecting a 16 percent ROI on implementation of our Security Surveillance Solution, making this a smart investment. The increased safety it adds for our employees and customers makes this system upgrade even more valuable."

Financial benefits
Implementation of StorageTek's security surveillance solution is providing significant savings to the company:

- Incident review costs are dropping from an estimated $146.00 to $4.50 per event.
- Increased investigation productivity is expected to save $20,500 annually.
- Maintenance outlays are projected to fall by $13,000 per year.

In addition, recovery of stolen property is likely to increase. StorageTek anticipates an estimated $37,500 gain per year from its enhanced security efficiency.

Business benefits
"Job performance rises dramatically with this system," stated Wormell. "We used to wade through hours of unrelated video to see what happened during a security event. Now we can review incidents based on the time and date of the suspected event. That cut investigation time from four hours to 15 minutes or less. We can investigate more events and regain more lost assets."

Since the project's implementation in May 2003, StorageTek has experienced several incidents that required video review for resolution. "It was incredible. In less than 10 minutes, the video was found and the critical information needed to move forward with the investigation was retrieved," said Lynn Fresquez, StorageTek investigator.

Miller added, "If you're sitting in a room for eight hours and you're looking at video, you can get a little numb. But when you automate it so that movement brings images up on the monitor, suddenly the

application is alerting security personnel of activity. This will boost the effectiveness of the people we have monitoring our facilities."

"This automation also allows our security force to become more proactive. Now we can intervene when an activity is occurring rather than resolve incidents after the fact," Wormell said

Technology benefits
"If you're trying to transmit large amounts of video data that isn't compressed, you could bring down a corporate network," said Miller. "StorageTek's security surveillance solution doesn't do that because the software detects how much bandwidth is available and adjusts to work within the IT limits. You can also lock it down to a specific amount of bandwidth to make sure it won't impact your network."

Another technical benefit of the system is its elimination of wasted video archives. Prior to implementing the security surveillance solution, StorageTek's cameras recorded at all times — not just events but also the "dead air" in between. Now the system records only activity, not inactivity, maximizing the efficiency of storage resources.

What's more, the storage resources themselves allow for longer retention of video data. With VCR technology, StorageTek retained no more than 30 days of video before recording over the tape. With the digital technology, the company can store video data indefinitely.

About the solution
To deliver the security surveillance solution, StorageTek partners with leading security surveillance software vendor DVTel and system integrators to provide customers with a bundled turnkey solution offering a simple approach to meet even the most sophisticated security system requirements.

StorageTek integrates hardware plus powerful storage management software for attachment to existing network infrastructure while protecting existing investments. This solution offers true data sharing among disparate security systems, including devices or systems from different manufacturers.

StorageTek's digital video archive virtually eliminates manual intervention and provides sophisticated virtual storage management so that digital video information is stored on the right storage device and is always available, regardless of data age or file size. In addition, it can be configured to support varied archive periods.

For more information, see www.storagetek.com.

ABOUT STORAGETEK®
Storage Technology Corporation (NYSE: STK), a $2 billion worldwide company with headquarters in Louisville, CO, has been delivering a broad range of storage management solutions designed for IT professionals for over 30 years. StorageTek offers solutions that are easy to manage, integrate well with existing infrastructures and allow universal access to data across servers, media types and storage networks. StorageTek's practical and safe storage solutions for tape automation, disk storage systems and storage integration, coupled with a global services network, provide IT professionals with confidence and know-how to manage their entire storage management ecosystem today and in the future.

StorageTek products are available through a worldwide network. For more information, visit www.storagetek.com, or call 1.800.275.4785 or 01.303.673.2800.

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Bobby Kocol, Chief Financial Officer, StorageTek