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Complying with Enterprise IT Security Needs

SCANA, a Fortune 500 power company, leverages IP surveillance

By Fredrik Nilsson

IP surveillance is becoming an increasingly common surveillance solution to closed-circuit television (CCTV) because of the cost-savings and flexibility a networked solution provides. As more companies in industries such as banking, healthcare, manufacturing, and education realize the benefits, they are incorporating network video into their enterprise IT security plans.

Surveillance requirements within corporate environments are driven by the need to protect employee and company assets. SCANA, a $9 billion, Fortune 500 energy-based holding company, was saddled with several unique challenges and worked with Honeywell Building Solutions, the provider of the infrastructure for the project, to meet multiple enterprise IT demands, including the surveillance of several buildings; integration of older cameras with new IP-based systems; and monitoring capabilities to protect private customer data.

One System, Many Uses

Based in Columbia, S.C., SCANA's headquarters is comprised of a 22-story building that houses 1,100 of the company's more than 5,000 employees. All centralized corporate divisions are located in the Columbia headquarters, including accounting, corporate security, information technology, the retail electric group, key executive offices and other core enterprise divisions.

SCANA is no stranger to surveillance cameras, as it uses 1,300 cameras to monitor industrial facilities, building peripheries, storage sites and corporate offices. Over the last seven years, the company has migrated to network cameras, allowing central monitoring of all SCANA facilities stretching through Georgia, North Carolina and South Carolina from its headquarters.

"We have many different types of sites," says Brennan Cully, physical security IT supervisor for SCANA. "The ability to take the whole system and break it into parts has offered us great flexibility in system design to meet varying needs."

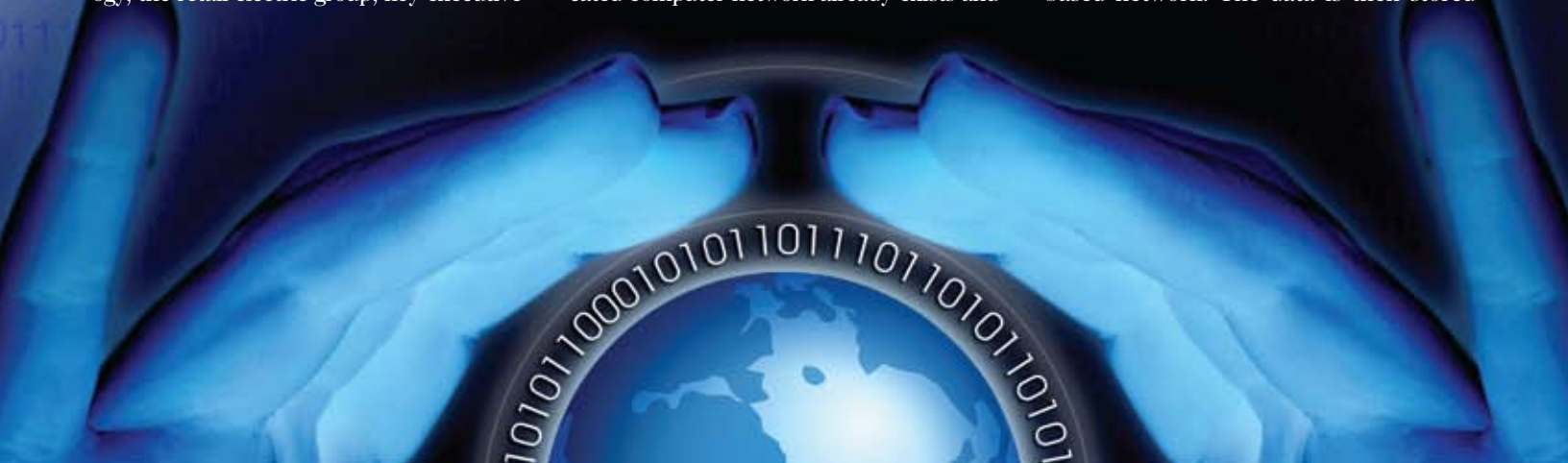
SCANA has experienced many successes with the existing video surveillance system. The integration of alarms has allowed security to have an instant view of buildings and the surrounding area when alerts occur. Because SCANA's cameras are networked, security staff can monitor locations remotely, which helps reduce overhead. In addition, cameras have helped reduce industrial theft of equipment, such as valuable copper wire from lay-down yards.

Using existing assets

Corporate enterprises have a direct advantage when considering a network video system. In most cases, a sophisticated computer network already exists and can be used to provide the backbone for the system and the server space for storage. For SCANA, the integration of its updated network video system into its enterprise IT system was remarkably easy and seamless.

The ease of integration is partly due to the fact that setting up computer systems and network cameras have several similarities. Both use Internet Protocol (IP) to identify and communicate with each other, and both are connected via an Ethernet network. Like computers and periphery devices, several cameras can be connected through switches or routers, sharing a single Ethernet connection. The video from the network cameras is stored on to servers — generally the same type of servers that are used within the enterprise network. In most instances, a company may choose to allocate a server solely for IP surveillance. Because the cameras are IP-based, footage can be monitored from any networked location, which means any desktop monitor can become a security surveillance center with the correct authorization and password.

Since IP-based systems offer incredible flexibility, SCANA was able to upgrade existing analog cameras by using Axis Communications video servers. With video servers, the video from analog cameras is digitized and then compressed, so it can be routed over an IP-based network. The data is then stored



on a server and is viewable throughout the network. Video servers are a simple and cost-efficient way of taking an existing analog asset and consolidating it into an expanding network-based surveillance system. As SCANA continues to grow its networked security system over the next five years, all future cameras will be network cameras with the goal of eventually replacing the remnant analog equipment.

As a result of leveraging existing analog cameras, the established enterprise network IP-based surveillance further reduced costs because no additional manpower was needed to handle the technical aspects of the networked system. SCANA was able to rely on its team of 405-member enterprise IT staff to manage and oversee day- to-day operations.

The SCANA installation features network cameras including the AXIS 216FD (above), the 225FD (right) and the 241Q network server (below).

In addition, SCANA employed software that was compatible to the existing system, which eliminated the need for additional IT staff. The system runs on a SQL-based server with video monitoring software that is Windows-compatible, enabling any IT staff to easily install the software on authorized computers and troubleshoot if problems occur on the network. Because network cameras can run on the same network as enterprise workstations, it is easy for IT staff to maintain and upgrade the system as needed. Cameras, which are connected through Ethernet cables, can be moved and reinstalled in the same manner as they would for a printer or other computer periphery device. In essence, the ability to overlay skilled enterprise IT staff over the infrastructure of a network security system was an added benefit and allowed for ease of maintenance.

"SCANA's security manager, Scott Cleary, saw the value of convergence of Physical and IT systems well before the rest of the industry," says Mike Taylor, vice president of marketing for Honeywell Building Solutions. "Early adoption of this trend has allowed SCANA to reduce their operating costs while improving their business continuity in times of crisis."

Protecting customer data

SCANA provides electric service to 620,000 customers throughout South Carolina. Because many of its customers use electronic bill-pay, the company stores personal information such as financial records and bank information in an electronic data center within the Columbia-based headquarters.

There are strict regulations, rules and standards regarding customer payment information that companies like SCANA must follow in order to maintain the consistent processing of payments in a secure and reliable manner. In order to comply with these regulations, SCANA incorporated network cameras into its data center. Any staff person who attempts to access the customer data center must go through an access control system with a badge. Their movements are recorded by network video to ensure that unauthorized persons do not try to enter immediately behind them and gain access to restricted information.

When an employee's badge is waved past the access control system, a tracking system logs an official report and the employee's image is recorded by the network video system and integrated into the incident report. Upon returning to their workspace, the employee receives an e-mail from the tracking system requiring them to respond with the business reason of their visit to the data center. Should an investigation need to be conducted by the Enterprise IT team, network video within an incident report can be used to gain greater insight into the potential security breach.

Enterprise Security

In addition to protecting corporate assets and customer data, SCANA used IP surveillance to protect and monitor employees in the corporate environment. To do this, the company assessed the existing risks to staff and developed a mitigation strategy. It was determined that security cameras within the enterprise environment were "common-sense security" that helped prevent situations like theft and violence. Cameras would further protect the company by providing a video log of employee activity that could be used in a court of law.

The AXIS 212PTZ camera is mounted on the walls at SCANA's headquarters.

Cameras located at SCANA's headquarters were placed in ways that provided both privacy and security to employees. They could be found in all main entrances and exits as well as reception areas. There were 40 cameras throughout the elevator lobbies of the 22-story building. Each lobby had two access-controlled doors with a camera on each one, ensuring staff and outsiders were not entering unauthorized floors. Cameras were also found in stairwells, common areas and in the corporate pharmacy and medical center.

Overall, SCANA found that the network-based surveillance system fit well into its enterprise disaster plan. As enterprise data is backed up on a remote server, surveillance footage can be stored along with it. This means nothing is lost in the case of a facility disaster. Because IP surveillance can be viewed on any remote location, it was easy to recentralize the monitoring of SCANA's facilities in three states if something were to occur at headquarters.

Network video enabled SCANA to address various security issues throughout the enterprise. In addition to protecting corporate assets at central and remote facilities, the network system helped protect on-site employees and the information of hundreds of thousands of customers. Network video was seamlessly overlaid on the existing IT structure and took advantage of a large group of trained and available IT professionals who maintained and upgraded the system as needed. **ST&D**

Fredrik Nilsson is general manager of Axis Communications, a provider of IP-based network video solutions that include network cameras and video servers for remote monitoring and security surveillance.