security

IP surveillance offers technology benefits that enhance productivity and improve logistics

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Since the mid 1960s CCTV systems have guarded real estate against intrusion, asset loss, and vandalism. Surveillance cameras have provided law enforcement with information that has aided in the apprehension and conviction of those that have destroyed property and caused physical harm to others.

In 1996, Swedish technology company Axis Communications revolutionized the world of CCTV with the introduction of the first IP video camera, the Axis 200. The addition of this traditional stand-alone application to the converged network offers cost-saving benefits as well as the quality and scalability factors that are associated with the converged IP network. Many property and business owners have found the switch from conventional CCTV to IP surveillance systems to be simple and productive.

IP surveillance is another way that an organization can take full advantage of their investment in existing network technology. Using the power of the network, CCTV can now be fully integrated with access control, telephony, physical security and building management systems.

Out With the Old?

A landmark New York City Hotel recently needed to increase its CCTV system's camera count from twelve to twenty-three. Having purchased their standard analog cameras about a year before, management was concerned over the prospect of discarding relatively new, working devices in order to migrate to an IP based system. They were delighted to learn that they could leave their existing cameras in place and integrate them into an IP platform. The cameras were connected to a video server that adapted the analog signals to digital, and a system with hybridized endpoints recorded video to a ten terabyte server that stores a 30 day archive of footage.

Cost benefits

There is an inherent fiscal benefit associated with migration to an IP surveillance system because it can run over an in-place conventional network infrastructure. Connection to network switching eliminates the need for a costly additional infrastructure of video matrix switchers. Conventional CCTV cameras require cabling for both video signal and power, which is usually delivered via a combination coax and two conductor cable. Many IP surveillance manufacturers offer cameras that run on "Power over Ethernet" (PoE), which require only one cable and just one termination on each end. PoE is a method of delivering enough electric to power a device from a network switch through a Cat 5e cable.

Image Conscious

Digital IP surveillance cameras can record video that complies with the Society of Motion Picture and Television Engineers HDTV standards in resolution, color representation and frame rate. Progressive scan HD imagery allows for exceptional quality still shots of fast moving objects without shutter-blind artifacts or motion blur. Digital zoom and auto focus facilitate clear viewing of objects as small as personal identification in areas where great image detail is required.

Technological Advantages

IP surveillance is another way that an organization can take full advantage of their investment in existing network technology. Using the power of the network, CCTV can now be fully integrated with access control, telephony, physical security and building management systems.

In addition to HD image quality, IP surveillance offers technology benefits that enhance organizational productivity and improve logistics. Use of a DVR system that can be scaled to store as much footage as needed eliminates the need to manually change and store VCR tapes. And there is no chance of image degradation due to re-recording over tapes. Cameras can be individually programmed for frame rate, or to send a signal only in response to motion detection.

Viewing and control have been simplified to the point that they can be accomplished from anywhere with an Internet connection. Web-based technology allows an end user to securely log in and choose camera views, pan, tilt, or zoom (PTZ) cameras, or configure the CCTV system.

Considering an IP surveillance system presents an opportunity to assess current technology infrastructure. It's also a great time to consider how to capitalize on the converged network as an organization changes out other legacy applications.

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