SECURITY: MIGRATING TO IP-BASED PHYSICAL SECURITY FOR IMPROVED SECURITY AND GREATER RETURN

In today's economic conditions, companies are looking to the consolidation of building systems for increased financial benefits. As the physical security market migrates to IP-based systems for increased return on investment, the demand for stand-alone, proprietary security systems is declining. This creates a gradual integration of building systems and IT departments and promotes a unified approach to security and data infrastructures.

Return on Investment (ROI)

A typical CCTV system requires three separate cable installations for power, video and control, making labor and materials the largest costs. Designing a physical security infrastructure that takes advantage of a single IP-based cabling network reduces installation and material costs while simplifying moves, adds and changes (MACs). Coupling these installation cost savings with a simplified supply chain will help drive efficiencies, while providing greater returns for more organizations.

Total Cost of Ownership (TCO)

When viewed over a 10- to 15-year life span, the TCO of a security system is a significant business consideration. Designing a security system with the flexibility to migrate and evolve with changing business needs and technological improvements impacts the TCO and helps to reduce initial installation costs. When moves, adds and changes are required, using IT cabling and processes can be up to six times more cost-effective than traditional analog infrastructures.

Two Key Technologies

To understand the benefits associated with IP-based physical security, it is important to have an understanding of Ethernet LAN technology and Internet Protocol (IP). These two technologies allow us to exchange e-mails, access the Web and share documents. They are universal, scalable, well-defined and supported by an increasingly wide range of high-performance, low-cost and industry-proven technologies.

Ethernet Standards

Investing in a high-performance cabling system is strongly recommended and can yield substantial savings. Existing Ethernet networks operate at speeds from 10 megabits per second up to 10 gigabits per second with most existing networks in the 100 Mbps to 1 Gbps range. A high-capacity 10GBASE-T cabling system provides the near real-time performance with minimum network errors or latency required in video and Voice over IP (VoIP) applications.

Internet Protocol

As a partner to the Transmission Control Protocol (TCP), IP's universal acceptance as a common method of addressing and connecting to specific devices ensures a device can be identified and reached as well as detect errors and retransmit corrupted messages. An IP security camera can be directly connected to an Ethernet LAN and use the IP addressing scheme to communicate with other devices on the network. Specific cameras can be viewed and controlled from anywhere on the network by anyone with access and proper authorization.

Leverage IT Infrastructure for Security and Beyond

The standardization provided by IT cabling infrastructures allows for the interoperability and backward compatibility between traditional and IP-enabled devices. An integrated system can monitor and tailor a building's heating, ventilation and air conditioning systems to an individual's preference. By creating a smarter system that uses resources only when needed, an organization will save money through an increase in energy efficiency and a reduction in long-terminfrastructure costs.

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