

Smart security systems use IP solutions

By [Johan Roux](#)

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The evolution to internet protocol (IP) based networked cameras and video solutions for security surveillance and remote monitoring offers a number of benefits, not least the ability to integrate with existing systems, such as Access Control and Building Management Systems (BMS). In combination, these systems offer exponentially more benefits, but putting it all together smartly requires some expertise and forethought.



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An integrated IP based and networked surveillance solution allows for, among others, remote access and enhanced event management and adds flexibility, scalability and cost effectiveness. While you want to be sure to do a thorough job of the integration and networking, the intelligence that is built into the system is key.

Smarts needed

It is important to understand current and potential future organisational needs. Depending on the size and type of business - retail, transport, corporate office building - different specialised surveillance options may be required. A sophisticated system with incident triggered responses may work for one organisation while another simply wants intrusion detection; an organisation with lots of cameras may want a hosted video monitoring and recording service with video analytics, while another would want a stand-alone system. Whatever the requirement, when integrated with other systems, say access control, capabilities will be considerably enhanced.

For example, a camera in a specific area can be configured to start recording on a certain event such as the temperature in a data centre exceeding a threshold, someone entering a high-risk area, or a fire alarm being set off.

Hybrid systems

Because it makes economic sense - IP cameras remain expensive - many organisations are choosing to migrate to a networked solution, making use of hybrid systems to maximise their investment in existing analogue cameras.

Transitioning to an IP based networked system requires the use of a video encoder or server to digitise images and make them available on the IP network. This means they can be accessed via a PCs or other device with a web browser in real time. Digital images, which are infinitely more searchable than those stored on a digital video recording (DVR), can be saved on the device or on the network.

As organisations expand their surveillance system, they typically acquire IP-based cameras. These can easily be added to the network and come with the advantage of being able to be moved around easily as needs change, and use Power over Ethernet (PoE) - i.e., they can be powered by the same network on which they send and receive data, lowering costs.

Another issue is security - as with any IP network, data transmission from security cameras must be secured. They are vulnerable if a public system rather than a private LAN is used. A hosted solution may be the answer.

Integration - end to end

A single supplier that can do the design, configuration, installation, integration, hosted monitoring and storage would be ideal. Find a service provider who has insight into not only security solutions but also enterprise systems.

A big driver at present is integration of lighting and access control systems into building managements systems to lower energy use. The control of these systems is consequently becoming more centralised. Surveillance systems are increasingly being leveraged within these systems to add value in addition to fulfilling a safety, risk management and security function. Knowing how these systems can be used means you can configure them to deliver maximum benefits.

In addition, there are other benefits to a single provider. By making use of a single provider for network and server infrastructure, telephony, security and facility management systems, for example, installations are easier and more cost effective, troubleshooting is simplified, networks are rationalised and their use is intelligently prioritised and maximised.

ABOUT THE AUTHOR

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