



What Decision Makers Need to Know About IP Surveillance

The video surveillance market is undergoing a major transition as IP surveillance is rapidly taking over traditional analog CCTV. Within the next three years more than half of the surveillance cameras used in North America will be IP cameras, according to the research firm Frost & Sullivan.

The emergence of IP-based surveillance also means video surveillance management is becoming a shared function of Facilities, Operations and the IT department. For IT decision makers, many of the advantages of IP surveillance solutions will be obvious:

- Connectivity is simpler, less expensive and standards-based
- Management can be centralized with policy-driven automation of surveillance and video-logging tasks
- The availability of high-resolution IP cameras is enabling organizations to capture far more compelling evidence for protection, litigation and prosecution
- Bandwidth and storage usage can be managed and scaled more easily and flexibly, using open standards

The automation and scalability that comes with IP surveillance is also expanding the range of video surveillance applications – whether they are for security, crime prevention and detection, monitoring of staff and facilities, or applications specific to vertical industries such as shrinkage control for retail or risk management in healthcare.

For both IT decision makers and facilities or operations managers, the question is not whether IP surveillance offers the best solution. The question is how to build an IP surveillance solution that meets all the needs of your organization.

Every D-Link system starts with reliable, full-featured cameras with onboard video processing, motion and tamper detection, high definition and multi-megapixel resolution, ICR for recording in any light, and H.264/MPEG-4/MJPEG compression. D-Link cameras are built to Onvif compliance standards, allowing interoperability with a broad range of VMS platforms.



What You Should Know

IP Cameras are getting smarter, becoming less expensive and are providing better resolution than ever before. Multi-megapixel cameras, for example, feature resolution three to nine times greater than analog CCTV cameras and can be used for applications that require the viewing of finer details, such as personal identification for security or crime prevention or applications like license plate capture or load validation in warehouse operations. Additionally, megapixel cameras can reduce the number of cameras organizations need to deploy.

Power Over Ethernet – Power over Ethernet, or PoE, provides up to 15 watts of power to the edge device, which is more than enough for most of today's IP cameras. Some of the newest cameras have a reduced energy footprint that require as little as 2 watts of power. PoE+ extends power to approximately 25 watts to support such features as pan/tilt/zoom and heaters/blowers in outdoor enclosures.

Other features to look for include:

- User-selectable compression codecs including H.264
- Full two-way audio support for complete records of incidents
- Security encryption
- Low-light sensitivity to record at night or dimly lit areas
- Web-based remote access
- Weather-resistant outdoor enclosures
- Broad Video Management Software (VMS) support
- Integrated infrared illumination
- Onvif compliance
- SD card slot for local event-driven recording
- Motorized pan/tilt/zoom for flexible viewing angles in manned surveillance settings

Building an End-to-End Solution

With all of the advantages of IP surveillance, there are also challenges that can be best dealt with by understanding and evaluating an end-to-end solution. Among the considerations for IT are:

Central Management – Given the ability to extend the reach of your video surveillance networks, IT should consider the ability to control and configure the cameras centrally, from any location. Centralized management enables organizations to set policies for usage, that enhance security and allow control of such features as automated snapshot, event, alarm and motion detection.

802.11n Wireless – There are times when you will want your network to extend beyond where it may be feasible to have a physical connection, such as a remote area of a parking lot or the edge of a large property. Wireless capabilities enable you to place cameras in these areas to extend your network and reach a broader area. 802.11n is the latest IEEE standard for WiFi, enabling transfer rates of up to 660 MBPs over distances covering up to 300 meters between switches or access points. Managing bandwidth can only be done from the perspective of overall network capabilities. While improving data compression technology will continue to reduce the bandwidth required for streaming video there is no question that careful planning and management is required.

QoS – Quality of service is especially important for video surveillance, where viewing in real time is critical. If you are using video surveillance over a corporate IP network that also supports VoIP, you should have the IP cameras on their own VLAN or physical LAN and set QoS priorities appropriately to keep mission-critical functions such as order-taking from being swamped by video feeds.

Network Storage – The expanded use of video can create challenges in managing both network bandwidth and network storage. The demand for storage used for video surveillance is expected to exceed 3.2 exabytes of capacity within the next three years, according to the research firm Global Information Inc., which also notes that iSCSI SANs are the fastest growing solution for video surveillance storage.

Specific considerations for Facilities and Operations include:

Audio - IP Surveillance makes it possible to simultaneously record audio and video. This functionality allows better incident analysis for employee training, litigation and safety compliance assessments.

Video Surveillance Archival and Retrieval - Digitized footage from IP-based cameras stored on a network storage device can be easily searched, archived or even distributed using basic video management software. For industries that regulate video surveillance footage such as gambling, archival and retrieval makes it easy to ensure compliance.

ROI - Investing in a new security system can appear to be a daunting expense. However, with affordable scalable IP surveillance systems from vendors offering end to end solutions, the return can be realized sometimes in fewer than 12 months. A case in point is a recent hospital installation that saved hundred of thousands of dollars in legal fees on a false abuse claim because of detailed video surveillance footage captured at the scene.

The best way to approach building this solution is to find a vendor that provides not only the IP cameras at the edge of the network, but also the switching infrastructure at the back end – for both wired and wireless applications – as well as the Storage Area Networks that are critical to the successful deployment and scaling of IP surveillance.

D-Link's Unified Approach

D-Link understands that successful security solutions call for more than isolated products with limited functionality. As a global leader with 25 years of delivering reliable networking solutions to small and mid-sized businesses, D-Link takes a more intelligent approach to developing our end-to-end IP surveillance systems offering a full line of IP cameras, network switches, video storage devices and video management software. By providing a one-stop shop for the entire IP surveillance network infrastructure, D-Link gets customers up and running quickly and smoothly with the assurance that all of the pieces will work together and be supported by one supplier.

D-Link IP surveillance solutions are field proven and certified with leading video surveillance software solutions for sophisticated vertical applications. The company's nationwide field service organization and extensive network of value added resellers applies industry specific expertise to integrate D-Link's IP surveillance equipment into the larger security solution appropriate for your industry and situation.

D-Link also offers field-proven, secure network switches that are durable, reliable, easy to configure and provide the advanced performance to keep your IP Surveillance system up and running. D-Link's Web Smart Power over Ethernet (PoE) switches include a self-configuring Auto Surveillance VLAN feature that separates, secures, and prioritizes IP video traffic. Our intelligent switches are pre-programmed to recognize IP cameras and help automate the installation process.

In addition, D-Link offers a full suite of video storage products ideally suited to a variety of applications and requirements. D-Link storage options include economical plug-n-play network video recorders (NVR), affordable, scalable network attached storage (NAS) and high performance iSCSI SAN arrays.

D-Link Professional Services

D-Link Professional Services provides pre-sale assessment, installation and post-installation support services to enable you to effectively and confidently integrate your D-Link IP surveillance solution. D-Link's nationwide IP surveillance experts meet local certification requirements for security and surveillance installations and can assess your system requirements as well as assist you with simple installations to complex, multi-facility deployments.

Call or visit the web address below for more information
on the complete line of D-Link IP Surveillance products:

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