



Subhashini Prabhakar

## IP surveillance in India

Subhashini Prabhakar writes about the growing need for IP surveillance and the advantages of this technology

The Indian market for security and surveillance products is robust and growth is expected to accelerate in the future. Physical security is an essential investment that no enterprise can afford to disregard. Surveillance is an essential aspect of this and any such system should also be able to address everything from pilferage to theft and nowadays even terrorism. India is a frequent target of terrorists and has borne the maximum number of attacks in the world. Following the November 2008 attacks in Mumbai, all quarters of society, including the government, businesses and individuals are investing significant amounts in installing and upgrading their security infrastructure. The heightened awareness is providing an added boost to the security and surveillance systems industry, which has historically grown at 20-30% annually.

### The need for enterprise IP surveillance

New technologies are always emerging. However, with growth and change come new areas of risk. Enterprises have the responsibility of safeguarding the personal information, financial resources, and physical/emotional well-being of their employees, customers and shareholders. For this reason, security must involve more than just buying surveillance equipment, installing it, having in-house staff monitor it and more importantly it must also be governed by detailed security practices based on sound policies and procedures. Enterprises adopt surveillance for enhancing their business as well as protection from security risks. The applications vary across verticals.

In the past, the security and surveillance market has been dominated by analog technology, better known as closed-circuit television (CCTV). However, a technology shift is taking place and analog closed circuit systems are giving way to IP-based (digital), integrated systems.

### Role of IP surveillance

IP cameras play a crucial role in surveillance systems. They are connected to the main server and the monitors in the monitoring room with the help of network support and other hardware systems. IP cameras records digital images, which are of high quality and can be easily recognized. IP cameras are connected to a central server through an IP network and produce images with higher resolution. Images can be recorded and played back simultaneously without any hassle.

IP cameras provide advanced search capabilities; we can zoom, tilt or move the

camera right from the monitoring room. IP-based surveillance cameras are gaining in popularity. With the advent of network video, it is possible to remotely access real-time information from anywhere in the world. Network video facilitates proactive monitoring. Today's IP cameras can handle motion detection, tampering detection etc. Surveillance is no longer simply about gathering information 24x7; rather, it's about getting relevant information at the right time. These cameras have in-built intelligence that enables them to alert security personnel or to activate recording if an event or activity takes place in a camera's surveillance area unlike earlier when the

There is reduced space requirement as compared to large (many camera) CCTV setups because video switching and routing is done via a computer and does not need physically large and expensive video matrix switches. These cameras utilize existing wiring and networks, reducing the installation time and consumables. IP cameras come with free Centralized Management Software.

IP surveillance cameras score over CCTV on account of the cost-savings and flexibility. The main criterion which defines the quality of the camera is resolution. In terms of resolution, CCTV / Analog camera cannot provide resolution

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camera used to record endless reels of information whether or not it was of any relevance. Therefore, less storage space is used up and only relevant information is stored.

A network IP camera is smart, as it offers alarm management, image enhancement, license plate, facial recognition, motion detection, alarm notification and is built with the latest technology.

IP cameras have all the intelligent features in-built with digital output. Some unique features include security, streaming and storage. With regard to the first, the cameras support secure, encrypted video, multi-level user access with password protection, built-in feature for live video over the Internet from anywhere in the world, and HTTPS encrypted data transmission. When it comes to streaming, IP cameras allow multiple streaming and surveillance from mobile phones. Lastly, in terms of storage, Network Attached Storage is supported along with a built-in SD/SDHC card slot for on-board storage.

With enhanced features such as video analytics and systems interoperability, there is also scope for the sector to move into newer realms such as business intelligence besides the core function of safety and security.

### Cost advantages

IP cameras present a whole range of cost advantages some of which include, reduced system cost and added functionality due to general-purpose IP networking equipment infrastructure as well as a lower cost of cabling in large installations as CAT5e is used instead of RG-59 coaxial cable.

above TV standards, the maximum being about 0.4 megapixels. Resolution of IP cameras can be many times higher (currently up to 3 megapixels) and they can capture a clearer image when objects are moving. This could make a huge difference in high risk applications in the current network scenario.

IP surveillance solutions play an important role in sensitive businesses and are an integral part of our day-to-day life, providing sufficient security to businesses and the public.

Infrastructure development is growing across India and with it comes a demand for security. IP surveillance is emerging as one of the most compelling investment areas, creating a whole new market for networking resellers and integrators. Background screening, data analytics, biometrics, digital video and sensor-based detection will continue to be major security investments over the next three to five years. We expect the government and defense forces to further increase investments in surveillance systems and a renewed impetus from medium-sized commercial enterprises with multiple locations such as banks, hospitals, retail shops, factories, real estate construction sites, restaurants and malls.

The outlook of the market suggests that high import duties and taxes may be reduced in the wake of increasing security concerns. The participation of private equity in the broader security systems and services market is also covered and is an indicator of growing investment interest in the industry. ■

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