Axis IP surveillance.

Endless possibilities for video surveillance.

AXIS COMMUNICATIONS
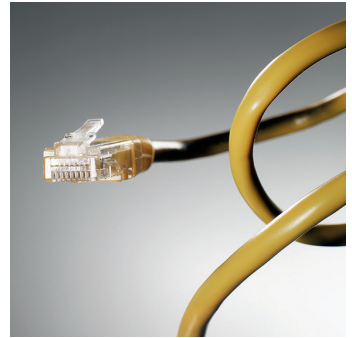
Meeting today's video surveillance challenges

The video surveillance market is growing constantly, driven by increased public and private security concerns, as well as a technology shift. The transition to network video is a reality as customers take advantage of flexible, industry standard systems for security and video surveillance. As security management over the IP network expands and intelligence capabilities move out to network cameras, systems can scale much more easily. This move to open systems empowers a much more productive and cost-effective means of surveillance than was ever possible.
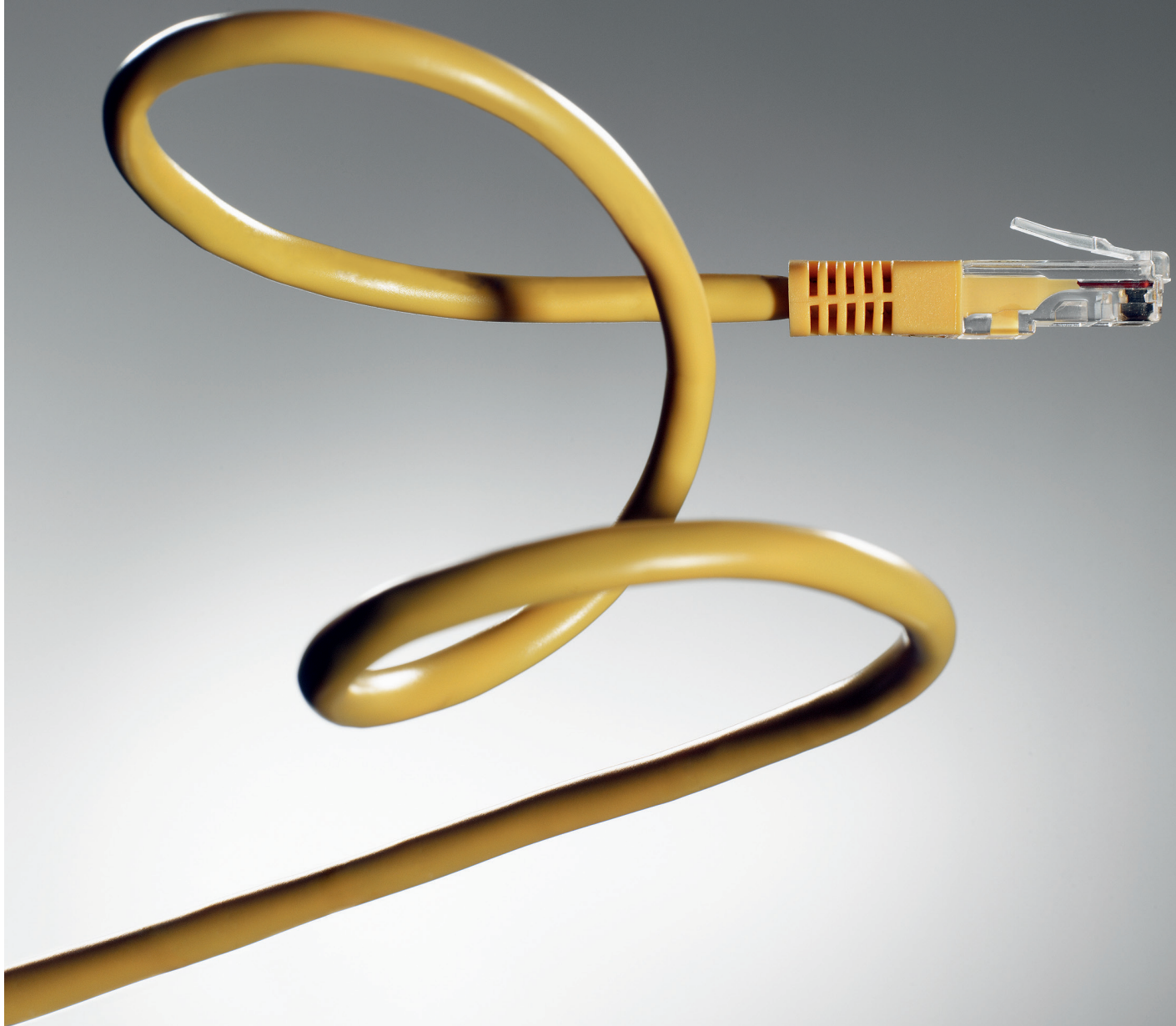
For the security manager, the shift to network video creates new opportunities where digital technology can be put to use to deliver maximum value.

Superior image quality

Image quality is clearly one of the most important features of any camera, if not the most important. Superior image quality enables the user to more closely follow details and changes in images, making way for better and faster decisions to more effectively safeguard people and property. It also ensures greater accuracy for automated analysis and alarm tools. Axis network cameras provide high-quality video images, and megapixel and HDTV network cameras are available to provide even more image details.

Remote accessibility

With network video, users can access real-time video at any time from any authorized computer anywhere. Axis network video products provide an easy way to capture and distribute high quality video over any kind of IP network or the Internet. The video can be stored at remote locations for convenience and security, and the information can be transported over the LAN or Internet.

Easy, future-proof integration

There are almost no limitations as to where a network video product can be placed. Axis network video has the capacity to provide a high level of integration with other equipment and functions, making it a continually developing system. A fully integrated Axis network video system can be used for a multitude of applications simultaneously: for instance, access control, building management, point-of-sales systems, ATMs, as well as fire alarms, intruder and visitor management.

Scalability and flexibility

An Axis network video system can be expanded by adding more network cameras. You can choose exactly what you need today, and scale the system at any time to meet your growing needs. New technologies, additional cameras, and extra storage capacity can all be easily added when required, thanks to strict adherence to industry standards.

Cost-effectiveness

Based on open standards, Axis network video products run on IP networks. Using standard PC server hardware rather than proprietary equipment such as DVRs radically reduces management and equipment costs, particularly for larger systems where storage and servers are a significant portion of the total solution cost. Additional cost savings come from the infrastructure used. IP-based networks such as LANs and the Internet can be leveraged for other applications across the organization.

Distributed intelligence

These days, a massive amount video is being recorded, but never watched or reviewed due to lack of time. As a result, events and activities are missed, and suspicious behaviors remain unnoticed. With network video, intelligence has been brought into the camera itself. Network cameras can have built-in video motion detection and alarm management so the camera decides when to send video, at what frame rate and resolution, and when to alert a specific operator. Other unique features include audio detection and active tampering alarm.

The IP way:
How it works

Protecting existing CCTV investments

Significant investments in analog CCTV systems may have already been made. The technology shift to network video does not, however, mean that existing analog CCTV investments have to be discarded. With an Axis network video solution, you can integrate your existing analog system into an IP-based solution. The solution enables you to take advantage of numerous functionalities such as remote pan/tilt/zoom, Power over Ethernet, audio detection and video motion detection, while meeting user requirements for image quality, recording capabilities, reliability, and cost-effectiveness.

Leveraging IT investments and achieving a lower total cost of ownership

The majority of businesses now have high-speed, IP-based networks connected to the Internet. Adding an Axis network video system simply utilizes and extends the same infrastructure to include video functionality. Standard IT equipment such as switches, PC servers for video recording and storage, are used, so existing investments in IT infrastructure and devices can be leveraged, ensuring high return on investment.
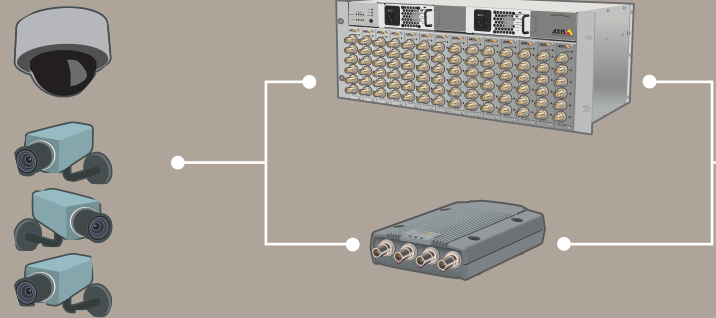
Analog cameras

Axis video encoders and rack solutions

Axis video encoders make it possible to move toward a network video system without having to discard existing analog equipment. They connect to analog cameras, digitize the images and send them over an IP network, allowing analog cameras to take advantage of many of the same benefits as provided by network cameras.

A more secure system

Network video offers more ways to secure access to video than can be provided by an analog CCTV system. Passwords can be used to limit access, and video can be encrypted before being sent over the network to make sure it cannot be viewed or tampered with. The system can also be set up to authenticate the connection using encrypted certificates that only accept a specific network video device, thus eliminating the possibility of anyone hacking into the system.
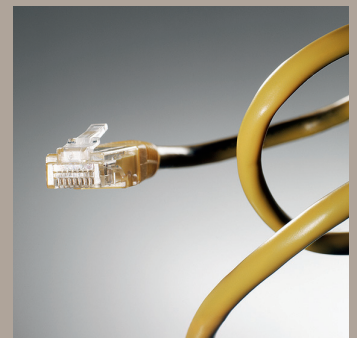
An Axis network video system is able to send video without the need for a dedicated physical infrastructure. It uses standard IP networks, such as Local Area Networks (LANs) and the Internet, for transporting information, rather than dedicated point-to-point cabling used in analog video systems.

IP NETWORK

INTERNET

Axis network cameras
They capture and send live video after connecting directly to the IP network.

Video management and storage
A standard PC with video management software can be used to monitor and record the video.

Remote access
Any camera can be monitored remotely from anywhere on the LAN or the Internet.

Axis video decoder
If network video streams need to be monitored on existing analog equipment, an Axis video decoder can be used.

Easy and cost-effective expansion

A network video system is extremely flexible. Cameras can be moved freely around the network, and the system can be expanded by adding more network cameras. This is easily done regardless of whether the new cameras are to be placed at the same site, or at a new location communicating over the Internet.

Making the most out of your system

With Axis network video solutions, you can take advantage of advanced features that will further enhance your application.

Progressive scan:
Depicting moving objects clearly

Many network cameras employ progressive scan technology that better depicts moving objects clearly. This advanced image capture technology means that the whole image is captured at one time, thus providing crystal clear images even with a high degree of motion.

Power over Ethernet:
Increasing savings and reliability

Not available for analog cameras, Power over Ethernet (PoE, IEEE 802.3af standard) means that the cameras get power from a PoE-enabled switch or midspan over the same standard cable that transmits video. PoE provides multiple benefits, including reduced installation costs and flexibility in camera placement. In addition, cameras can get centralized backup power from the server room, so in the event of a power failure they will continue to operate.

HDTV and megapixel resolution:
See what you've been missing

A megapixel network camera provides more detail or can cover larger areas. In addition to the advantage of depicting more detail with greater pixel density, it can be used to digitally pan, tilt and zoom, and to create multi-view video. An HDTV network camera provides even better video quality with full frame rate and excellent color representation.

Wireless networking:
For full installation flexibility

Sometimes wireless solutions are the best and most cost-effective option for video surveillance installations. For example, it is useful in historic buildings, where the installation of cables would damage the interior, or within facilities where there is a need to move cameras to new locations on a regular basis. The technology can also be used to bridge sites without expensive ground cabling.

Video compression formats:
H.264, MPEG-4 and Motion JPEG

Video compression formats can be a determining factor for a video surveillance application. Many Axis network video products feature advanced real-time video encoding that can deliver simultaneous Motion JPEG, MPEG-4 and H.264 video streams. This gives the flexibility to maximize image quality for recording while reducing bandwidth and storage needs.

Intelligent video:
Scalable intelligence at the edge

Intelligent video makes video more manageable for systems and persons. Applications range from analytics such as video motion detection and audio detection, to more advanced systems including camera tampering detection, people counting, virtual fences, and vehicle license plate recognition. Building this sort of analytics into edge devices such as network cameras has major advantages. An intelligent network camera is never idle and supports the operator 24 hours a day, seven days a week. It is constantly on guard, waiting for an impulse to start recording or sending an alarm to the operator.

Lowered total cost of ownership

According to independent research on the differences between analog and digital solutions, installation, configuration and training costs for analog systems are almost 50% more than for IP systems. For example, cabling is almost three times as expensive in analog systems compared with IP-based systems. The primary reason is that coaxial cabling is more expensive than Ethernet cabling. Also, analog typically requires separate power cabling, while Power over Ethernet eliminates the need for electrical connections in the IP system, and separate cabling is also needed to control analog PTZ cameras. A network video system allows users to incorporate open PC systems and open storage with video management software, which costs 20% less than DVRs.

To read the full study, please visit: www.axis.com/corporate/corp/papers/tco.htm

A proven solution

Douglas Court Shopping Centre
The Douglas Court Shopping Centre in Cork, Ireland, successfully deployed an Axis network video solution to cut crime, cut slip-and-fall injury claims and improve customer experience.

Pyeongtaek City
In this South Korean city, an Axis IP video surveillance solution was installed to improve security and increase the feeling of safety of workers and visitors to the city.

Münchner Verkehrsgesell–schaft (MVG)
The MVG-operated public transport system in Munich, Germany, was equipped with an Axis IP surveillance system which helped minimize graffiti and enhance safety for its more than 500 million passengers yearly.

For more case studies, see www.axis.com/success_stories

Why Axis?

> Worldwide #1 in network video, the world's leading expert
> Proven installations across all continents
> Broadest product portfolio in the industry
> Broadest network of security and IT partners
> Over 25 years of networking excellence

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About Axis Communications

Axis is an IT company offering network video solutions for professional installations. The company is the global market leader in network video, driving the ongoing shift from analog to digital video surveillance. Axis products and solutions focus on security surveillance and remote monitoring, and are based on innovative, open technology platforms.

Axis is a Swedish-based company, operating worldwide with offices in more than 20 countries and cooperating with partners in more than 70 countries. Founded in 1984, Axis is listed on the NASDAQ OMX Stockholm under the ticker AXIS. For more information about Axis, please visit our website at www.axis.com

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