



# A smarter, safer world around the clock

Axis network solutions on the job



# One world. Many solutions.

We all want to feel safe, and at Axis we understand that what feels safe differs depending on geographical location, culture, circumstance, and the individual. Since the beginning, we've worked with an indirect sales model – we sell to distributors who sell to system integrators and resellers who, in turn, sell to end customers.

This model means we work with specialist competencies at every stage – people with real knowledge of their local market and its particular needs. From distribution to installation, we give our customers the very best of the best.

Axis invented the world's first network camera back in 1996 and we've been innovators in digital video surveillance ever since, increasing the security of millions of people worldwide. Today, we're the market leader in network video.

## Global reach local presence

### INDUSTRY SEGMENTS

- Banking and finance
  - Safe cities
  - Commercial
- Critical infrastructure
  - Education
  - Government
  - Healthcare
  - Industrial
  - Retail
  - Transportation

### REGIONS

- Northern Europe
- Eastern Europe
- Middle Europe
- Southern Europe
- North & Central America
- South America
- Middle East & Africa
- North Asia
- South Asia Pacific

# 24 hours. 24 stories.

Every hour of every day, all over the world, an Axis network solution is at work. From keeping our roads and public spaces safe to protecting bank workers, securing sports events, and even safeguarding endangered species. Behind every Axis solution there's a story involving real people and real problems, from the everyday to the extraordinary. It's these people and situations that drive our business, and keep us innovating for a smarter, safer world.

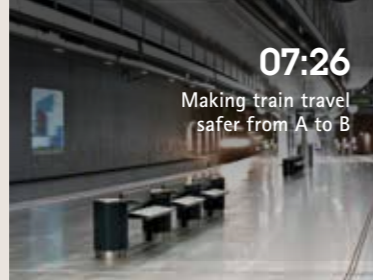
We'd like to take you on a journey around the globe to show you how Axis products and solutions can help you. A 24-hour tour, stopping off each hour to catch a glimpse of an Axis solution in operation.

Get ready for an adventure...



06:15

A sustainable approach to farm security



07:26

Making train travel safer from A to B



08:15

More eyes for prison guards



18:05

Finding space



19:35

Strengthening the parental bond



20:00

Lights, camera, Axis



21:18

Facial recognition helps analyze intentions at casino



09:30

Helping athletes reach their goals



10:00

Style meets security



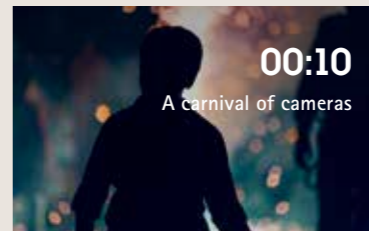
22:00

Seeing in the dark



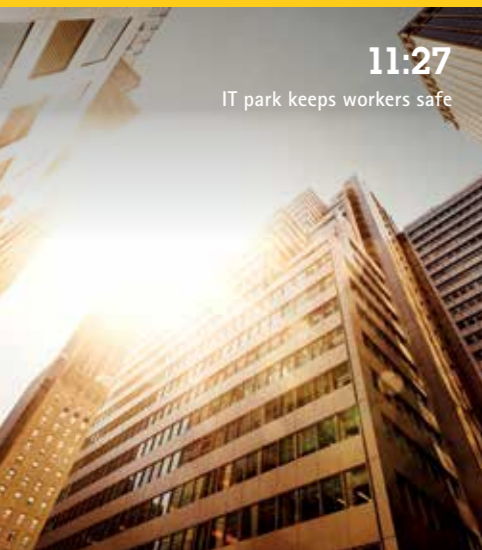
23:25

Solar plant secured under the cover of night



00:10

A carnival of cameras



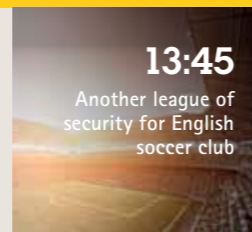
11:27

IT park keeps workers safe



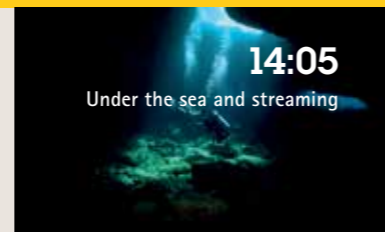
12:08

Access solutions for a high-tech world



13:45

Another league of security for English soccer club



14:05

Under the sea and streaming



01:00

Fires on the rise. Axis at the ready.



02:00

Hotel Siberia



03:03

Hospital monitoring made intelligent



15:30

Axis technology brings banking into focus



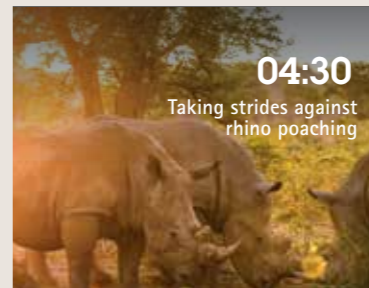
16:00

Securing art for America



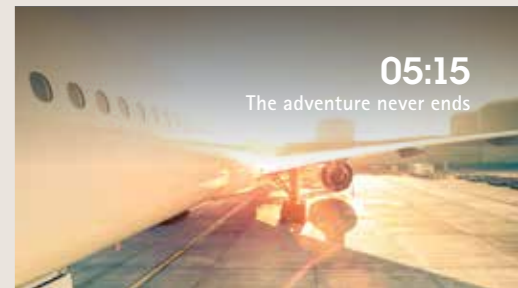
17:00

Going sky high



04:30

Taking strides against rhino poaching



05:15

The adventure never ends

WYKE FARMS, UNITED KINGDOM

# A sustainable approach to farm security

It's dawn, the cows have been milked and are heading into the field. As they amble past, motion sensors kick the cameras into action. The herd is calm and comfortable. It's going to be a great day.

## THE STARTING POINT

### AXIS ONLY

Wyke Farms is a family-run dairy farm in the heart of the English countryside. They pride themselves on being 100% green in terms of energy, so when they needed to extend their surveillance system, sustainability and energy efficiency were a must. Their existing solution combined Axis network cameras with other brand IP cameras. The expansion would be an Axis-only solution and would also cover their newly built biogas plant.

## THE AXIS SOLUTION

### CLEAN AND GREEN

The solution was 25 Axis network cameras. In the farm buildings, they opted for dust-resistant AXIS M30 Network Cameras, a must for sterile environments. The fact that they are also very quick and easy to install was also a plus, as it meant the team could minimize disruption to the flow of the farm.

*Read more about how Axis makes installation easy on page 12.*

For outdoors, they used a combination of AXIS P13 Series and AXIS M30 Series cameras with day/night functionality. A day and night network



#### Did you know?

Cameras with motion detection save energy because they go into power saving mode when there's no action. Discover more about motion detection at <http://www.axis.com>

camera delivers color images during the day. As light diminishes, the camera can automatically switch to night mode to deliver high-quality, black and white images. The cameras also have motion detection functionality, so that they can power down when there's nothing to record.

## ROUND THE CLOCK EFFICIENCY

Surveillance across the farm 24/7 gives plenty of evidence of best practice hygiene procedures if ever they need to be shown to authorities. And, as Atul Rajput from Axis describes, they managed to keep sustainability at the forefront:

"Thanks to our commitment to sustainability in the design, manufacture, and supply of all our cameras, coupled with the efficiency of network video technology, the overall installation was completely in keeping with Wyke Farms' green commitment."



06:15

Segment: Commercial  
Situation: Low energy consumption, easy to install, day/night functionality  
Products: AXIS M30 and P13 Series



Segment: Transportation  
Situation: Vandal-resistant,  
vibration compensation,  
scalable  
Products: AXIS P39 Series

07:26

6 Trains  
75 IP cameras

AXIS P39 Series

One  
cable

– for power and  
data transmission



DEUTSCHE BAHN, GERMANY

# Making train travel safer from A to B

On the 07:26 commuter train from Nuremberg, there's standing room only. In one packed car, a security camera has been covered. An alert is immediately sent to onboard staff.

## THE STARTING POINT SURVEILLANCE ON THE MOVE

Škoda Transportation, which supplies trains to Deutsche Bahn in Germany, were tasked with constructing six new trains for the Nuremberg–Ingolstadt–Munich line, complete with onboard surveillance systems. The cameras had to deliver constant footage throughout the cars and be able to do so despite the occasionally unstable nature of a train ride. They also had to meet strict public transport surveillance requirements.

## THE AXIS SOLUTION ALWAYS A STEADY SHOT

The Axis cameras selected were built specifically for this challenging job. Seventy-five AXIS P39 Network Cameras were installed in each of the six trains. These HDTV cameras, specifically designed

to be used on board vehicles, compensate for vibrations, shocks, and bumps. They deliver clear footage on the move, and the active tampering alarm sends an alert if any device has been covered. The cameras use a single cable for both power and data transmission, so cabling is minimal throughout the busy cars.

## TRANSMITTING ON THE TRACKS

The Axis onboard cameras capture the entire interior of the train. An onboard computer processes the footage, so no additional steps are necessary. As well as preventing incidents on the trains, the cameras deliver data about passenger numbers and movement throughout the trains, which can be used by engineers to design compartments in the future.



INDUSTRY IN FOCUS

## Public transportation

It's important to a city's infrastructure that transport is well used, and for it to be well used, it needs to feel safe. That's why Axis offers a complete portfolio for monitoring transport systems, ranging from cameras and encoders to recorders and analytics. With Axis, you have the technology that lets your staff respond quickly and efficiently to incidents in real-time, helping to keep passengers, staff, and property safe.

These are just some of the benefits of an Axis transport security system:

- > A safer and more secure transportation environment
- > Less vandalism, violence, and fraudulent insurance claims
- > Real-time access to live and recorded images – in HDTV quality
- > A future-proof, flexible surveillance solution

Discover more about Axis and transportation on [www.axis.com](http://www.axis.com)

WORCESTER COUNTY HOUSE OF CORRECTION AND JAIL, USA

# More eyes for prison guards

It's just after eight and the inmates are finishing breakfast. Due to the presence of sharp cooking utensils, security around the kitchen is high. A security camera shows known gang members approaching the entrance. Cameras zoom in to assess their intentions.

## THE STARTING POINT REFORMING PRISON SAFETY

The Worcester County House of Correction and Jail in Massachusetts, USA, houses over 1,100 pre-trial inmates. The 12-building facility previously relied on patrolling guards to keep the peace. However, with inmate numbers rising to a ratio of 3:1, they needed a more reliable system to keep eyes on every corner, 24 hours a day.

## THE AXIS SOLUTION 100-CAMERA STRONG SECURITY

Over 100 vandal-resistant cameras from AXIS P33 Network Camera Series were selected for the job and now cover the facility. Staff monitor live footage in each building, while video from all locations is streamed to a central control room for analysis and archiving.

Because of the high-security environment, few technicians were allowed on site, and they could only bring a limited selection of tools. Thanks to the easy installation of Axis cameras, this is no longer a problem. The cameras can also be remotely configured, so once they've been installed you won't need to touch them again.

## READING EXPRESSIONS

By providing staff with access to live video, it's now possible for them to assess situations and prevent incidents. The cameras have a remote zoom function, which can clearly display an inmate's facial expressions in order to assist staff in deciding if a situation is potentially volatile.



**Did you know?**  
You can host your own networked camera solution, but it's also easy and affordable to bring in a third party to host it for you.



## PRODUCT IN FOCUS

### AXIS Q8414-LVS Network Camera

Corner mount in stainless steel and anti-grip

This discreet camera has no ligature points. It's designed specifically for correctional institutions and medical facilities where there can be a high risk of patient self-harm. The stainless steel, water-resistant casing allows for cleaning by hose, making upkeep convenient and safe.

It can "see" in the dark with invisible IR LED illumination, so you can assess what's happening even if it's pitch black.

And, thanks to the built-in, surface-mounted microphone, audio detection can be used as a complement to indoor video surveillance. Audio detection may be used as an additional tool for identifying urgent situations, for example, fighting, yelling, or slamming doors.

- > Anti-ligature corner camera
- > Stainless steel
- > Impact-resistant
- > Easy and safe to clean
- > Built-in invisible IR LED illumination

Great for:

Prisons, hospitals, medical facilities



08:15

*"The video quality of the Axis cameras is so high that we can see the emotion on an inmate's face and whether they mean to do someone harm."*

Maurice Myrie, Director of IT, Worcester County Sheriff's Office

Segment: Government  
Situation: Vandal-resistant,  
easy to install, remote zoom  
Products: AXIS P33 Series



# Easy planning, configuration, installation, and maintenance

Axis has everything you need to plan, configure, and execute the installation of your system as smoothly and as quickly as possible. Here are just a few of the tools Axis offers to help you get your surveillance system up-and-running.

## PLANNING

### PRODUCT SELECTOR

The Product Selector is a simple and intuitive way to match the right IP cameras and video encoders with every surveillance project. The tool provides filters based on environment, lighting conditions, field of view, and other key features, enabling users to quickly narrow their options and find the product that best suits their needs.

## INSTALLATION

### AXIS T8415 WIRELESS INSTALLATION TOOL

Using our free smartphone app, installers can immediately see live footage from a newly mounted camera, check angles and positioning, and make on-the-spot adjustments.

## CONFIGURATION

### REMOTE ZOOM & FOCUS

The remote focus and zoom functions in fixed dome and i-CS lenses cameras eliminate the need for manual adjustments where the camera is positioned, instead allowing users to make those adjustments from their computer. This means less time at the installation site.

## MAINTENANCE

### ANALYTICS

AXIS Camera Application Program (ACAP) is an open platform for users to add analytics and other applications to Axis products to meet specific security and business requirements. ACAP has spurred a community of software companies to provide a wide variety of applications such as cross-line detection, people counting, license plate recognition, and much more.

*Find more information about system design on [www.axis.com/tools](http://www.axis.com/tools)*

ATHLETIC TRAINING, SWEDEN

# Helping athletes reach their goals

On the screen, the image of a high jumper is frozen at the apex of his jump, his foot grazing the bar. After reviewing the footage, his coach sees that, by applying a sharper angle at takeoff, the athlete could elevate his lift and potentially achieve a new personal best.

## STARTING POINT TRACKING PERFORMANCE

Many athletes need to analyze their movements to improve performance in order to achieve their dream results. A common method is having their coach film them with a hand-held camera during training. This imposes restrictions, however, as coaches must operate the camera instead of focusing on the athlete. Additionally, athletes who train on their own and want to film themselves find the process problematic and time-consuming.

## THE AXIS SOLUTION EVERY SECOND COUNTS

Swedish sports software company Spiideo has developed an iPhone/iPad app using AXIS Camera Application Platform (ACAP), which helps athletes and their coaches analyze movements in real time. The app acts as a remote control for an AXIS V59 PTZ Network Camera installed at the training grounds. It can set the camera to start as the athlete passes a predefined line, so both athlete and coach can concentrate on performance. Footage is immediately available via the app, and can be paused or played in slow motion for detailed analysis of the action.

*See other ways that Axis works with sports stadiums and events on page 24.*

Segment:  
Stadiums & venues  
Situation: ACAP,  
motion detection  
Products: AXIS V59 Series  
Partner: Spiideo

09:30

*"The Spiideo/Axis solution is so simple and flexible and gives me just the feedback I need after, for example, a high jump. The images from the camera are fantastic, and they really help us develop our training."*

Linus Thörnblad, athlete



PRODUCT IN FOCUS

## AXIS V59 PTZ Network Camera Series

Live streaming cameras for professional use  
Whether you're streaming an event live on the web, holding a live seminar, or honing your high-jump technique, AXIS V59 PTZ Network Camera Series deliver smooth and sharp images.

- > HDTV video streaming
- > 30x optical zoom with autofocus
- > Smooth pan, tilt, and zoom
- > CD-quality stereo audio
- > Connectors for most requirements

**Great for:**  
Sporting events, webinars, music events, live streaming, light broadcasting, and video conferencing.

Segment: Retail  
Situation: Small scale,  
low cost, loss prevention  
Products: AXIS M11 Series

10:00

HARRIDGE CLOTHING, ITALY

A woman leaves hurriedly from the shop. Staff check surveillance footage via a smartphone app to see what events transpired prior to the customer's rushed exit to determine if they should send help. They find no cause for alarm.

# Style meets security

## THE STARTING POINT SECURE SHOPPING

High-end men's clothing brand Harridge needed a security system for their Turin store. Their requirements were easy installation, low cost, and access to video both from inside the store and remotely at any time of day.

## THE AXIS SOLUTION TICKING ALL THE BOXES

Five AXIS M11 Network Cameras were installed around the store with views on windows, entrances, main shopping area, cash desk, and storage areas. These cameras are easy to install, with just one cable for both power and internet, and feature a remote zoom function. They also support OptimizedIR for discreet illumination at night. The setup ticked the remote-viewing box with the addition of AXIS Companion video management software. This simple app-based monitoring solution allows footage to be securely viewed from any device, anywhere.

*"The video surveillance system is able to offer us HD image quality, perfect for identifying people and any incidents occurring inside our store, as well as ensuring straightforward exporting of video clips and snapshots"*

Luca Massaro, System Integrator.

Turn the page for more on AXIS Companion Line.



INDUSTRY IN FOCUS

# Retail

## NEW POSSIBILITIES, GREATER GAINS

For Axis, working with retail is about far more than just safety and security. Proactive surveillance and monitoring can help prevent losses, improve merchandising and offer customers a better experience. It makes sound business sense in every retail operation, whether you run a single shop or an entire chain of stores.

### With our cross-functional network video solution, you can:

- > Prevent losses from shoplifting, theft, and cashier fraud
- > Gain a faster return on investment, thanks to reduced losses and increased efficiency
- > Improve store layouts, staff planning, and optimize in-store advertising
- > Easily integrate network video with your existing systems, such as point of sale (POS) and electronic article surveillance (EAS) and access control
- > Improve your bottom line and increase topline sales

For more about our retail solutions, please visit [www.axis.com](http://www.axis.com)

AXIS COMPANION LINE

# Axis quality, now tailored for small businesses

Axis video surveillance products are recognized for quality, innovation, and ease of installation and operation. Now our premium quality surveillance solutions have been tailored to fit the needs and budgets of small businesses.

## A total solution from one supplier

AXIS Companion Line is a complete end-to-end solution designed to meet the requirements of small businesses. With AXIS Companion, business owners can control their surveillance system while away from their premises, giving them one less thing to worry about.

- > Professional end-to-end solution leveraging Axis quality
- > Affordable cameras, recorders, accessories, and software
- > Designed to meet the requirements of small businesses
- > Video surveillance that scales to match changing business needs
- > View from any device, anywhere

## AXIS Companion Line Products

IP cameras

Network video recorders


Solution accessories

Video management software



*"With AXIS Companion Line, I can deliver a solution to meet my customer's needs and budget, without compromising the level of quality that I demand."*

Franck Caron, AXIS Companion Specialist



Segment: Commercial  
Situation: Scalable,  
perimeter protection, PTZ  
Products: AXIS P14  
and P56 Series

11:27

MINDSPACE IT PARK, INDIA

# IT park keeps workers safe

The business day is in full swing. Cameras pan along the roads inside the gated IT park. The post-morning-rush calm is broken by the roar of an engine, as a car speeds recklessly through the lot, coming to a screeching halt in a narrow space. Cameras zoom in to capture the license plate.

## THE STARTING POINT A SAFER WORKPLACE

Raheja Mindspace IT Park in Hyderabad, India is a business area home to 120 IT companies. Being able to keep workers safe, control traffic, and monitor entrances and perimeters was the starting point for a major new surveillance system.

## THE AXIS SOLUTION AROUND THE PERIMETER, AROUND THE CLOCK

The perimeter required securing to ensure that no one can enter the park who isn't meant to. The situation required security cameras that can deal with different lighting, deliver clear pictures at night, and continuously pan so that nothing is missed. Network cameras with wide dynamic range (WDR) were selected to compensate for bright and dark light in the same image, complemented by cameras with OptimizedIR for night imaging and cameras with pan/tilt/zoom (PTZ) capabilities. A total of 38 network cameras were installed around the park's key zones. Video is streamed to a central control point where staff can monitor around the clock and react to any suspicious circumstances.

*For more information about how to secure your perimeters,  
please visit [www.axis.com](http://www.axis.com)*

PRODUCT IN FOCUS

## Seeing the whole picture with PTZ

Axis PTZ network cameras provide wide-area coverage as well as forensic detail when zoomed in. Additionally, PTZ cameras, like AXIS P56 Series, offer a view up to 360°, so you never miss a thing.

*To see all our PTZ cameras, please visit [www.axis.com](http://www.axis.com)*



TOYOTA CARS, SWEDEN

# Access solutions for a high-tech world

A truck approaches the gates; the driver rolls down his window and presses the call button. From the control room, the door operator asks him to show his ID to the camera. All clear. The gates open.

## THE STARTING POINT INNOVATING ACCESS CONTROL

In a small city in Sweden, some big leaps have been made in access control. After a Toyota car dealership realized they were experiencing thefts, they decided to introduce an audio-visual access control system.

*"We already had a service contract with Securitas Direct for the intruder alarm, and now we've added AXIS A8004-VE Network Video Door Station at the gate. This was a simple solution that added a huge amount of value for us."*

Håkan Nordeman, Security Officer at Toyota Center

## THE AXIS SOLUTION THROW AWAY THE KEYS

Keys are a symbol of safety and security, but they can easily be copied and end up in the wrong hands. So, the first step was to get rid of all keys. Instead, the company went for an Axis audio-visual access control system. The system features a door station, which allows someone to press a call button and use two-way audio communication for access. It also features a built-in camera, which an operator can use to see who's buzzing and check their identification. The system is hosted by Securitas Direct, making it a simple, cost-effective solution with no need for extra hardware.



**Did you know?**  
With a hosted video solution, such as AXIS Video Hosting System (AVHS), it's very easy to outsource your security and buy a turnkey solution. Axis network of partners offers a wide range of cloud-based hosted services to protect and develop your business.



Segment: Commercial  
Situation: Access control  
Product: AXIS A8004-VE  
Network Video Door Station  
Partner: Securitas Direct

12:08



PRODUCT IN FOCUS

## Access control

Our access control solutions are truly open. So they give you the freedom to mix and match best-of-breed hardware and software and integrate them with other systems, including your surveillance systems. You can use them for everything from basic identification and entry control to advanced access management.

### NETWORK DOOR STATIONS

Axis network door stations combine communication, video surveillance and remote entry control in one single device. They make a convenient complement to your surveillance installation and help keep your premises secure, providing reliable 24/7 identification. Axis network door stations let you identify a visitor and open the door regardless of where you are.

### NETWORK DOOR CONTROLLERS

Axis network door controllers are non-proprietary, open, and IP-based access controllers suitable for both smaller installations and advanced enterprise systems. Open standards ensures future flexibility and scalability. The door controllers are easily installed and managed.

### NETWORK I/O RELAY MODULES

Axis network I/O relay modules are intelligent modules with configurable I/Os and relays and support supervised inputs. They let you extend the functionality of any Axis product and are particularly useful for integrating Axis network door controllers with other systems in your building. They can also be integrated with other facility systems. Modules suitable for facilities of all sizes and for both indoor and outdoor installations are available.

### CARD READERS

You can easily monitor access to your facility using card readers as part of your access control solution. The readers are designed for both outdoor and indoor usage and support most smart card formats.

Segment: Stadiums & venues  
Situation: Analog to IP,  
audio, safety  
Products: AXIS Q60  
and Q17 Series

13:45

BURNLEY FC, UNITED KINGDOM

# Another league of security for English soccer club

Cameras pan across the stands, pausing briefly to monitor the exits. The stadium is full, and the match is nearly over. As fans start to make their way to the exits, security watches to ensure foot traffic flows smoothly.

## THE STARTING POINT FROM ANALOG TO IP

Burnley Football Club is one of the oldest soccer clubs in England, with a stadium that welcomes up to 21,500 supporters at every match. After reaching the Premier League, Burnley started a multi-million-pound facilities and IT upgrade, which included moving their analog-based CCTV system to include IP video surveillance.

## THE AXIS SOLUTION KEEPING FANS SAFE

A total of 64 new network cameras – outdoor-ready AXIS Q60 Series, and AXIS Q17 Series with built-in IR illumination – were installed across the stadium. Fourteen legacy analog cameras were retained to cover the concourses, which were integrated into the IP system using Axis video encoders. As well as monitoring the stands and stadium bowl, cameras are trained on the 40 entrance turnstiles. Together with a ticket scanner, video helps identify individuals trying to use forged tickets.

Discover more about Axis stadium solutions on [www.axis.com](http://www.axis.com)

*"The new Axis IP video system gives our ground safety team the ability to extract wrongdoers from the crowd before they endanger fans. The police have already been able to secure several convictions based on positive identification of individuals. Thankfully, these occurrences are rare and the deterrent effect of the new system will make them rarer still."*

Doug Metcalfe, Stadium & Operations Manager, Burnley Football Club

TECHNOLOGY IN FOCUS

## Analog to IP migration

Helping security go digital for 20 years

It's been 20 years since Axis launched the world's first network camera. Since then, we've been paving the way for the shift from analog to digital surveillance.

### Transform your analog cameras

Using Axis video encoders, you can convert analog video signals into digital streams that are sent over an IP-based network. You can then view live images using a password-protected user account via the web or video management software on a local or remote computer. If you want to add IP cameras to your analog system, you can do so without having to add or replace any cables.

### The digital advantage

The benefits of network video compared to analog technology are numerous, including:

- > Superior image quality
- > Remote accessibility
- > Distributed intelligent video capabilities
- > Easy installation and integration
- > Better scalability, flexibility, and cost-effectiveness

Segment: Education  
Situation: Waterproof,  
live streaming,  
durable, lighting, video  
management software  
Product: AXIS Q60 Series

14:05

SCHOOL OF OCEAN AND EARTH SCIENCE AND TECHNOLOGY, USA

## Under the sea and streaming

The ocean floor is still, the water murky. But through the network camera it's clear. A translucent "comb jelly" enters from the left, its undulating body propelling it through the water, light catching its outstretched tentacles.



### THE STARTING POINT

#### AN UNEXPECTED OPPORTUNITY

When telecom giant AT&T donated a disused underwater telecommunications cable to the University of Hawaii, scientists realized they had a unique opportunity. The cable, located 3 miles below the surface of the Pacific Ocean, meant they could create an unmanned underwater observatory to continuously observe and monitor marine life at the bottom of the sea. But in order to get 24/7 live footage, they needed a network camera.

### THE AXIS SOLUTION

#### CAMERAS UNDER PRESSURE

The scientists sent down an AXIS Q6045 Mk II PTZ Network Camera. To withstand water pressure at a depth of three miles, it was encased in a pressure-resistant glass dome and mounted on a tripod. LED lights were added to illuminate the murky depths. Department staff operate and adjust the camera remotely, which is a welcome benefit at these extreme depths. The video is managed with easy-to-use AXIS Camera Station video management software. Footage is not only used in the school, but can also be streamed live via the department's website.

#### DISCOVERING UNDERWATER LIFE

AXIS Q6045 Mk II PTZ Network Camera opens a 24-hour window on the ocean floor. The observatory has led to new discoveries, including recording unidentified creatures and documenting previously unseen behaviors.

### TECHNOLOGY IN FOCUS

## Axis video management

Axis offers several video management systems for your surveillance solution:

- > **AXIS Companion** – a basic surveillance system, great for small stores and offices. Easy to install and manage without technical expertise (read more on page 18).
- > **AXIS Camera Station** – a fully-featured video management system, perfect for schools, retail, and manufacturing.
- > **Hosted video** – Axis partners provide cloud-based surveillance management. Ideal for businesses with multiple small sites such as convenience stores.
- > **Axis partner applications** – customized and localized surveillance solutions available for any system, regardless of complexity or size – small, medium or enterprise.
- > **AXIS Video Hosting System (AVHS)** is a unique solution where an alarm monitoring center can offer its customers a managed video monitoring service over the Internet.

For more about our *AXIS Video Hosting System*, visit [www.axis.com](http://www.axis.com)



Segment:  
Banking & finance  
Situation: WDR,  
Lightfinder,  
facial recognition  
Products: AXIS P13  
and M30 Series

15:30



SHAANXI RURAL CREDIT COOPERATIVES UNION, CHINA

# Axis technology brings banking into focus

It's a cloudy afternoon in Xi'an, capital of Shaanxi Province. In the misty light, network cameras pick out a figure at the back entrance of one of the city's main banks. Despite poor visibility, facial recognition software identifies the known individual, and security staff are alerted.

## THE STARTING POINT SEEING IT ALL

Shaanxi Rural Credit Cooperatives Union (SRCCU) provides credit services to Shaanxi Province, with 3,000 locations and hundreds of ATMs. Understandably, any place that handles and stores high volumes of cash needs an extremely accurate and reliable surveillance system. Across SRCCU's sites, "clear faces", "clear bank notes", "clear details", and "clear interior/ exterior environments" need to be visible at all times of day and in all light conditions.

## THE AXIS SOLUTION A MULTI-LAYERED APPROACH

Due to their numerous branches, each with its own specific needs, equipping SRCCU's banks was no easy task. Key surveillance points included entrances for both staff and customers, banknote-handover areas for cash carriers, outer/inner areas, counters, and ATMs.

The solution utilized some of Axis smartest technology. Cameras with Axis Lightfinder technology and wide dynamic range (WDR) enabled video in poor and challenging light conditions. Facial recognition analytics software was implemented in the network cameras installed at entrances, interiors, and ATMs, while 360° panoramic cameras ensured nothing was missed. The network cameras also come with Zipstream – Axis own technology for dramatically lowering bandwidth and storage needs.

*Turn the page to discover more about Zipstream.*



# Do a 360, or just a 180

8-megapixel AXIS P3707-PE Network Camera, with four varifocal camera heads, enables 360° coverage or a combination of overview and zoomed-in views in four different directions.

15-megapixel AXIS Q3708-PVE Network Camera features three image sensors for 180° surveillance as well as technologies for handling challenging lighting conditions.

These cameras are ideal for large-scale surveillance at airport terminals, train stations, public squares, university campuses, and school halls, as well as parking lots.



# Axis Zipstream technology

## MORE VIDEO, LESS STORAGE

Axis Zipstream technology is a collection of algorithms in the camera that analyze the video stream in real-time. Scenes containing interesting details like faces or license plates are recorded in full image quality and resolution, while less crucial areas, such as white walls or static vegetation are filtered out by smoothing in order to achieve better storage savings.

## Lower cost, increase retention & resolution

Zipstream is relevant for all users wishing to reduce the cost of storage or network load. In any video surveillance system, reducing storage needs directly results in lower total cost – independent of system size or storage solution. With Zipstream, less storage is needed per recorded minute. This enables increased retention time, resolution, and/or number of cameras – without increased storage space.

Zipstream also automatically adapts to PTZ camera movements. Bandwidth peaks can be avoided thanks to a dynamic rate controller that is automatically enabled when the camera is being panned, tilted, or zoomed.

*Discover more on [www.axis.com/zipstream](http://www.axis.com/zipstream).*



BUTLER MUSEUM OF AMERICAN ART, USA

# Securing art for America

A man and woman wander around the gallery, taking in the latest exhibition of American abstract paintings. Absentmindedly, the man reaches out as if to touch the canvas. A motion-triggered voice alert is activated, "Please step away from the artwork."

## THE STARTING POINT LOOK, DON'T TOUCH

After a parent innocently removed a painting from the wall to show their child, the Butler Museum of American Art realized they needed to protect their vast, valuable collection. Being on a tight budget, it was video surveillance, rather than hiring more guards, which was the cost-effective answer.

## THE AXIS SOLUTION SCALING UP WITH AXIS

The museum already employed around 100 Axis network cameras, which had proved extremely reliable. So, scaling up with Axis was an obvious choice. A solution was designed using around 100 additional network cameras for different purposes. This included analytics software that senses movement and triggers a voice alarm, warning visitors not to get too close to the artwork. Forensic detail of the video allows security staff to identify real threats, and only react when necessary. This has also allowed visitors to enjoy the art undisturbed.

Segment: Commercial  
Situation: Audio, damage and theft prevention, low light  
Products: AXIS P33 and P13 Series, AXIS M11 Series, AXIS F44 Main Unit

16:00



*"This system has really made it easier to sleep for those of us in charge of this place."*

Dr. Louis Zona, Chief Curator, The Butler Museum

PRODUCTS IN FOCUS

# Network Audio Systems



## DEVICES FOR DELIVERING AND RECORDING SOUND

Axis offers standalone network loudspeakers, as well as audio accessories that complement Axis network cameras and video encoders, making your video surveillance even more effective.

digital signal processor, streaming functionality, and microphone – all built in. Both speakers can run onboard applications such as music streaming.

**AXIS C3003-E Network Horn Speaker**  
This is a simple-to-install outdoor loudspeaker that provides clear, long-range audio-in-video surveillance solutions. It can play a prerecorded audio file when it's triggered, be used for live audio during events, or as an auditory deterrent.

**AXIS P8221 Network I/O Audio Module**  
This audio module provides eight configurable input/output (I/O) ports and audio capabilities to a network video system that either does not have audio support or requires more.

**AXIS C1004-E Network Cabinet Speaker & AXIS C2005 Network Ceiling Speaker**  
These speakers are complete, high-quality audio systems in a single unit, including an amplifier, mixer,

**AXIS T83 Microphones**  
AXIS T83 Microphones are ideal for listening to what's happening at a specific location in order to evaluate the urgency level of a situation. They can also be used as an intercom system together with a network camera.

THE STRATOCACHING PROJECT,  
CZECH REPUBLIC

# Going sky high

At 98,000 ft above the Earth, all we see is a bed of white clouds. Suddenly, 12 pods come into shot as they are released from a balloon. They make their descent, spinning like maple seeds towards the ground.

## THE STARTING POINT **UP, UP, AND FILM AWAY!**

The brainchild of Czech non-profit association, Žádná věda (Not Rocket Science), Strato-caching combines high-altitude balloons with geocaching gaming mechanics. At 98,500 ft (30,000 m) above ground, a balloon releases 12 pods. They float down to Earth where participants of the game then locate them using GPS. For their first flight, Žádná věda wanted live video streaming of the entire event, not from the ground, but from the balloon itself.

## THE AXIS SOLUTION **OVERCOMING EXTREMES**

There were many obstacles, including weight restrictions, extreme temperatures, and turbulence. AXIS F Series was chosen for the job, equipping an AXIS F44 Main Unit with two AXIS F1005-E Sensor Units – one filming the balloon from above and one from below. Due to their discreet and flexible design, AXIS F Series products are normally used for retail stores, ATMs, buses, and emergency vehicles. The thumb-sized sensor unit fit tight and steady in the balloon's basket. A heating wire and thermostat were used to compensate for freezing temperatures above the clouds.

## **LANDING WITHOUT A SCRATCH**

For the duration of the 117-minute flight, the network cameras provided high-quality video, which was watched by over 220,000 online viewers. Once the pods were deployed, the balloon burst and came down to Earth, Axis solution fully intact.

▶ Watch: <https://www.youtube.com/watch?v=PbHx2bD23Nk>

*"We're proud to be the first to realize live video streaming from the stratosphere to more than 220,000 viewers!"*

Petr Bakoš, Chief Designer, Žádná věda



PRODUCT IN FOCUS

## **AXIS F Series**

Flexible cameras that let you see more

- > Flexible, rugged, and discreet design
- > 1-channel and 4-channel main units
- > Choice of indoor, outdoor, standard, varifocal, pinhole, fisheye, and dome sensor units
- > Wide dynamic range (WDR) and Axis Zipstream technology
- > Two-way audio, input/output ports

AXIS F Series is based on a divided network camera concept, where the camera is split into a sensor unit – made up of a lens and image sensor with a cable – and a main unit, which is the body of a camera. The small sensor unit can be installed discreetly in tight places, while the long cable from the sensor unit to the main unit provides the flexibility to place the main unit where there's space, making the build and installation extremely flexible. This series is ideal for ATMs, banks, stores and hotels, as well as rugged environments such as emergency vehicles, buses, trams, and trucks.

For more modular cameras, please visit [www.axis.com](http://www.axis.com)

Segment: Other  
Situation: Extreme temp,  
live streaming, lightweight  
Products: AXIS F Series

17:00

BIKE PARKING, THE NETHERLANDS

# Finding space

As people leave work in Utrecht, digital displays start to flicker as bike parking spots around the central station free up and become available.

## THE STARTING POINT

### HELPING CITY BIKERS FIND A PARKING SPOT

What started as a pilot project by the City of Utrecht in the Netherlands, is now a citywide bike-parking initiative. Using AXIS Camera Application Platform (ACAP), software company LumiGuide developed a system to help city cyclists park safely and quickly. Each parking area is equipped with two AXIS M30 Network Cameras that scan the lot for empty spots. The available spots are then shown on digital displays. 200 network cameras around the city now find parking spaces for 3,000 bicycles. The system is easy to scale up as new bike parking lots are added.

## THE AXIS SOLUTION

### MORE THAN JUST SECURITY

This project uses AXIS M30 Network Cameras for indoor and outdoor parking lots. With their vandal-resistant and discreet design, as well as their day/night capability for clear images in the dark, the mini domes are perfect for the job. As Roel van Dijk, CEO of LumiGuide, describes: "The cameras completely blend into the landscape of smoke detectors and tube lighting. We consider that a desirable characteristic. A bicycle parking lot is crowded enough as it is."



Segment: Government  
Situation: Non-surveillance solution, app, day/night  
Products: AXIS M30 Series  
Partner: LumiGuide

18:05



PRODUCT IN FOCUS

## AXIS M30 Network Camera Series

### Affordable mini domes

AXIS M30 Series offers small and affordable, indoor and outdoor fixed domes with fixed focal lenses. The cameras are easy to install on the wall or ceiling. Several models are available with panoramic views such as 360°/180°.

- > Functional and smart design for indoor/outdoor use
- > Wide angle and 360°/270°/180° panoramic views
- > HDMI output
- > Easy, flexible installation on wall or ceiling

### Great for:

Retail stores, hotels, schools, banks, and offices with tight budgets for video surveillance.

Segment: Healthcare  
Situation: Non-surveillance,  
lightweight, ACAP  
Products: AXIS P12 Series  
Partner: NetRex

19:35



OLOMOUC UNIVERSITY HOSPITAL, CZECH REPUBLIC

# Strengthening the parental bond

A couple sits on their sofa huddled over a smartphone. On the screen, the tiny form of their premature daughter suckles her thumb.



## THE STARTING POINT PRECIOUS MOMENTS

The neonatal ward at Olomouc University Hospital was looking for new ways to help parents bond with babies that need to spend time in an incubator. Missing out on this vital early stage of a baby's development can have implications later in life, but it is impossible for parents to be physically present at the clinic 24 hours a day. So, the hospital started looking into ways in which video and an innovative app might help.

## THE AXIS SOLUTION NEW TECHNOLOGY. NEW LIFE.

Due to the small size of the incubator and sensitive nature of the situation, the network camera needed to be extremely small and light. It also needed to function when the nursery lights were turned down. After testing different products, AXIS P1214-E Network Cameras were installed in 12 incubators.

## STREAMING THE FIRST MOMENTS

Parents can see their baby on their smartphones, wherever they are, 24 hours a day, using the AXIS Camera Application Platform (ACAP) app developed by NetRex. The network cameras stream directly to the NetRex platform, so there's no need for the hospital to deal with servers and equipment.

*"The Axis solution and accompanying app has been received positively by families. Parents and other relatives meet for 'incubator streaming' so they can monitor the child's development each day with their own eyes, which further strengthens their bond."*

Dr Lumir Kantor, Ph.D., chief physician at the hospital's neonatal ward.



TECHNOLOGY IN FOCUS

# AXIS CAMERA APPLICATION PLATFORM

An open policy

AXIS Camera Application Platform (ACAP) is an open platform available on most Axis cameras, allowing you to add analytics and other applications. ACAP applications are developed by Axis or our partners and can be embedded directly in Axis products to tailor the camera solution. Applications can be used not only for monitoring newborn babies, but also for crossline detection, people counting, license plate recognition, and much more.



# AXIS Q61 Series

## A triple-award-winning camera series



Since launching in 2015, AXIS Q61 Series has scooped up three prestigious awards:

- Good Design Award from the Japanese Institute of Design Promotion
- SSA Innovation Award in the CCTV category
- Security Industry Association's 2016 New Product Showcase in the Video Surveillance Cameras IP category

AXIS Q61 Series has a unique design concept, a result of listening to our customers and partners. To better blend in with their environment when mounted, the cameras are easily re-paintable and 45% smaller than previous generations. Their unique dome geometry enables operators to identify objects above the camera horizon. Axis Speed Dry function makes the camera vibrate, effectively shaking off water droplets in rainy weather, and the laser focus feature makes it the fastest focusing PTZ camera on the market.

### AXIS SHARPDOME TECHNOLOGY

AXIS Q61 Series features Sharpdome, with innovative mechanics and a unique dome geometry, providing sharp images in all directions and offering the unique possibility to identify objects as much as 20° above the camera horizon.

### AXIS SPEED DRY

Sharpdome technology includes Axis unique Speed Dry function, providing sharp images in rainy weather and facilitating high-pressure cleaning. Speed Dry creates high-speed vibrations in the dome, removing drops.

### LASER FOCUS

AXIS Q61 Series also features laser focus. Its 100% safe laser beam measures the distance between the camera and an object in just a fraction of a second, delivering perfectly focused images every time.

AXIS Q61 Series also features:

- Axis Zipstream technology
- Wide dynamic range (WDR) up to 130 dB
- Lightfinder
- Outdoor-ready models with Arctic Temperature Control

Segment: Safe Cities  
Situation: Lighting, safety & security, remote viewing  
Products: AXIS Q60 Series

20:00

THE ACADEMY AWARDS®, USA

# Lights, camera, Axis

Cameras flash, microphones are waved in the air, and shouts of "Look this way!" and "Who designed your dress?" rise above the crowd. This year's hottest Hollywood couple make their way down the red carpet.

#### THE STARTING POINT

#### SECURING THE RED CARPET

The Academy Awards® is one of the most popular entertainment spectacles of the year. As celebrities arrive, they walk the red carpet and strike poses for the world's media. It's the job of the Los Angeles Police Department (LAPD) to keep the high-profile guests, as well as the crowd, safe. Faced with the challenges of variable lighting conditions, camera flashes, and the fact that red is one of the hardest colors for video to render, the LAPD chose Axis to help them do the job.

#### THE AXIS SOLUTION

#### WATCHING FROM AFAR

Using a wireless mesh network solution, the security team chose AXIS Q60 Network Cameras that offer outstanding image quality in HDTV 1080p. They feature precision, high-speed pan/tilt, powerful zoom, durability and day/night function. Officers can select, control, and view all cameras remotely from City Hall. If one on the ground reports any activity, the network cameras can zoom remotely to assess the situation.

*"What I appreciate most about the Axis solution is that we no longer have to think about the technology or how to use its capabilities. High quality resolution plus video storage that is searchable and retrievable help us best leverage our resources."*

Michael Downing, Commanding Officer for Counter Terrorism and Special Operations Bureau, LAPD.



#### PRODUCT IN FOCUS

#### AXIS Q60 PTZ NETWORK CAMERA SERIES

Advanced, high-speed PTZ with mission-critical functions

AXIS Q60 PTZ Network Cameras are designed for the most demanding video surveillance applications, with outstanding, full frame rate video in resolutions of up to HDTV 1080p. With powerful zoom and high-speed, precision pan/tilt/zoom capabilities, the indoor- and outdoor-ready PTZ cameras both enable exceptional coverage of large areas and provide great detail when zooming in.

- > Outstanding video quality in resolutions up to HDTV 1080p
- > Precision, high-speed pan/tilt, and powerful zoom
- > Day and night functionality
- > Outdoor-ready models with Arctic Temperature Control
- > Pressurized, stainless steel models
- > Models with active cooling for operating in temperatures up to 165°F (75°C)
- > Enhanced analytics

Segment: Casinos  
Situation: Facial  
recognition, WDR  
Products: AXIS P13 Series  
Partner: Herta Security

21:18

CASINO GRAN MADRID-COLÓN, SPAIN

# Facial recognition helps analyze intentions at casino

A guest approaches the casino entrance. The camera and database sync. Records show that she is on the VIP list. The velvet ropes are lifted and the guest is escorted through to an exclusive room.

## THE STARTING POINT ARE YOU ON THE LIST?

Casino Gran Madrid-Colón in Spain was using Axis cameras to monitor their gaming areas, but they realized they needed an additional system for quick and efficient identification of individuals at the casino entrance. A system that could, for example, quickly establish the arrival of VIPs or "high-rollers".

## THE AXIS SOLUTION FACE TO FACE

Using three AXIS P13 Network Cameras mounted in the entrance hall, every casino guest is now captured on film. The cameras are supported by facial recognition software from Herta Security that matches faces from the real-time video with a database of stored portraits. The cameras also have WDR - Forensic Capture and Lightfinder, ensuring excellent image quality even under fickle or low-light conditions.

The facial recognition system is exceptionally accurate. This means time for security personnel has been dramatically reduced. It also means that legitimate guests can enter the premises without feeling harassed, since the system uses one of the least invasive biometric technologies.

*Discover more about casino security on [www.axis.com](http://www.axis.com)*



TECHNOLOGY IN FOCUS

# Facial recognition



Facial recognition helps you improve customer service and protect your assets by identifying important customers or potential perpetrators. When a face is captured on camera, it's matched with a database of images in real time. Then entry can either be granted or denied, or an alarm can be raised and appropriate actions taken. The technology can even identify faces in a group.

Use for:

- > VIP identification at casinos, hotels, or high-end retail stores
- > Detection of wanted persons at airports
- > Integration with access-control systems in corporate and commercial buildings
- > Watch-listing or blacklisting at stadiums, retail stores, or casinos



Watch this short video about facial recognition here:  
<http://www.axis.com/se/sv/solutions-by-application/facial-recognition>



Segment: Critical infrastructure  
Situation: Loitering, zone crossing, analytics  
Products: AXIS Perimeter Defender, AXIS Q19 Series

22:00

It's the start of the night shift. While security staff are getting briefed, an alarm sounds. A vehicle has been detected loitering near the side gate. A couple sits inside in the car, hunched over an unfolded map. Floodlights shine, casting a bright, white light through the windshield.

HYDROELECTRICITY PLANT, NORWAY

## Seeing in the dark

### THE STARTING POINT BEYOND BORDERS

This large, government-run power plant is located on the edge of a small town. Back roads provide the only access. When fitting a security system for the plant, a strong perimeter defense with automatic intrusion detection was required to ensure operators could effectively monitor incidents and attend to those that constitute a real threat.

### THE AXIS SOLUTION PERIMETER PROTECTION

Axis perimeter protection solution is based on thermal cameras together with analytics. The thermal cameras can "see" around the clock and provide automatic alerts when a person enters a predefined area within the camera's field of view. This makes it possible to acknowledge suspicious activity – before intrusion. The solution can easily be integrated with other IP cameras, floodlights, loudspeakers, and existing security systems for optimal performance.

PRODUCT IN FOCUS

## AXIS Perimeter Defender

AXIS Perimeter Defender gives you an edge where security starts – at the perimeter of your facilities. It's a flexible, scalable video analytics application for perimeter surveillance and protection, designed for demanding large-scale installations. This smart software can detect multiple, simultaneous events in different places. It analyzes events, dismisses non-threatening ones and notifies security staff of potentially critical situations.

- > Scalable perimeter protection
- > High detection accuracy
- > Multiple detection scenarios
- > Easy and intuitive installation



Watch: <https://www.axis.com/fin/en/products/axis-perimeter-defender>

SOLAR PANEL FIELD, ITALY

# Solar plant secured under the cover of night

It's approaching midnight. At a photovoltaic plant, thermal network cameras have detected a heat-radiating object near the southeast fence, triggering spotlights to shine on the area. Network cameras zoom in, as a guard scans his monitors for the cause. He watches as a startled hare squeezes under the fence and into the night.

## THE STARTING POINT LIGHT SENSITIVE

On over 52 acres in Poirino, Italy, hundreds of solar panels are feeding off the Mediterranean sun to produce electricity. This solar, or photovoltaic, power plant needed a security solution to protect the perimeter and inner plant. Lighting the area at night wasn't an option due to high costs and the fact that it would interfere with the operation of the panels. So, the plant needed a solution that could capture clear images in complete darkness.

## THE AXIS SOLUTION SEEING HEAT

The security team chose to install 34 AXIS Q19 Thermal Network Cameras around the perimeter. These robust cameras can "see" in the pitch dark using thermal imaging. They can detect anything radiating heat, be that a person, animal, or vehicle. When the thermal cameras detect something, they activate a light to illuminate the area. An AXIS Q60 Network Camera then locks on to the area and security is notified.

*"The solution we implemented provides continuous monitoring of the area without the need for artificial light sources as well as a reduced margin of error."*

Claudio Toaldo, CEO, SicurTel s.r.l.



Segment: Critical infrastructure  
Situation: Night illumination, perimeter protection, thermal imaging  
Products: AXIS Q19 and Q60 Series

23:25



## TECHNOLOGY IN FOCUS THERMAL IMAGING

Reliable detection – 24 hours a day, seven days a week  
Thermal imaging is becoming increasingly more available as new sensors, new materials, and improved calibration make thermal cameras more affordable, reliable, and versatile. Axis thermal network cameras outperform visual network cameras in dark scenes, and are a great tool for detecting people and objects in 24/7 surveillance, from pitch-dark areas to sunlit parking lots.

Thermal network cameras don't require any additional light sources, making them energy-efficient and discreet. And, in contrast to conventional day-and-night cameras that depend on a certain amount of near-infrared light to function, thermal cameras deliver reliable surveillance images even in complete darkness.

Discover more about thermal network cameras on [www.axis.com](http://www.axis.com)

CITY SURVEILLANCE, BRAZIL

# A carnival of cameras

Revelers are heading home after a spectacular carnival. A network camera pans the perimeter of a building, and detects a figure attempting to climb over a nearby fence.

Segment: Safe Cities  
Situation: Analog to IP,  
safety and security  
Products: AXIS Q60 Series

00:10

## THE STARTING POINT MINIMIZING CRIME. MAXIMIZING FUN.

The northern state of Bahia in Brazil was set for an exciting few years. The capital, Salvador, was to host the FIFA Confederations Cup, be a World Cup host city, stage a 2018 World Cup qualifying match, and hold soccer matches during the 2016 Rio Olympics. Then there was the annual Bahia Carnival, attracting thousands of people. The fun levels were going to be high, and so were the security risks.

## THE AXIS SOLUTION SURVEILLANCE ROLL-OUT

This complex project, spanning several cities, was rolled out in increments as events took place. In all, over 800 cameras were employed, updating an inefficient analog system.

The first cameras installed were AXIS Q6042-E Network Cameras, 235 of them in total. The following year, another 400 were added, plus 165 AXIS Q6044-E Network Cameras. Many of the cameras remained in place after the events, and others have been incorporated into the regional surveillance system.

*Turn the page to read more about keeping cities safe.*

*"The cameras help identify various crimes and traffic issues. Panning optimizes police work in violent areas, and the images can be used both preventively as well as for evidence."*

Lieutenant-Colonel Marcos Oliveira, Secretary of Public Safety of Bahia (SSP-BA)

PRODUCTS IN FOCUS

# Accessories

Axis provides a wide range of accessories to complement its network video products

## MOUNTS

From corner mounts to pendant kits, Axis has a variety of mounts designed to enhance camera function and minimize security risks.

## HOUSINGS & CABINETS

Resistant to impact and vandal acts, housings and cabinets are easy to install, and shelter cameras from a variety of elements, such as extreme weather, dust, and more.

## LENSES

Many Axis network cameras offer an exchangeable lens, ranging from wide angle to telephoto lenses.

## CONTROL BOARDS & MORE

Video surveillance control boards, jog dials, and keypads make your system user-friendly and easy to operate.

*For all available accessories, please visit [www.axis.com/products/accessories](http://www.axis.com/products/accessories)*

# Creating safer cities

It's about caring for your city and its people

Anything can happen in a large city, every minute of every day. With Axis solutions, you can observe what's happening in your city in the sharpest, real-time HDTV, regardless of weather, time of day or attempted tampering. As a world leader in video surveillance, Axis has you covered.

## PUBLIC BUILDINGS

Protect public buildings from crime and graffiti with network cameras placed strategically and conspicuously, inside and out. With Axis Wide dynamic range (WDR) network cameras, you get clear HDTV images even in strong backlight, which can help in identification.

## PARKS

Keep an eye on parks at night with Axis thermal network cameras and Lightfinder technology. By visualizing heat radiating from people, vehicles, and objects, thermal cameras virtually let you see in the dark.

## STREETS

With video analytics, you get automatic alerts in cases of heavy traffic, accidents, or stopped vehicles. So, everyone can get from point A to point B as quickly and safely as possible.

## SQUARES

City or town squares are a challenge because they present considerable areas to cover. Axis PTZ (pan/tilt/zoom) network cameras provide a 360° panoramic overview of large open spaces, while also being able to detect and zoom in on movement from a distance.

## DEPLOYABLE

With Axis deployable solutions, you can easily integrate extra cameras to cover temporary events such as demonstrations, protests, or outdoor concerts. Axis network cameras are outdoor-ready, right out of the box.

## CONTROL CENTER

From a centrally located control room, an entire city can be monitored in real time from all cameras – even deployable ones. This means the right number of personnel can be sent exactly where needed.

# Products for a safer city

## AXIS P13 SERIES

These robust, fixed network cameras have superb video quality and up to 5-megapixel resolution, perfect for monitoring public buildings, intersections, and more.

## AXIS Q.19 SERIES

Thermal network cameras are ideal for securing both indoor and outdoor areas, 24/7, allowing you to detect people, objects, and incidents in heavy smoke, haze, dust, fog, and even complete darkness.

## AXIS Q.35 SERIES

These high-performing, vandal-resistant, indoor- and outdoor-ready fixed domes deliver exceptional image quality. Optimal for high-security applications in areas such as cities, airports, railway stations, and industrial and critical infrastructure facilities.

## AXIS Q.60 SERIES

This series of high-speed dome cameras features up to 35x optical zoom for impressive detail in the most demanding surveillance applications, offering exceptional coverage for large areas.

## AXIS VIDEO ENCODERS

Axis video encoders enable a cost-efficient migration from your existing analog system, giving you instant access to the market's widest array of new digital benefits.





Segment: Government  
Situation: Smoke  
detection, IR illumination  
Products: AXIS Q1765-LE PT  
Mount Network Camera

01:00

The forest is pitch black. But on the monitor, everything is in clear view. In the distance, a wisp of smoke rises from the trees.

FOREST FIRES, POLAND

# Fires on the rise. Axis at the ready.

THE STARTING POINT

## FIRES RAGE IN RISING TEMPERATURES

Poland is increasingly experiencing hotter weather, less precipitation, and stronger winds. Along with these drastic changes in weather comes an increased threat of forest fires. The forest district of Czarna Białostocka is one of 100 locations which needed video surveillance for the early detection of fires.

THE AXIS SOLUTION

## THE FOREST WATCH

Two surveillance towers were strategically positioned to monitor the forest. Each tower was equipped with an AXIS Q1765-LE PT Mount Network Camera. A specialist GSM software was created to stream high-quality video and provide the exact coordinates of suspected fires.

SMOKE SIGNALS

AXIS Q1765-LE PT Mount is a slim, outdoor-ready bullet camera with 18x optical zoom and auto-focus. It offers high-resolution and low-compression video. The long-range view covers a 12-mile (20 kilometer) radius, and features built-in Axis OptimizedIR illumination with four highly power-efficient, auto-adjusting LEDs. The camera can be easily mounted in pan/tilt housing with an added motor, which allows it to cover great distances and have an extremely wide range of surveillance, from vast overviews to detailed images. Combined, all these features formed the ideal solution for preventing forest fires in Czarna Białostocka.



PRODUCT IN FOCUS

## Explosion-protected cameras

There are many situations where cameras need to be highly protected to decrease the risk of causing an explosion. Any area where flammable liquids, vapors, gases or combustible dusts are present, such as oil refineries, gas pipelines, refueling stations and chemical plants. But also less obvious places like hospital operating rooms where pressurized gas is used.

Explosion-protected cameras are heavy-duty enclosures containing networked IP cameras. The explosion-protected camera housing prevents any inside sparks or explosions from escaping and igniting vapors, gases, dust or fibers in the surrounding air.

THE HILTON GARDEN INN KRASNOYARSK, RUSSIA

# Hotel Siberia

Temperatures have fallen to  $-15^{\circ}\text{F}/-26^{\circ}\text{C}$ , the hotel guests are sleeping, and most of the staff have gone home. A car pulls in to the hotel parking lot. Swerving on the ice, it plows into a parked vehicle. The license plates are captured by network cameras.

## THE STARTING POINT SURVIVING BELOW ZERO

Hilton Garden Inn Krasnoyarsk is located at the heart of Siberia. The hotel group wanted an outdoor surveillance system to tackle the requirements of a large 4/5-star hotel, to help prevent vandalism and theft, and to keep their guests safe. However, located in an area famous for its freezing weather conditions, they had another requirement: video surveillance equipment that could withstand below-freezing temperatures.

## THE AXIS SOLUTION SEEING IT ALL, DAY OR NIGHT

Network cameras from AXIS P13 Series were installed around the hotel perimeter. These indoor cameras were installed in housings with heaters, which ensured the devices could function down to  $-58^{\circ}\text{F}/-50^{\circ}\text{C}$ . AXIS P13 Network Camera Series also includes outdoor-ready models with Arctic Temperature Control for less extreme climates within a temperature range of  $-40^{\circ}\text{F}$  to  $122^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ ). Arctic Temperature Control allows the camera not only

to function at  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ), but also to power up at that temperature following a power failure.

AXIS P13 Series cameras offer excellent light sensitivity and Axis Lightfinder technology for high-quality, color images no matter what the time of day. It also features WDR – Forensic Capture. Whether at night, in the rain, or at a distance, images of the hotel grounds are always clear and in focus.



Segment: Hotels & restaurants  
Situation: Extreme temperatures, low light, accessories  
Products: AXIS P13 Series

02:00

PRODUCT TESTING IN FOCUS

# Axis products in extreme temperatures

Axis products are tested in worst-case scenarios and to extremes – against water, humidity, vandalism, vibrations, harsh temperatures, and more.

Temperature tests in labs are performed in climate chambers, where all types of climates can be simulated. In addition to extensive lab tests, Axis products undergo live site tests, to observe long-term effects on products in real-life environments. These live-site tests provide reliable data about condensation, corrosion, and mechanical and cosmetic effects.

Further proving their durability in extreme temperatures and harsh conditions, we sent a camera up to the freezing stratosphere on a balloon (see pg. 34 for the full story), and an AXIS Q60 camera to the Arctic, strapped to the mast of a sailing boat. Both endured the journey, delivering impeccable footage.

Discover more about how Axis ensures quality products at [www.axis.com/quality](http://www.axis.com/quality)

Segment: Healthcare  
Situation: Safety & security, analog to IP  
Products: AXIS P32 and M10 Series, AXIS P13 and P56 Series, AXIS P72 Series

03:03

LONGGANG HOSPITAL, CHINA

# Hospital monitoring made intelligent

In the early hours of the morning, the hospital is quiet. A figure is spotted staggering across the parking lot. He appears injured. Cameras follow as he makes his way to the entrance. Emergency staff are alerted. Everyone springs into action.

## THE STARTING POINT SURVEYING A CONSTANT FLOW

Longgang Hospital is situated in the city of Shenzhen in southern China. As one of the region's busiest hospitals, it provides vital healthcare to the 10 million inhabitants of this metropolis. The hospital needed to keep an eye on the heavy and constant flow of people through the entire complex, from parking lots to entrances, corridors, stairs, elevators, offices, the outpatient building, wards, and operating rooms. It was essential for security staff to monitor hospital-wide activity as it happened, wherever it happened.

## THE AXIS SOLUTION SITE-SPECIFIC FOR EVERY NEED

Cameras from four Axis product series were chosen for the 181 monitoring points. The solution also employs AXIS P72 Series video encoders to connect the existing analog cameras in the elevators to the IP network. Password-protected video from all points is accessible by security staff via the Internet.



## Scale up, and up, and up...

Axis solutions are always designed with scalability in mind, which is great if you want to spread your budget, or if you have expansion plans for the future.

Because cabling requirements for IP cameras are simple and minimal, more cameras and components can easily be added. Alternatively, if you want to keep your existing analog system in place, Axis video encoders can integrate your analog cameras into an IP system.

Discover more about scalability at [www.axis.com](http://www.axis.com)

# Axis extreme light solutions

Whether you're dealing with a low-light situation, extreme backlight, or want clear night shots, Axis network cameras have the technology to deliver clear, vivid images.



## TURN NIGHT INTO DAY WITH AXIS LIGHTFINDER TECHNOLOGY

Axis Lightfinder technology lets our cameras see in the dark. With extreme light sensitivity, cameras with Lightfinder can deliver color images in as little light as 0.18 lux. The result? More life-like colors, less noise and bright clear images, even in darkness.



See the magic of Lightfinder on the train tracks at night: <https://www.youtube.com/watch?v=izNV1EKJ1mM>

## SAY GOODBYE TO SILHOUETTES WITH WDR

Wide dynamic range (WDR) adds just the correct amount of exposure to different parts of a scene. Individual frames with different exposure times are taken of the full scene, and then merged to achieve the final result, offering a wider dynamic range and evenly lit, detailed images.



No WDR



WDR

## OPTIMIZEDIR

If an area is either dimly lit or very bright, images can be hard to make out due to glare or highlights. Network cameras with built-in OptimizedIR automatically adapt, ensuring an evenly illuminated image.

## ILLUMINATORS

For cameras without built-in IR illumination or OptimizedIR, Axis has a wide range of IR illuminators to complete your installation.

## THERMAL CAMERAS

Axis thermal network cameras create images based on the heat that radiates from an object, vehicle or person. A thermal camera can deliver images that allow operators to detect and act on suspicious activity – 24 hours a day, seven days a week.

*Discover more about thermal cameras on [www.axis.com](http://www.axis.com)*

## DAY & NIGHT FUNCTIONALITY

A day and night network camera delivers color images during the day. As light diminishes below a certain level, the camera automatically switches to night mode using near-infrared light to deliver high-quality, black and white images.

RHINO SANCTUARY, SOUTH AFRICA

# Taking strides against rhino poaching

It's early morning, just before the sun begins to peek over the horizon. A female rhino, flanked by her calf, drinks at the water's edge. On the opposite side of the lake, the heat of a human body is detected. The alarm is raised. Poachers.

## THE STARTING POINT A DECLINING POPULATION

In 2015, 1,175 rhinos were killed in South Africa for their horns. Numbers of these majestic creatures are dwindling while the price on their heads continues to rise. In countries like China and Vietnam, it is believed – without any evidence – that rhino horn has healing properties. The fight against poaching is ongoing, and Axis wants to be part of it.

## THE AXIS SOLUTION NEVER OUT OF SIGHT

In an effort to curb rhino deaths, Axis donated a number of cameras, technical expertise, and training to a rhino sanctuary in South Africa's northern province of Limpopo. AXIS Q1941-E Thermal Network Cameras were selected and strategically placed around the park, its perimeter, and parking lots. These intelligent cameras zero in on any trace of body heat, even in a footprint. Using wide-range motion detection and sound analytics, they can also detect if someone is attempting to stay out of their field of view.



**Did you know?**  
Axis thermal cameras can detect the heat from a fresh footprint or even where a body has just leaned against a wall.

*"We've had a lot of incursion attempts before. It's already an expensive and difficult challenge to help the rhino recuperate from attacks, so every effort helps – and these cameras will help a lot."*

Dr. Jana Fourie, Founder of the Rhino Pride Foundation



Segment: Other  
Situation: Thermal imaging,  
durable, environment  
Products: AXIS Q1941-E  
Thermal Network Cameras

04:30

Segment: Transportation  
Situation: Safety & security,  
analog to IP, aviation  
Products: AXIS Q60  
and AXIS P54,  
AXIS P33 and  
AXIS M30 Series

05:15

ORLANDO-SANFORD INTERNATIONAL AIRPORT, USA

# The adventure never ends

A car has been identified as stolen after a routine check on its license plates. Cameras track the vehicle to an empty space, just outside the terminal building. The driver parks and starts to make his way to the main entrance. Airport security intercept him just before he reaches the doors.

## THE STARTING POINT A TOTAL UPGRADE

A few years ago, Orlando-Sanford International airport started using Axis encoders to connect their analog surveillance cameras to their IP network. The improvement was so impressive that a total upgrade was ordered, replacing all analog cameras with Axis network cameras. The cost savings was long-term, as Axis robust cameras would long outlast the airport's old analog units while conforming to all federal regulations.

## THE AXIS SOLUTION ALL BASES COVERED

Four Axis camera models were chosen for the airport, totaling approximately 500 cameras. These Axis cameras cater for every scenario, from wide overviews of expansive areas to day and night functionality, with features such as PTZ, 360° pan, and lowlight capabilities. The system is also easily scalable – ground staff can identify areas that need extra monitoring, which the security team can then implement. Security providers use their own video management software to run the cameras, compatible thanks to Axis open platform.

*"Axis cameras not only give us a high-definition live feed as an incident unfolds, but we're able to zoom in on facial details and other identifiers that we never could have seen with our analog system."*

Jerry Crocker, Director of IT for Orlando-Sanford International Airport



PRODUCT IN FOCUS

## Axis video encoders

With an Axis video encoder, you can integrate your existing analog system with products that bring your system up to speed with the latest IP technology. Video encoders give you immediate network video benefits, as well as a platform to expand and update your infrastructure with network cameras, software and networking/storage devices.

A video encoder connects to an analog video camera and converts analog video signals into digital streams that are then sent over an IP-based network, such as a LAN, intranet or Internet. Users can then view live images using a password-protected user account on the web or with video management software on a local or remote computer via a secure account.

We provide a complete range of security solutions, whether you need a smart system for basic surveillance or a more advanced system on a larger scale. With our smart solutions, you can secure and develop your business – both now and in the future.

#### Thinking big for small businesses

Whether you're running a shop, hotel, office, or other small business, our basic end-to-end security solution is designed to keep it safe. And give you extra peace of mind.

#### Medium-scale security made easy

We create solutions that are easy to install and use for schools, retail, manufacturing sites, and other mid-size installations. Choose from one of our optimized out-of-the-box systems, or build your system using our software with standard PCs and servers.

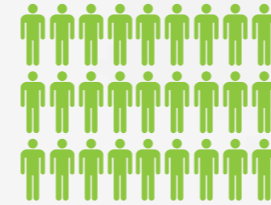
#### Smooth solutions for complex situations

Airports, public transport, city surveillance, and other complex sites can be kept safe with an advanced security and surveillance solution using Axis open IP products. Create the perfect tailored solution by combining these products with hardware and software from our partners.

#### Axis partner network

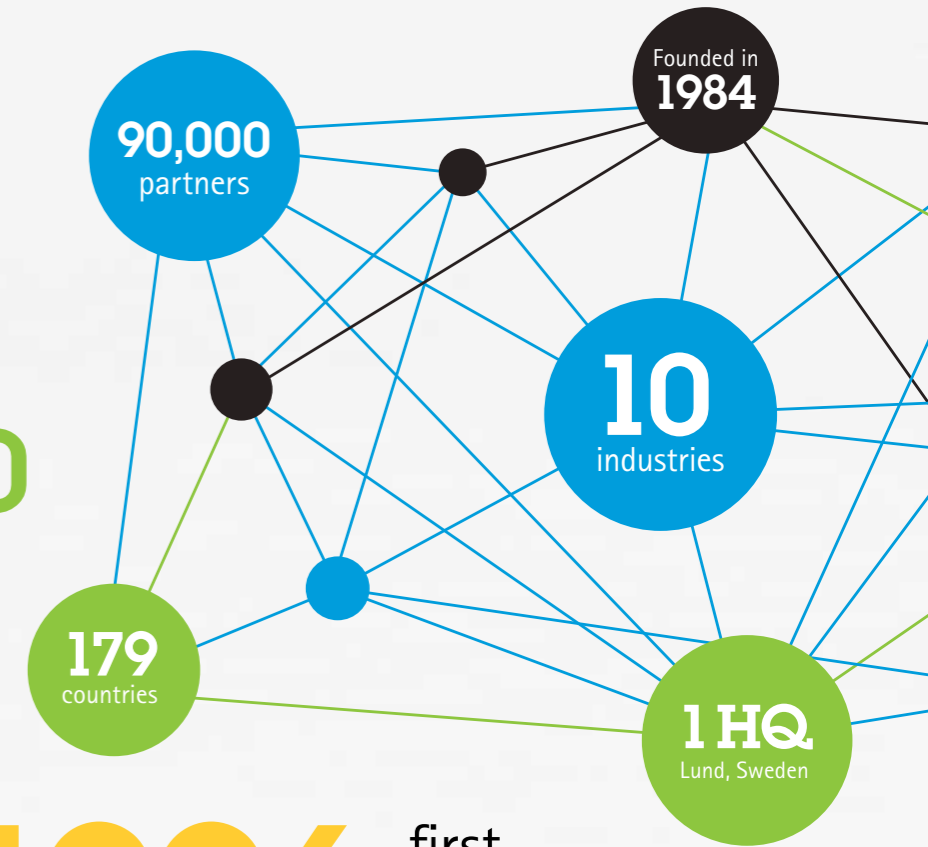
Collaborating closely with the industry's largest professional network, we create unlimited opportunities to grow business for our partners. Whether you're a shop owner in India, a school administrator in Vermont, or a resort operator in the Alps, you can be sure there's an Axis Partner solution to meet your specific business needs.

## Axis at a glance



More than  
**2,700**  
employees

Turnover  
**7,4**  
BILLION SEK, 2016



**1996** first network camera

## About Axis Communications

Axis offers intelligent security solutions that enable a smarter, safer world. As the market leader in network video, Axis is driving the industry by continually launching innovative network products based on an open platform – delivering high value to customers through a global partner network. Axis has long-term relationships with partners and provides them with knowledge and ground-breaking network products in existing and new markets.

Axis has more than 2,700 dedicated employees in more than 50 countries around the world, supported by a global network of over 90,000 partners. Founded in 1984, Axis is a Sweden-based company listed on NASDAQ Stockholm under the ticker AXIS.

For more information about Axis, please visit our website [www.axis.com](http://www.axis.com).

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