

Safer trains with network video on board.

Transportation authorities are experiencing great pressure to provide a safer and more secure environment for passengers and personnel. As a result, there is an increasing demand for effective video surveillance on trains and other rail-bound vehicles. When choosing a network video solution from Axis, you benefit from the very latest in video surveillance technology, including cameras developed specially for onboard surveillance.

Cost-effective and flexible

Network video surveillance solutions are based on open IP standards. This enables the use of standard IP network infrastructure, instead of proprietary systems and devices as is the case for analog CCTV solutions. Many modern trains are delivered with a pre-installed Ethernet network, making network video solutions even more cost-efficient. To further save installation and cable cost, Power over Ethernet can be used. This makes it possible to provide power to the cameras over the same Ethernet cable, transporting video from the camera to the network video recorder and eliminating the need for a separate power cable.

Cameras dedicated to onboard installations

Axis' solutions for mobile surveillance have been specially designed in compliance with existing rail standards to meet the tough environment on board. The cameras are vibration-, dust- and moisture-resistant, and have a built-in heater to ensure full functionality at low temperatures.

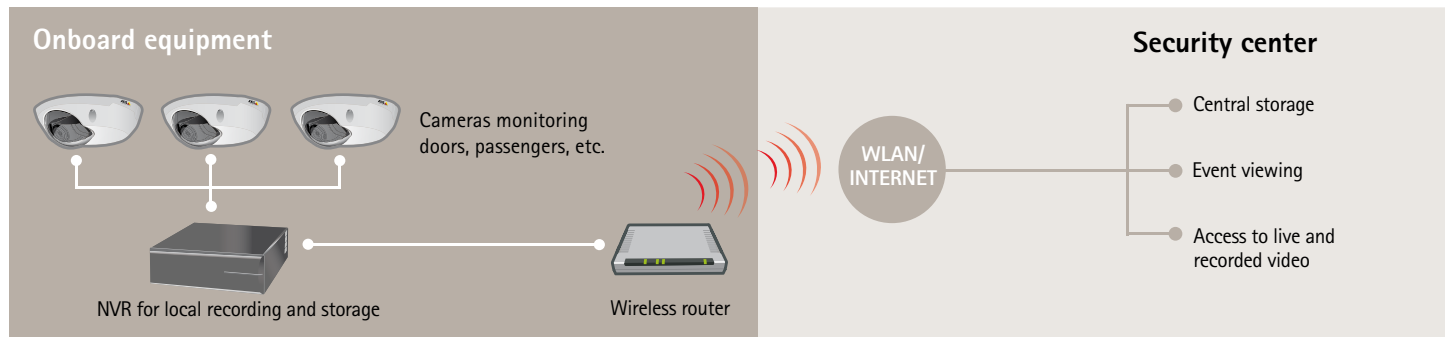
Operators also benefit from Axis' Active Tampering Alarm. This helps to ensure that the cameras are fully operational at all times: if someone is manipulating the camera, for instance by spray painting or covering the lens, the camera automatically sends an alert.



The AXIS 209 Network Cameras measure only 4 cm (1.5 in.) high and 10 cm (4 in.) wide. Their compact, discreet design and rounded edges make them ideal for onboard mounting in ceilings or on walls.



- > Cost-effective and flexible
- > Cameras dedicated for mobile use
- > High image quality
- > Increased security
- > Reduced liability claims



One cable is all it takes when installing an onboard network camera, eliminating the need for a separate power cable. The connector types used, e.g. M12 or Woodhead, are suitable for mobile transportation.

High-quality images of all incidents

Access to high-quality video is key to finding out what actually happened inside or outside a train. With an Axis IP-Surveillance solution based on network cameras and network video recorders (NVRs), you benefit from high image quality in both live and recorded video. In addition, the images can be easily shared and accessed numerous times without losing any quality. The secret lies within the high resolution capability and progressive scan technology of network cameras.

All recorded video has a resolution of at least 640x480 pixels, which is more than the 2CIF typically offered by analog systems. Network cameras with megapixel resolution offer even more detail and information. Progressive scan technology provides sharper images of moving persons and objects, making it easier to identify individuals and, in turn, shortening investigation times. The stored video also provides a clear view of what happened before, during and after an incident.

Quick access to video

Video is recorded and stored on an onboard NVR. From there, it can be quickly transferred to centralized storage via a wireless network, which can be available along the route, at stations, transit yards or service depots. The quickly developing wireless technologies also enable real-time monitoring of vehicle incidents and immediate response to alarms.

Proven in large-scale systems

Axis network cameras have been successfully installed in thousands of buses and trains, including the Moscow metro, the Stockholm buses and the Swiss Railways. The onboard cameras deter vandalism and crime, and also protect the operator from dishonest liability claims. A network video solution from Axis helps create a safer and more secure transportation environment.

Why network video?

- > Superior image quality
- > Remote accessibility
- > Easy, future-proof integration
- > Scalability and flexibility
- > Cost-effectiveness
- > Distributed intelligence
- > Proven technology

Why Axis?

- > Worldwide #1 in network video, the world's leading expert
- > Proven installations across all continents
- > Broadest product portfolio in the industry
- > The largest installed base of network video products
- > Over 20 years of networking excellence

The best in network video!