

## Video surveillance reaches the buses.

More than 700 Axis network cameras ensure the security of the ATR bus fleet in Forlì-Cesena.



Organization:  
Consortium A.T.R.  
Agency for Mobility

Location:  
Forlì-Cesena, Italy

Industry segment:  
Transportation

Application:  
Onboard video  
surveillance in city and  
suburban buses

Axis partner:  
Gencom S.r.l. – Mizar  
Automazione S.p.A.

### Mission

ATR is a public company operated by the local authorities of the Forlì and Cesena basin; on behalf of these cities, it plans and manages all of their mass transit services. ATR is dedicated to the development of the economic and environmental sustainability of mass transit in the territory, and guarantees the quality of services provided to residents. It is always attentive to the requirements and the safeguarding of the safety of all customers and drivers, and has decided, in collaboration with the law enforcement agencies of the province of Forlì-Cesena, to equip its public transport vehicles with a state-of-the-art video surveillance system to improve the level of security onboard, and to protect public property. The purpose of this initiative is to develop an effective deterrent to potential perpetrators of antisocial and illegal behavior, prevent and combat vandalism, protect the company's assets and contribute to crime fighting efforts.

### Solution

To find solutions to its security needs, ATR put its trust in the quality of Axis network video products, recommended by its partner Gencom which, by participating in the tender through a negotiated procedure announced by ATR, supplied the cameras and the PoE switches with power supply units. Established in 2001, Gencom has become a major player in the market for advanced integrated corporate communications solutions (data, voice, video).

### Result

ATR is fully satisfied with the results obtained, and is considering a future extension of the system, also involving Intelligent Video applications, such as the counting of passengers onboard vehicles.

"We selected Axis for technical reasons and the versatility of its products; and due to the need to integrate the video surveillance system into the AVM remote sensing system already installed onboard the buses."

Claudio Cozzolino, Operations Manager for Technology Development of the Consortium ATR - Agency for Mobility.

### More than 700 network cameras on 290 buses

The primary requirement was the need to increase both active security, as a deterrent, and also passive security: "On several occasions, the police had already requested the images recorded by the cameras following incidents of crime on our vehicles," explained Claudio Cozzolino, ATR's Operations Manager for Technology Development.

The decision to install a network system was due to the fact that the vehicles already had IP equipment, as well as an integrated onboard system with AVM: if the driver is in difficulties, he may contact his reference Operations Center and, if necessary, may transmit both the images and the audio to the center in real time. On 290 buses, more than 700 compact, hard-wearing AXIS 209FD-R Network Cameras have been installed, appropriately designed for surveillance in motion, since they are enclosed in an ultra-slim, tamper-proof housing capable of tolerating vibrations, humidity, dust and the typical temperature ranges of buses.

The cameras are normally positioned by the doors, or in order to monitor the entire vehicle if possible; support for Power over Ethernet allow them to be supplied directly by the network, thus eliminating the need to use power supply cables, reducing costs and optimizing times: "During the installation, we encountered no problems; everything was very easy and straightforward," confirmed Cozzolino.

On March 5, 2010, a memorandum of understanding was signed at the Prefecture of Forlì-Cesena to improve the security level of the drivers and residents who use the local public transport, to prevent and combat vandalism and crime, which has created the conditions for early intervention in the case of a call by one of the two operations centers.

The memorandum ensures that the recordings made do not violate the privacy of individuals and that the images, encrypted and recorded on the onboard computer medium, are processed and stored according to the provisions of the legislation in force. In order to guarantee the maximum protection of the images and data present in the recordings, the access codes for the recordings are stored exclusively by ATR and by the Prefecture of Forlì-Cesena. Under this agreement, the video surveillance system is available to police for reconstructing the dynamics of any criminal offenses, and the images captured by the system can be used in investigations or by the Criminal Investigation Department.

The concrete usefulness of the system was immediate: following several complaints due to malicious acts or crimes committed onboard some buses, the police launched the procedure to request recordings from the buses concerned; ATR delivered the recordings taken by the cameras, subject to the conditions and standards specified in the memorandum of understanding, and the images of optimal quality can be used in investigations to reconstruct the dynamics of the criminal activities.

The images recorded by the cameras are processed by software developed by Mizar Automation, an Axis partner that offers technologically advanced solutions for traffic control and transport management; thanks to the software operating on ATR vehicles, there is therefore an active video surveillance system to manage live and recorded images, with an innovative burglary prevention feature.

