

## Cameras in the Museum.

Axis secures works of art in the Santa Giulia Museum in Brescia.



Organization:  
Santa Giulia Museum

Location:  
Brescia, Italy

Industry segment:  
Government

Application:  
Monitoring of sensitive  
indoor and outdoor areas

Axis partners:  
FasterNet Servizi S.r.l.,  
ESSAI S.r.l.

### Mission

The Santa Giulia Museum in Brescia, Italy, built in 753 AD over the ruins of a Roman palace, is a place where historical memories have become layered over the centuries, a visible interweaving of eras and a never-ending source of surprising discoveries. To guarantee an adequate level of protection, Brescia Musei S.p.A. (Brescia Museums) decided to place its trust in partners highly qualified within the ICT sector: Axis Communications, Anixter, FasterNet and ESSAI, the supplier, distributor and installer of the network video solutions used, respectively, and N@Video software producer.

### Solution

The project required a video surveillance system that was easily scalable, allowed rapid repositioning of the camera locations, could be integrated architecturally into the museum structure and satisfied an insurance requirement, namely video surveillance of the works exhibited, thus permitting the museum insurance premium to be reduced. The museum turned to systems integrator FasterNet, with which it had already collaborated for

several years, in order to look for alternatives to traditional video surveillance. Since its foundation in 1995, FasterNet has positioned itself towards its customers as a partner, working with a strong culture focused on improvement, technological innovation and on establishing the best supplier/customer relationship. The solution proposed was network video from Axis Communications with software platform N@Video from ESSAI.

### Result

The AXIS 210 Network Camera best embodied the objectives required by Brescia Museums: monitoring of the exhibited works, prevention of vandalism and integration with existing infrastructure to avoid installing additional cables, which are especially aesthetically displeasing and invasive in a museum environment. The cost-effective and professional network video system offered by Axis is ideal for video surveillance and remote monitoring, and uses a wireless infrastructure to connect the camera locations and a CAT6 network infrastructure to transmit video feeds to the recording platform.

"We're satisfied at having implemented a new video surveillance system using Axis solutions. Security has always been a priority for the Museum, which houses works of art and cultural artefacts from all over the world. Thanks to the Axis video surveillance system, both the indoor and outdoor areas of the Museum are monitored efficiently yet discreetly. The works of art are secure and, due to the compact size of the cameras, visitors are not bothered by their presence."

Agostino Mantovani, Chairman of the Brescia Museums Foundation.

### Art, history and the need for security

Unique in Italy and in Europe for the layout of its exhibits and its building, the Museum of the City of Brescia, housed in the Santa Giulia convent complex which is of Lombard origin, allows visitors to travel, by means of the history, art and spirituality of Brescia, from prehistory to the present day.

The Santa Giulia Museum houses a collection of important and rare discoveries arranged within an enormous and well-organized exhibition area of around 14,000m<sup>2</sup>, where exhibitions are periodically held dedicated to specific themes and historical and artistic periods. In this context of art and history, security is certainly one of the main priorities. Thus, Brescia Museums has decided to implement a video surveillance system for monitoring sensitive areas.

### AXIS 210 Network Camera: state-of-the-art video surveillance

130 AXIS 210 Network Cameras have been installed inside the Santa Giulia Museum, and arranged so as to cover groups of 3 or 4 works, and several especially valuable individual paintings.

The chain of components used in the implementation of the system, entirely based on Ethernet or 802.11g wireless networks, is composed of: AXIS 210 Network Cameras connected to a Linksys Ethernet converter, the Cisco 802.11g access point, which connects via the 802.11b/g radio standard to up to 8 cameras, the high-reliability gigabit Ethernet network for the transmission of the video images in the form of data packets, and the Windows Server 2003 platform on which the ESSAI N@Video recording software is installed.

The video streams, encoded with the MPEG-4 Part 2 compression algorithm (supported by the Axis network cameras), are sent from the camera locations and, over the wireless network and the CAT6 cable network, arrive at the recording platform where N@Video sends them on to the 7 NAS (network attached storage) units with a total capacity of 3.5 terabytes, without overloading the server.

The Motion JPEG and MPEG-4 feature allows image quality and bandwidth usage to be optimized. The MPEG-4 Part 2 compression method is ideal for applications with bandwidth limitations requiring high frame transmission rates.

### Works of art are secure

The high reliability of the network and the recording platform is guaranteed by the redundant architecture of the links connecting the switches to one another (which is attested by the connections of all the access points), the presence of switches which are also redundant and a dual-channel gigabit Ethernet through which the recording server is connected to the network in order to receive the video streams and route them to the NAS units. The entire system is powered by an uninterruptible power supply guaranteeing continued operation for the length of time required to start up the generator, in the event of a mains power supply failure.

The AXIS 210 Network Cameras installed at the Santa Giulia Museum are distinguished by unique characteristics: particularly low installation costs, integration with existing IT infrastructures, flexible configuration and hard disks for managing and storing the images.



FasterNet CEO Giancarlo Turati explains, "The Santa Giulia wireless project has achieved the goal of providing continuous and precise video surveillance of the building, using the 802.11 international wireless protocol to create a secure environment, thanks to Axis."

