

## Axis network cameras make Salò's public parking a safe place.



Organization:  
C.B.T. S.R.L. (Salò's  
Public Parking)

Location:  
Salò, Italy

Industry segment:  
Government

Application:  
Public parking  
surveillance

Axis partners:  
P.A. Sistemi Integrati  
S.r.l., Essai S.r.l.

### Mission

Salò's recently built Public Parking Garage has seven levels of parking spread over a vast area in the heart of Salò, Italy. The parking garage provides parking for 500 cars distributed over three underground levels, one ground level and three aboveground levels; the complex is divided into two areas with two separate entrances: the parking area for the general public and the monthly reserved permit parking area.

In order to offer increased security, C.B.T., the company contracted for the City of Salò's parking and the adjacent museum, decided to install a video surveillance system inside the area, connected to a central control room, ensuring optimal care for customers and their vehicles.

### Solution

Salò's Public Parking sought the experience of P.A. Integrated Systems, a security services company that invests a significant portion of its resources in researching improved systems for video surveillance, and provides consultancy in IT and software solutions.

To meet the needs of this client, P.A. Integrated Systems installed 61 network cameras supplied by Axis Communications, and the N@video software from Essai srl to manage the system.

### Result

The ability to monitor what is happening on every floor and in every corner of the parking lot in real time, and to play back events recorded during the night or at times when there are no guards on duty, has proven to be extremely valuable to meet the needs of Salò's Public Parking.

"Prior to completing the installation of the network cameras, we suffered from acts of vandalism, as well as graffiti on the walls of the parking lot: since the cameras were activated, we have not experienced any similar episodes."

Mariano Pasquazzo, Site Director of Salò's Public Parking.

## Defining the requirements

"The client's requirements were clear," explains Michele Marinoni, Technical Director of P.A. Integrated Systems. "For the type of environment to be monitored, it was necessary to install vandal-proof cameras equipped with intelligent applications such as tamper resistance, to receive prompt notification of any tampering attempts as they occurred. I also considered it strategic to propose a varifocal camera model with Day & Night and PoE; consequently, the choice was the AXIS 225FD Fixed Dome Network Camera. "The clients had initially arranged for the use of analog video cameras; however, it would have been impossible to fulfill all of the requirements without IP technology," continues Marinoni. "As soon as I saw these video cameras in action, I was in complete agreement to use Axis' network video products. Furthermore, I always prefer to use the latest technology so as to avoid having to redesign the system in a few years."

## The brilliant results

After deploying the 1 GB LAN network infrastructure, P.A. Integrated Systems installed 61 network cameras in the parking lot as follows: 56 AXIS 225FD on the three underground levels, on ground level, and on the first two aboveground levels, four AXIS 211, enclosed in a housing, on the third aboveground, open-air level, and one AXIS 211 in the guard post at the entrance of the parking lot.

The AXIS 225FD, with its standard 2.8–5.8 mm lens, was positioned in the three stairwells and at the intersections of the driveways; in addition, four AXIS 225FD cameras, with a 9–22mm varifocal zoom lens, were positioned in the driveways, each of which is 55 meters long.

The day and night functionality of the camera allows optimal management of the day/night transition: "Keep in mind that this is a difficult environment with regard to brightness, because the parking lot is equipped with motion sensors that turn on the lights when every vehicle or person crosses, whereas, in terms of base lighting, we only have the minimal lighting of the emergency lamps," says Marinoni.

"I can confirm that the auto iris lens of these cameras can automatically adapt to different lighting conditions by changing the aperture, reacting very well to over-illumination due to car headlights, resulting in excellent image quality," he concludes.

The camera can also be easily rotated and tilted to any position by setting the varifocal lens to the desired angle; the fact that it is not possible to tell where the camera is pointing, thanks to the half-dome in which it is housed, greatly increases its deterrent effect. This is also ensured by the progressive scan sensor and automatic infrared filter which allow images to be captured with the clarity and sharpness necessary for identification.

Finally, an AXIS 211 was installed in the guard post, where four monitors display images from all the cameras transmitted over Essai's N@video management software, which utilizes special strategies to optimize the bandwidth and the hardware components of the recordings. The images displayed are high-quality, smooth, and do not saturate the system's resources, because N@Video is capable of handling frame rates with different characteristics and resolutions at each video point. The system is active 24/7 and the recorded images are stored for a maximum of seven days on a 4-terabyte RAID.

"We never had any doubts: only Axis could have helped us better satisfy the customers' needs. The scalability and flexibility of the chosen solution allowed us to integrate the network cameras with the fire prevention system of the parking lot," says Michele Marinoni, Technical Director of P.A. Integrated Systems.

