

## Video surveillance goes to the stadium.

The municipality of Nocera Inferiore chooses Axis HDTV cameras to ensure security at Saint Francis of Assisi Stadium.



Organization:  
Municipality of Nocera  
Inferiore

Location:  
Salerno, Italy

Industry segment:  
Leisure

Application:  
Stadium surveillance

Axis partner:  
Sekur Teknica S.r.l.

### Mission

The city stadium "Saint Francis of Assisi" in Nocera Inferiore is a sports facility that rises above the east side of the city. It is the headquarters of the first division soccer team of the city, the Nocerina. With a total capacity of 12,000 seats, it is the largest stadium in the Agro Nocerino Sarnese region and one of the historic facilities of Campania. Given the violence and crime that can happen at such a facility, in addition to the statutory requirements established by the Ministerial Decree of June 6, 2005 regarding regulations for Professional League stadiums, the City of Nocera Inferiore decided to equip the facility with a modern and efficient surveillance system capable of covering the exterior and interior of the stadium, the turnstiles, and the area devoted to the entrance of the fans, as well as the parking area reserved for law enforcement.

### Solution

For the design and implementation of the system, the city turned to Sekur Teknica, an emerging company dedicated to the design, development and implementation of technological security systems, IP, and wide-area video surveillance networks. After designing the network infrastructure from scratch, they entrusted the work entirely to Axis Communications. AXIS Q6032-E PTZ Network Cameras were selected to monitor the inside of the stadium and external areas.

### Result

The excellent image quality offered by Axis network cameras allows continuous monitoring of the entire structure, offering not only a surveillance service, but also high-definition monitoring tools, thus contributing to the security of the property and the peace of mind of the spectators and their families awaiting them at home.

"We're certain that we have equipped our stadium with a video surveillance system that can provide the highest image quality, which is particularly useful when we need to do in-depth monitoring. The image quality offered by Axis network cameras, and the simplicity of operations management, makes it easier for employees in charge of surveillance, and the security staff, to perform their jobs."

Antonio Romano, Mayor of the City of Nocera Inferiore.

### The need for truly useful images

The project required a video surveillance system capable of covering both the external and internal areas of the stadium, with video cameras capable of panning, tilting and zooming, with a centralized command center, and the ability to zoom up to 20x. It also needed to be highly sensitive to ensure recognition of the features of every spectator, even during nighttime and at single frame.

"The surveillance system for the external area had to be able to cope with varying lighting conditions," says Gennaro Canfora, owner of Sekur Teknica, "so we chose the Axis outdoor network cameras, which come as standard with features for capturing video daytime and nighttime, an infrared filter, and an iris control system for clear images and a good field of view, even in bright light, and with fast-moving objects."

To monitor the external area, AXIS Q6032-E PTZ cameras were selected and positioned so as to monitor the parking lot, the street in front of the stadium, and the entrance driveway, to provide a full view of the public entering the facility and monitor the adjacent street.

To monitor the inside of the stadium, AXIS Q6032-E PTZ was selected and positioned to capture the entire stadium seating area and provide a view of all sections of the stadium, apart from the restrooms. "In surveillance of this type, the ability of the AXIS Q6032-E PTZ to track 20° over the horizon is strategically important. We have installed some on nine-foot high poles, from which we can capture the entire seating view, even for those seats located up high," adds Canfora.

It was also necessary to protect the system against the elements and acts of vandalism. Axis' outdoor solutions proved to be the most suitable choice due to their ability to withstand severe weather conditions and be used in complex environments exposed to the risks of tampering and vandalism.

The solution chosen for surveillance of the public entry-way was the AXIS Q1755 Network Camera with HDTV resolution and a 10x optical zoom. These cameras were positioned directly opposite the turnstiles. "I chose them because their resolution is even greater than what is required by the contract. We needed equipment capable of providing reliable identification of each person coming through, and when I saw the image quality produced by this camera, it was impossible to consider any other," says Canfora.

The management and recording of the images is done using the AXIS Camera Station software installed on a dedicated server. Video streams are recorded and stored on a 1 TB 1.3 NAS server. The system has been set up on uninterruptible power to allow continuous operation even during power failures, plus all the cameras are equipped with slots for SD cards which offer the ability to store the video locally. The use of H.264 compression format optimizes image quality and the use of bandwidth without jeopardizing the operation of the data network.

"Given the quality of the cameras, we're sure we have designed a system whereby, if one of the cameras experiences an error, we will still be able to continue our video surveillance in an effective manner," says Canfora.

"We had to install some cameras nine meters high, but even so, the operation was easy and fast. We concluded the work by rotating the video camera in the appropriate guides and securing the four screws. We also used the High PoE with a 13-meter long cable without any problems," says Gennaro Canfora, owner of Sekur Teknica S.R.L.

