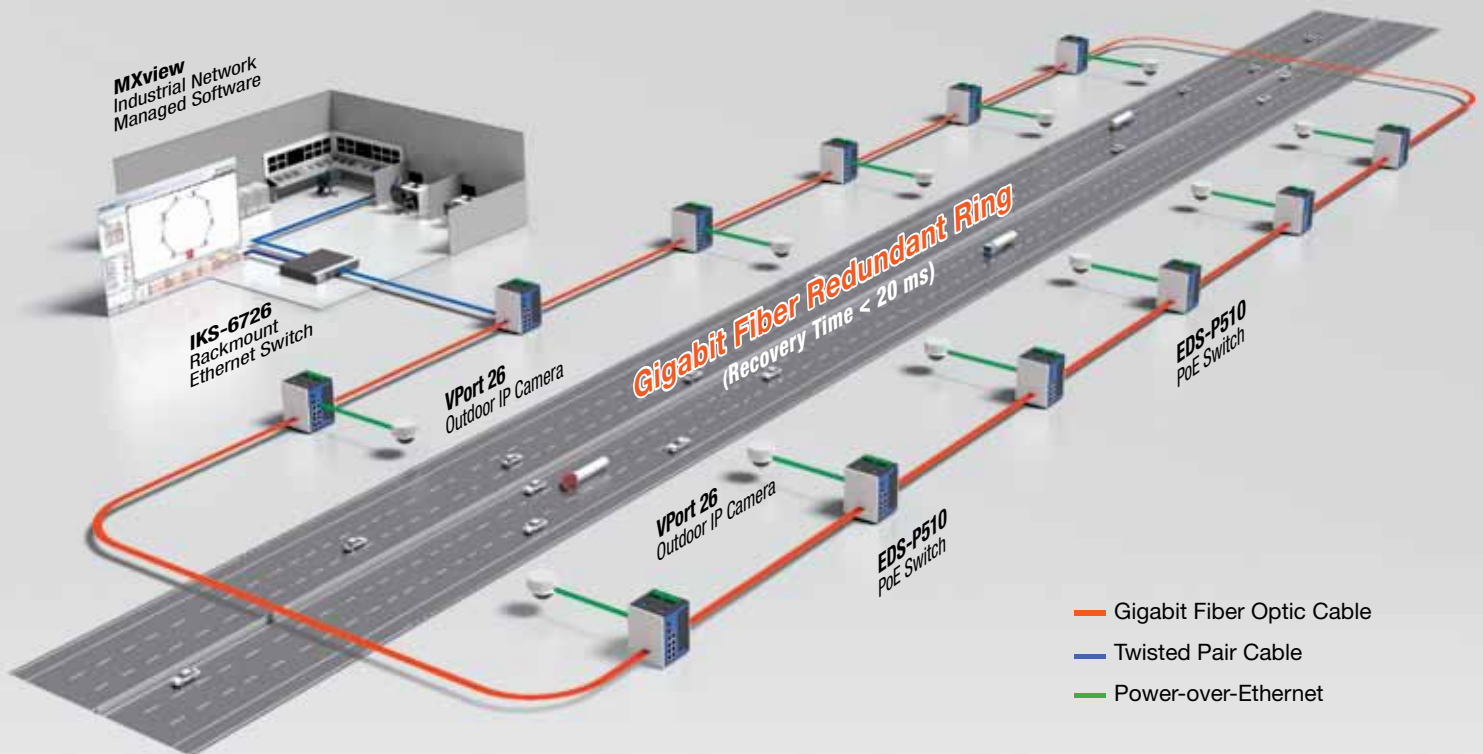


# Southern Italian Communities Converge Video Surveillance via IP-Based Infrastructure



Location : Italy

## Project Introduction

The Italian government and a number of local municipalities in southern Italy, including Lecce, Mural, and San Pietro, decided to increase their safety and security facilities with the largest IP video surveillance framework ever deployed in Italy. The video surveillance systems must operate around the clock to offer increased security in local public spaces, such as historic centers, train stations, tourist attractions, and the surrounding motorways. Video surveillance deployment of such large scale required expertise of network infrastructures and telecommunication technologies. Among the multiple telecommunication technologies used to cover such a wide area over a reliable and efficient network, one of Italy's leading system integrators utilized a combination of existing SDH networks, newly deployed Gigabit Ethernet technology, and wireless connectivity to assemble this vast network of advanced IP video surveillance.

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Reliable Networks, Sincere Service

## System Description

Moxa's EDS-P510-T industrial Ethernet switches were installed to connect the PoE (Power-over-Ethernet) IP cameras along the highway. In addition to its PoE capability that can provide up to 15.4 watts of power per PoE port, the EDS-P510-T was also selected for its 3 Gigabit ports that are capable of forming a Gigabit Ethernet backbone to meet the high bandwidth need for transmitting large amounts of video data. The switches are equipped with tag VLAN and IGMP snooping functions. The tag VLAN function delivers video streams to a designated destination via the tag on each frame, eliminating the need to configure streams at each physical port to achieve higher operational efficiency. IGMP snooping reduces the amount of traffic on the Ethernet LAN by pruning multicast traffic.

Due to the length of the highway, SFP-1GLXLC-T small form factor pluggable transceivers were installed to provide fiber optic data transmission. The network also adopted Moxa's Turbo Ring and Turbo Chain technologies, which ensures continuous video surveillance in the event of a network segment failure with network recovery in less than 20 ms.

In addition, the wide-temperature tolerance (-40 to 75°C) of the EDS-P510-T industrial Ethernet switches enables them to perform reliably in roadside cabinets without air conditioning or heating.

## Application Requirements

- Power-over-Ethernet capability for connecting PoE IP cameras
- Tag VLAN and IGMP snooping for bandwidth efficiency
- Gigabit network backbone for the large volume of video data
- Highly scalable fiber interface for long distance transmission
- Industrial-grade durability to withstand severe outdoor conditions

## Moxa's Advantage

- The EDS-P510-T provides up to 3 Gigabit ports to support massive video and data transmissions
- The EDS-P510-T has four PoE compliant Ethernet ports, ideal for locations where AC power is not readily available
- The EDS-P510-T supports IGMP snooping and tag VLAN for more efficient bandwidth usage
- The EDS-P510-T features Turbo Ring and Turbo Chain technologies to minimize network downtime
- The EDS-P510-T provides 3 combo 100/1000BaseSFP slots for up to 80 km of data transmission
- The EDS-P510-T includes remote power management, an extended operating temperature, and high availability



### EDS-P510-T

#### Gigabit PoE managed Ethernet switch

- Advanced PoE management function
- 4 10/100BaseT(X) 802.3af (PoE) compliant Ethernet ports and 3 combo Gigabit Ethernet ports
- IGMP Snooping for filtering multicast traffic and port-based VLAN, IEEE 802.1Q VLAN and GVRP to ease network planning
- -40 to 75°C operating temperature

### SFP-1GLXLC-T

#### Gigabit Ethernet SFP modules

- 1 1000BaseLX port with LC connector
- 10 km transmission
- -40 to 85°C operating temperature



## Moxa Integrated Industrial Networking Solutions

- Empower highly resilient industrial Ethernet infrastructure
- Extend your ITS network over fiber connections
- Enable reliable serial-to-Ethernet connectivity
- Ensure real-time traffic data acquisition, computing, and control
- Establish traffic monitoring through rugged IP video surveillance

Moxa, with more than 25 years of experience in industrial networking, provides industrial edge-to-core solutions for many ITS applications, including industrial wired and wireless Ethernet infrastructure solutions, fiber media converters, serial-to-Ethernet connectivity, embedded computing, and remote automation solutions. Moxa's robust designs are suitable for harsh operating environments and are compliant with ITS standards (NEMA TS2 and eMark) to ensure uninterrupted network operation with high reliability. Start driving efficient traffic with Moxa today.

### Product Portfolio

- Industrial Ethernet switches
- Industrial wireless AP/bridge/client and cellular products
- Ethernet-to-fiber media converters
- Serial-to-Ethernet device servers
- Industrial embedded computers
- RTU controllers and remote I/O
- IP video surveillance products



Visit [www.moxa.com/ITS](http://www.moxa.com/ITS) or scan to learn more about Moxa's industrial networking solutions

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