

Territorial Video Surveillance in Porto Cesareo: Maximum Efficiency and Security With Dedicated cnVision Solutions from Cambium Networks



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DR. SALVATORE ALBANO,
MAYOR,
PORTO CESAREO

Overview

THE MUNICIPALITY OF PORTO CESAREO, a tourist town located on the Ionian coast of the Salento Peninsula, overlooks a beautiful coastal landscape. The extraordinary biological interest of its seabed (sandy and coralline) has even led to the creation of a protected natural marine area and the Palude del Conte e Duna Costiera - Porto Cesareo Regional Nature Reserve.

To ensure maximum protection of the municipal area, the decision was made to implement a territorial video surveillance system. The project was completed thanks to financing from the Ministry of the Interior and co-financing by the municipality itself. The challenge was to cover a vast territory on a possibly limited budget, while also ensuring security, reliability and performance.

The Challenge

MICRON COMPUTERS IN VEGLIE (LE) was commissioned to carry out the project, conducting a site survey and choosing all the necessary equipment and connectivity systems.

The solution required low visual impact, given its location in the middle of a well-maintained seaside area, balancing aesthetic aspects with the need for heavy-duty equipment required by installations located only a few yards from the sea. High performance was also necessary in environments characterized by a chronic scarcity of fiber-optic and ADSL connectivity and by the resulting high saturation of 5 GHz frequencies due to the presence of WISP solutions and services. The physical obstacles of buildings and vegetation also needed to be taken into consideration.



The Solution

THE CHOICE FOR CONNECTIVITY DEVICES was the Cambium Networks cnVision video surveillance solutions, based on the most stable and reliable wireless standards in the industry and capable of providing the functionality essential for efficient management. The sophisticated cnVision over-the-air protocol guarantees highly predictable performance for the mission-critical wireless transmission of video information.

Four Cambium Networks cnVision HUB units were installed, complete with RF Elements Horn Antennas for the central node and two secondary repeater sites. 18 Cambium Networks cnVision CLIENT MINIs serve the locations with 5MP/8MP video cameras and dome cameras, and 4 cnVision Clients serve the connection bridge with the secondary control room. The system manages a total of 40 video cameras, including 38 fixed cameras, 34 5Mpx cameras and 4 4K cameras, as well as 2 PTZ cameras, one of which is equipped with an IR illuminator.



Installation and optimization were particularly quick and efficient, thanks to the tools implemented in the Cambium Networks interface:

- eAlign: to instantly check the signal received with minimal equipment movement prior to final installation
- Spectrum Analyzer: to find an “opening” in the increasingly crowded 5 GHz band

The completed network transports the territorial video surveillance flows, in addition to technical alarms and installation anti-trespassing sensors distributed across the territory. The network also transmits images and alarms for the Municipality of Porto Cesareo’s early-warning fire protection system, a system that protects the pine woods in the Palude del Conte e Duna Costiera Regional Nature Reserve.

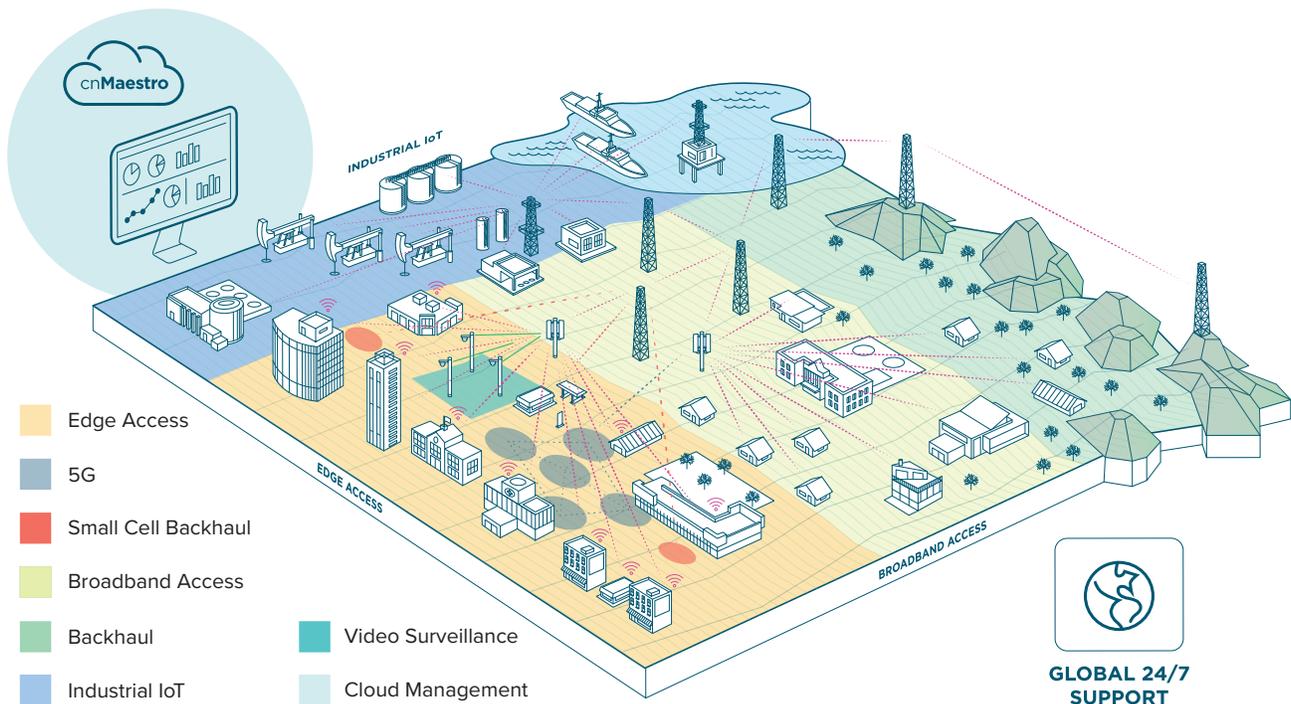


The Results

CURRENTLY, ALL VIDEO CAMERAS and the territorial video surveillance system transmit their entire data flow to the VMS (video management system) without any bottleneck limitations. Many links have further margin to transmit additional information, which can potentially be used for future system expansions.

Thanks to the throughputs achieved, the network infrastructure will allow for the transmission of additional services, which can be used for various types of applications, from ZTL access points to environmental sensors.

“We are very pleased with the overall result of the installation,” commented Dr. Salvatore Albano, Mayor of Porto Cesareo. “The equipment has ensured both the low environmental impact we wanted, and the operational efficiency and performance we needed.”



Cambium Networks' gigabit wireless solutions enable municipal, enterprise and service provider operators to tailor connectivity to meet exact requirements and grow as needs evolve.

