



Costway

High-performance connectivity with Omada by TP-Link



BUSINESS CHALLENGE

Deliver seamless Wi-Fi, enterprise security and centralised management across a 10,000 m² logistics warehouse.

Introduction

Costway is a multinational e-commerce company specialising in the online sale of home, garden, decoration, furniture, sport and lifestyle products, with a presence in multiple international markets.

The Challenge

As part of its logistics expansion in Europe, the company has opened a new facility in Spain, recently inaugurated to strengthen its operations and distribution capacity in the region. The warehouse has a surface area of 10,000 m and houses both storage areas and the office integrated into the facilities, as well as areas for employee use.

The Goal

To ensure the proper operation of daily activities, a modern, robust network and video surveillance infrastructure was required, ready for a highly demanding logistics environment. The aim of the project was to deploy an end-to-end solution that would ensure connectivity, security and operational continuity across all areas of the warehouse.

CUSTOMER PROFILE



Name:
Costway



Integrator:
B&G



Industry:
E-commerce



Location:
C/ Leonardo da Vinci, 5
28850 Torrejon de
Ardoz Madrid



Site Capacity:
10,000m²

The Solution

The project was carried out by B&G, which designed an end-to-end connectivity and video surveillance solution adapted to a large-scale logistics environment. The infrastructure is based on the Omada and VIGI platforms, enabling efficient, centralised management of the systems.

The network is managed using the OC300 hardware controller, which centralises configuration, monitoring and maintenance of all network equipment from a single point. The video surveillance system, meanwhile, is managed independently through VIGI VMS, making it easier to continuously supervise and control the installed cameras.

At network level, a high-performance switching and routing architecture was implemented to serve as the foundation for the entire infrastructure. The SG3428MP and SG2210XMP-M2 managed PoE switches provide connectivity to the various network devices and also deliver electrical power over PoE, simplifying the deployment of access points and cameras without the need for additional cabling.

The SX3008F aggregation switch acts as the core of the backbone network, concentrating traffic from the different switches and ensuring high transmission speeds between the various warehouse areas. The ER8411 enterprise router manages traffic, network segmentation and security, ensuring an efficient and protected data flow.

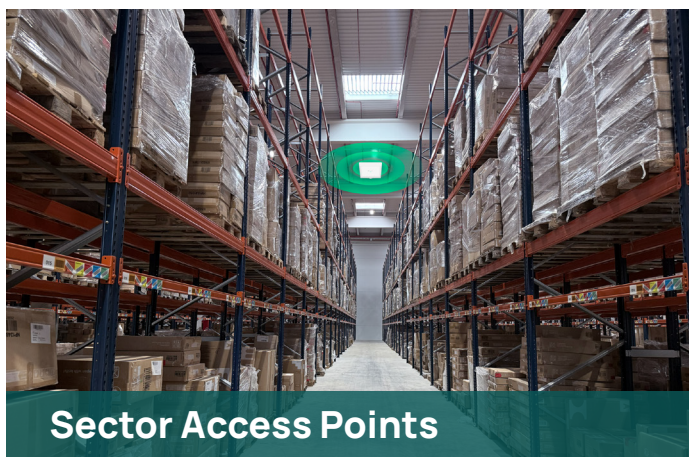
For wireless connectivity, a high-performance Wi-Fi network was deployed, designed to adapt to the different areas of the warehouse by combining Wi-Fi 6 and Wi-Fi 7. The five EAP653 and EAP653-UR access points provide indoor coverage, especially in offices and operational areas, offering a stable connection for work devices.



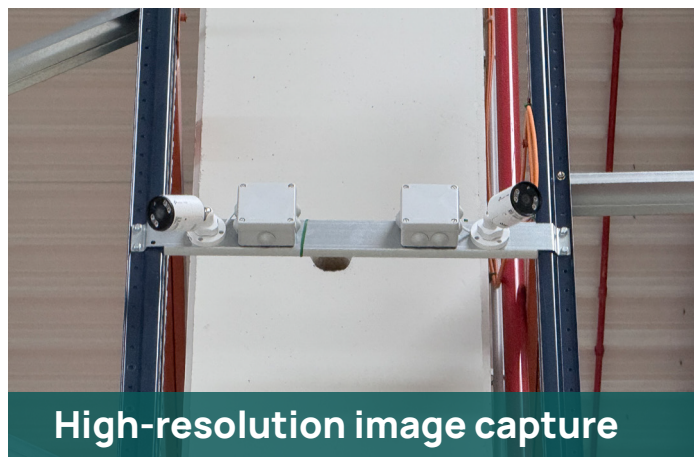
In areas with a higher density of users or devices, one EAP772 Wi-Fi 7 access point was incorporated, capable of managing multiple simultaneous connections without degrading performance.

In addition, 120-degree sector access points, EAP650 D120-Outdoor, were installed to provide precise and extended coverage in wide areas inside the warehouse, optimising signal distribution across large spaces.

For security, a VIGI video surveillance system was implemented, centralised on the VIGI NVR 4032H recorder, connected to a total of ten 4K Insight S385 cameras and two Insight S285 2.8 mm cameras. These devices capture high-resolution images with a high level of detail, facilitating the supervision of critical zones, access points and transit areas, even in low-light conditions thanks to Full Colour technology. Their integration into the management platform enables continuous monitoring, recording and event review, strengthening the security of the logistics environment.



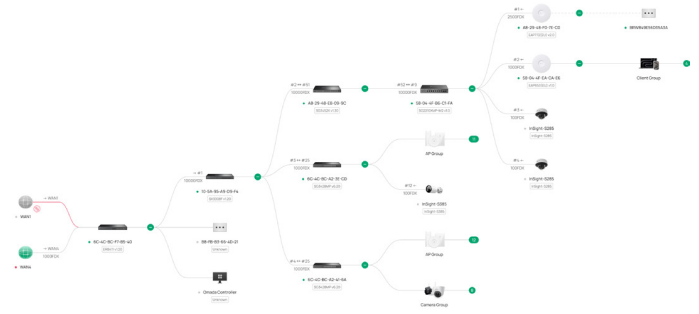
Sector Access Points



High-resolution image capture

Another key aspect was the need to simplify installation and management of the entire infrastructure. Thanks to the OC300 centralised controller, all devices can be discovered, configured and managed automatically from a single platform.

Particular attention was also given to ease of remote maintenance. The Omada + VIGI solution makes it simple and centralised to perform management tasks and firmware updates, significantly reducing operating and maintenance costs.



Thanks to an architecture specifically designed for this scenario and based on high-performance equipment, it was possible to guarantee uniform coverage, operational stability and high connection capacity in every area of the warehouse.

In addition, centralised management has simplified administration of the infrastructure, providing greater visibility and control, and laying the foundations for future expansions thanks to a scalable architecture prepared for growth. Overall, the project strengthens Costway's logistics capacity, enabling it to operate in a safe, connected and highly efficient environment.



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