

Wi-Fi 7 Revolutionizes Connectivity for 20,000 ft² Warehouse and Offices in Romania

Project Scope

20,000 ft² modern warehouse
and two office buildings with
110+ devices connections.

Customer Profile

Name: Algernon Impex SRL
Industry: Advertising
Location: Romania

Challenges

- The structure and size of the building makes it difficult to achieve a stable, uniform network signal.
- The warehouse operations, supported by a WMS system, demand a stable and continuous connection.
- The risk of disclosure of company data, such as customer information, is high.
- Moving across buildings is prone to network drops.

Solutions

- EAP773 ×8
- EAP660 HD ×1
- SG2210MP ×3
- OC200 ×1

Algernon Impex SRL is a company specialized in B2B distribution of products used in advertising production, operating in a dynamic and competitive environment. To support critical operations, Algernon has consistently invested in advanced technological solutions to ensure efficiency and reliability.

A Seamless Upgrade from Wi-Fi 5 to Wi-Fi 7 Solutions

Since 2015, Algernon has consistently relied on the Omada networking solution, benefiting from its robust performance, comprehensive security features, reliable long-term after-sales support, and excellent cost-effectiveness. With the advent of the Wi-Fi 7 era and the continuous expansion of business requirements, Algernon partnered with the advanced network solutions integrator, Eagle Systems Serv SRL, to deploy a state-of-the-art Wi-Fi 7 network utilizing Omada devices. The hardware architecture and software platform of Omada solutions ensured a seamless transition from Wi-Fi 5 to Wi-Fi 7, eliminating service disruptions and minimizing adjustment periods.

High-Performance Wi-Fi 7 for Ultra-Fast and Stable Connectivity in All Areas

The Omada tri-band Wi-Fi 7 access point EAP773 supports the 6 GHz band with up to 320 MHz channel bandwidth, Multi-Link Operation (MLO), 4K-QAM modulation, and Multi-RU (Resource Unit) allocation. These features enable simultaneous ultra-high-speed connections to multiple devices, significantly reducing network congestion and enhancing Algernon's overall user experience. Eight strategically deployed EAP773 units provide strong, stable wireless coverage over an area exceeding 20,000 ft², including warehouses and office buildings.

Equipped with Omada Mesh and 802.11k/v/r seamless roaming protocols, the network guarantees uninterrupted connectivity as employees move across different zones, preventing operational downtime caused by network drops.

Comprehensive Security Measures Protect Data Privacy

The Omada solution integrates VLAN segmentation, WPA3 encryption, built-in firewall capabilities, and centralized SDN management to deliver full-spectrum security, employing protocol encryption, logical isolation, traffic control, and access filtering.

Dedicated VLANs are configured for Algernon's clients, visitors, and partners to restrict their access exclusively to authorized resources, thereby enhancing network segmentation and mitigating lateral movement risks from external devices. Separate VLANs for office and warehouse environments ensure traffic segregation, precise bandwidth allocation, and anti-interference, while facilitating differentiated security policies tailored to each zone.

WPA3 encryption [offers](#) robust defense against advanced Wi-Fi [attacks so that](#) sensitive data such as trade secrets and customer information remain secure even if intercepted. Additionally, Omada devices' built-in firewalls and unauthorized access prevention mechanisms establish a proactive defense from the network to application layers, blocking brute-force attacks from external IPs and restricting employee access to high-risk websites.

Centralized Management via Omada SDN for High Efficiency M&O

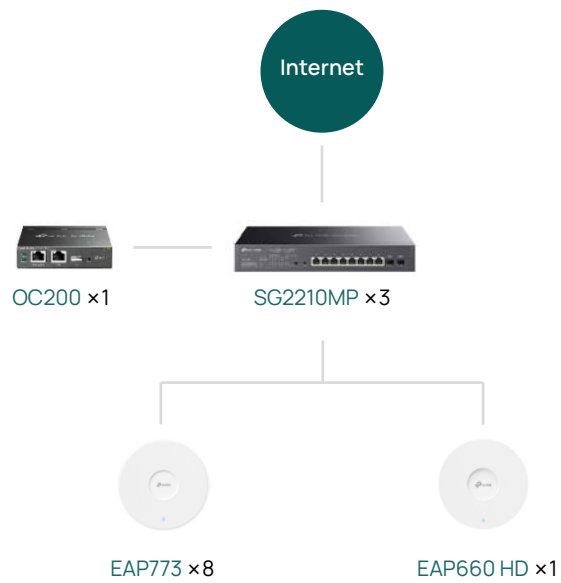
Omada's Software-Defined Networking (SDN) solution seamlessly integrates access points, managed switches, and gateways into a unified ecosystem, enabling 100% centralized cloud-based management. The intuitive management interface simplifies policy configuration and provides real-time device and traffic monitoring, with automated alerts for critical events. This significantly enhances the efficiency of operations and maintenance, reducing the workload and costs associated with Algernon's IT personnel.

"We are extremely satisfied with the implemented solution. The performance of our wireless network has improved significantly, and the advanced security provides the peace of mind we need for managing sensitive data. Management through Omada SDN is intuitive, and the connections remain stable, even in a complex location like ours. I highly recommend it!"

— Georgiana Cornea (Marketing Manager of Algernon Impex SRL)

"This implementation was a challenge due to the building structure, the large coverage area, and the high number of Wi-Fi connections, but the TP-Link Omada solution enabled us to achieve uniform coverage and outstanding performance. The collaboration with both TP-Link's and Algernon's teams was excellent, and the final result proves the flexibility and efficiency of the Omada Wi-Fi 7 solution."

— Alex Ghinguleac (Project Manager of Eagle Systems Serv SRL)



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