Omada Business Wi-Fi for Warehouses

With the increasing prevalence of Wi-Fi-supported devices, smart devices, and mobile internet applications, warehouses are relying on Wi-Fi technology now more than ever. A reliable and high-performance Wi-Fi network is essential for the functioning of business terminals (handhelds, tablets, etc.) to communicate with software such as Enterprise Resource Planning (ERP) and Warehouse Management Systems (WMS). However, there are some difficulties that make warehouses difficult locations for Wi-Fi: large spaces, full of obstacles, fluctuating user densities, and constantly changing inventory.

Omada business Wi-Fi, an important part of the Omada Software Defined Networking (SDN) solution, provides one-stop access to high-quality services and high-performance products, ideal for deploying high-quality Wi-Fi in warehouses.

What Omada Offers

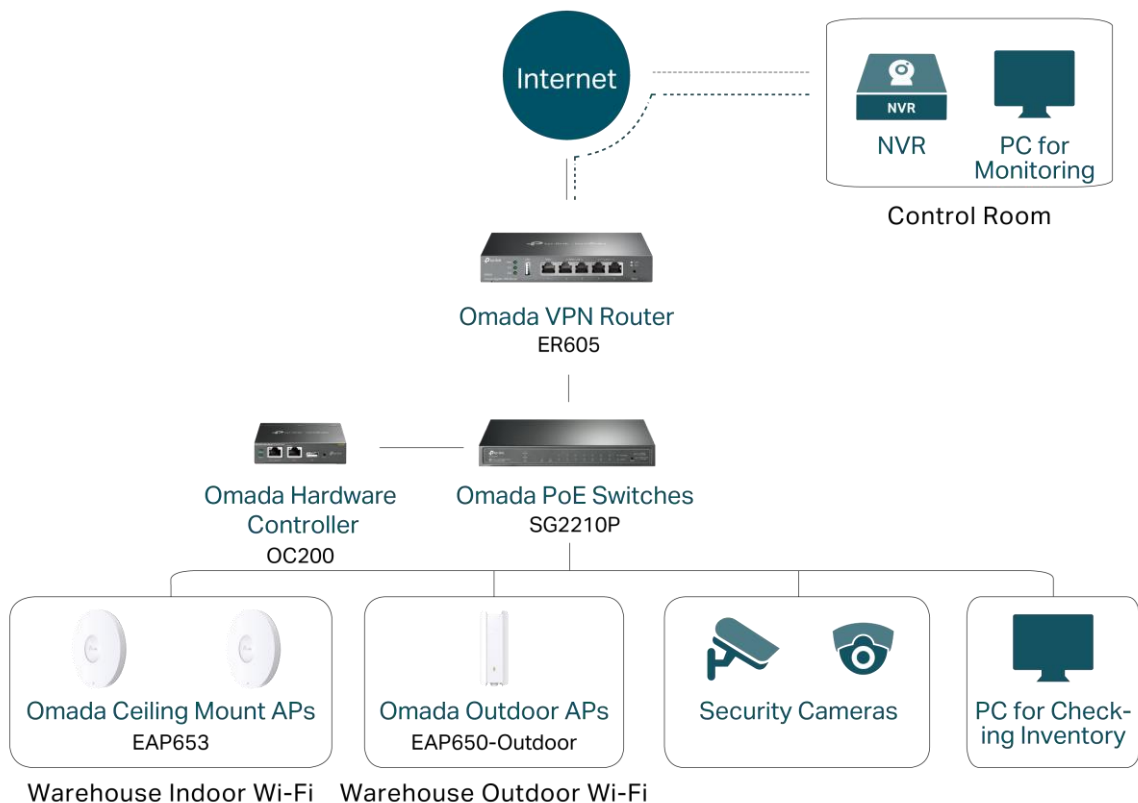### One-Stop Solution and Product Options
- ✓ From routers, switches, access points, controllers, to an end-to-end solution refresh
- ✓ Flexible controller options including Hardware, Software, and Cloud-Based Controllers

Software Defined Networking (SDN)
- ✓ Unified network management
- ✓ Zero-Touch Provisioning
- ✓ Wi-Fi Heatmap Simulator to easily generate Wi-Fi solutions
- ✓ Multi-Customer and Multi-Site Management
- ✓ Customized user management permissions
- ✓ Integrated troubleshooting tools
- ✓ Real-time network status and full report of clients, devices, WAN, and Wi-Fi

Reliable Wi-Fi Performance for Warehouses
- ✓ Always-on Wi-Fi coverage
- ✓ Auto Channel Selection and Power Adjustment to automatically maintain the optimized Wi-Fi
- ✓ Mesh and Seamless Roaming
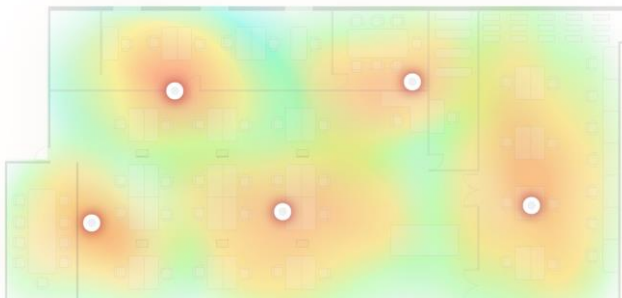- ✓ Target Wake Time (TWT) improves battery life for mobile and IoT devices.

Internet

NVR   PC for Monitoring

Control Room

Omada VPN Router
ER605

Omada Hardware Controller
OC200

Omada PoE Switches
SG2210P

Omada Ceiling Mount APs
EAP653

Omada Outdoor APs
EAP650-Outdoor

Security Cameras

PC for Checking Inventory

Warehouse Indoor Wi-Fi   Warehouse Outdoor Wi-Fi

Warehouse Wi-Fi Solution			
Product	**Model**	**Role**	**Features**
Controllers	OC200	Management	Hardware Controller **without running PCs**; Manage up to **130 devices**; Free cloud access
Routers	ER605	Gateway	5× Gigabit RJ45 ports; Up to **3 WAN ports**; Multi-WAN Load Balancing; Firewall; Enterprise-level WireGuard/IPSec/OpenVPN; LTE Backup
Switches	SG2210P	Connecting Access Points, IP Cameras, and PC	**8× PoE+** Gigabit RJ45 ports; 2× Gigabit SFP ports; **61 W** PoE budget
Ceiling Mount APs	EAP653	Warehouse Indoor Wi-Fi	Wi-Fi 6; Up to **3.0 Gbps** Wi-Fi speed; 1× Gigabit RJ45 port; Mesh; **Seamless roaming**; 802.3at PoE /48V Passive PoE power supply
Outdoor APs	EAP650-Outdoor	Warehouse Outdoor Wi-Fi	Wi-Fi 6; Up to 3.0 Gbps Wi-Fi speed; 1× Gigabit RJ45 port; Mesh; **Seamless roaming**; IP67 weatherproof; 802.3at PoE /48V Passive PoE power supply

❯ Solution Benefits

1. EASY SETUP AND MANAGEMENT TO FACILITATE BUSINESS

Omada's simplicity enables warehouses to easily set up and maintain their entire networks, even without professional full-time IT managers.

- **Unified Network Management** — Centrally manage access points, switches, and routers—all controlled from a single easy-to-use interface.

- **Zero-Touch Provisioning** — Allows admins to remotely deploy and configure multi-site networks, so there's no need to send out an engineer for on-site configuration.

- **Wi-Fi Heatmap Simulator** — Generate a Wi-Fi solution by simulating the wireless coverage effect of APs in the actual warehouse. Determine the appropriate number and location of APs according to the coverage requirements based on the operations, workstations, and automatic handling equipment.

- **Flexible Management Architecture Increases Business Agility and Scalability** — Omada offers hybrid cloud (on-premises) hardware and software controllers and Cloud-Based controllers to match enterprise networks of any size. The Omada Hardware Controller supports a centralized

management scale of 130 or 700 devices, while the Software Controller and Omada Cloud-Based Controller supports an unlimited scale. Adding or adjusting devices is simple, increasing the agility and scalability of your business.

- **Multi-Customer and Multi-Site Management** — Manage multiple warehouses without switching controllers in Managed Service Provider (MSP) Mode. It's easier to check and manage multiple sites with a more well-organized management structure.

- **Customized User Management Permissions** — Multi-user privilege assignment is available to increase management efficiency and security. Multi-person management, multi-level permissions, and the ability to add admins as needed enable flexible network operation and maintenance.

- **SNMP v2c/v3** — Provides SNMP read and trap support for industry-standard Management Information Bases (MIB) and private extensions. LLDP facilitates easy mapping of network management applications.

2. RELIABLE PERFORMANCE MATTERS FOR WAREHOUSE OPERATION

Within a warehouse, devices such as sensors, scanners, laptops, mobile phones, automated picking systems, automated vehicles, mobile robots, and security cameras all rely on a Wi-Fi network to operate. When implementing warehouse Wi-Fi in your facility, your main goal is to quickly and reliably connect control, management, and manufacturing software with sensors and machines to make your company's logistics and production processes more efficient.

- **Always-On Wi-Fi Coverage** — Omada's Wi-Fi 7 and Wi-Fi 6 infrastructure is designed to support warehouses of any size with always-on, secure connectivity by steering around obstacles. High-power amplified antennas and Beamforming combine to ensure Wi-Fi coverage for large surface areas of warehouses. A reliable and high-performance Wi-Fi network is essential for the functioning of business terminals (handhelds, tablets, etc.) to communicate with software such as Enterprise Resource Planning (ERP) and Warehouse Management Systems (WMS). Such networking guarantees data continuously processed by the connected systems are transmitted faster and more reliably.

- **Auto Channel Selection and Power Adjustment** — Provides powerful wireless performance while greatly reducing Wi-Fi interference by automatically adjusting the channel settings and transmission power levels of neighboring APs in the same network.

- **AI Roaming for Uninterrupted Streaming** — Ensures mobile devices enjoy uninterrupted connections when moving around the warehouse by switching clients automatically to the access points with the optimal signal. AI Roaming facilitates Fast

Roaming and further optimizes the roaming experience. The warehouse Wi-Fi network provides persistent connections and roaming to automated equipment.

- **Prolongs the Battery Life of Mobile and IoT Devices** — Target Wake Time (TWT) allows devices to negotiate when and how often they will wake up to send or receive data, increasing device sleep time and substantially improving battery life for mobile and IoT devices.

- **Mesh Wi-Fi, PoE, and Wall-Mount Support for Flexible Installation and Deployment** — Omada ceiling mount access points support wall mount, and the outdoor access points support wall mounting and pole mounting. These overcome the difficulty of warehouses' high ceilings to ensure optimal Wi-Fi coverage. Flexible deployment with Mesh networking means Ethernet connections aren't necessary for network composition. PoE support further enables flexible deployment.

- **Advanced Functions for Robust Network Stability and Performance** — Supports Multi-WAN routers, Load Balance, Storm Control, Loop Detection, Ethernet Ring Protection Switching (ERPS), LACP, QoS, Voice VLAN, and IPv6.

- **Quick Troubleshooting for Minimized Interruption** — Real-time network status, network monitoring, and integrated troubleshooting tools, such as PING, Traceroute, DNS QUERY, Terminal, and Packet Capture, allow for quick troubleshooting, even when the IT manager is away.

- **Real-time Network Status and Full Report of Clients, Devices, WAN, and Wi-Fi** — Monitor real-time network status and various kinds of information at a glance. Easily check the details of faulty devices in the system topology.

❯ TP-Link Omada Deserves Your Trust

Better Support
We are available for you — call, email, chat, and visit the community with your pre-sales, post-sales, and installation questions.
✓ Localization Support Teams
✓ Official Omada Community
✓ Dedicated Omada Support
✓ Certification and Training

Extended Product Warranties
✓ 5-Year Product Warranty in the US region*

*Applicable to Omada products in the US region. Certain products have a 2-year warranty. Go to https://www.tp-link.com/us/support/replacement-warranty/ for details. Warranty may vary between regions/countries.

Vertical Integration and Stable Supply

✓ A Genuine Manufacturer with vertically integrated supporting facilities ensures complete quality, cost control, and high-level manufacturing, enabling better value than traditional OEM's

✓ Controls the cycle time and improves production efficiency

✓ Local warehouse for sufficient local stocks and fast delivery*

*Applicable to the US region and may vary between regions/countries.

A Best-In-Class Total Value

✓ A Best-In-Class Total Value means reliable industry-standard solutions, comprehensive services, better support, and competitive pricing

✓ World's No. 1 Wi-Fi Product Provider for 12 consecutive years*

✓ Over 20 years of product testing and manufacturing have built our hard-earned reputation for reliability

*Source: IDC Worldwide Quarterly Wireless LAN Tracker, Q4 2022 (claim based on worldwide shipments).