Controller

Hardware Controller: OC200 / OC300
Software Controller

Omada SDN Controller

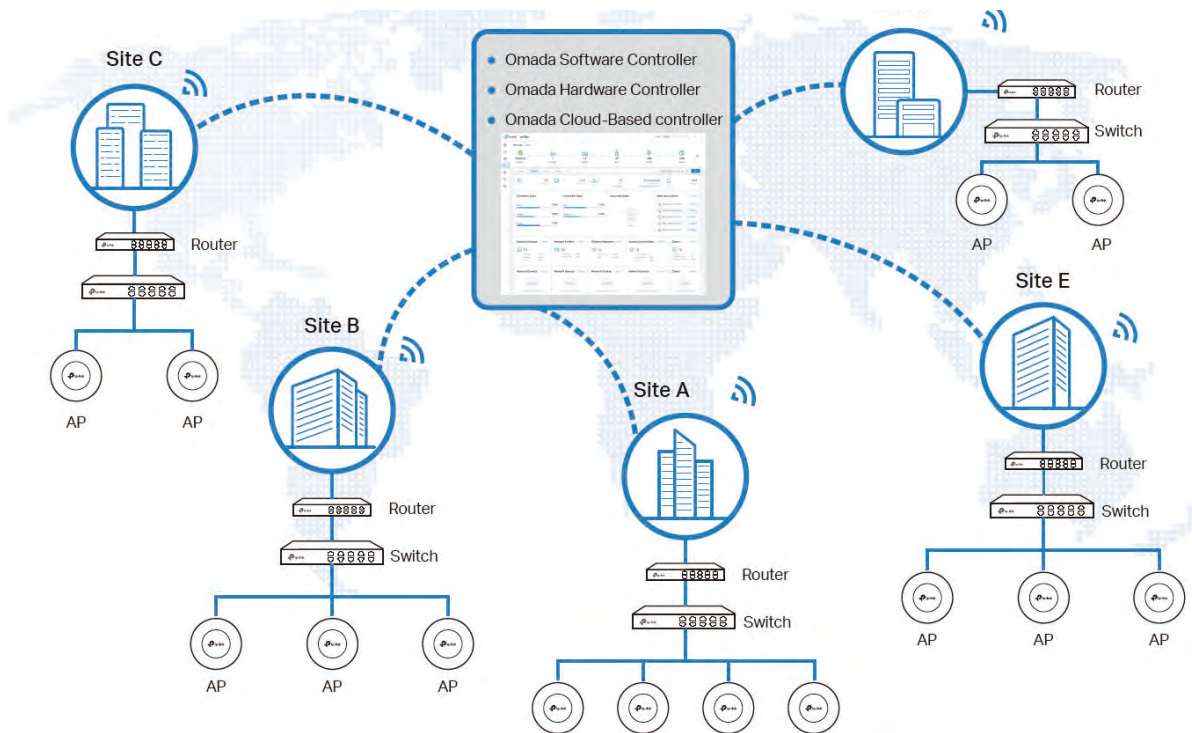OC200

OC300

Omada Solution

Hospitality	Education	Retail	Office	Catering
High Quality and Full Coverage Wi-Fi	High-Density Wi-Fi	Social Marketing for O2O	Wireless and Wired Connections	Full Wi-Fi Coverage in High-Density Environment

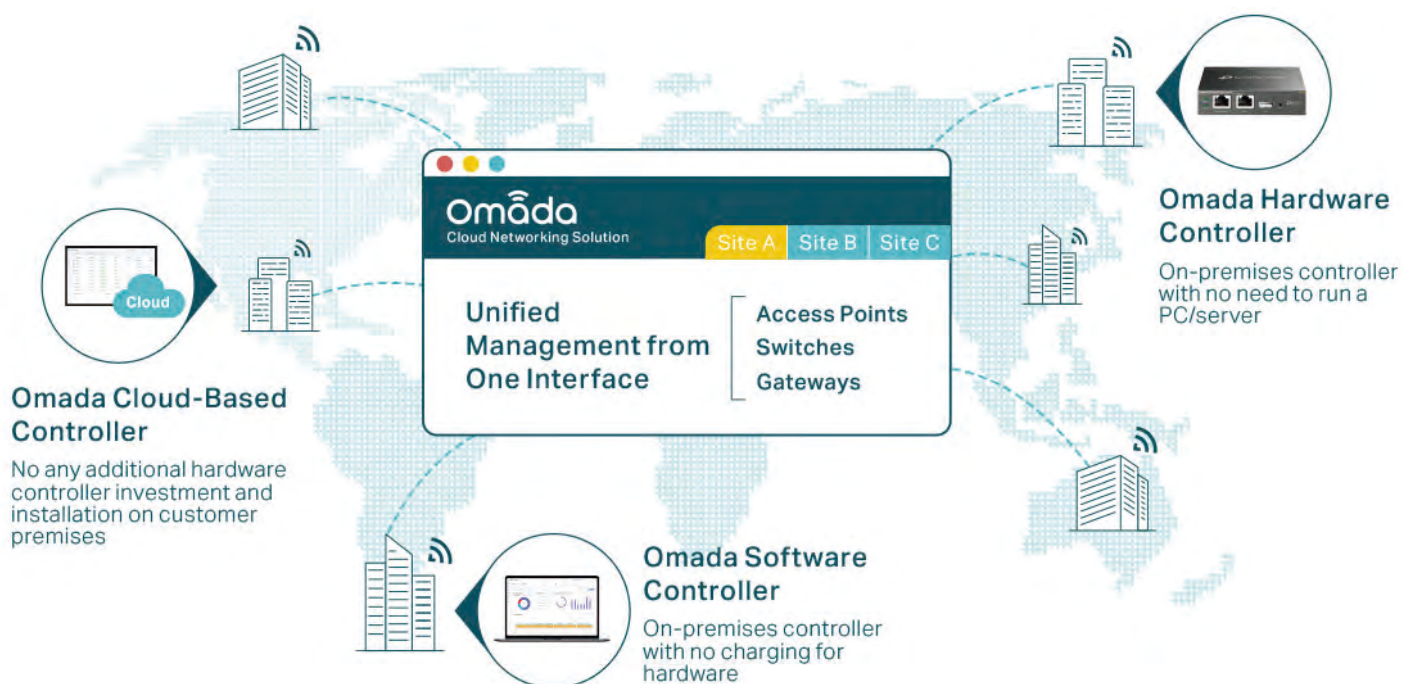## Software Defined Networking (SDN) with Cloud Access

Omada Software Defined Networking (SDN) platform integrates network devices, including access points, switches and gateways, providing 100% centralized cloud management. Omada creates a highly scalable network——all controlled from a single interface. Seamless wireless and wired connections are provided, ideal for use in hospitality, education, retail, offices, and more.

Higher Efficiency

- Centralized Cloud Management
- Zero-Touch Provisioning
- AI-Driven Technology
- Auto Channel Selection and Power Adjustment
- Multi-Tenant Privilege Assignment
- Easy and Intelligent Monitoring

Higher Security

- Separate Management and User Data
- Abundant Security Functions

Higher Reliability

- 99.99% SLA Availability
- Reliable Connections with High-Density Clients

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Hassle-Free Centralized Cloud Management

100% centralized cloud management of the whole network from different sites——all controlled from a single interface anywhere, anytime.

Omada
Cloud Networking Solution

Site A | Site B | Site C

Unified Management from One Interface

Access Points
Switches
Gateways

Omada Hardware Controller

On-premises controller with no need to run a PC/server

Omada Cloud-Based Controller

No any additional hardware controller investment and installation on customer premises

Omada Software Controller

On-premises controller with no charging for hardware

- ✓ No additional training needed
- ✓ Unlimited scalability
- ✓ Batch management
- ✓ Devices still work even when not connected to the Cloud

Zero-Touch Provisioning for Efficient Deplyment[1]

Omada zero-touch provisioning allows remotely deployment and configuration of multi-site networks, so there's no need to send out an engineer for on-site configuration. The Omada Cloud ensures efficient deployment with lower costs.

Cloud

Step 2
Enroll the devices through your Omada Cloud Dashboard

Step 3
Devices automatically obtain the configuration file from the cloud

Step 1
Plug in on-site and connect the Omada Powered devices to the internet

Step 4
Enjoy 100% remote provisioning and cloud management

1. Zero-Touch Provisioning is supported when using Omada Cloud-Based Controller

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AI-Driven Technology for Stronger Performance and Easy Network Maintenance

Intelligent Network Analysis, Warning, and Optimization*

- Analyzes potential network problems and sends optimization suggestions for higher network efficiency
- Locates network faults, warns and notify users, and generates solutions to reduce network risk

Overall network status

Warning

Optimization

*Intelligent Network Analysis, Warning, and Optimization are being developed and are scheduled to be released in 2020
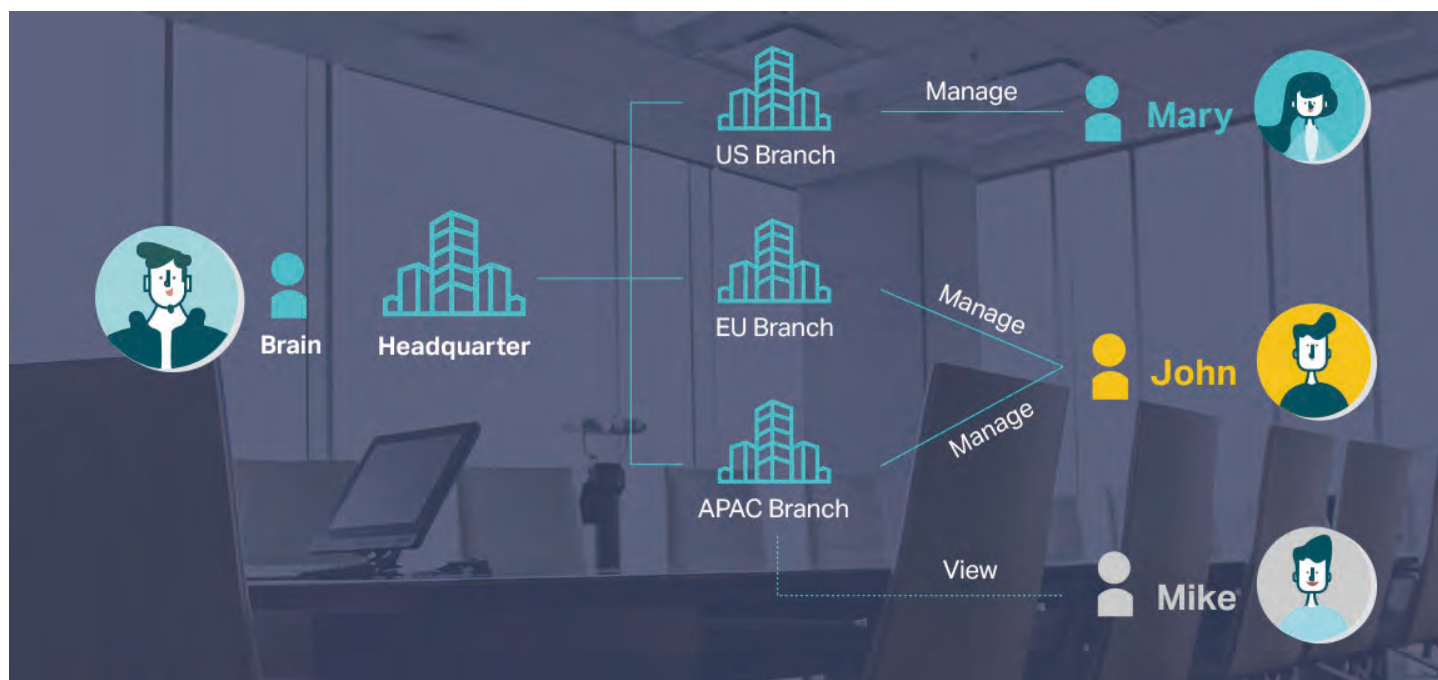
Auto Channel Selection and Power Adjustment

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.

● Channel 1   ● Channel 11   ● Channel 6

Assign Different Management Roles

Multi-tenant 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.

Brain Headquarter

US Branch — Manage — Mary

EU Branch

Manage — John
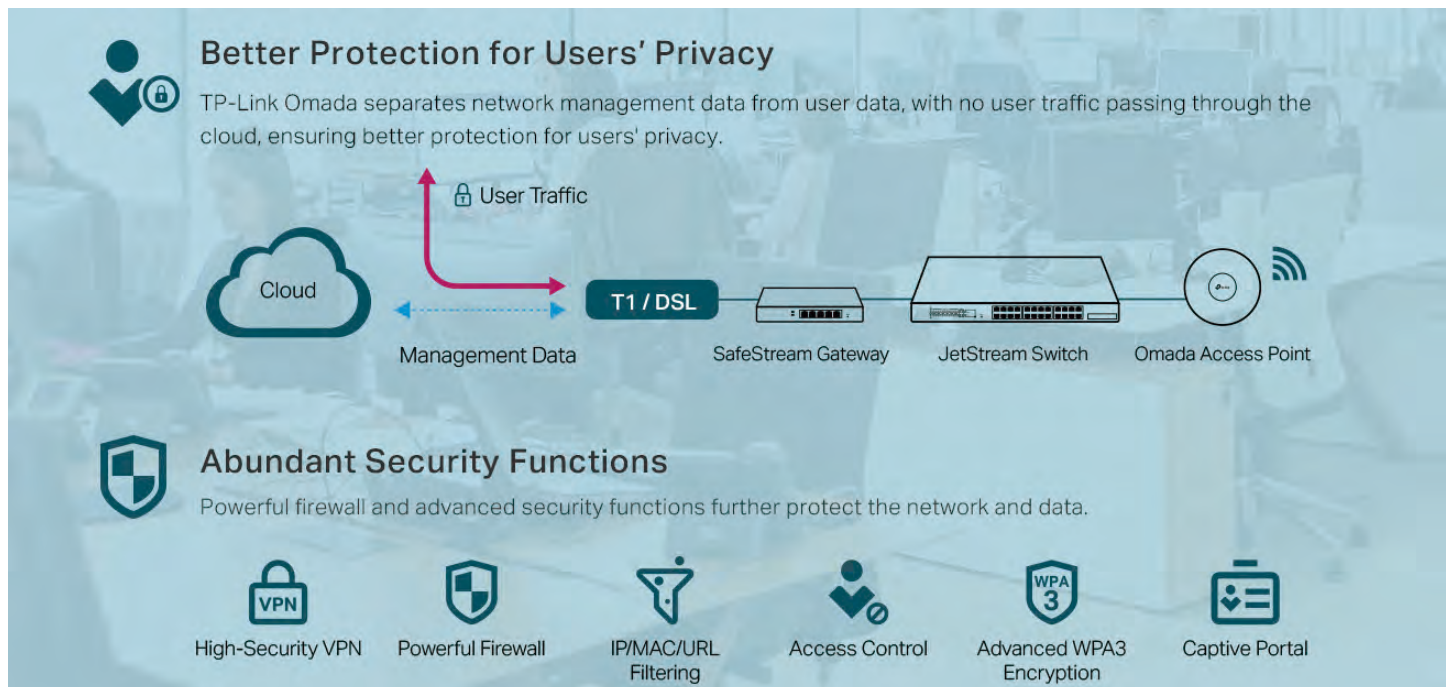
APAC Branch — Manage

View — Mike

Easy and Intelligent Network Monitoring

The easy-to-use dashboard makes it easy to see your real-time network status; check network usage and traffic distribution; receive network condition logs, abnormal event warnings, and notifications; or even track key data for better business results. Network topology helps IP admins quickly see and troubleshoot connection at a glance.


Network Status Report

Check the Traffic Distribution

Network Topology at a Glance

Comprehensive Protection for the Whole Network

Better Protection for Users' Privacy

TP-Link Omada separates network management data from user data, with no user traffic passing through the cloud, ensuring better protection for users' privacy.

User Traffic

Cloud

Management Data

T1 / DSL

SafeStream Gateway

JetStream Switch

Omada Access Point

Abundant Security Functions

Powerful firewall and advanced security functions further protect the network and data.

High-Security VPN   Powerful Firewall   IP/MAC/URL Filtering   Access Control   Advanced WPA3 Encryption   Captive Portal
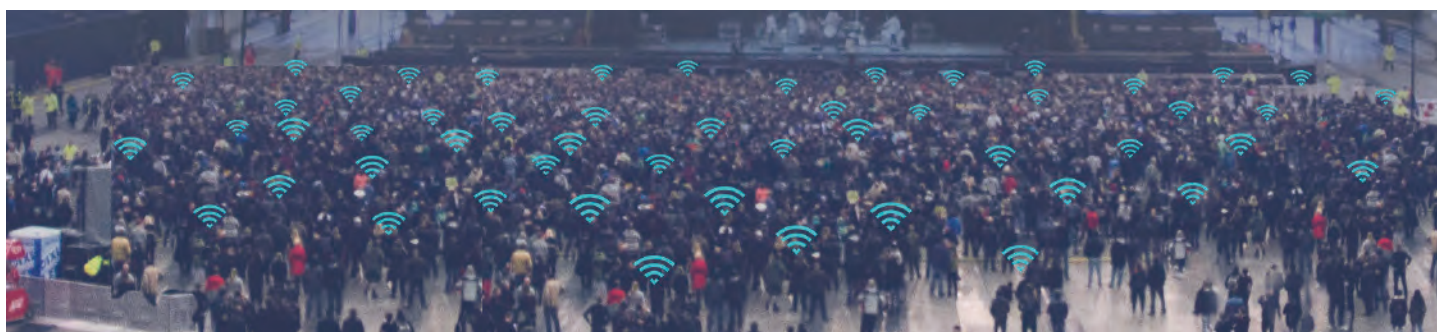
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Multiple Factors Guarantee Higher Reliability

Higher reliability of cloud service is guaranteed with 99.99% SLA availability, 24/7 automated fault detection, geographically isolated backup servers, and reliable product quality. Your network functions even if management traffic is interrupted.

99.99%
SLA Availability

24/7
Automated Fault Detection

Geographically Isolated
Back-Up Servers

Reliable Products
High Quality

Higher Reliability
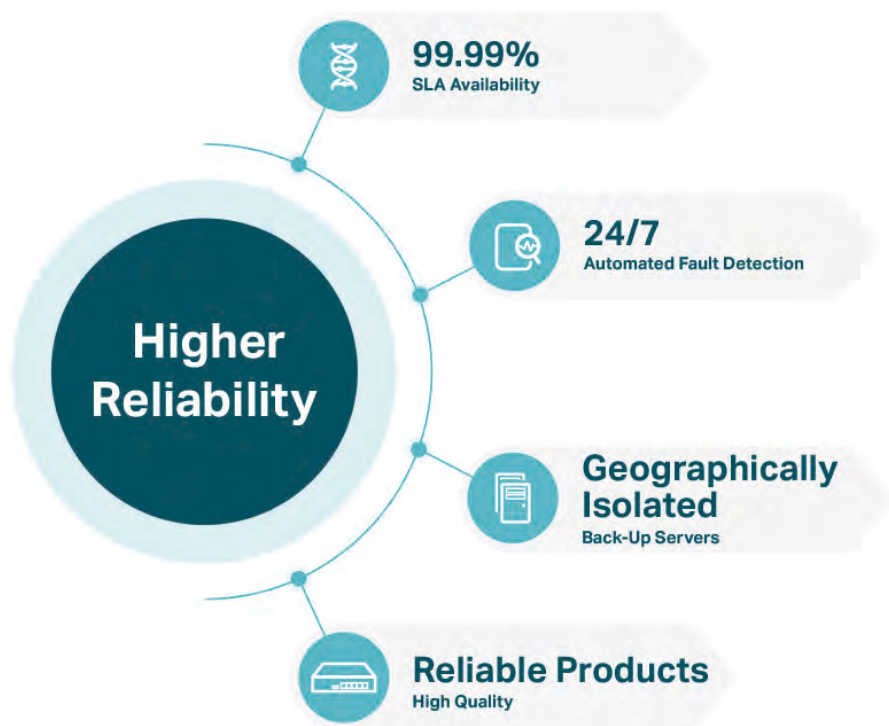
Reliable Connections Even with High-Density Clients

Equipped with enterprise chipsets, dedicated antennas, advanced RF functions, auto channel selection, and power adjustment, Omada Wi-Fi 6 and Wi-Fi 5 APs have high concurrency capacities for remarkable performance in high-density environments.

Specifications

Controller Type		Hareware Controller		Software Controller
Model		OC200	OC300	-
Main Design	Processor	Dual-Core A53 @ 1.2 GHz	Quad-Core A72 @ 1.2 GHz	-
	Memory Information	1 GB DDR3	2 GB DDR4	-
	Storage	1MB Nor Flash; 4 GB eMMC	2MB Nor Flash; 8 GB eMMC	-
	RJ45 Port	2 10/100 Mbps Ethernet Ports	2 10/100/1000 Mbps Ethernet Ports	-
	USB Port	1 USB 2.0 Port; 1 Micro-USB Port	1 USB 3.0 Port	-
	Interface	1 Kensington Lock; 1 Reset		-
Hardware Design	Power Supply	802.3af/at PoE; Micro-USB (DC 5 V/ Minimum 1 A)	100-240 V ~ 50/60 Hz AC	-
	Max Power Consumption	7.5 W (powered by a PoE device, with USB 2.0 connected); 3.5 W (powered via Micro-USB port, no USB 2.0 connected)	9.0 W (no USB 3.0 connected); 14.8 W (with USB 3.0 connected)	-
	Dimensions	3.9 × 3.9 × 1.0 in (100 × 98 × 25 mm)	11.6 × 7.1 × 1.7 in (294 × 180 × 44 mm)	-
System Management	Multi-Site Management	√		
	Multi-tenant Management (Role/Site/Device Privileges)	√		
	Cloud Access	√		
	Migration (Site Migration/Controller Migration)	√		
	Account Management	√		
	Maximum Number of Sies	100		
	Maximum Number of Accounts	1000		
	Maximum Number of Local Accounts	500		
	Maximum Number of Cloud Accounts	500		
	Maximum Number of Vouchers	50,000		
	Maximum Number of Local Users	50,000		
	Maximum Number of WLAN Groups	500		
	Maximum Number of SSIDs	16 in each site		
	Maximum Number of ACL	Router: 64 Switch: 32 EAP: 16		
	Maximum Number of Free Authentication	32 in each site		
	Maximum Number of Pre-Authentication Access	32 in each site		
	Maximum Number of Authentication Free Policy	96 in each site		
	Maximum Number of Reboot Schedule	8 in each site		
	Maximum Number of PoE Schedule	8 in each site		
	Maximum Number of MAC Filter Groups	8 in each site		
	Maximum Number of MAC Addresses in Each MAC Filter Group	500 (4,000 in total per controller)		
	Maximum Number of VPN	64 in each site		
	Maximum Number of Static Routing	64 in each site		
	Maximum Number of Policy Routing	64 in each site		
	Backup & Restore	√		
	Auto Backup	√		
	Customized UI Interface	√		

Controller Type	Hareware Controller		Software Controller
Model	OC200	OC300	-

Network Management

	OC200	OC300	-
Wired Network	√		
Wireless Network	√		
Network Security (ACL/URL Fitering/Attack Defense)	√		
Transmission (Routing/NAT/Session Limit/Bandwidth Control)	√		
VPN (IPSec/L2TP/PPTP/OpenVPN)	√		
Portal (Voucher/Local User/SMS/RADIUS/Facebook/ External Portal Server)	√		
802.1x	√		
RADIUS (Authentication/MAC Auth/Accounting)	√		

Device Management

	OC200	OC300	-
Management Device Type	Omada EAP, JetStream Switch*, SafeStream Router*		
Management Scale**	≤ 100 Devices ≤ 1,000 Clients	≤ 500 Devices ≤ 15,000 Clients	≤ 1,500 Devices***
Device Automatic Discovery	√		
Batch configuration	√		
Online upgrade	√		
Reboot Schedule	√		
PoE Schedule	√		
WLAN Scheduler	√		
DDNS	√		
SNMP	√		
SSH	√		

Monitoring

	OC200	OC300	-
Dashboard (Custom Dashboard)	√		
Statistics (Performance/Switch Stats/Speed Test Stats)	√		
Network topology	√		
Network Map	√		
Devices List (Custom Table)	√		
Clients List (Custom Table)	√		
Insights (Known Clients/Past Connections/Past Portal Authorizations/Rogue APs)	√		
Logs (Alerts/Events/Custom Notifications)	√		

Others

	OC200	OC300	-
Certifications	CE, FCC, RoHS		-
Operating Temperature	0 °C–40 °C (32 °F–104 °F)	0 °C–50 °C (32 °F–122 °F)	-
Storage Temperature	-40 °C–70 °C (-40 °F–158 °F)		-
Operating Humidity	10%–90% non-condensing		-
Storage Humidity	5%–90% non-condensing		-

*Some models are manageable, please refer to the TP-Link official website for more information.

**The actual management scale will vary as a result of network environment, bandwidth and different settings.

***Omada Software Controller can manage up to 1500 EAPs if the Controller Host has enough hardware resources. To guarantee operational stability for managing 1500 EAPs, we recommend that you use the hardware which meets or exceeds the following specifications:

-CPU: Intel Core i3-8100, i5-6500, or i7-4700 with 2 or more cores and 4 or more threads.

-Memory: 6 GB RAM or more.

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