

# Omada Business Cloud SDN Solution

Omada EAP - EAP653



Omada SDN Controller



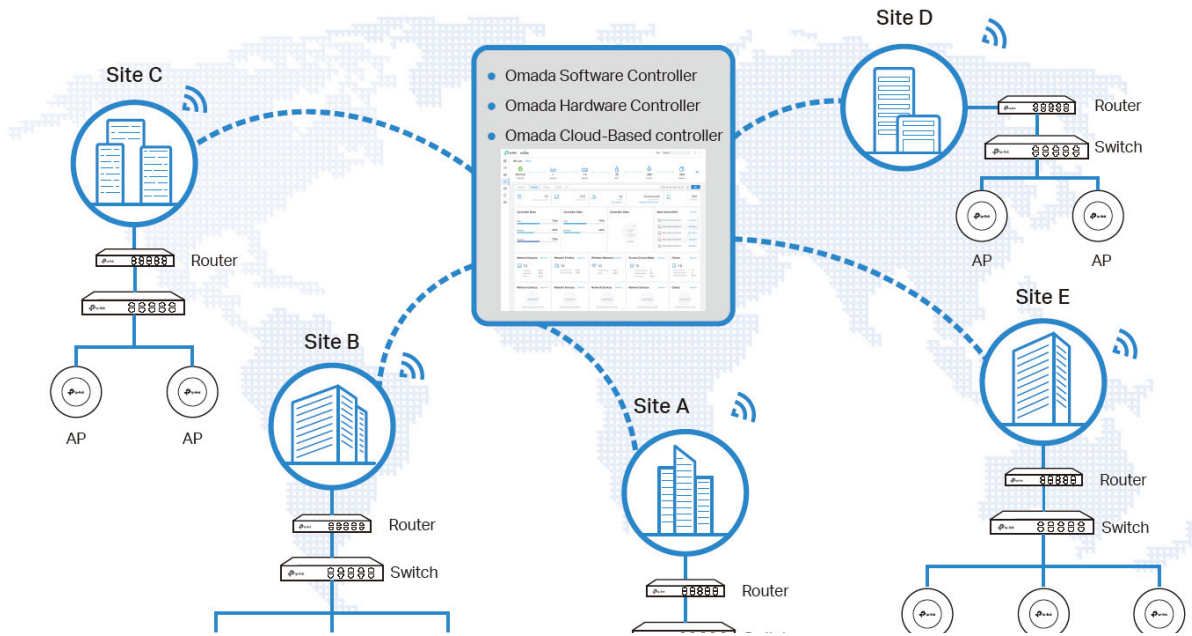
EAP653

# Omada Solution

				
<b>Hospitality</b>	<b>Education</b>	<b>Retail</b>	<b>Office</b>	<b>Catering</b>
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

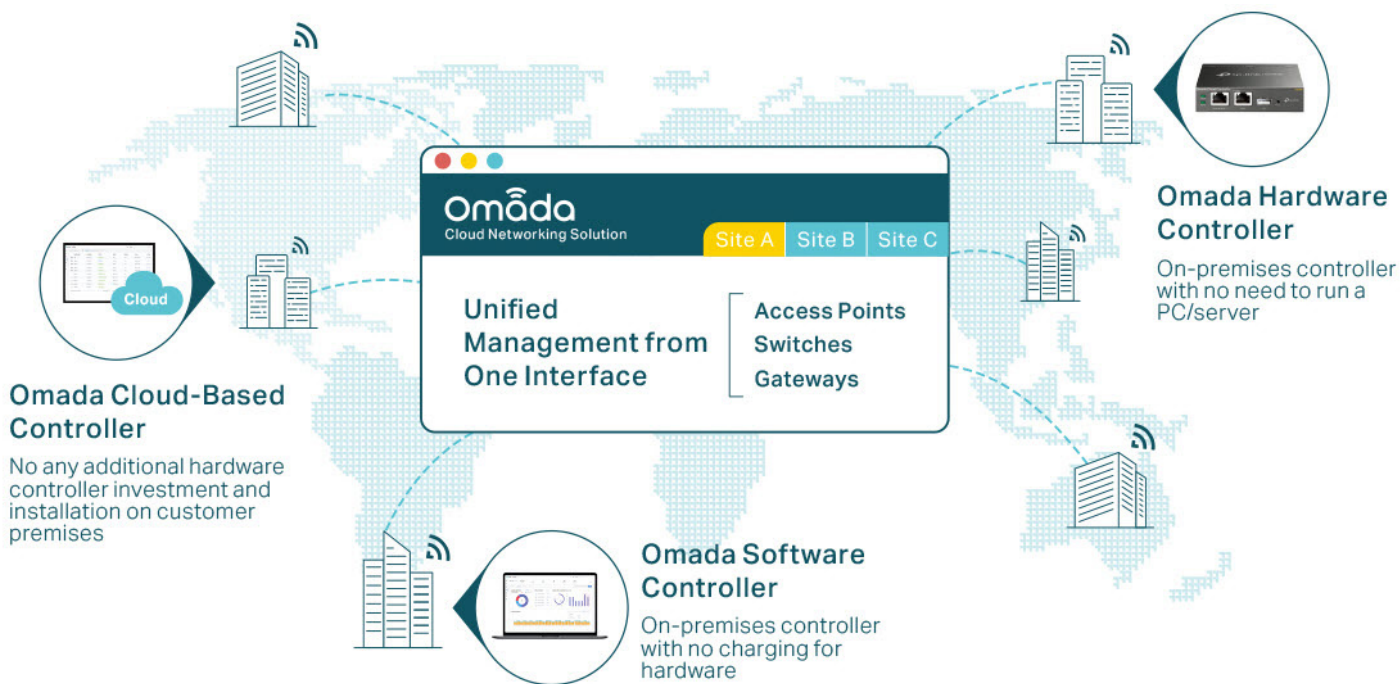
Omada Software Defined Networking (SDN) platform integrates network devices, including access points, switches and gateways, providing 100% centralized cloud management. Omada creates a highly scalable network—all controlled from a single interface. Seamless wireless and wired connections are provided,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



		
<b>Higher Efficiency</b>	<b>Higher Security</b>	<b>Higher Reliability</b>
 Centralized Cloud Management  Zero-Touch Provisioning  AI-Driven Technology  Auto Channel Selection and Power Adjustment  Multi-Tenant Privilege Assignment  Easy and Intelligent Monitoring	 Separate Management and User Data  Abundant Security Functions	 99.99% SLA Availability  Reliable Connections with High-Density Clients

# Hassle-Free Centralized Cloud Management

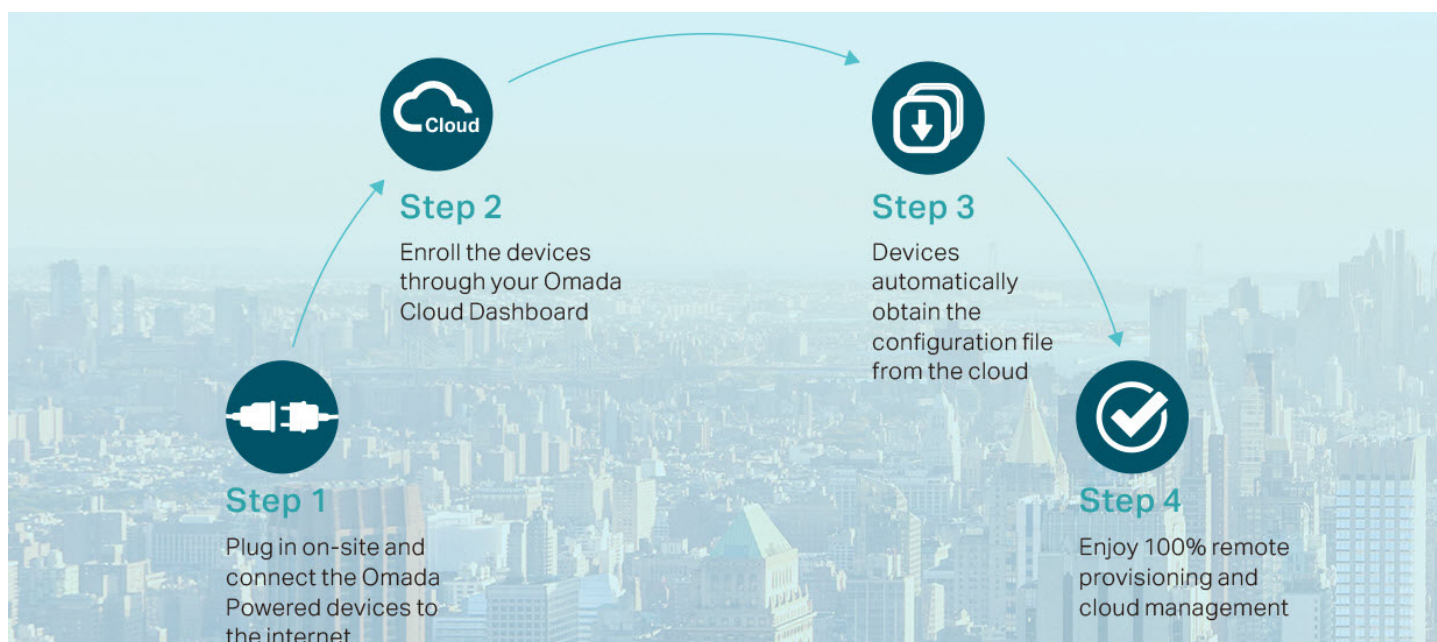
100% centralized cloud management of the whole network from different sites—all controlled from a single interface anywhere, anytime.



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

## Zero-Touch Provisioning for Efficient Deployment\*

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.



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

# AI-Driven Technology for Stronger Performance and Easy Network Maintenance

## Intelligent Network Analysis, Warning, and Optimization\*

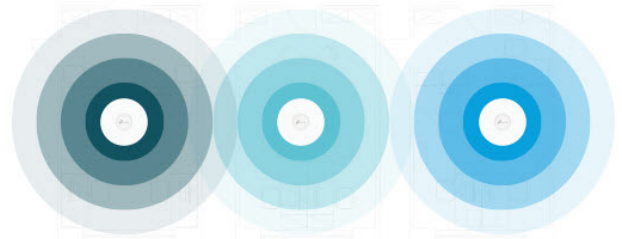
- ▶ Analyzes potential network problems and sends optimization suggestions for higher network efficiency
- ▶ Locates network faults, warns and notify users, and generates solutions to reduce network risk



\*Intelligent Network Analysis, Warning, and Optimization are being developed and are scheduled to be released in 2020

## Auto Channel Selection and Power Adjustment

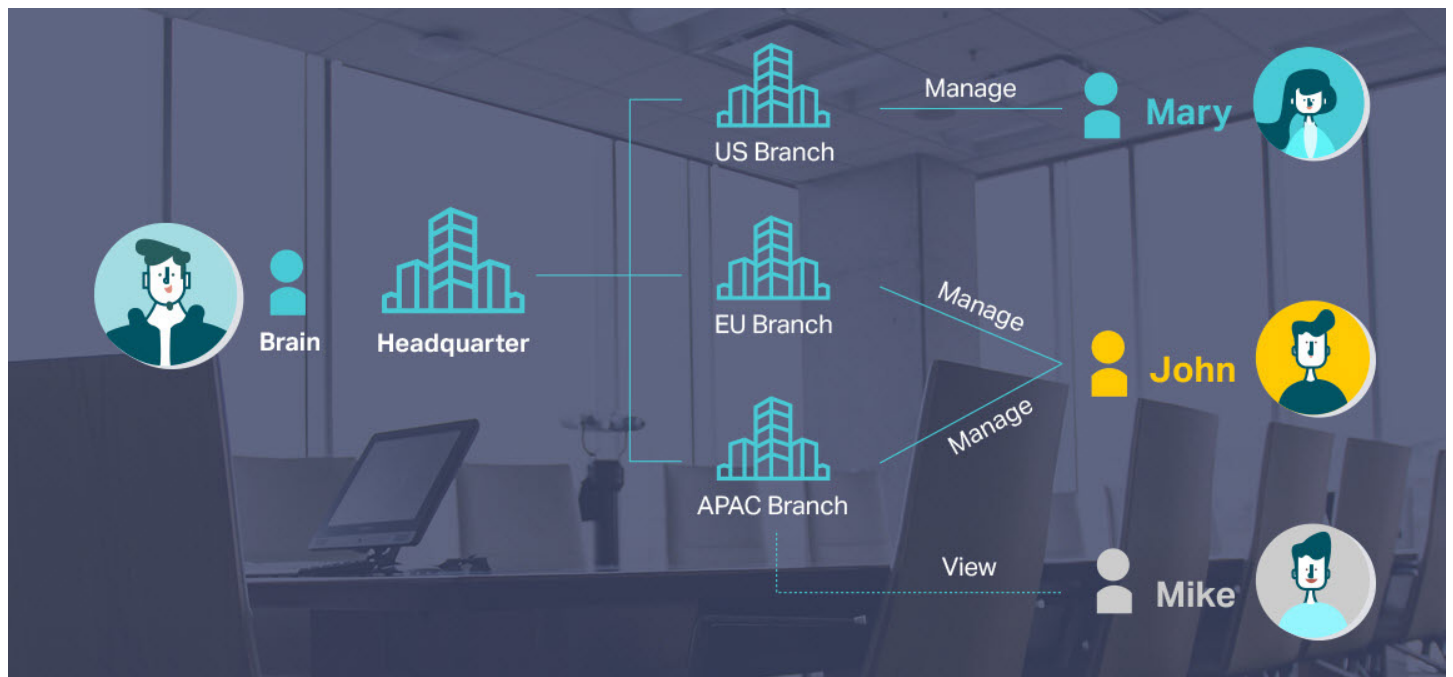
Provides powerful wireless performance while greatly reducing Wi-Fi interference by automatically adjusting the channel settings and transmission power levels of neighboring APs in the same network.



● Channel 1 ● Channel 11 ● Channel 6

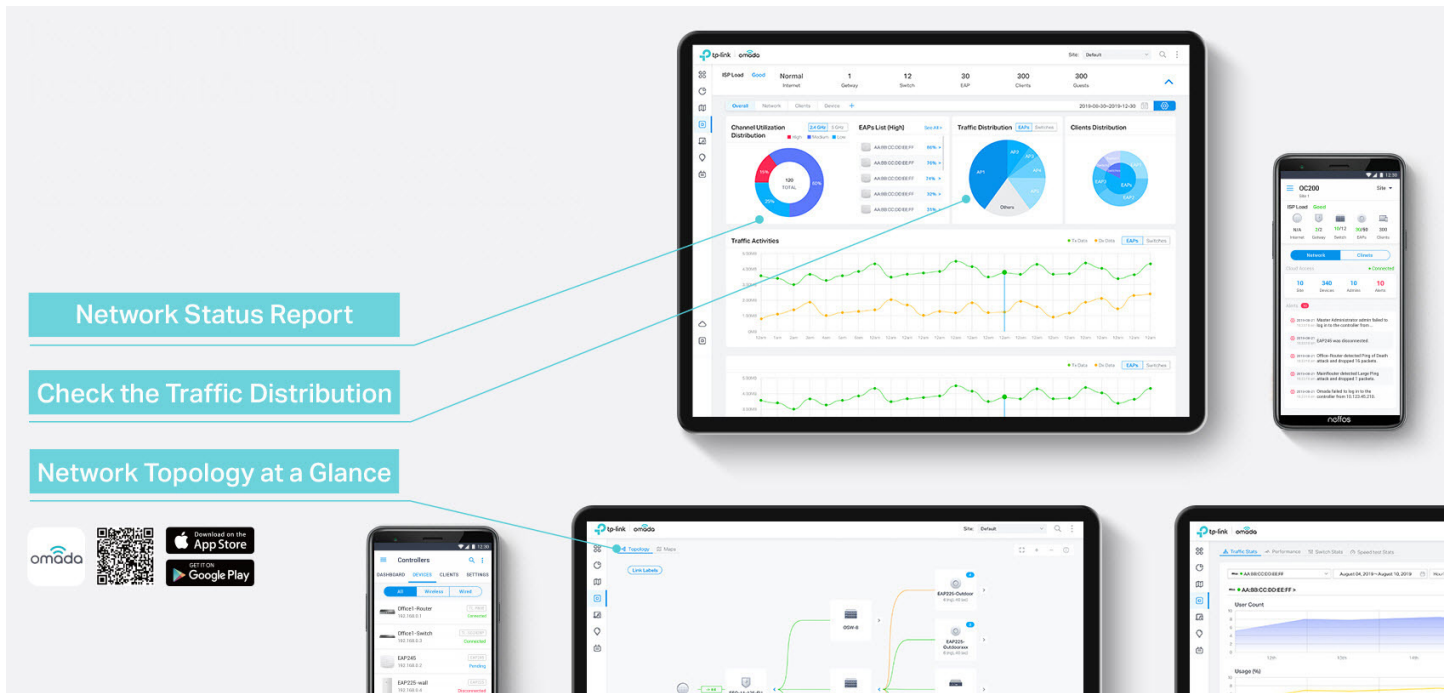
## Assign Different Management Roles

Multi-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.

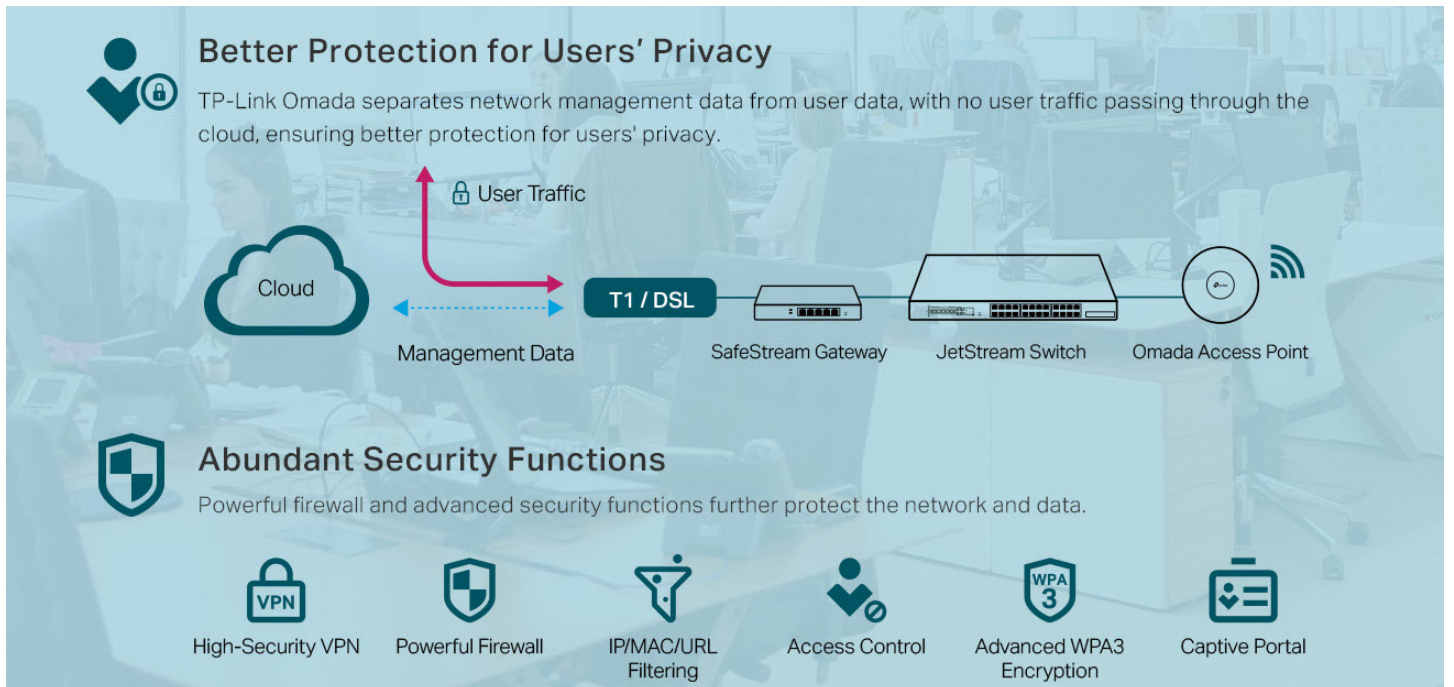


# Easy and Intelligent Network Monitoring

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.



# Comprehensive Protection for the Whole Network



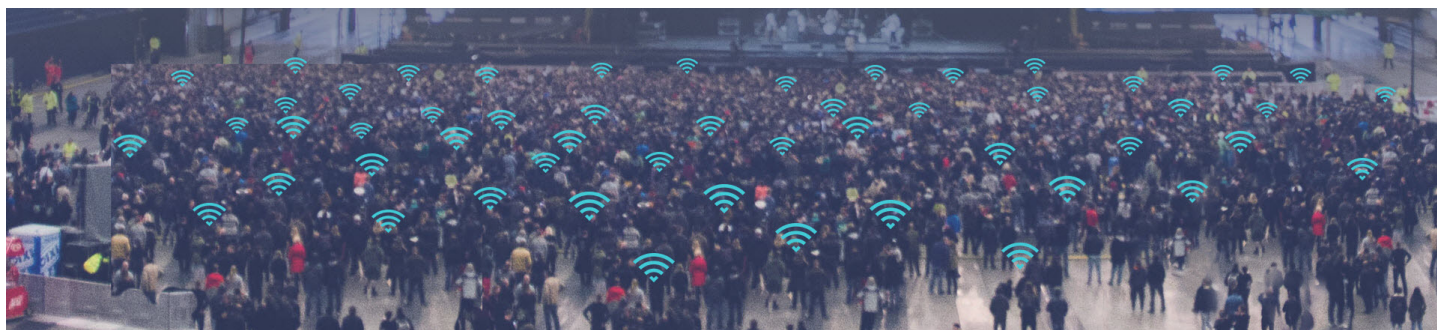
## Multiple Factors Guarantee Higher Reliability

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.



## 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.



# EAP Product Features

## Easy-Mount Design

The Ceiling Mount EAP's elegant appearance and easy-mount design promote fast installation on any wall or ceiling surface, and allow it to blend in seamlessly with most interior decorating styles. The slimline, inconspicuous Wall Plate EAP can be easily installed into any standard EU/US wall junction box or 86 mm wall junction box.

## PoE Power Supply

With IEEE 802.3af/at PoE or Passive PoE, you can use Ethernet cables to transfer both electrical power and network data, making deployment more flexible and removing the need to install additional power cabling.

## Business-Class Hardware Design

Enterprise-class chipsets offer outstanding performance and support longer running time, higher client capacity and greater range. Dedicated high-power amplifiers, specialized antennas and professionally designed RF shields ensure excellent wireless performance.

## Seamless Roaming\*

802.11k and 802.11v seamless roaming provide seamless switching to the access point with optimal signal when moving between APs.

## Mesh\*

Omada Mesh technology enables wireless connectivity between access points for extended range, making wireless deployments more flexible and convenient.

## Increased Efficiency with OFDMA\*

The Wi-Fi 6 standard uses OFDMA for more efficient channel use and reduced latency. Imagine your WiFi connection as a series of delivery trucks delivering data packets to your devices. With 802.11ac Wi-Fi, each delivery truck could only deliver one parcel to one device at a time. But with OFDMA, each truck can deliver multiple parcels to multiple devices simultaneously. This vast improvement in efficiency works for both uploads and downloads.

## Advanced RF Management

MU-MIMO, Airtime Fairness, Beamforming, and Band Steering Technologies guarantee optimal RF performance for business-level applications.

## Easy Centralized Management

Configure and monitor hundreds of Omada EAPs with ease using the Omada controller.

\* Only certain devices support Seamless Roaming. For detailed information, refer to the specifications.

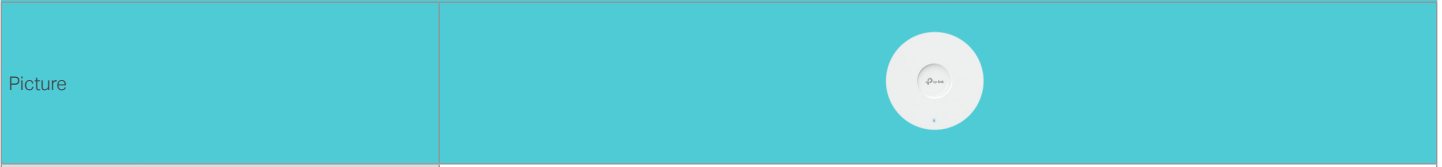
\* Only certain devices support Mesh. For detailed information, refer to the specifications.

\* Only 802.11ax devices support OFDMA.

# Specifications

## Ceiling Mount 802.11ax AP

Model EAP653



Name		AX3000 Ceiling Mount Dual-Band Wi-Fi 6 Access Point
Main Design	LAN Interfaces	1x Gigabit Ethernet Port
	Wi-Fi Standards	IEEE 802.11 a/b/g/n/ac/ax
	Maximum Data Rate	574 Mbps (2.4 GHz) + 2402 Mbps (5 GHz)
	Concurrent Clients	250+
	Antennas	2.4 GHz: 2x 4 dBi 5 GHz: 2x 5 dBi
	Transmit Power	CE: < 20 dBm (2.4 GHz, EIRP); < 23 dBm (5 GHz, band 1/2, EIRP); < 27 dBm (5 GHz, band 3, EIRP); FCC: < 22 dBm (2.4 GHz); < 22 dBm (5 GHz)
Centralized Management	Omada Software Controller	•
	Omada Hardware Controller	•
	Omada APP	•
Security	Captive Portal Authentication	•
	Access Control	•
	Maximum number of MAC Filter	4000
	Wireless Isolation between Clients	•
	VLAN	•
	Rogue AP Detection	•
	Wireless Encryption	WPA-Personal/Enterprise, WPA2-Personal/Enterprise, WPA3-Personal/Enterprise
802.1X Support	•	
Wireless Function	Multiple SSIDs	16 (8 on each band)
	Enable/Disable Wireless Radio	•
	Enable/Disable SSID Broadcast	•
	Guest Network	•
	Automatic Channel Assignment	•
	Transmit Power Control	Adjust transmit Power on dBm
	QoS (WMM)	•
	Seamless Roaming	•
	Mesh	•
	Beamforming	•
	MU-MIMO	•
	Rate Limit	Based on SSID/Client
	Load Balance	•
	Airtime Fairness	•
	Band Steering	•
	RADIUS Accounting	•
	MAC Authentication	•
	Reboot Schedule	•
	Wireless Schedule	•
	Wireless Statistics	•
Static IP/Dynamic IP	•	



# Ceiling Mount 802.11ax AP

Model		EAP653
Support Data Rates	802.11ax	8 Mbps to 2402 Mbps (MCS0-MCS11, NSS = 1 to 2 HE20/40/80/160)
	802.11ac	6.5 Mbps to 2166.7 Mbps (MCS0-MCS11, NSS = 1 to 2 VHT20/40/80/160)
	802.11n	6.5 Mbps to 300 Mbps (MCS0-MCS15, HT20/40)
	802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps
	802.11b	1, 2, 5.5, 11 Mbps
	802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps
Management	LED ON/OFF Control	•
	Management MAC Access Control	•
	Web-based Management	•
	Telnet	•
	SNMP	v1, v2c, v3
	SSH	•
	Restore & Backup	•
	Firmware update via Web	•
	NTP	•
	System Log	•
	Email Alerts	•
Physical & Environment	Power Supply	EU: 802.3at PoE or 12V/1.A DC US: 802.3at PoE or 12V/1.5A DC
	Maximum Power Consumption	EU: 13.5 W (For PoE); 12.0 W (for DC) US: 14.7W (For PoE); 13.25 W (for DC)
	Reset	•
	Mounting	Ceiling / Wall mouting (Kits included) / Junction Box mouting
Others	Certifications	CE, FCC, RoHS, IC
	Dimensions (W x D x H)	160 x 160 x 33 mm
	Environment	Operating Temperature: 0 °C–40 °C (32 °F–104 °F); Storage Temperature: -40 °C–70 °C (-40 °F–158 °F); Operating Humidity: 10%–90% non-condensing; Storage Humidity: 5%–90% non-condensing;

# Disclaimers

## Wireless Speed, Range and Concurrent Devices Disclaimer

Maximum wireless transmission rates are the physical rates derived from IEEE Standard 802.11 specifications. Range and coverage specifications along with the number of connected devices were defined according to test results under normal usage conditions. Actual wireless transmission rate, wireless coverage, and concurrent devices are not guaranteed, and will vary as a result of 1) environmental factors, including building materials, physical objects and obstacles, 2) network conditions, including local interference, volume and density of traffic, product location, network complexity, and network overhead and 3) client limitations, including rated performance, location, connection quality, and client condition.

## MU-MIMO Disclaimer

(Only for certain devices)

MU-MIMO capability requires client devices that also support MU-MIMO.

## Seamless Roaming Disclaimer

(Only for certain devices)

Seamless roaming requires both the access point and client devices to support 802.11k and 802.11v protocols.

## Lightning and Electro-Static Discharge Protection Disclaimer

(Only for outdoor devices)

Protection against lightning and electro-static discharge may be achieved through proper product setup, grounding and cable shielding. Refer to the instruction manual and consult an IT professional to assist with setting up this product.

## PoE Disclaimer

PoE budget calculations are based on laboratory testing. Actual PoE power budget is not guaranteed and will vary as a result of client limitations and environmental factors.

Some models featured in this guide may be unavailable in your country or region. Visit TP-Link website for local sales information: [www.tp-link.com](http://www.tp-link.com). Specifications are subject to change without notice.

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