Omada Gigabit VPN Router

MODEL: ER605 (TL-R605)



Highlights

- 1 Gigabit WAN port, 1 Gigabit LAN Port and 3 Gigabit WAN/LAN ports provide high-speed wired connectivity
- Supports multiple VPN protocols, including IPSec, L2TP, PPTP and OpenVPN. Up to 20 IPSec VPN tunnels, 16 L2TP VPN tunnels, 16 PPTP VPN tunnels, and 16 OpenVPN tunnels are simultaneously supported
- SPI firewall and DoS defense protect your network from most known Internet attacks
- Professional 4 KV lightning protection keeps your investment safe and sound

Omada Solution



Hospitality

High Quality and Full Coverage Wi-Fi



Education

High-Density Wi-Fi



Retail

Social Marketing for O2O



Office

Wireless and Wired Connections

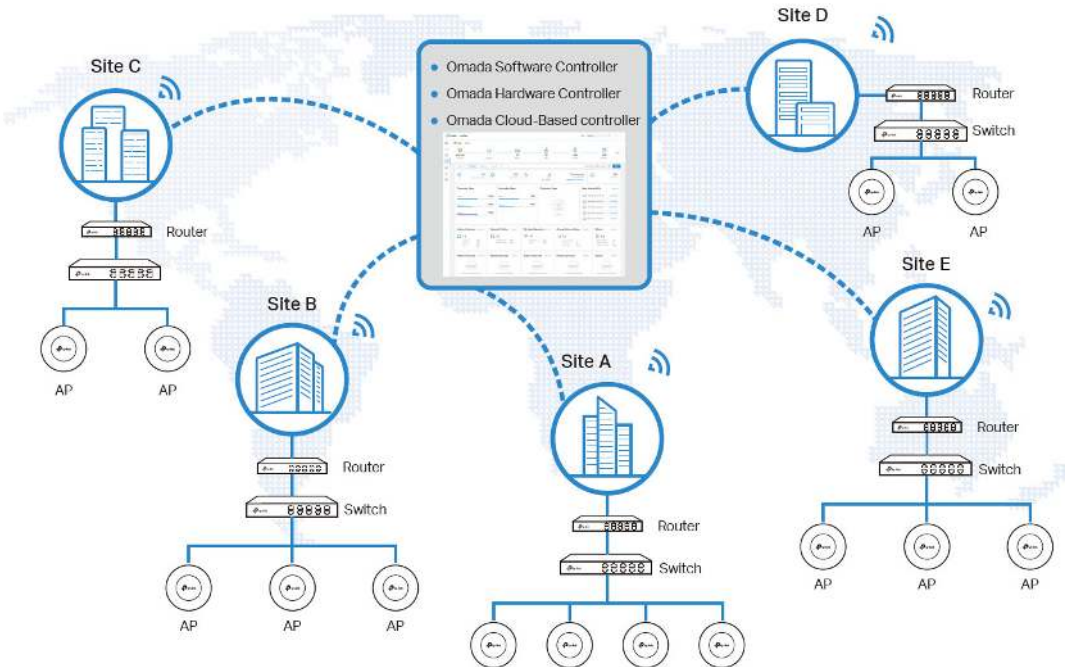


Catering

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

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 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.



1. 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*

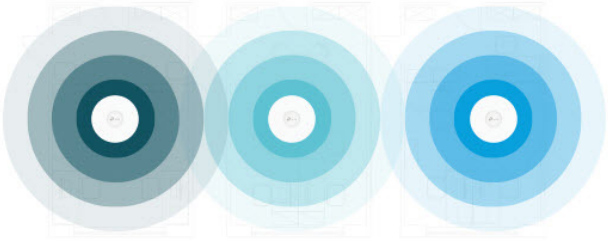
- Analyzes potential network problems and sends optimization suggestions for higher network efficiency
- Locates network faults, warns and notify users, and generates solutions to reduce network risk



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

Auto Channel Selection and Power Adjustment

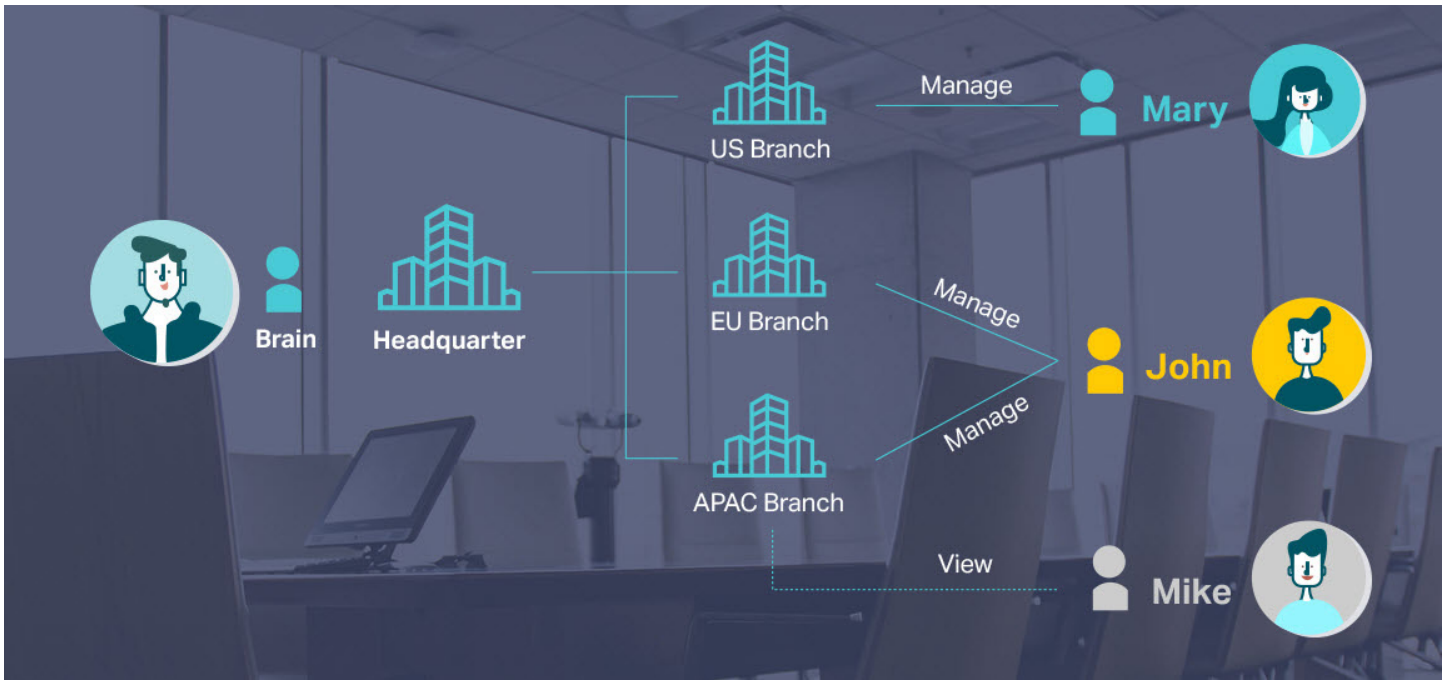
Provides powerful wireless performance while greatly reducing Wi-Fi interference by automatically adjusting the channel settings and transmission power levels of neighboring APs in the same network.



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.

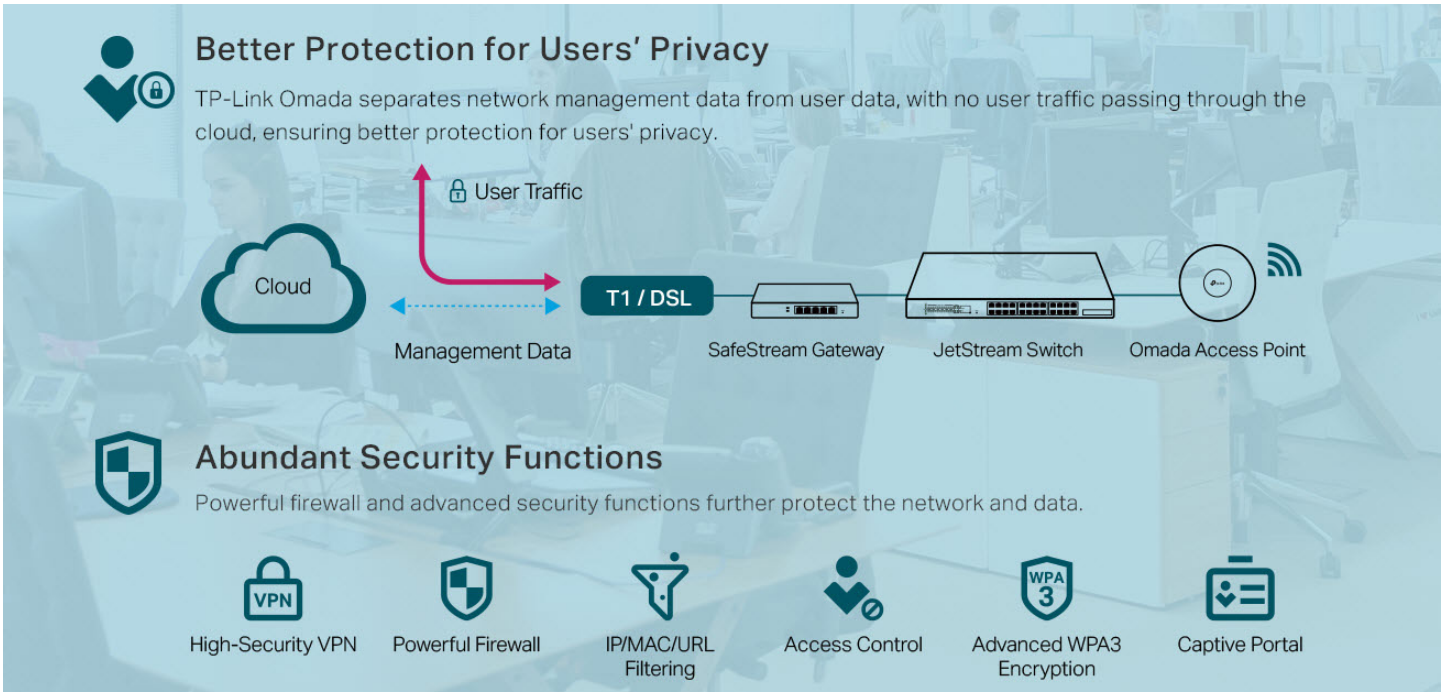


Easy and Intelligent Network Monitoring

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.

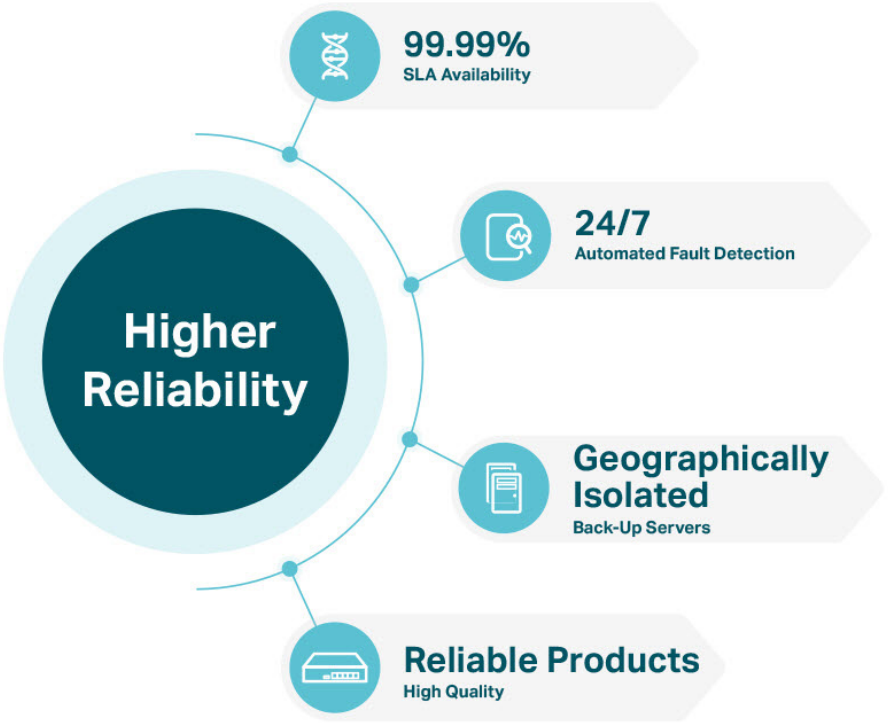


Comprehensive Protection for the Whole Network



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.



Product Features

High-security VPN Capabilities

ER605 (TL-R605) supports multiple VPN protocols (IPSec, L2TP, PPTP, and OpenVPN) and can handle IPSec/PPTP/L2TP/OpenVPN pass-through traffic as well. It also features a built-in hardware-based VPN engine allowing the router to support and manage up to 20 LAN-to-LAN IPSec, 16 L2TP, 16 PPTP, and 16 OpenVPN connections. Advanced VPN features include: DES/3DES/AES128/AES192/AES256 encryption, MD5/SHA1 authentication, Manual/IKE v1/v2 key management, and Main/Aggressive negotiation modes.

Abundant Security Features

For defense against external threats, ER605 (TL-R605) features SPI Firewall function. Additionally, it can automatically detect and block Denial of service (DoS) attacks such as TCP/UDP/ICMP Flooding, Ping of Death and other related threats. Moreover, this router provides IP/MAC/Domain name filtering functions, which forcefully prevent attacks from intruders and viruses. For applications such as FTP, TFTP, H.323 and RTSP which are not well compatible with NAT, ER605 (TL-R605) offers administrators one-click enable of ALG choices corresponding to the above four mentioned applications.

Safety Minded Enterprise Investments

Professional lightning protection technology is designed to prevent electrical surges from penetrating the interior of the electrical equipment and is discharged harmlessly into the Earth. This router is designed to prevent lightning up to 4 KV in well-grounded connection conditions. This feature ensures that networking infrastructure investments remain as safe as possible from one of mother nature's more violent situations.

Specifications

Model		ER605 (TL-R605)
Product Picture		
Product Description		Omada Gigabit VPN Router
Hardware	Standards and Protocols	IEEE 802.3, IEEE802.3u, IEEE802.3ab, IEEE 802.3x, IEEE 802.1q TCP/IP, DHCP, ICMP, NAT, PPPoE, NTP, HTTP, HTTPS, DNS, IPSec, PPTP, L2TP, OpenVPN, SNMP
	Interface	1 Gigabit WAN port 3 Gigabit LAN/WAN ports 1 Gigabit LAN port
	Network Media	10BASE-T: UTP cat egory 3, 4, 5 cable (Max 100 m) EIA/TIA-568 100Ω STP (Max 100 m) 100BASE-TX: UTP cat egory 5, 5e cable (Max 100 m) EIA/TIA-568 100Ω STP (Max 100 m) 1000BASE-T: UTP cat egory 5, 5e, 6 cable (Max 100 m)
	Button	Reset Button
	Power Supply	External 9 V/0.85 A DC Adapter
	Flash	16 MB SPI
	DRAM	128 MB
	LED	PWR, SYS, WAN (Link/Act), LAN (Link/Act)
	Dimensions (W x D x H)	6.2 × 4.0 × 1.0 in (158 × 101 × 25 mm)
SDN Support	Hardware Controller (OC200/OC300)	Automatic Device Discovery Intelligent Network Monitoring Abnormal Event Warnings Unified Configuration Reboot Schedule Captive Portal Configuration ZTP (Zero-Touch Provisioning)[1]
	Software Controller	
	Cloud-Based Controller	
Performance	Concurrent Session	25,000
	New Sessions /Second	2,400
	Static IP NAT Throughput	Upload: 936.7 Mbps Download: 940.1 Mbps
	DHCP NAT Throughput	Upload: 941.1 Mbps Download: 940.5 Mbps
	PPPoE NAT Throughput	Upload: 940.1Mbps Download: 939.6 Mbps
	L2TP NAT Throughput	Upload: 781.2 Mbps Download: 708.4 Mbps
	PPTP NAT Throughput	Upload: 826.4 Mbps Download: 607.1 Mbps
	66 Byte Packet forwarding rate	Upload: 1,308,139 pps Download: 1,308,140 pps
	1,518 Byte Packet forwarding rate	Upload: 81,067 pps Download: 81,063 pps
	IPSec VPN Throughput (AES256)	41.5 Mbps

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

Model		ER605 (TL-R605)
Performance	L2TP VPN Throughput	Unencrypted: 748.7 Mbps Encrypted: 15.0 Mbps
	PPTP VPN Throughput	Unencrypted: 719.0 Mbps Encrypted: 72.0 Mbps
Basic Functions	WAN Connection Type	Static IP Dynamic IP PPPoE PPTP L2TP
	DHCP	DHCP Server DHCP Address Reservation Multi-IP Interfaces[1] Multi-Net DHCP[1]
	MAC Clone	Modify WAN/LAN MAC Address[2]
	IPTV	IGMP v2/v3 Proxy
	IPv6	Developing[3]
	VLAN	802.1Q VLAN
Transmission	Load Balance	Intelligent Load Balance Application Optimized Routing Link Backup (Timing[4], Failover) Online Detection
	NAT	One-to-One NAT[5] Multi-Net NAT Virtual Server Port Triggering[5] NAT-DMZ FTP/H.323/SIP/IPSec/PPTP ALG, UPnP
	Routing	Static Routing Policy Routing
	Session Limit	IP-based Session Limit
	Bandwidth Control	IP-based Bandwidth Control
VPN	IPSec VPN	20 IPSec VPN Tunnels LAN-to-LAN, Client-to-LAN Main, Aggressive Negotiation Mode DES, 3DES, AES128, AES192, AES256 Encryption Algorithm IKE v1/v2[6] MD5, SHA1 Authentication Algorithm NAT Traversal (NAT-T) Dead Peer Detection (DPD) Perfect Forward Secrecy (PFS)
	PPTP VPN	PPTP VPN Server PPTP VPN Client (10)[7] 16 Tunnels PPTP with MPPE Encryption

1. Multi-IP Interfaces and Multi-Net DHCP are supported only in Controller Mode.
2. LAN MAC Address can be modified only in Standalone Mode.
3. IPv6 is being developed and will be updated in the following software versions.
4. The Timing mode in Link Backup is supported only in Standalone Mode.
5. One-to-One NAT and Port Triggering are only supported only in Standalone Mode.
6. IKE v2 is supported only in Controller Mode.
7. ER605 can work as a VPN client and can connect with up to 10 VPN servers.

Model		ER605 (TL-R605)
VPN	L2TP VPN	L2TP VPN Server L2TP VPN Client (10)[1] 16 Tunnels L2TP over IPSec
	OpenVPN[2]	OpenVPN Server OpenVPN Client (10)[1] 16 OpenVPN Tunnels
Security	Attack Defense	TCP/UDP/ICMP Flood Defense Block TCP Scan (Stealth FIN/Xmas/Null) Block Ping from WAN
	Filtering	Web Group Filtering[3] URL Filtering Web Security[3]
	ARP Inspection[4]	Sending GARP Packets ARP Scanning IP-MAC Binding
	Access Control	Source/Destination IP Based Access Control
Authentication	Web Authentication	No Authentication Simple Password[5] Hotspot (Local User / Voucher[5] / SMS[5] / Radius[5]) External Radius Sever External Portal Sever[5] Facebook[5]
Management	Service	Dynamic DNS (Dyndns, No-IP, Peanuthull, Comexe)
	Maintenance	Web Management Interface Remote Management Export & Import Configuration SNMP v1/v2c/v3[6] Diagnostics (Ping & Traceroute)[7] NTP Synchronize[7] Syslog Support
Others	Certification	CE, FCC, RoHS
	Package Contents	ER605 (TL-R605), Power Adapter, RJ-45 Ethernet Cable, Quick Installation Guide
	System Requirements	Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7/8/8.1/10 MAC OS, NetWare, UNIX or Linux
	Environment	Operating Temperature: 0 °C to 40 °C (32 °F to 104 °F) Storage Temperature: -40 °C to 70 °C (-40 °F to 158 °F) Operating Humidity: 10% to 90% non-condensing Storage Humidity: 5% to 90% non-condensing

1. ER605 can work as a VPN client and can connect with up to 10 VPN servers.
2. OpenVPN is supported only in Controller Mode.
3. Web Group Filtering and Web Security are only supported only in Standalone Mode.
4. ARP Inspection is supported only in Standalone Mode.
5. The following web authentication methods are supported only in Controller Mode: Simple Password, Voucher, SMS, Radius, External Portal Sever, and Facebook.
6. SNMP v3 is supported only in Controller Mode.
7. Diagnostics (Ping & Traceroute) and NTP Synchronize are supported only in Standalone Mode.

* 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.

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