



EdgePoint™

Intelligent WISP Control Point with FiberProtect™

Models: EP-R6, EP-R8, EP-S16

Weatherproof Enclosure for Outdoor Use

Powerful Routing or Switching Features

Fiber Backhaul Capability





Overview

Ubiquiti Networks introduces the EdgePoint™, part of the EdgeMAX® platform. The first application-specific designed WISP control point, the EdgePoint combines EdgeMAX routing features with fiber backhaul and versatile powering capabilities.

The EdgePoint is available in three models:

- **EP-R6** Layer-3 router
- **EP-R8** Layer-3 router
- **EP-S16** Layer-2 switch with some layer-3 capabilities

Breakthrough in Tower Deployment

The EdgePoint features FiberProtect to significantly reduce electrostatic discharge (ESD) failures and electromagnetic interference (EMI), greatly improve data signal integrity, and consolidate the wired data backhaul to a single fiber cable run for long-distance connectivity.

All-in-One Design

A single, compact controller efficiently eliminates clutter, expensive cabinets, extraneous installations, and excessive maintenance.

Robust Construction

The ruggedized case withstands outdoor conditions, including wind, rain, and snow. The included cable sleeve protects the cables and cable opening. If you prefer, you can swap it out for your own conduit.

Advanced Applications

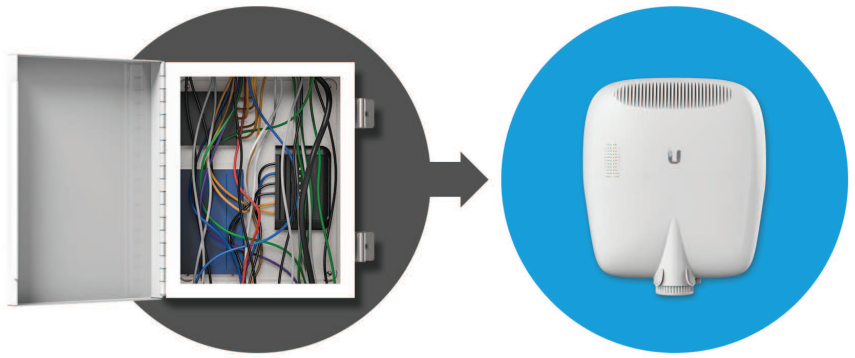
For the EP-R6 and EP-R8, powerful routing features – such as load balancing and failover– provide redundancy and increased performance for outdoor wireless links.

For the EP-S16, layer-2 link aggregation provides similar redundancy and increased performance benefits.

Versatile Power Options

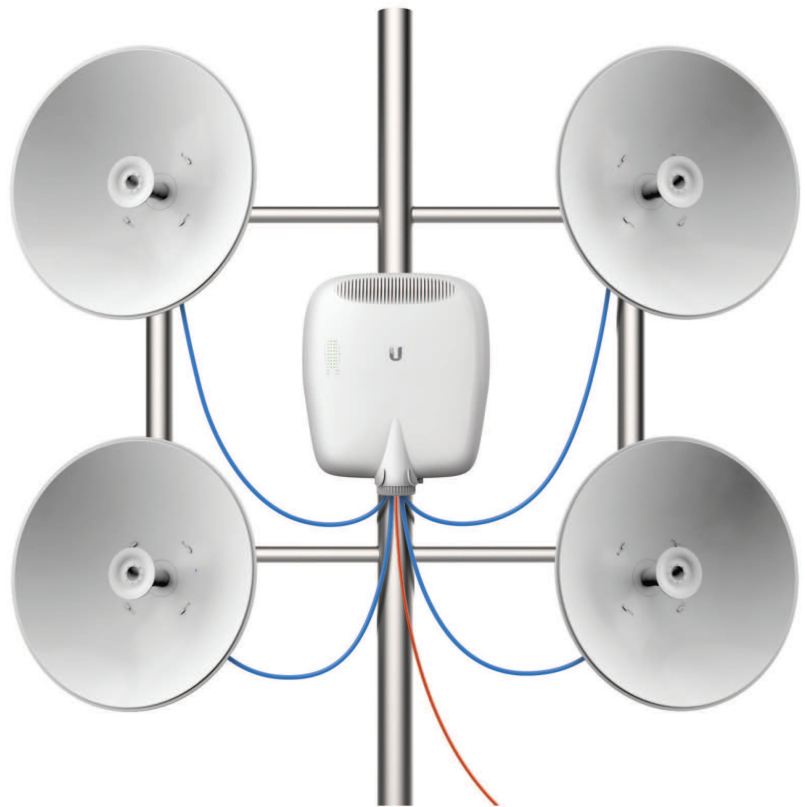
Powered by 54VDC or by PoE, the EP-R8 and EP-S16 can support 54 or 24V passive PoE to power all Ubiquiti® products, including airFiber® and airMAX®.

Powered by 24VDC or by PoE, the EP-R6 can support 24V passive PoE to power most Ubiquiti products.



Example of EdgePoint as WISP Control Point

The EdgePoint replaces a cabinet containing a patch panel, power rack, multiple PoE adapters, syslog server, AP (for EdgePoint management), switch, router, and modem.



Example of a Backhaul Deployment for the EdgePoint

The EdgePoint runs fiber to the top of the tower so no cabinet is needed and there are no long Ethernet cable runs.

Intuitive User Interface

The EdgePoint features a graphical user interface designed for convenient setup and control. Accessed via a network port and web browser, the user-friendly interface provides intuitive management with a virtual view of the ports, displaying physical connectivity, speed, and status.

Depending on whether you are configuring a router (EP-R6 or EP-R8) or switch (EP-S16), the configuration interface will differ.

Routing Configuration

The EP-R6 or EP-R8 offers robust features, including:

- VLAN interfaces for network segmentation
- Static routes and support of routing protocols: OSPF, RIP, and BGP
- Firewall policies and NAT rules
- Application identification with Deep Packet Inspection (DPI)
- DHCP services
- Quality of Service (QoS)
- Network administration and monitoring tools
- Administrator and operator accounts
- Comprehensive IPv6 support

Switching Configuration

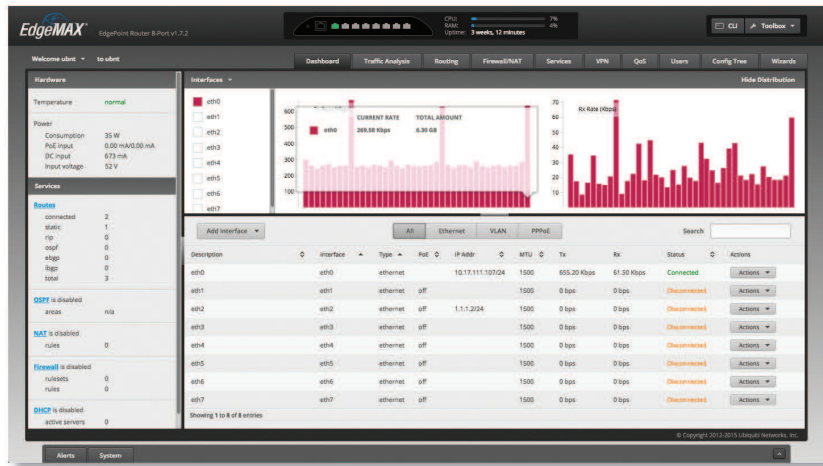
The EP-S16 provides advanced features, including:

- MSTP/RSTP/STP
- VLAN, Private VLAN, Voice VLAN
- Link Aggregation
- DHCP Snooping, IGMP Snooping
- TACACS+, RADIUS, 802.1X, MAC Filtering, ACL
- DiffServ, CoS
- Static Routing, Policy-Based Routing

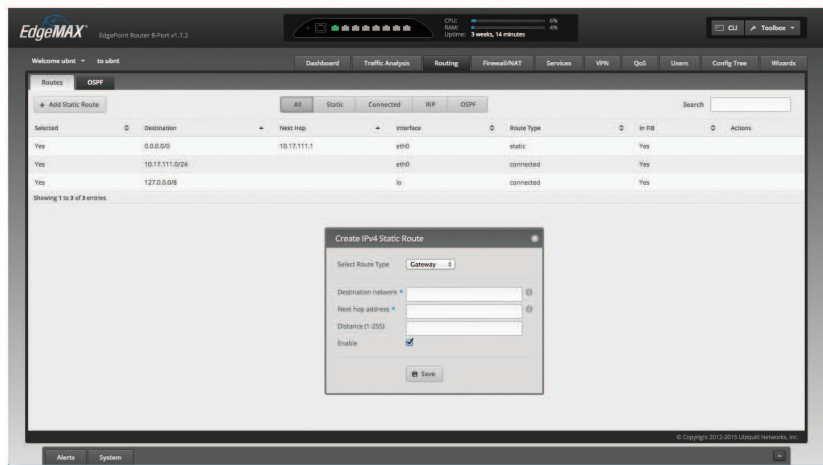
Configuration by CLI

The CLI provides quick and flexible configuration by command line and features the following:

- For power users, configuration and monitoring of all advanced features
- Direct access to standard Linux tools and shell commands (EP-R6 or EP-R8 only)
- CLI access through the following:
 - Serial console port (EP-R8 or EP-S16 only)
 - SSH
 - Telnet
 - Graphical user interface (EP-R6 or EP-R8 only)



For the EP-R8, the Dashboard screen displays detailed statistics: IP information, MTU, transmit and receive speeds, and status for each interface.



For the EP-R8, the Routing > Routes screen displays static, connected, RIP, and/or OSPF routes. You can add static routes on this screen.

```

CLI
Welcome to EdgeOS
By logging in, accessing, or using the Ubiquiti product, you acknowledge that you have read and understood the Ubiquiti license agreement (available in the Web UI or, by default, http://192.168.1.1) and agree to be bound by its terms.
ubnt login: ubnt
Password:
Last login: Sun Jun 1 10:08:00 UTC 2014 on pts/0
Linux 3.10.14-00001 #1 SMP Mon Dec 16 12:14:33 xpp 2014 mips
Welcome to EdgeOS
ubnt@ubnt:~$ show
Possible completions:
arp                firewall          login             tech-support
configuration      hardware         ntp               update
conntrack          history          ospf              users
date               host             ppoe-server       version
debugging          ipsec           reboot            vpn
dshup              interfaces       rcu               webproxy
dshup6             ip              shutdown         webproxy
dshup6-pd         ipv6            snmp              xps
disk               load-balance    system           xps
file               log             table
firewall          flow-accounting  show              flow-accounting-statistics
hardware          hardware        show              system-hardware-details
history           history         show              system-history
host              host            show              system-information
incoming          incoming        show              system-iptables-policy-information
interfaces        interfaces      show              network-interface-information
ip                ip              show              ipv4-routing-information

```

An industry-standard command-line interface (CLI) is available for advanced users.

Hardware Overview

Three EdgePoint models offer a variety of hardware features for your application.

EP-R6

The EP-R6 features five RJ45 Ethernet ports and one SFP Ethernet port.



EP-R6 Bottom Panel

Bottom Panel

- Power Options
 - 24VDC, 3A Terminal Block
 - PoE Input
- (5) 24V, 0.7A Passive PoE Output Ports*
- (1) SFP Port

EP-R8

The EP-R8 features six RJ45 Ethernet ports and two combination RJ45/SFP Ethernet ports.



EP-R8 Bottom Panel

Bottom Panel

- Power Options
 - 54VDC, 6A Terminal Block
 - Dual PoE Input
- (1) Console Port
- Data Ports
 - (6) RJ45 Ports
 - (2) Combination RJ45/SFP Ports

Nine RJ45 ports support PoE:

- PoE Input
 - (1) 54V, 1.5A (No Data)
 - (1) 54V, 1.5A
- PoE Output
 - (2) 54 or 24V, 1.4A Passive PoE Output Ports*
 - (5) 24V, 0.7A Passive PoE Output Ports*

Cabling Protection

- Strain Relief for Fiber Optic Strands
- Cable Sleeve and Option for Conduit (Not Included)
- Cable Tie Slots (Cable Ties Not Included)



EP-R8 Strain Relief for Fiber Optic Strands

Back Panel

- Lanyard Loop for Ease of Installation
- Slot for PicoStation®M2HP (Not Included) to Allow for Wireless Management
- Pole-Mount Bracket (Wall-Mount Bracket Also Included)
- Ground Bonding Point

* Check product specifications to verify PoE compatibility.

EdgePoint™

Hardware Specifications

| EP-R8 | |
|---------------------------|--|
| Dimensions | 326.6 x 382.7 x 88.8 mm (12.86 x 15.07 x 3.50") |
| With Wall-Mount | 326.6 x 382.7 x 105.5 mm (12.86 x 15.07 x 4.15") |
| Weight | 3.4 kg (7.50 lb) |
| With Wall-Mount | 3.8 kg (8.38 lb) |
| Enclosure Characteristics | Diecast Aluminum Alloy and Polycarbonate with UV Resistance |
| Max. Power Consumption | 40W (Excludes PoE Output) |
| Power Input | (1) DC Terminal Block or (2) RJ45 (PoE In and eth0) (Self-Correcting Polarity Protection on DC Terminal Block Only, Diode ORed Protection on All Power Inputs) |
| Power Supply | Min. 54V / 0.8A (Excludes PoE Output Power) |
| VDC Input | 54VDC, 6A |
| Passive PoE Input | (2) 54V / 1.5A, 4-Pair (+1, 2, 4, 5; -3, 6, 7, 8) Passive PoE, eth0 and PoE In (PoE In is DC Only, No Data) |
| Passive PoE Output | (2) 54V or 24V / 1.4A, 4-Pair (+1, 2, 4, 5; -3, 6, 7, 8) Passive PoE, eth1 to eth2 (5) 24V / 0.7A, 2-Pair (+4, 5; -7, 8) Passive PoE, eth3 to eth7 |
| Power Monitoring | (1) DC Terminal Block, Input Power (2) RJ45, PoE In and eth0, Input Power |
| Supported Voltage Range | 56 to 42VDC |
| Button | Reset |
| LEDs | |
| System | Power |
| eth0 | Speed/Link/Activity |
| eth1 to eth7 | Speed/Link/Activity, PoE |
| SFP | Speed/Link/Activity |
| Ports | |
| Serial Console Port | (1) RJ45 Serial Port |
| PoE In Port | (1) RJ45 Port |
| Data Ports | (6) 10/100/1000 RJ45 Ports (2) 10/100/1000 RJ45/SFP Combination Ports |
| Processor | Dual-Core 600 MHz, MIPS64 with Hardware Acceleration for Packet Processing |
| System Memory | 2 GB DDR3-1600 RAM |
| Code Storage | 4 GB |
| Certifications | CE, FCC, IC |
| Pole/Wall Mount | Yes |
| Wind Loading | 153 N @ 200 km/h (34 lbf @ 125 mph) |
| Wind Survivability | 200 km/h (125 mph) |
| Operating Temperature | -40 to 65° C (-40 to 149° F) |
| Operating Humidity | 10 to 90% Noncondensing |



Router Software Specifications

| EdgeOS | |
|-------------------------|---|
| Interface/Encapsulation | Ethernet 802.1q VLAN PPPoE GRE IP in IP Bridging Bonding (802.3ad) |
| Addressing | Static IPv4/IPv6 Addressing DHCP/DHCPv6 |
| Routing | Static Routes OSPF/OSPFv3 RIP/RIPng BGP (with IPv6 Support) IGMP Proxy |
| Security | ACL-Based Firewall Zone-Based Firewall Application Identification with Deep Packet Inspection (DPI) NAT |
| VPN | IPSec Site-to-Site and Remote Access OpenVPN Site-to-Site and Remote Access PPTP Remote Access L2TP Remote Access PPTP Client |
| Services | DHCP/DHCPv6 Server DHCP/DHCPv6 Relay Dynamic DNS DNS Forwarding VRRP RADIUS Client Web Caching PPPoE Server |
| QoS | FIFO Stochastic Fairness Queueing Random Early Detection Token Bucket Filter Deficit Round Robin Hierarchical Token Bucket Ingress Policing |
| Management | Web UI CLI (Console, SSH, Telnet) SNMP NetFlow LLDP NTP UBNT Discovery Protocol Logging |