



# EdgePoint™

Intelligent WISP Control Point with FiberProtect™

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

Weatherproof Enclosure for Outdoor Use

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Powerful Routing or Switching Features

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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

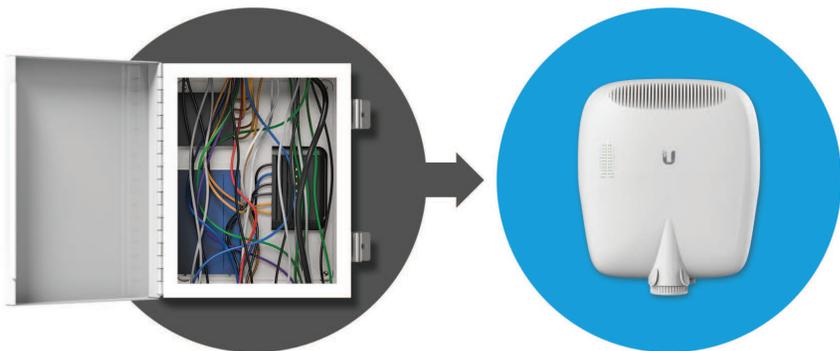
For the EP-R6 and EP-R8, powerful routing features – such as load balancing and failover– provide redundancy and increased performance for outdoor wireless links.

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

## Versatile Power Options

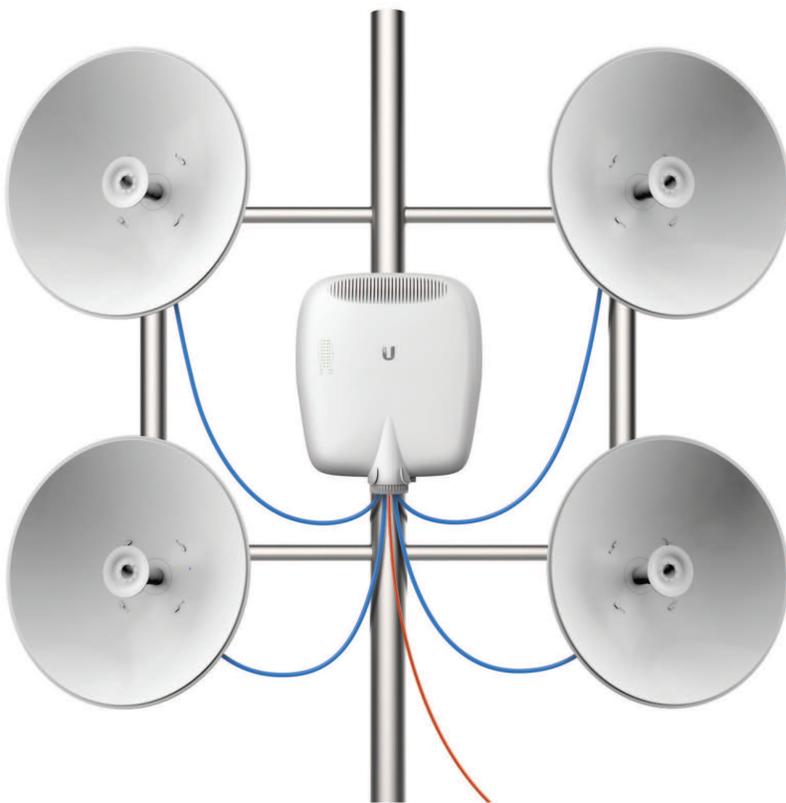
Powered by 54VDC or by PoE, the EP-R8 and EP-S16 can support 54 or 24V passive PoE to power all Ubiquiti® products, including airFiber® and airMAX®.

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

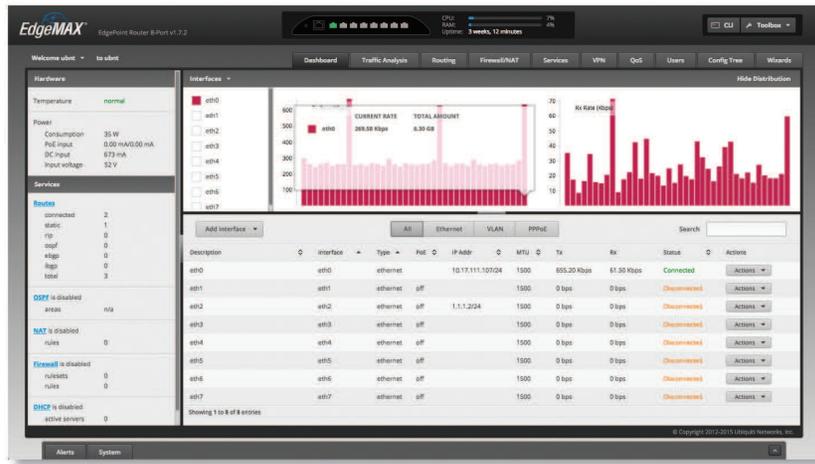
The EP-S16 provides advanced features, including:

- 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

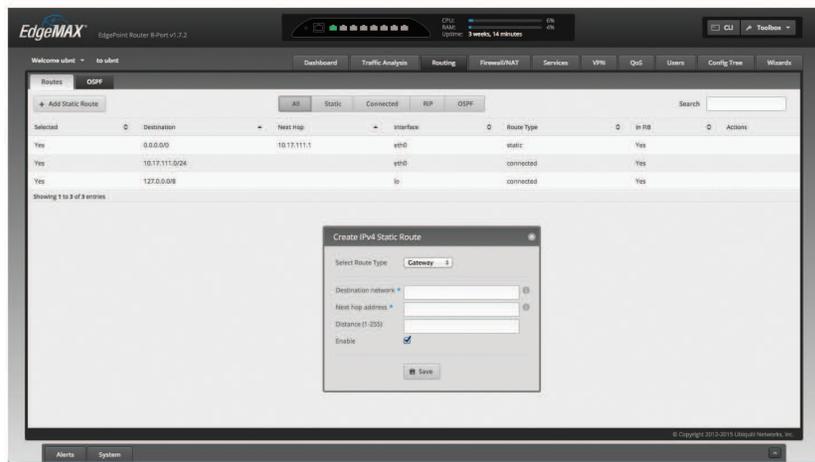
## Configuration by CLI

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

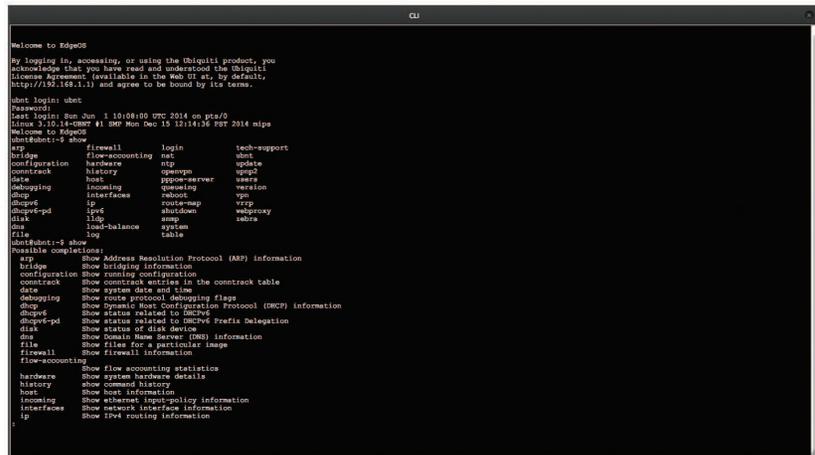
- For power users, configuration and monitoring of all advanced features
- Direct access to standard Linux tools and shell commands (EP-R6 or EP-R8 only)
- CLI access through the following:
  - Serial console port (EP-R8 or EP-S16 only)
  - SSH
  - Telnet
  - Graphical user interface (EP-R6 or EP-R8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



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