EnGenius

Datasheet

The Neutron Series

Wireless Management Solution

The EnGenius Neutron Series of wireless management products can be mixed and matched to create ideal wireless connectivity solutions for hotels, resorts, high schools, universities, corporate campuses, sports stadiums and arenas and for other companies and organizations.

This is a scalable solution for operations that occupy large properties and that need to deploy, monitor, and manage numerous EnGenius Neutron Series Wireless Access Points from one simple and accessible browser-based software platform. Neutron Series Switches can support any small number of Neutron Series Wireless Access Points to several hundred depending on the number of Neutron Series Switches in the network.

Ideal for deploying for these venues:

College Campuses

Corporate Campuses

Shopping Malls

Resort Properties

Parks and Campgrounds

Military Bases

Warehouse Operations

Stadiums & Arenas

Medical Centers

Luxury Homes and Estates

Auto AP Discovery and Provisioning

The Neutron Series of PoE+ Switches and Access Points is designed for rapid deployment whether for small companies or larger multi-level building or campus scenarios. Once an Neutron Series Access Point has been connected to an Neutron Series switch that Access Point immediately becomes discoverable on the network through the Neutron Series Switch's wireless management GUI (Graphical User Interface) and the IT manager or network administrator has the option to include that AP to the network and configure it accordingly.

Centralized Manageability

The EnGenius Neutron Series Wireless Management Switches provide fully-managed L2 switching capabilities and PoE+ support while its Neutron Series Wireless Indoor and Outdoor Access Points extend a network where a company may need to provide connectivity for a growing array of wireless client devices simplified one-to-many mode configuration and authorized to access network resources or the company's Internet connection. For efficient manageability, through an easy-to-navigate, browser-based Graphical User Interface (GUI), each Neutron Series Switch also offers priority-based configurations depending on an IT manager's or network administrator's need. When combined together the Neutron Series Switches and Access Points reach their full potential by allowing for quick deployment, simplified management and monitoring, and seamless concurrent upgrades, making the platform ideal for expansive and expanding business properties and operations.

Mesh Mode* (Available soon)

Under the AP Mesh mode, the Neutron Series Access Points can be used as the central connection hub for station or clients that support IEEE 802.11 a/b/g/n network. Under this mode, the Neutron Series APs can be configured with the same Mesh SSID and security password in order to associate with other Neutron Series APs. For example, you would use one band to connect Neutron Series Access Points in range with Mesh mode and the other band to broadcast traffic on the network. Acting as a node within a web framework, each Neutron Series Access Point only needs to connect to the nearest node using the best path to transmit data, working collaboratively with other Access Points in the network infrastructure to function.

Multiple Operation Modes Provide Flexibility and Versatility

Networks vary in size and configuration; and rarely are two exactly alike. If configured as Access Points, each Neutron Series AP supports seamless roaming, especially useful over large properties where continuous client connectivity is critical. The AP management User Interface available with each Neutron Series Switch gives network administrators instant visibility of the EnGenius wireless network from an overall topology view down to the device level and allows for reconfiguration of deployed, often physically inaccessible, Neutron Series Access Points to different modes to meet changing network needs.

Manageable PoE+ Capabilities

The Neutron Series Switches are Layer 2 Managed PoE+ Switches ideal for Access Points and IP Surveillance applications that need to be positioned where power outlets may not be readily available. Available in 8-port, 24-port and 48-port models each Neutron Series Switch offers Gigabit Ethernet ports with IEEE802.3at/af PoE+ support, as well as SFP slots for longer fiber uplinks. These powerful PoE+ Switches can deliver up to 30 watts per port over connected Ethernet cables to power devices like Wireless Access Points, IP Cameras, and VoIP (Voice-over-IP) Phone Systems. Since many PoE client devices don't require a full 30 watts of power, the management software User Interface allows network administrators the ability to allocate just the amount of wattage they need per port to power specific PoE client devices to conserve as much of their Neutron Series Switch's total PoE budget as possible. Including more Neutron Series Switches to the network gives administrators the ability and versatility to substantially and rapidly scale their networks and to provide just the right Neutron Series Switch necessary to provide wireless connectivity or surveillance in a part of the network previously unserved.

Floor Plan & Map Views

The user interface includes two easy-to-use, drag and drop tools to view a Neutron Wireless Management deployment. The Map View lets IT managers drag and drop a marker representing an Neutron Series Access Point that has been registered to an Neutron Series Switch onto a building within a campus topology to show the relative location of the specific Neutron Series Access Point. This Map View visual reference makes it easy to find the Access Point to monitor or reconfigure as necessary if the needs of the network change over time. Like the Map View, the Floor Plan View does much the same thing but now at the floor plan level. Scanned images of office or facility floor plans that have been saved as jpeg (.jpg) files can be uploaded to the Neutron Series Switch interface so, that IT managers can drag and drop Access Point markers to their approximate locations. This tool also helps in the planning for additional Neutron Series Access Points and other related networked devices like IP Cameras.

Rapidly Expansive Not Enterprise Expensive

24-ports and 48-ports Neutron Series Switches can support up to 50 Neutron Series Access Points. 8-Ports Neutron Series Switches can support up to 20 Neutron Series Access Points. Each Neutron Series Switch can connect to another via Gigabit Ethernet or fiber uplinks through their SFP ports. This enables network administrators to rapidly build out large Neutron Series wireless device deployments over expansive properties with the added assurance that through the AP management User Interface, that they have total visibility of the deployed Neutron Series APs and Switches and can monitor and manage their performance, upgrade their firmware or make operation mode changes or even security changes like selective SSID-to-VLAN tagging as needed. The Neutron Series of Neutron Series Switches when used together can support hundreds of Neutron Series Access Points making it an economical alternative to many more expensive offerings from enterprise networking brands with performance that rivals or exceeds products from those brands. This EnGenius competitive price/performance alternative gives VARs the ability to provide a scalable and sometimes more expansive network footprint of deployed devices for much less than other brands while providing to their customers more service offerings and still keeping within a client's total budget.

Gigabit Speeds for a Variety of Needs

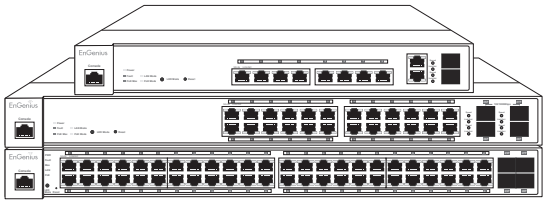
All Neutron Series IEEE802.11a/b/g/n or 802.11ac Access Points feature Gigabit port for connectivity to the network to optimize throughput of bandwidth-intensive or sensitive applications like video streaming and video conferencing, telephony, or large file transfers.

Comprehensive Security

The Neutron Series Wireless Management solution supports robust security features such as SSL Certificate. In addition, the Neutron series Switches also support a complete lineup of advanced Layer 2 features; including secure control connections between Switches and Access Points, Port mirroring, STP/RSTP/MSTP, Link Aggregation Control Protocol (LACP), SNMP v1/v2/v3, RMON, and ACL for extensive network security and more. To protect internal electronics, the Neutron Series Outdoor Access Points have been mounted in an IP65-rated enclosures, one of the highest waterproof and dustproof ratings available, designed to withstand extremely harsh environmental conditions. The Neutron Series Indoor Access Points come housed in discreet white housing to blend in with any environment, and all Neutron Series Switches come with the ability to be either desk or rack mounted.

Wired and Wireless Network Management and Reporting

In addition to the network management features that are standard with any of the Neutron Series Layer 2 PoE+ Switches, the networking interface included with each Neutron Series Switch gives IT managers and network administrators the visibility they need to monitor, manage and quickly adjust the settings or performance of their network in real time. The feature rich interface displays usage reports for real time and historical client connectivity to each Neutron Series Access Point as well as traffic flow and load over both wired and wireless portions of the network. The Neutron Series Wireless Management Switch also enables administrators to create Access Point clusters if there is a requirement to configure the Access Points identically or if company department require unique and encrypted access rights to portions of the network through clustered SSID-to-VLAN tagging.



PoE+ L2 Wireless Management Switch

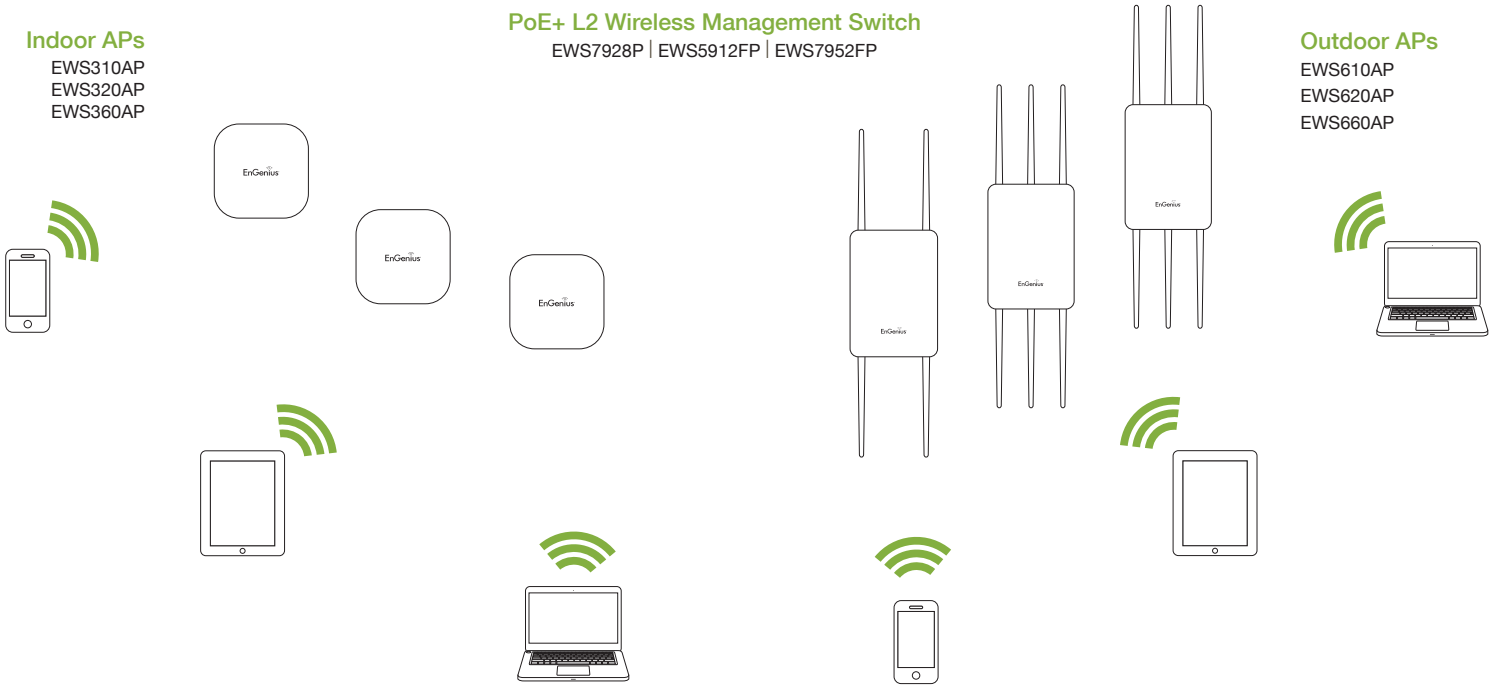
EWS7928P | EWS5912FP | EWS7952FP

Indoor APs

EWS310AP
EWS320AP
EWS360AP

Outdoor APs

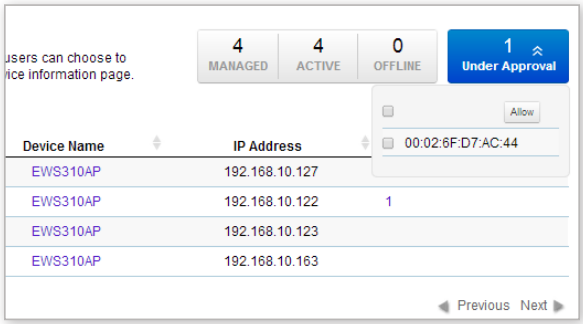
EWS610AP
EWS620AP
EWS660AP



Neutron Series Switch Wireless Management User Interface

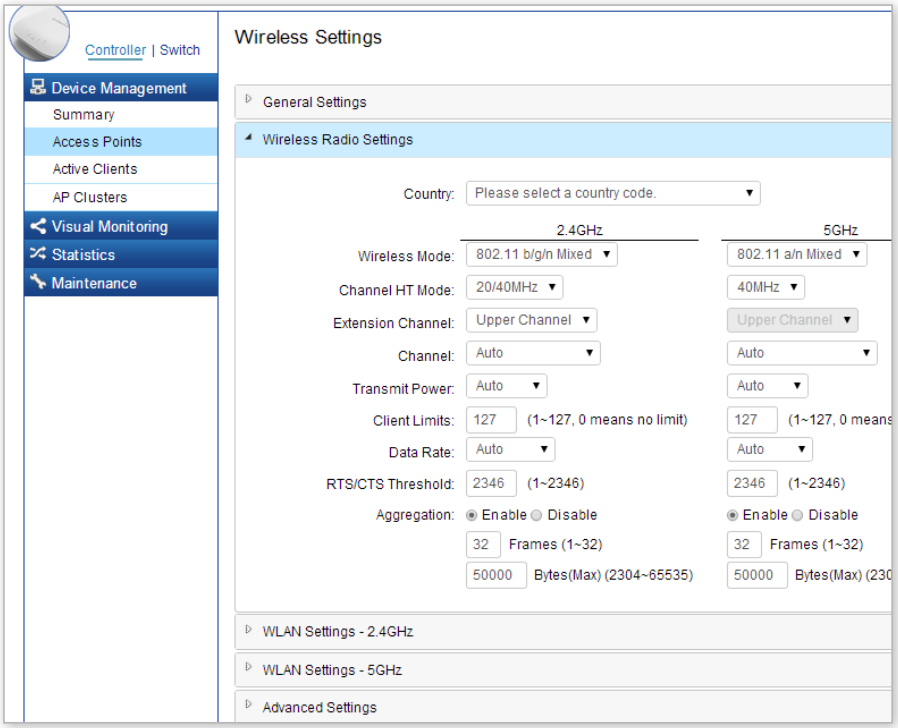
The following screens are just a few examples of the features and settings available to manage and monitor an EnGenius Neutron Series Solution from an Neutron Series Switch

Auto AP Discovery and Provisioning



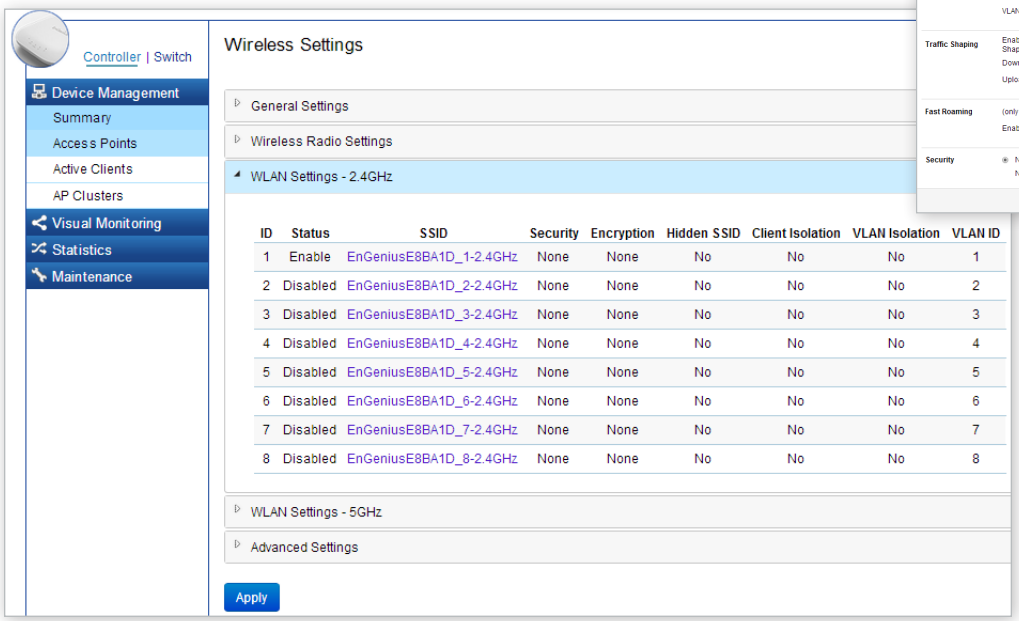
This screen in the interface displays the status of all Neutron Series Access Points that your Controller is currently managing as well as all the Neutron Series Access Points in the network that have been discovered. IT managers can add Neutron Series Access Points to the Neutron Series Controller Access Point list.

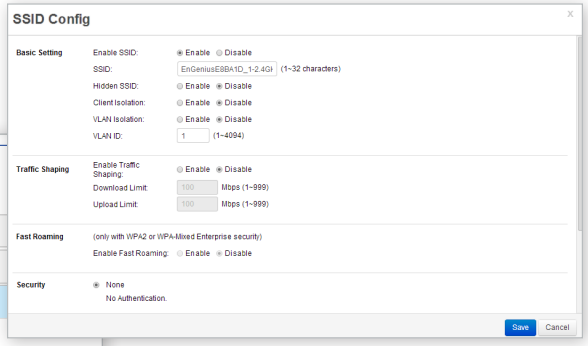
Access Point Radio Frequency Management



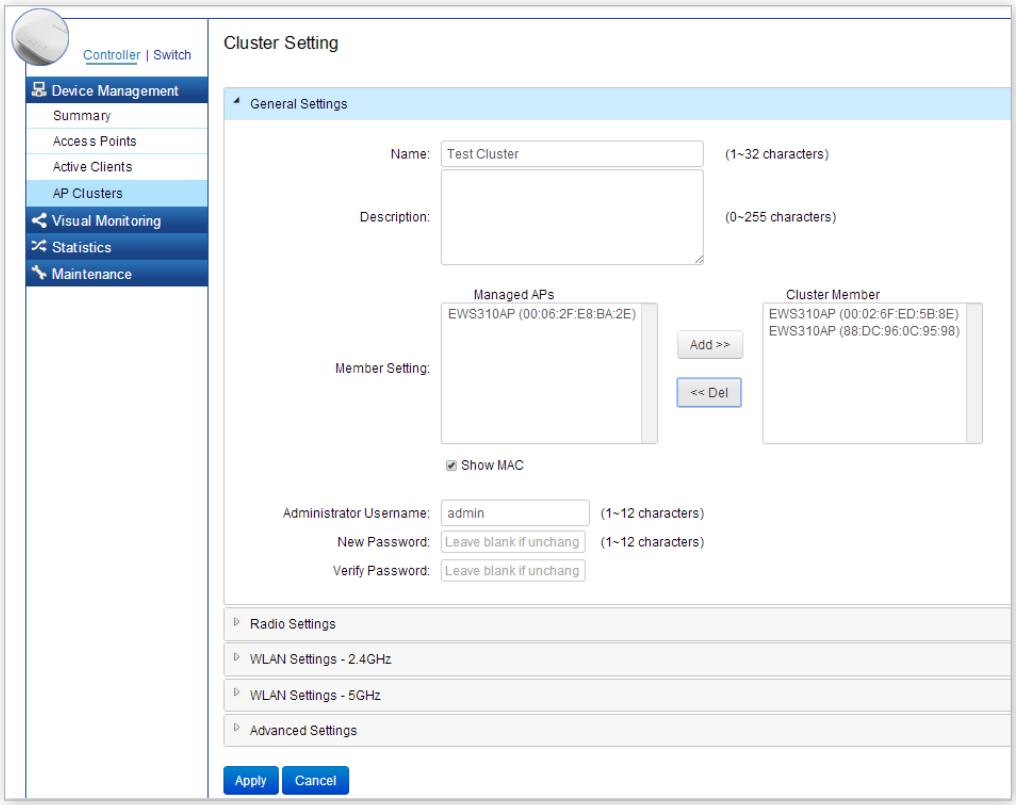
Establishing separate SSIDs

Each Dual Band Neutron Series Access Point is capable of providing 8 separate SSIDs per frequency band and (16 total) each SSID can be tagged to an established VLAN on the network.

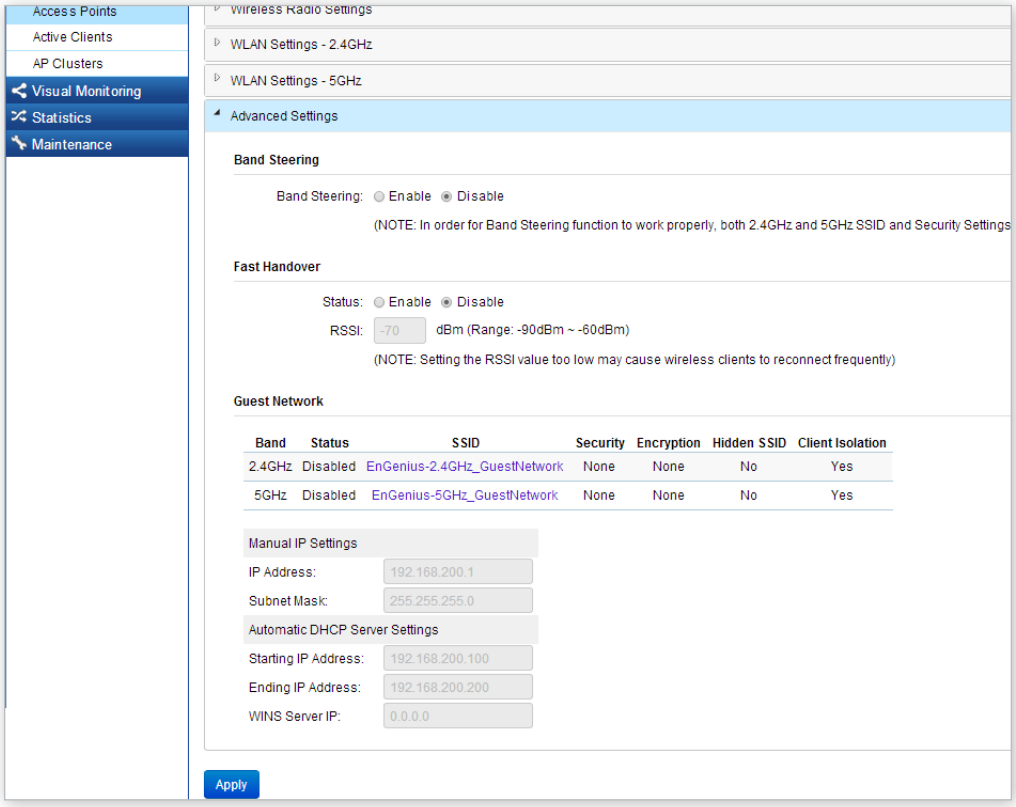




Access Point Cluster Management



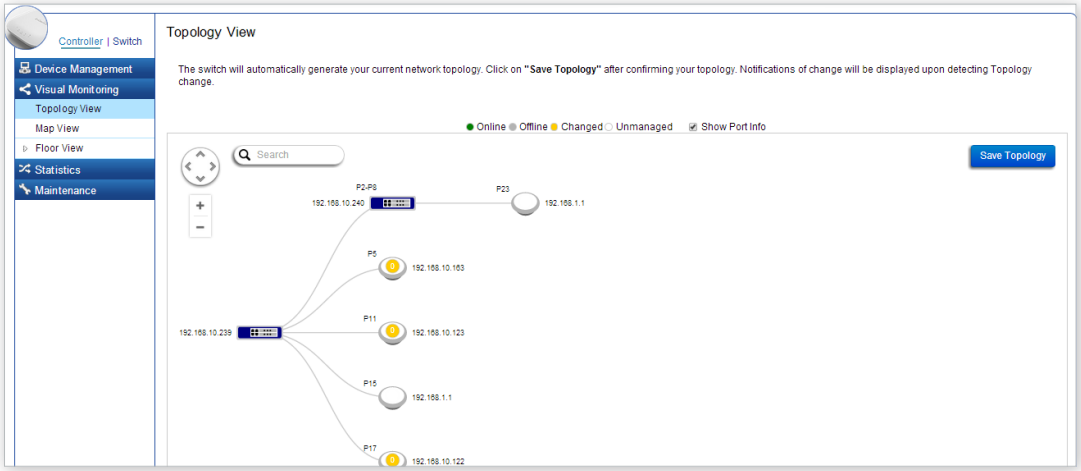
Band Steering, Fast Handover and Guest Network settings



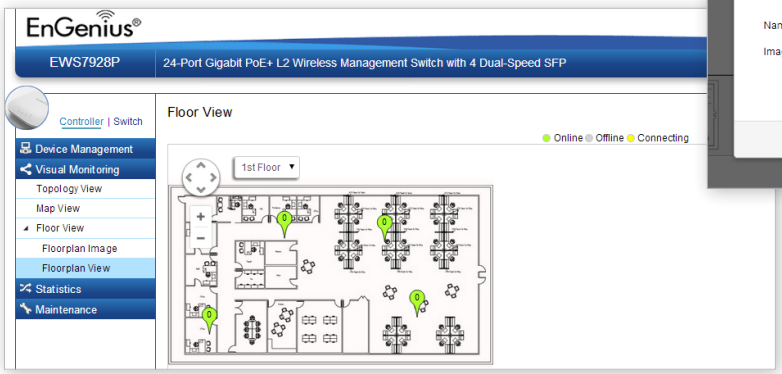
Wireless Network Topology View

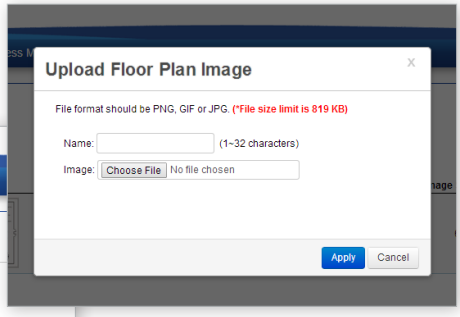
The Topology View in the interface lets IT managers see the Neutron Series Access Points connected to Neutron Series Switches on a Neutron Series Wireless Management network in tree branch representation. Each Access Point icon will indicate the number of client devices associated to it in real time, the IP address of the Access Point and the Port on the Neutron Series Switch that the Access Point is connected to.

The navigation pad and plus and minus buttons let IT managers quickly navigate to different branches of the network. Access Points can also be located in the network via their IP or MAC addresses. Specific Switch port location can be toggled on or off as necessary.



Floor Plan View

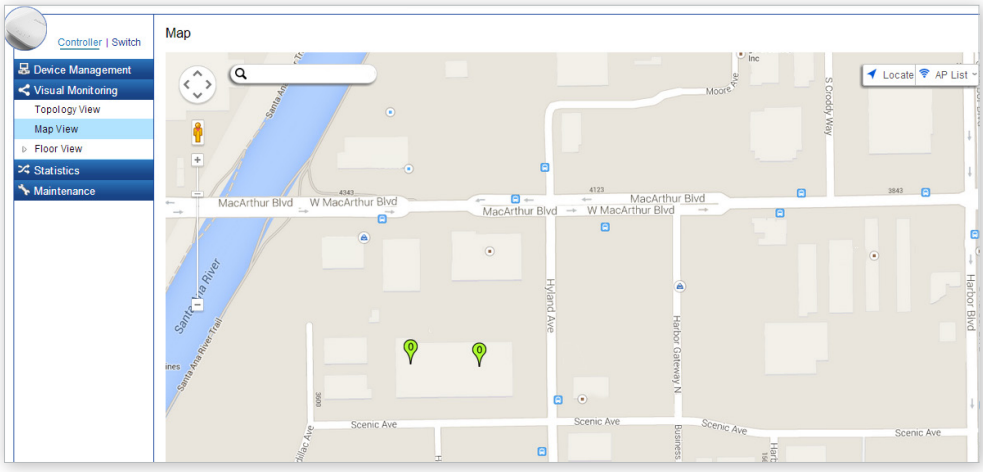




The Floor Plan View lets IT managers upload scanned images of office or facility floor plans that have been saved as jpeg (.jpg) files and then drag and drop a marker representing an Neutron Series Access Point that has been registered to an Neutron Series Switch onto the floor plan. This visual reference makes it easy to find the Access Point to monitor or reconfigure as necessary if the needs of the network change over time and also helps in the planning for additional Neutron Series Access Points and other related networked devices like IP Cameras.

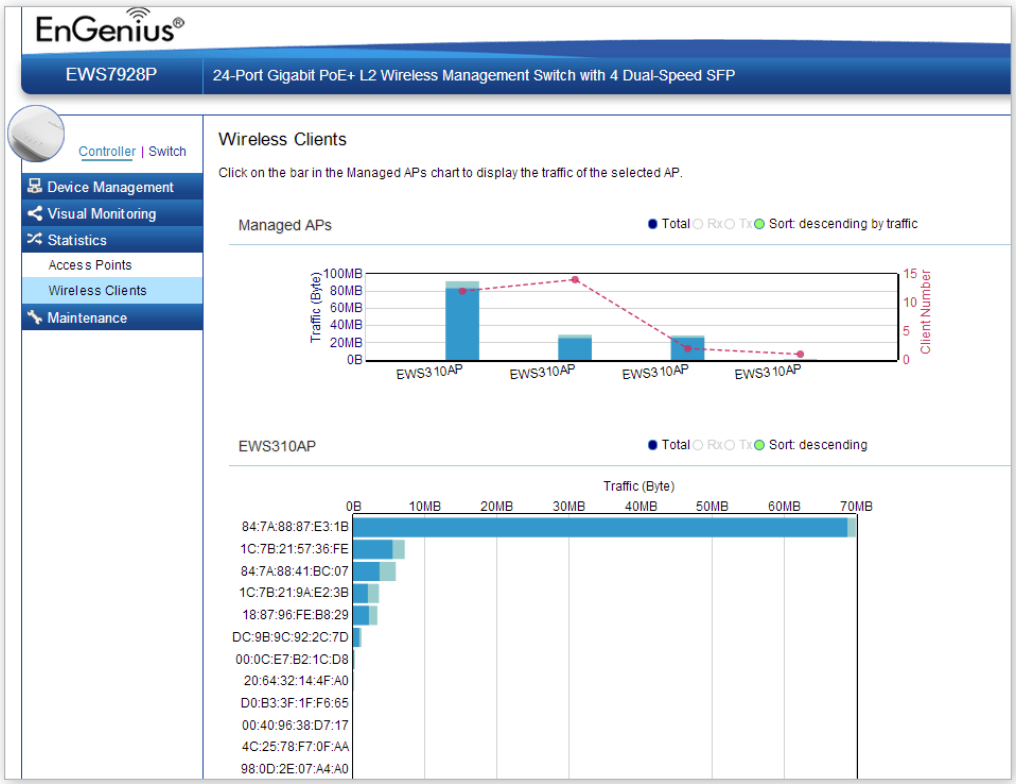
Map View

The Map View lets IT managers drag and drop a marker onto a building within a campus topology to show the relative location of a specific Neutron Series Access Point. This Map View visual reference makes it easy to find the Access Point to monitor or reconfigure as necessary if the needs of the network change over time.



Wireless Access Point Statistics View

Gives network administrators realtime or historical visibility of the traffic being handled by the deployed Neutron Series Access Points.



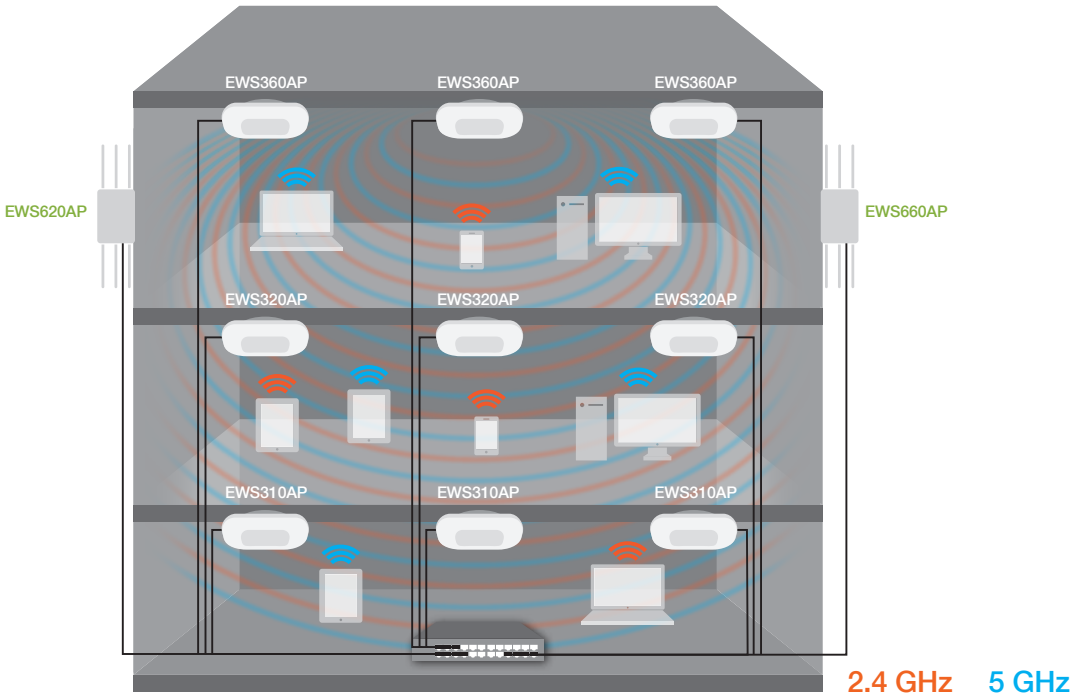
Neutron Series Managed Access Points in Multi-Floor Building Scenario

Applications:

Education

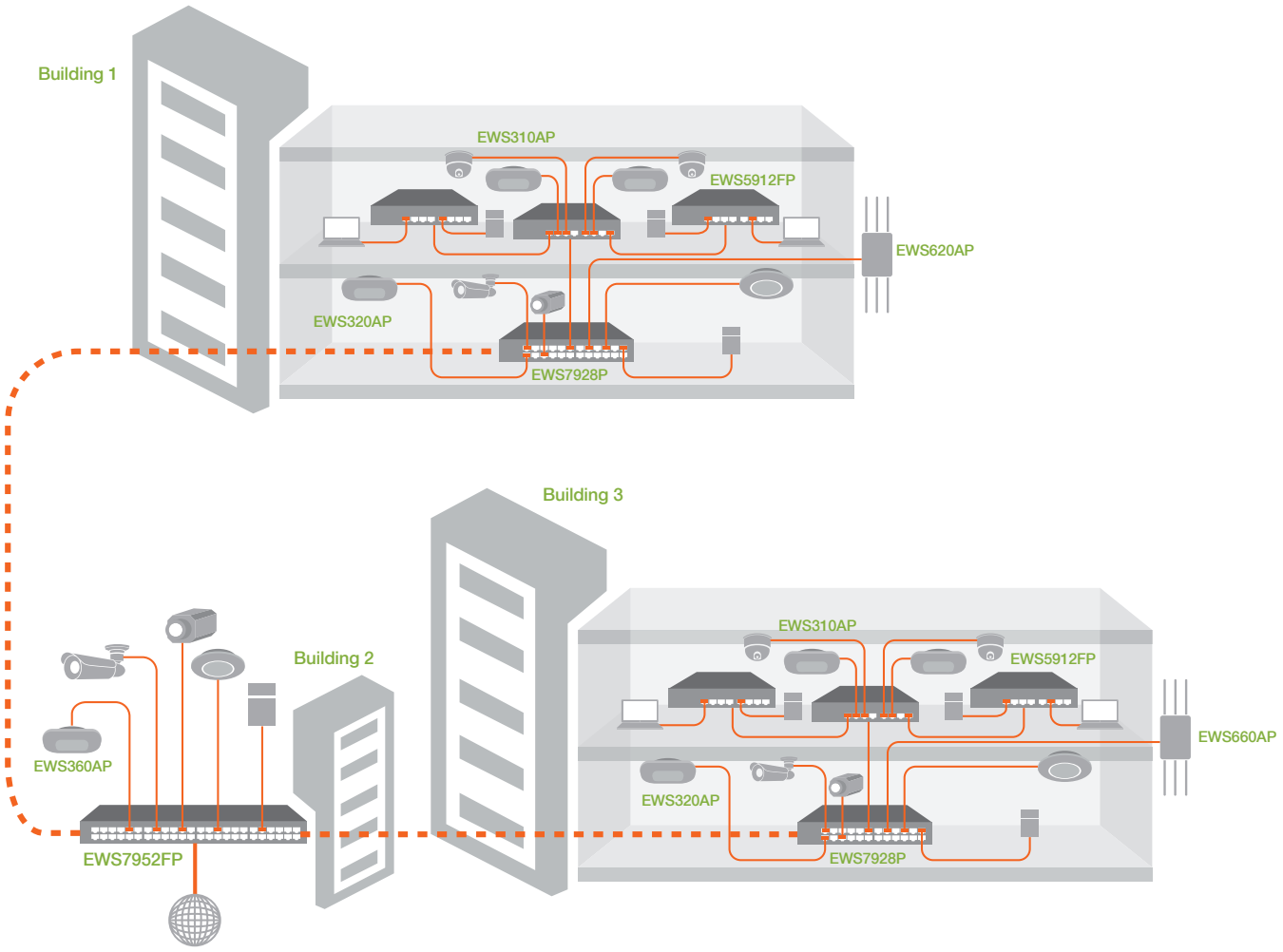
Government

Hospitality

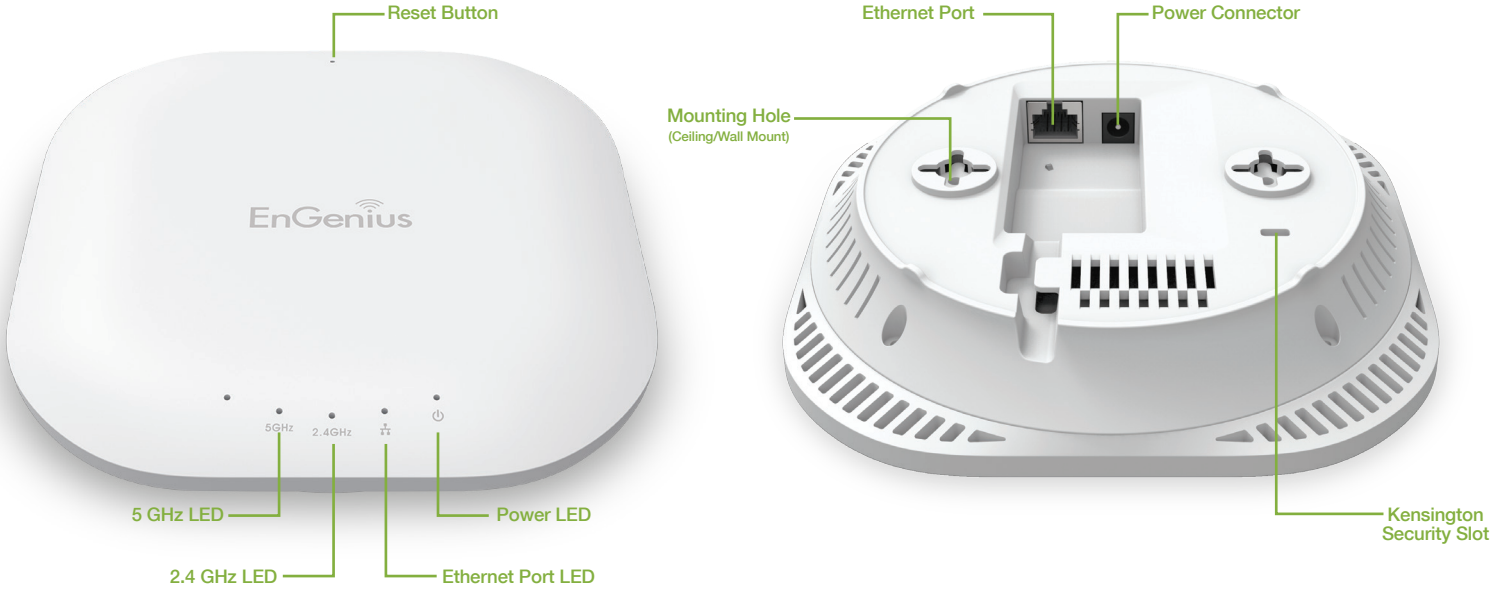


Neutron Series Wireless Management Switch
(Supports up to 20 or 50 APs)

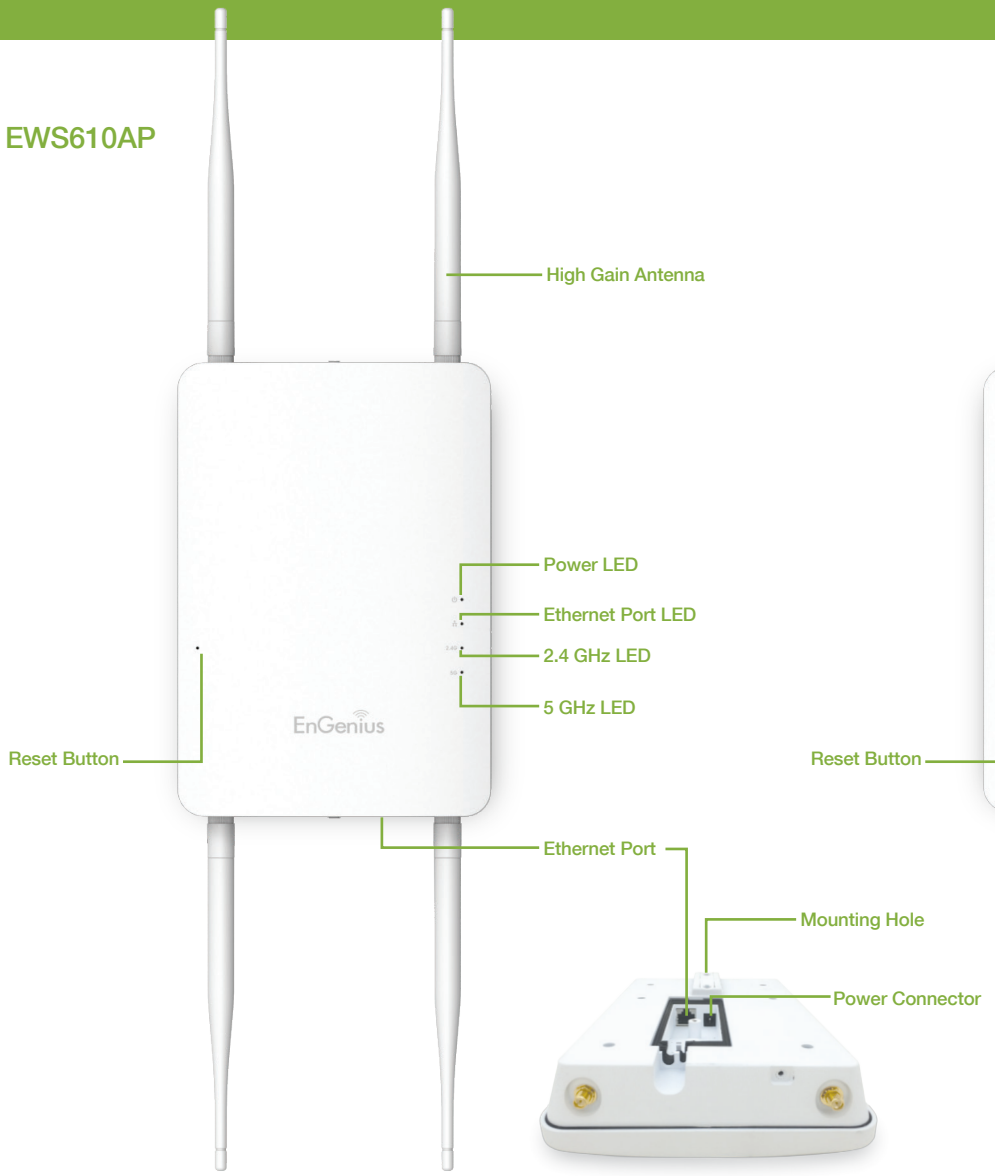
Multi-Building / Campus Scenario



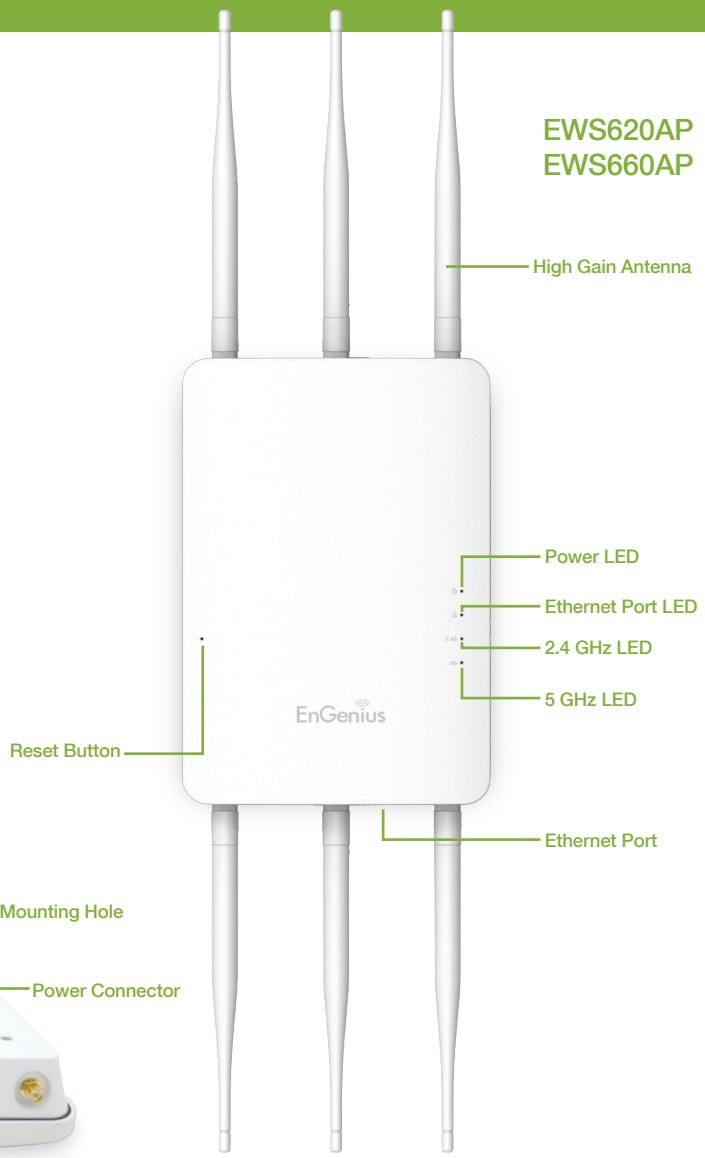
EWS310AP
EWS320AP
EWS360AP



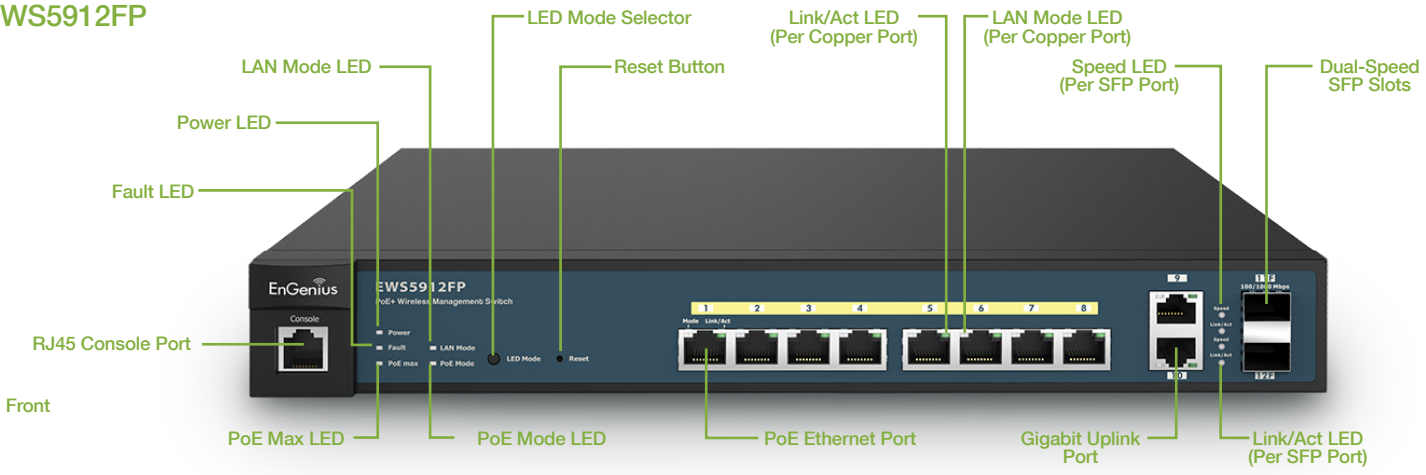
EWS610AP

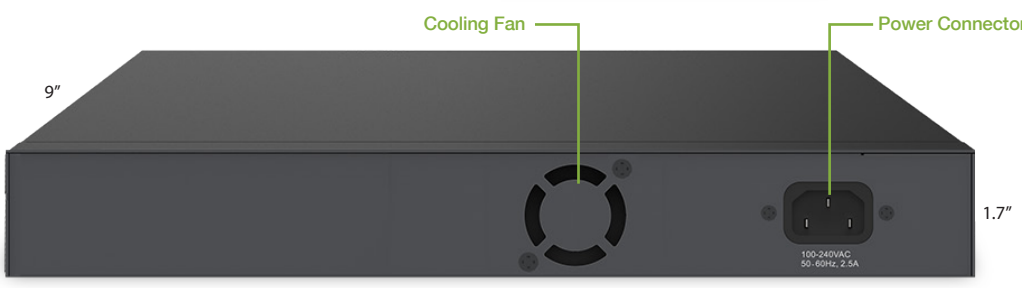


EWS620AP
EWS660AP

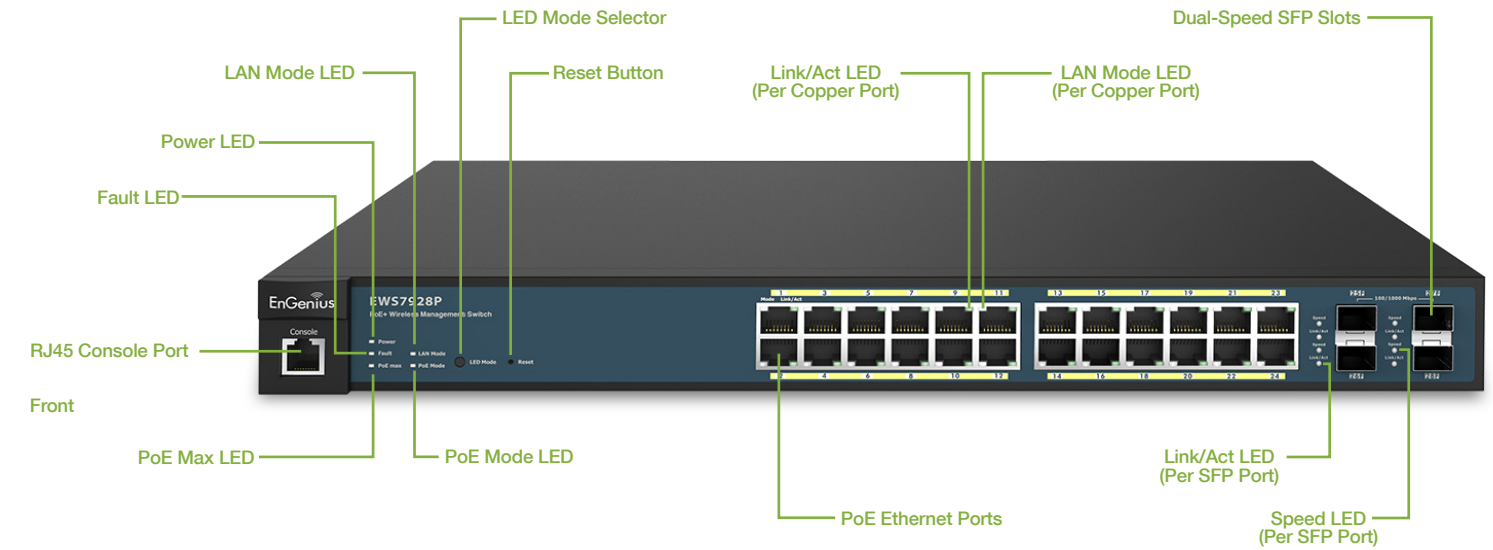


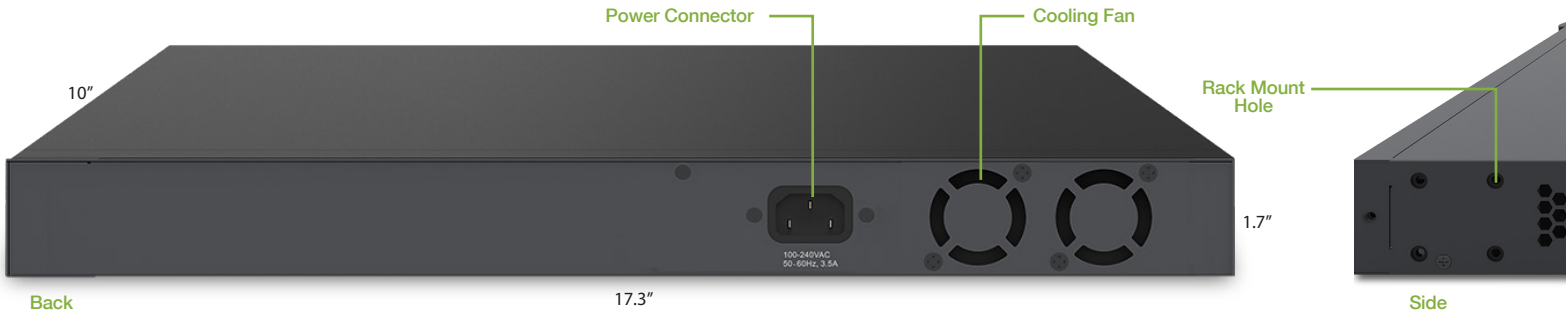
EWS5912FP



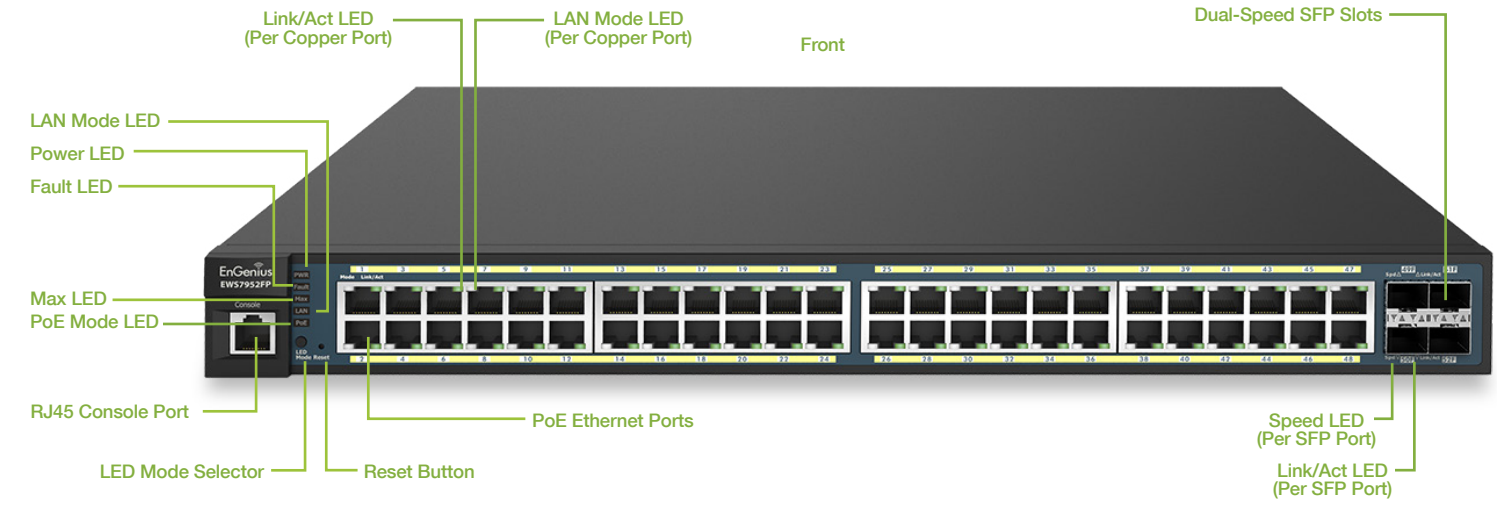


EWS7928P





EWS7952FP



Compare

EWS310AP

802.11a/b/g/n
300 on 2.4 GHz and 300 Mbps on 5 GHz
Gigabit Port / PoE 802.3at/af
64 MB SDRAM
16 MB Flash
29 dBm on 2.4 GHz and 26 dBm on 5 GHz
15.6 Watts Peak Power Consumption
4 Internal MIMO Antennas
800 mW Transmit Power

EWS320AP

802.11a/b/g/n
450 on 2.4 GHz and 450 Mbps on 5 GHz
Gigabit Port / PoE 802.3at
128 MB SDRAM
16 MB Flash
28 dBm on both 2.4 GHz and 5 GHz
22 Watts Peak Power Consumption
6 Internal MIMO Antennas
630 mW Transmit Power

EWS360AP

802.11a/b/g/n/ac
450 on 2.4 GHz and 1300 Mbps on 5 GHz
Gigabit Port / PoE 802.3at
128 MB SDRAM
16 MB Flash
28 dBm on 2.4 GHz and 26 dBm on 5 GHz
22 Watts Peak Power Consumption
6 Internal MIMO Antennas
630 mW Transmit Power

Common Key Features

- 802.1q zVLAN
- QoS, DC
- IPv6
- Spanning Tree Protocol (STP),
- Guest Network
- Band Steering
- SSID to VLAN Mapping
- Fast Handover
- WPS
- SNMP
- CLI/SSH/Https
- Email Alerts
- Auto Reboot Scheduling
- WiFi Scheduling
- Ping Test/Traceroute Test/Speed Test
- Wireless Traffic Shaping
- Wireless MAC Filter
- WEP, WPA-PSK, WPA2-PSK, WPA-PSK Mixed, WPA-Enterprise, WPA2-Enterprise, WPA-Mixed Enterprise
- Access Point Mode / Mesh AP Mode* (with Controller Interface)
- 16 SSIDs

* Available soon. Mesh AP mode is only available through configuration with a Neutron Series Switch.

Compare

EWS610AP

802.11a/b/g/n
300 on 2.4 GHz and 300 Mbps on 5 GHz
Gigabit Port / PoE 802.3at/af
64 MB SDRAM
16 MB Flash
29 dBm on 2.4 GHz and 26 dBm on 5 GHz
15.6 Watts Peak Power Consumption
4 External Detachable Antennas
800 mW Transmit Power

EWS620AP

802.11a/b/g/n
450 on 2.4 GHz and 450 Mbps on 5 GHz
Gigabit Port / PoE 802.3at
128 MB SDRAM
16 MB Flash
28 dBm on both 2.4 GHz and 5 GHz
22 Watts Peak Power Consumption
6 External Detachable Antennas
630 mW Transmit Power

EWS660AP

802.11a/b/g/n/ac
450 on 2.4 GHz and 1300 Mbps on 5 GHz
Gigabit Port / PoE 802.3at
128 MB SDRAM
16 MB Flash
28 dBm on 2.4 GHz and 26 dBm on 5 GHz
22 Watts Peak Power Consumption
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Common Key Features

- 802.1q zVLAN
- QoS, DC
- IPv6
- Spanning Tree Protocol (STP),
- Guest Network
- Band Steering
- SSID to VLAN Mapping
- Fast Handover
- WPS
- SNMP
- CLI/SSH/Https
- Email Alerts
- Auto Reboot Scheduling
- WiFi Scheduling
- Ping Test/Traceroute Test/Speed Test
- Wireless Traffic Shaping
- Wireless MAC Filter
- WEP, WPA-PSK, WPA2-PSK, WPA-PSK Mixed, WPA-Enterprise, WPA2-Enterprise, WPA-Mixed Enterprise
- Access Point Mode / Mesh AP Mode* (with Controller Interface)
- 16 SSIDs

* Available soon. Mesh AP mode is only available through configuration with a Neutron Series Switch.

Compare

EWS5912FP

8 Gigabit Ports (All PoE)
2 Gigabit SFP Slots
2 Gigabit Uplink Ports
1 Console Port
IEEE802.3at/af
PoE Capable Ports: Up to 30 Watts per Port
PoE Budget: 130W
256 MB SDRAM
32 MB Flash
Reset Button

EWS7928P

24 Gigabit Ports (All PoE)
4 Gigabit SFP Slots
1 Console Port
IEEE802.3at/af
PoE Capable Ports: Up to 30 Watts per Port
PoE Budget: 185W
256 MB SDRAM
32 MB Flash
Reset Button

EWS7952FP

48 Gigabit Ports (All PoE)
4 Gigabit SFP Slots
1 Console Port
IEEE802.3at/af
PoE Capable Ports: Up to 30 Watts per Port
PoE Budget: 740W
256 MB SDRAM
32 MB Flash
Reset Button

Common Key Features

L2 Features

- 802.1D Spanning Tree Compliance
- 802.1W Rapid Spanning Tree
- 802.1s Multiple Spanning Tree (MSTP)
- 802.3ad Compatible Link Aggregation
- Port Mirroring (One to One, Many to One)
- Port Trunking
- Bandwidth Control
- VLAN Group
- Voice VLAN
- IEEE 802.1X Guest VLAN
- CoS based on 802.1p Priority
- CoS based on Physical Port
- CoS based on TOS
- CoS based on DSCP
- 802.1X Port Based Access Control
- Port Security
- Storm Control (Broadcast/ Multicast/Unknown Unicast)
- Port Isolation
- Attack Prevention
- Access Control List (ACL)
- IGMP Snooping v1, v2, v3
- IGMP Fast Leave
- Power Control Configuration
- MLD Snooping
- SNMP v1, v2C, v3
- Power Feeding with Priority
- User Defined Power Limit
- Telnet Server
- IEEE802.3az Energy Efficient Ethernet
- BootP/DHCP Client
- Web-based Support,
- SNMP v1/v2/v3 Support
- TFTP
- Command Line Interface (CLI)
- SNTP
- Web UI
- Supports non IE Browser (Chrome, Firefox, Safari)
- RMONv1 (Supports 4 Groups)
- SYSLOG
- Cable Diagnostics
- MIB II Support
- RMON
- SSH Server

Wireless Management Features

- Manage up to 50 APs
- Access Point Auto Discovery and Provisioning
- Access Point Auto IP-Assignment
- Access Point Cluster Management
- Remote Access Point Rebooting
- Access Point Device Name Editing
- Access Point Radio Settings
- Band Steering
- Traffic Shaping
- Fast Handover
- Fast Roaming
- Access Point Client Limiting
- Mesh Network*
- Wireless Security (WEP, WPA/WPA2 Enterprise, WPA/WPA2 PSK)
- VLANs for Access Point- Multiple SSIDs
- Guest Network
- Access Point Status Monitoring
- Wireless Client Monitoring
- Wireless Traffic & Usage Statistics
- Visual Topology View
- Floor Plan View
- Map View
- Secure Control Messaging
- SSL Certificate
- Local MAC Address Database
- Remote MAC Address Database (RADIUS)
- Unified Configuration Import / Export
- Bulk Firmware Upgrade Capability
- Intelligent Diagnostics

* Available soon. Mesh AP mode is only available through configuration with a Neutron Series Switch.