Dell PowerConnect W-AP93H Access Point

The multifunction Dell™ PowerConnect™ AP-93H is an indoor 802.11n access point (AP) with four Ethernet ports designed for deployments in offices, hospitals, schools and retail stores. This compact, high-speed AP delivers wire-like performance at data rates up to 300 Mbps and attaches directly to electrical or network wall junction boxes.

The Dell PowerConnect W-AP93H features a 2x2 MIMO dual-band 2.4GHz/5GHz radio with integrated antennas and 4-port Ethernet switch, providing both wired and wireless access to the enterprise network. The AP is built to provide years of trouble-free operation and is backed by Dell's extended lifetime warranty.

Working with Dell PowerConnect W-Series line of centralized Mobility Controllers, the W-AP93H deliver secure, high-speed network services for both wireless and wired devices.

802.11n enables the use of wireless as a primary connection with speed and reliability comparable to a wired LAN. It also increases performance by utilizing techniques such as channel bonding, block acknowledgement and MIMO radios. Advanced antenna technology also increases range and reliability.

The key to ensuring wire-like performance and reliability is Dell PowerConnect W-series unique Adaptive Radio Management and spectrum analysis capabilities, which manage both the 2.4-GHz and 5-GHz radio bands to deliver maximum client performance while mitigating any RF interference.

The multifunction W-AP93H can be configured through the Mobility Controller to provide WLAN access with part-time air monitoring, dedicated air monitoring for wireless IPS and spectrum analysis, Remote AP (RAP) functionality or secure enterprise mesh. The W-AP93H features a 10/100/1000BASE-T Ethernet "uplink" interface and can operate from standard 802.3af power- over-Ethernet (PoE) sources or a 12-volt DC power supply.

In addition, the W-AP93H offers four 10/100BASE-T Ethernet "downlink" interfaces to securely attach wired devices.

Dell PowerConnect W-AP93H Access point

802.11n Indoor Access point with data rate up to 300Mbps, and 4-port Ethernet switch.

Designed to attach to electrical or networking wall junction boxes.

Specifications

Applications

Indoor wired and 802.11n single-radio, dual-band AP with four port Ethernet Switch for deployments in offices, hospitals, schools and retail stores.

Operating mode

- 802.11 a/b/g/n Access Point
- Campus AP, air monitor (AM) and spectrum monitor
- Remote AP, AM and spectrum monitor

Radios

- Software-configurable dual radio capable of supporting 2.4 GHz and 5 GHz
- 2x2 MIMO with 2 spacial streams, providing up to 300Mbps data rate

RF management

- Automatic transmit power and channel management control with auto coverage hole correction via Adaptive Radio Management (ARM)
- Spectrum analysis scans the 2.4-GHz and 5-GHz radio bands to provide increased visibility into non-802.11n RF interference sources and their effect on 802.11n channel quality

Advanced features

- Remote AP, spectrum analysis, secure enterprise mesh and wireless intrusion protection
- MACSec security for authorization and data encryption between the AP ports and the wired access layer (requires MACSec support on the wired edge switch)
- Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys
- SecureJack-capable for secure tunneling of wired Ethernet traffic

Antenna

- Integrated omni-directional antenna elements
  - 2.4GHz/2.5 dBi
  - 5GHz/4.0 dBi

Wireless radio specifications

- AP type: Single radio, dual-band 802.11n indoor
- Supported Frequency Bands (country-specific restrictions apply):
  - 2.400 - 2.4835 GHz
  - 5.150 - 5.250 GHz/5.250 - 5.350 GHz/5.470 - 5.725 Hz/5.725 - 5.850 GHz
- Available Channels: Controller-managed, dependent upon configured regulatory domain
- Platform supports Dynamic Frequency Selection (DFS) to allow optimal usage of available RF spectrum
- Supported Radio Technologies:
  - 802.11b: Direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n: Orthogonal frequency division multiplexing (OFDM)
  - 802.11n: 2x2 MIMO with up to two spatial streams
- Supported Modulation Types:
  - 802.11n: 2x2 MIMO with up to two spatial streams
  - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
- Transmit Power: Configurable in increments of 0.5 dBm
- Maximum Transmit Power (aggregated for two active transmit chains):
  - 2.4 GHz: 21 dBm (limited by local regulatory requirements)
  - 5 GHz: 21 dBm (limited by local regulatory requirements)
- Maximum Ratio Combining (MRC) for improved receiver performance
- Cyclic Delay Diversity (CDD) for improved downlink RF performance

- Association Rates (Mbps):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: MCS0 – MCS15 (6.5 Mbps to 300 Mbps)
- 802.11n High-Throughput (HT) Support: HT 20/40
- 802.11n Packet Aggregation: A-MPDU, A-MSDU

Power

- 48 V DC 802.3af PoE or 802.3at PoE+
- 12 V DC external AC supplied power (adapter sold separately)
- Maximum power consumption: 9 watts

Interfaces

- Network:
  - 1x10/100/1000BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX
  - 4 x 10/100/1000BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX
  - 1 x passive RJ 45 Pass-through interface
- Power:
  - 1 x DC power Connector
- Other:
  - 1 x RJ-45 console interface

Mounting

- Standard:
  - Mount plate, supporting worldwide electrical wall box standards

Mechanical

- Dimensions/Weight (Unit, with mount bracket):
  - Unit: 760 g (1.68 lb), 130 mm x 143 mm x 35 mm/425 g

Environmental

- Operating:
  - Temp: 0° C to +40° C (+32° F to +104° F)
  - Humidity: 5 to 95% non-condensing
- Storage and Transportation Temperature Range:
  - Temp: -40° C to +70° C (-40° F to +158° F)

Regulatory

- FCC/Industry of Canada
- CE Marked
- R&TTE Directive 1995/5 EC
- Low Voltage Directive 72/23/EEC
- EN 300 328

- EN 301 489
- EN 301 893
- UL/IEC/EN 60950
- EN 60601-1-1, EN60601-1-2

For more country-specific regulatory information, and approvals, please see your Dell representative.

Certifications

- Wi-Fi certified: 802.11a/b/g/n
- CB Scheme Safety, CTUVus
- UL2043

Extended Life Warranty*

Select PowerConnect products carry an Extended Life Warranty with Basic Hardware Service (repair or replacement) for as long as you own the product. *Warranty extends until five years after end of product model sales. PowerConnect switches not only provide the quality, reliability and capability you expect from Dell, but also the protection that comes with an Extended Life Warranty.
Details at Dell.com/warranty

Learn more at Dell.com/PowerConnect-W-Series