Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE

Contents

Faster Wi-Fi, Highly Secure Connectivity, Do-It-Yourself Installation

Highlights

- Provides cost-effective 802.11ac connectivity with speed up to 1.2 Gbps
- Gigabit Ethernet LAN interface with Power over Ethernet (PoE) can enable flexible installation
- Secure guest WiFi access with 3rd party cloud managed guest WiFi services support
- Cisco Umbrella integration to protect wireless devices from malware and phishing
- Single Point Setup requires no controller, for easy, cost-effective deployment of multiple access points
- Supported by the new Cisco® FindIT Network Management platform for easy management and control
- Works right out of the box with easy installation and mobile friendly web-based configuration and wizard
- Provides peace of mind with a limited lifetime hardware warranty

Product overview

In today's dynamic business environment, employees are becoming more mobile and collaborative than ever. Businesses are now depending on cloud applications like Office 365 or Gmail. To stay productive, they need reliable, and fast wireless network to access mission critical applications with no delays.

The Cisco WAP150 Wireless-AC/N Dual Radio Access Point provide a simple, cost-effective and secure wireless networking to your employees and guests, so they can have the best experience to stay connected anywhere in the office. This flexible solution lets you connect dozens of employees, and can scale to accommodate additional users and changing business needs.

The WAP150 access point uses concurrent dual-band radios for improved coverage on mobile devices. Gigabit Ethernet LAN interfaces with Power over Ethernet (PoE) support flexible installation and can reduce cabling and wiring costs. Intelligent Quality-of-Service (QoS) features let you prioritize bandwidth-sensitive traffic for Voice over IP (VoIP) and video applications.

To provide highly secure guest WiFi access to visitors and other users, the WAP150 access points support a captive portal with multiple authentication options and the ability to configure rights, roles, and bandwidth. A customized guest login page lets you present a welcome message and access details, and reinforces your brand with company logos. The WAP150 access point also offers support for 3rd party could managed guest WiFi services allowing you to control internet access for guests and give your customers a better guest WiFi experience.

The WAP150 Wireless-AC/N Dual Radio Access Point is easy to set up and use, with intuitive mobile friendly wizard-based configuration to get you up and running in minutes. An attractive design with flexible mounting options allows the access points to blend well into any small business environment.

To enhance reliability and safeguard sensitive business information, WAP150 access points support both Wi-Fi Protected Access (WPA) Personal and Enterprise, encoding all your wireless transmissions with powerful encryption. In addition, 802.1X RADIUS authentication helps keep unauthorized users out. The WAP150 access point is now integrated with Cisco Umbrella to protect employee and guest WiFi against web threats such as malware, ransomware and more.

Designed to scale smoothly as your organization grows, the access point features controller-less Single Point Setup, which simplifies the deployment of multiple access points without additional hardware. With WAP150 access points, you can extend business-class wireless networking to employees and guests anywhere in the office, with the flexibility to meet new business needs for years to come.

Figure 1 shows a typical wireless access point configuration. Figures 2 and 3 show the product's front and back panels, respectively.

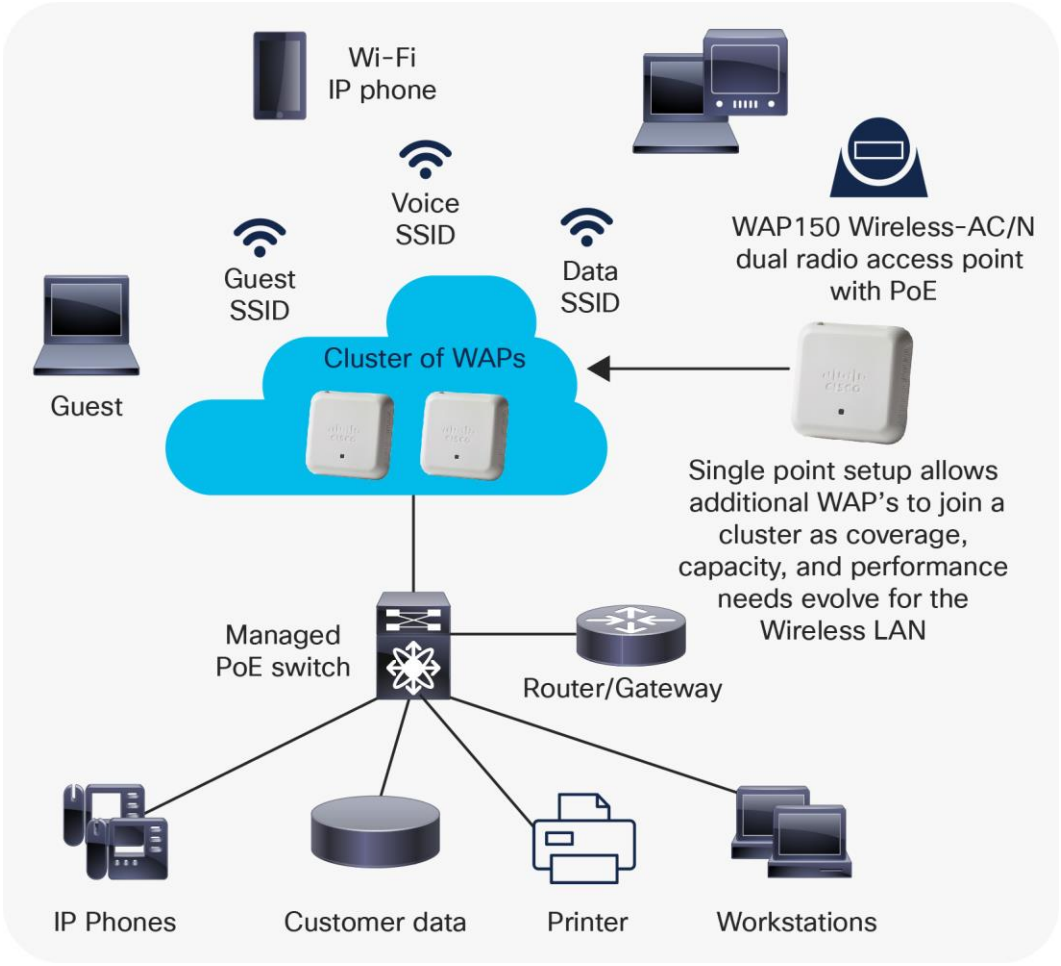

Figure 1.
Typical wireless access point configuration

Figure 2.
Front Panel of a WAP150 Wireless-AC/N dual radio access point with PoE

Figure 3.
Back Panel of a WAP150 Wireless-AC/N dual radio access point with PoE

Features

- The concurrent dual-band radio supports up to 1.2 Gbps for increase capacity and coverage
- Single Point Setup, a controller-less technology, simplifies the deployment and management of multiple access points, without requiring additional hardware
- The Gigabit Ethernet LAN interface can enable a high-speed uplink to the wired network
- Robust security, including WPA2, 802.1X with RADIUS secure authentication, and rogue access point detection, helps protect sensitive business information
- A captive portal support supports highly secure, customized guest access with multiple rights and roles
- Simple installation and an intuitive web-based configuration and wizard can enable fast, simple deployment and setup in minutes
- Support Plug and Play feature for mass deployments, when using FindIT network management platform
- Support for PoE Powered Device (PD) can enable easy installation without expensive additional wiring
- Sleek design with multiple internal antennas
- Versatile mounting can enable installation on a ceiling, wall, or desktop
- Intelligent QoS prioritizes network traffic to help keep critical network applications running at top performance
- Workgroup Bridge mode lets you expand your network by wirelessly connecting to a second Ethernet network

Specifications

Table 1 lists the specifications, package contents, and minimum requirements for the WAP150 access point.

Table 1. Specifications for the WAP150 access point

Specifications	Description
Standards	IEEE 802.11ac, 802.11n, 802.11g, 802.11b, 802.3af, 802.3u, 802.1X (security authentication), 802.1Q (VLAN), 802.1D (Spanning Tree), 802.11i (WPA2 security), 802.11e (wireless QoS), IPv4 (RFC 791), IPv6 (RFC 2460)
Ports	LAN Gigabit Ethernet auto-sensing
Cabling type	Category 5e or better
Antennas	Internal antennas optimized for installation on a wall
LED indicators	1 multifunction LED
Operating system	Linux
Physical Interfaces	
Ports	10/100/1000 Ethernet, with support for 802.3af /at PoE, power port for AC adapter (included)
Buttons	Reset button, power on/off push button
Lock slot	Slot for Kensington lock
LEDs	1 LED
Physical Specifications	
Physical dimensions (W x D x H)	5.31 x 5.31x 1.5 in. (135 x 135 x 38 mm)
Weight	0.77lb or 350g
Network Capabilities	
VLAN support	Yes
Number of VLANs	1 management VLAN plus 8 VLANs for SSIDs
802.1X supplicant	Yes
SSID-to-VLAN mapping	Yes
Auto-channel selection	Yes
Spanning tree	Yes
Load balancing	Yes

Specifications	Description
IPv6	Yes • IPv6 host support • IPv6 RADIUS, syslog, Network Time Protocol (NTP)
Layer 2	802.1Q-based VLANS, 8 active VLANs plus 1 management VLAN
Security	
WPA, WPA2	Yes, including Enterprise authentication
Access control	Yes, management Access Control List (ACL) plus MAC ACL
Secure management	HTTPS
SSID broadcast	Yes
Rogue access point detection	Yes
Mounting and Physical Security	
Multiple mounting options	Desktop or Wall
Physical security lock	Kensington lock slot
Quality of Service	
QoS	Wi-Fi Multimedia and Traffic Specification (WMM TSPEC), client QoS
Performance	
Wireless throughput	Up to 1.2 Gbps data rate (real-world throughput will vary)
Recommended user support	Up to 64 connective users, 10 active users per radio
Multiple-Access Point Management	
Single Point Setup	Yes
Number of access points per cluster	4
Active clients per cluster	120
Configuration	
Web user interface	Built-in web user interface for easy browser-based configuration (HTTP, HTTPS)
Management	
Management protocols	Web browser, Simple Network Management Protocol (SNMP) v3, Bonjour
Remote management	Yes

Specifications	Description
Event logging	Local, remote syslog, email alerts
Network diagnostics	Logging and packet capture
Web firmware upgrade	Firmware upgradable through web browser, imported or exported configuration file
Dynamic Host Configuration Protocol (DHCP)	DHCP client
IPv6 host	Yes
HTTP redirect	Yes
Wireless	
Frequency	Dual concurrent radios (2.4 and 5 GHz)
Radio and modulation type	Dual radio, Orthogonal Frequency Division Multiplexing (OFDM)
WLAN	802.11n/ac 2x2 Multiple-Input Multiple-Output (MIMO) with 2 spatial streams at 5 GHz 2x2 MIMO with 2 spatial streams at 2.4 GHz 20-, 40-, and 80-Mhz channels for 802.11ac 20- and 40-Mhz for 802.11n PHY data rate up to 1.2 Gbps 802.11 Dynamic Frequency Selection (DFS)
Data rates supported	802.11a/b/g: • 54, 48, 36, 24, 18, 12, 9, 6, 11, 5.5, 2, and 1 Mbps • 802.11n: 6.5 to 300 Mbps ◦ 20-MHz bandwidth: MCS 0-15 for supported data rates ◦ 40-MHz bandwidth: MCS 0-15 for supported data rates • 802.11ac: 6.5 to 867 Mbps ◦ 20-MHz bandwidth: MCS 0-9 for supported data rates ◦ 40-MHz bandwidth: MCS 0-9 for supported data rates ◦ 80-MHz bandwidth: MCS 0-9 for supported data rates
Frequency band and operating channels	**A/B Regulatory Domain:** • 2.412 to 2.462 GHz; 11 channels • 5.180 to 5.240 GHz; 4 channels • 5.260 to 5.320 GHz; 4 channels • 5.500 to 5.700 GHz; 8 channels • 5.745 to 5.825 GHz; 5 channels **E Regulatory Domain:** • 2.412 to 2.472 GHz; 13 channels • 5.180 to 5.240 GHz; 4 channels • 5.260 to 5.320 GHz; 4 channels • 5.500 to 5.700 GHz; 8 channels **R Regulatory Domain:** **C Regulatory Domain:** • 2.412 to 2.462 GHz; 11 channels • 5.180 to 5.240 GHz; 4 channels • 5.260 to 5.320 GHz; 4 channels • 5.745 to 5.825 GHz; 5 channels **K Regulatory Domain:** • 2.412 to 2.472 GHz; 13 channels • 5.180 to 5.240 GHz; 4 channels • 5.260 to 5.320 GHz; 4 channels • 5.500 to 5.620 GHz; 7 channels • 5.745 to 5.805 GHz; 4 channels **J Regulatory Domain:**

Specifications	Description	
	• 2.412 to 2.483.5 GHz; 13 channels • 5.150 to 5.250 GHz; 4 channels • 5.250 to 5.350 GHz; 4 channels	• 2.400 to 2.483.5GHz; 13 channels • 5.150 to 5.250 GHz; 4 channels • 5.250 to 5.350 GHz; 4 channels • 5.470 to 5.725 GHz; 11 channels
Non-overlapping channels	**2.4 GHz** • 802.11b/g ◦ 20 MHz: 3 • 802.11n ◦ 20 MHz: 3 **5 GHz** • 802.11a ◦ 20 MHz: 21 • 802.11n ◦ 20 MHz: 21 ◦ 40 MHz: 9 • 802.11ac ◦ 20 MHz: 21 ◦ 40 MHz: 9 ◦ 80 MHz: 4	
Wireless isolation	Wireless isolation between clients	
External antennas	None	
Internal antennas	Internal Fixed Planar Inverted-F Antenna (PIFA)	
Antenna gain in dBi	Maximum antenna gain of 3.61 dBi on 2.4 GHz Maximum antenna gain of 3.85 dBi on 5 GHz	
Wireless Distribution System (WDS)	Yes	
Fast roaming	Yes	
Multiple SSIDs	8	
Wireless VLAN map	Yes	
WLAN security	Yes	
Wi-Fi Multimedia (WMM)	Yes, with unscheduled automatic power save	
Operating Modes		
Access point	Access point mode, WDS Bridging, Workgroup Bridge mode	

Specifications	Description
Environmental	
Power options	IEEE 802.3af Ethernet switch Cisco Power Injector - SB-PWR-INJ2-xx AC adapter – SB-PWR-12V/1.5A power adapter in a box POE power Peak power: 9.5Watts
Compliance	Safety: • UL 60950-1 • CAN/CSA-C22.2 No. 60950-1 • IEC 60950-1 • EN 60950-1 Radio approvals: • FCC Part 15.247, 15.407 • RSS-210 (Canada) • EN 300.328, EN 301.893 (Europe) • AS/NZS 4268.2003 (Australia and New Zealand) EMI and susceptibility (Class B): • FCC Part 15.107 and 15.109 • ICES-003 (Canada) • EN 301.489-1 and -17 (Europe)
Operating temperature	0° to 40°C (32° to 104°F)
Storage temperature	-20° to 70°C (-4° to 158°F)
Operating humidity	10% to 85% noncondensing
Storage humidity	5% to 90% noncondensing
System memory	256 MB RAM 128 MB flash
Package Contents	
• WAP150 Wireless-AC/N Dual Radio Access Point • Power adapter 12V1.5A • Quick-start guide • Ethernet network cable	
Minimum Requirements	
• Switch or router with PoE support, PoE injector, or AC power adapter • Web-based configuration: Java-enabled web browser	
Warranty	
Access point	Limited lifetime

Table 2. Cisco WAP150 wireless-AC/N access point RF performance table

	Maximum Transmit Power (dBm) Per Chain	Receiver Sensitivity (dBm) Per Chain
2.4GHz – 802.11b		
1 Mbps	16.0 +/- 1.5	-98.0
11 Mbps	16.0 +/- 1.5	-90.0
2.4GHz – 802.11g		
6 Mbps	14.0 +/- 1.5	-90.0
54 Mbps	14.0 +/- 1.5	-75.0
2.4GHz – 802.11n HT20		
MCS0/8	14.0 +/- 1.5	-90.0
MCS7/15	14.0 +/- 1.5	-74.0
2.4GHz – 802.11n HT40		
MCS0/8	13.0 +/- 1.5	-88.0
MCS7/15	13.0 +/- 1.5	-71.0
5GHz – 802.11a		
6 Mbps	16.0 +/- 1.5	-91.0
54 Mbps	16.0 +/- 1.5	-77.0
5GHz – 802.11n HT20		
MCS0/8	15.0 +/- 1.5	-91.0
MCS7/15	15.0 +/- 1.5	-74.0
5GHz – 802.11n HT40		
MCS0/8	15.0 +/- 1.5	-87.0
MCS7/15	15.0 +/- 1.5	-71.0
5GHz – 802.11ac HT20		
MCS0	14.0 +/- 1.5	-91.0
MCS8	14.0 +/- 1.5	-69.0
5GHz – 802.11ac HT40		
MCS0	14.0 +/- 1.5	-87.0

	Maximum Transmit Power (dBm) Per Chain	Receiver Sensitivity (dBm) Per Chain
MCS9	14.0 +/- 1.5	-64.0
5GHz – 802.11ac HT80		
MCS0	14.0 +/- 1.5	-88.0
MCS9	14.0 +/- 1.5	-61.0

Note: This table shows the maximum capability of the hardware. The transmit power may be reduced to comply with local regulatory requirements.

Ordering information

Table 3 shows the product part numbers and descriptions to make ordering easier.

Table 3. Product ordering information

Part Number	Description
WAP150-A-K9-NA	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (United States, Canada, Colombia, Mexico)
WAP150-B-K9-BR	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (Brazil)
WAP150-A-K9-AR	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (Argentina)
WAP150-A-K9-AU	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (Australia, New Zealand)
WAP150-E-K9-EU	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (EU Regions, Philippines, Thailand, Vietnam, South Africa)
WAP150-E-K9-UK	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (United Kingdom, Saudi Arabia, UAE, Hong Kong, Singapore)
WAP150-K-K9-KR	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (Korea)
WAP150-C-K9-CN	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (China)
WAP150-C-K9-G5	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (Malaysia, Chile)
WAP150-C-K9-IN	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (India)
WAP150-R-K9-RU	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (Russia and Egypt)
WAP150-J-K9-JP	Cisco WAP150 Wireless-AC/N Dual Radio Access Point with PoE (Japan)
SB-PWR-INJ2-xx	Cisco Gigabit Power over Ethernet Injector-30W

Cisco limited lifetime warranty for Cisco small business products

This Cisco Small Business product comes with a limited lifetime hardware warranty. Product warranty terms and other information applicable to Cisco products are available at https://www.cisco.com/go/warranty.

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This optional service offers affordable, three-year peace-of-mind coverage. This subscription-based, device-level service helps you protect your investment and derive maximum value from Cisco Small Business products. Delivered by Cisco and backed by your trusted partner, this comprehensive service includes software updates, extended access to the Cisco Small Business Support Center, and expedited hardware replacement, should it be required.

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