

The Avaya WLAN Access Point 9173 is a high performance, four radio, 802.11ac Access Point (AP). It is part of the next generation Avaya wireless portfolio that delivers wired-like performance and predictability. It supports application QoS enforcement within the AP to provide a high quality user experience and help ensure that business critical applications are not impacted by personal applications. Additionally, Avaya unified access offers automated provisioning of APs and end clients/users while extending Avaya Fabric intelligence all the way to the APs.

# Avaya WLAN Access Point 9173

(Regulatory Model WAP9173)

## Overview

The WLAN Access Point 9173 is a high performance, four radio, 802.11ac, 3x3 Multiple Input / Multiple Output (MIMO) access point (AP). It is ideally suited for high density wireless environments that require the support of hundreds of wireless clients in a given area. Examples include lecture halls, hotel meeting rooms and convention centers. It delivers superior price and performance by integrating four software programmable (2.4GHz/5GHz) modular radios with high gain directional antennas, integrated wireless controller, multi-gigabit switch, firewall, threat sensor and spectrum analyzer into a single system. The WLAN AP 9173 is designed to meet a wide variety of wireless network requirements, delivering ubiquitous wireless coverage, and providing high reliability. Leveraging multiple radios, the Avaya WLAN AP 9173 supports a host of different physical and operational modes in a single product to support services such as wireless access, wireless backhaul, threat detection, user segmentation, diagnostics, and more. The Access Point is managed centrally by the Avaya WLAN Orchestration System (WOS).



## At A Glance

- 4 software programmable (2.4GHz/5GHz) modular access points
- Ideal for high density environments
- 1.3Gbps (3x3) 802.11ac
- Field upgradable to 802.11ac Wave 2\*

WLAN AP 9173 is based on an integrated Network Services Processor (NSP) architecture that scales to deliver a reliable user experience optimized for 802.11n/11ac.

## Architected to Perform

Avaya WLAN AP 9173 integrates the AP and controller functionality into a single device, eliminating the single-point-of-failure limitations of central controllers.

## Unmatched Upgradability

The Avaya WLAN AP 9173 utilizes modular access points that enable technology upgrades without full AP replacement. It helps ensure protection with upgradability to 802.11ac Wave 2 (>3Gbps).

\*Contingent on chip set suitability

## Application Intelligent

The WLAN AP 9173 supports integrated Application Control, enabling flexible application-level monitoring and policy control of wireless usage. More than 1,300 applications can be identified and controlled to help ensure a predictable user experience using Layer 7 Deep Packet Inspection and other contextual application detection techniques.

## Automated Provisioning

The holistic Avaya Unified Access solution provides automated identification and provisioning of APs by extending its innovative Fabric technology to the wireless edge.

## Key Benefits

### Scalable

Maintain a high level of performance to support mission-critical applications and handle unpredictable user growth in your wireless network. Scale to handle increasing user density and network traffic without installing additional equipment.

### Flexible

Achieve deployment and operational flexibility with modular and programmable radios. Adapt to changing technology and usage requirements without the disruption of and expense of rip-and-replace hardware upgrades.

### More Secure

Mitigate the risk of potential gaps in security infrastructure with an integrated threat sensor, virtualized firewall, and spectrum analyzer to increase security without the need for additional overlay equipment.

### Economical

Deploy less than half the equipment required for competitive solutions, as well as fewer cables, switch ports, installation time, maintenance and power consumption, to help reduce the wireless network's Total Cost of Ownership (TCO).

## Configuration Specifications

|                                                                                                                                                                                                                                                                                                                                                  | WLAN AP 9173                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Chassis Size                                                                                                                                                                                                                                                                                                                                     | 11"                                                                      |
| Populated 802.11ac Radios                                                                                                                                                                                                                                                                                                                        | 4<br>(Note: The 4 radio AP consumes 2 WOS licenses)                      |
| Radio Type                                                                                                                                                                                                                                                                                                                                       | 3x3 802.11ac with 5.2Gbps total Wi-Fi bandwidth (1.3Gbps per radio)      |
| Maximum Wi-Fi Bandwidth                                                                                                                                                                                                                                                                                                                          | Up to 5.2Gbps                                                            |
| Dedicated Wi-Fi Threat Sensor                                                                                                                                                                                                                                                                                                                    | Yes                                                                      |
| Integrated Antennas                                                                                                                                                                                                                                                                                                                              | 12                                                                       |
| Gigabit Ethernet Uplink Ports <ul style="list-style-type: none"><li>• 802.3ad: Aggregate traffic from gig ports using 802.3ad broadcast</li><li>• Broadcast: Transmit traffic on all gig ports</li><li>• Link-backup: Active backup (gig ports fail over to each other)</li><li>• Load balance: Load balance traffic between gig ports</li></ul> | 2                                                                        |
| Maximum Associated Users                                                                                                                                                                                                                                                                                                                         | 512                                                                      |
| Radio Interface                                                                                                                                                                                                                                                                                                                                  | 2.5Gbps PCI-Express                                                      |
| Power Requirements                                                                                                                                                                                                                                                                                                                               | 38W - requires power injectors<br>(Avaya 75W PoE injector: WPR9100A2-E6) |

## Avaya WLAN 9173 Receive Sensitivity

| RATE                | 2.4GHz<br>RX SENSITIVITY<br>(dBm) | 5.0GHz<br>RX SENSITIVITY<br>(dBm) |
|---------------------|-----------------------------------|-----------------------------------|
| <b>802.11a</b>      |                                   |                                   |
| 6Mbps               |                                   | -92                               |
| 9Mbps               |                                   | -92                               |
| 12Mbps              |                                   | -91                               |
| 18Mbps              |                                   | -90                               |
| 24Mbps              |                                   | -87                               |
| 36Mbps              |                                   | -83                               |
| 48Mbps              |                                   | -79                               |
| 54Mbps              |                                   | -78                               |
| <b>802.11b</b>      |                                   |                                   |
| 1Mbps               | -91                               |                                   |
| 2Mbps               | -91                               |                                   |
| 5.5Mbps             | -93                               |                                   |
| 11Mbps              | -93                               |                                   |
| <b>802.11g</b>      |                                   |                                   |
| 6Mbps               | -93                               |                                   |
| 9Mbps               | -93                               |                                   |
| 12Mbps              | -92                               |                                   |
| 18Mbps              | -91                               |                                   |
| 24Mbps              | -90                               |                                   |
| 36Mbps              | -88                               |                                   |
| 48Mbps              | -83                               |                                   |
| 54Mbps              | -80                               |                                   |
| <b>802.11n HT20</b> |                                   |                                   |
| MCS 0               | -93                               | -93                               |
| MCS 1               | -93                               | -90                               |
| MCS 2               | -92                               | -88                               |
| MCS 3               | -88                               | -85                               |
| MCS 4               | -86                               | -81                               |
| MCS 5               | -82                               | -77                               |
| MCS 6               | -80                               | -76                               |
| MCS 7               | -79                               | -75                               |
| MCS 8               | -95                               | -93                               |
| MCS 9               | -92                               | -90                               |
| MCS 10              | -89                               | -88                               |
| MCS 11              | -87                               | -85                               |
| MCS 12              | -83                               | -81                               |
| MCS 13              | -79                               | -77                               |
| MCS 14              | -78                               | -76                               |
| MCS 15              | -76                               | -75                               |
| MCS 16              | -92                               | -93                               |
| MCS 17              | -91                               | -90                               |
| MCS 18              | -89                               | -88                               |
| MCS 19              | -86                               | -85                               |
| MCS 20              | -82                               | -81                               |
| MCS 21              | -78                               | -77                               |
| MCS 22              | -77                               | -76                               |
| MCS 23              | -76                               | -75                               |
| <b>802.11n HT40</b> |                                   |                                   |
| MCS 0               | -93                               | -91                               |
| MCS 1               | -92                               | -88                               |
| MCS 2               | -90                               | -86                               |
| MCS 3               | -87                               | -83                               |

| RATE                  | 2.4GHz<br>RX SENSITIVITY<br>(dBm) | 5.0GHz<br>RX SENSITIVITY<br>(dBm) |
|-----------------------|-----------------------------------|-----------------------------------|
| MCS 4                 | -84                               | -79                               |
| MCS 5                 | -80                               | -75                               |
| MCS 6                 | -78                               | -74                               |
| MCS 7                 | -77                               | -73                               |
| MCS 8                 | -92                               | -90                               |
| MCS 9                 | -89                               | -87                               |
| MCS 10                | -87                               | -85                               |
| MCS 11                | -84                               | -82                               |
| MCS 12                | -81                               | -78                               |
| MCS 13                | -77                               | -74                               |
| MCS 14                | -75                               | -73                               |
| MCS 15                | -74                               | -72                               |
| MCS 16                | -91                               | -90                               |
| MCS 17                | -88                               | -87                               |
| MCS 18                | -86                               | -85                               |
| MCS 19                | -83                               | -82                               |
| MCS 20                | -79                               | -78                               |
| MCS 21                | -75                               | -74                               |
| MCS 22                | -74                               | -73                               |
| MCS 23                | -73                               | -72                               |
| <b>802.11ac VHT20</b> |                                   |                                   |
| MCS 0                 |                                   | -82                               |
| MCS 1                 |                                   | -79                               |
| MCS 2                 |                                   | -77                               |
| MCS 3                 |                                   | -74                               |
| MCS 4                 |                                   | -70                               |
| MCS 5                 |                                   | -66                               |
| MCS 6                 |                                   | -65                               |
| MCS 7                 |                                   | -64                               |
| MCS 8                 |                                   | -59                               |
| MCS 9                 |                                   | -57                               |
| <b>802.11ac VHT40</b> |                                   |                                   |
| MCS 0                 |                                   | -88                               |
| MCS 1                 |                                   | -85                               |
| MCS 2                 |                                   | -83                               |
| MCS 3                 |                                   | -80                               |
| MCS 4                 |                                   | -76                               |
| MCS 5                 |                                   | -72                               |
| MCS 6                 |                                   | -71                               |
| MCS 7                 |                                   | -69                               |
| MCS 8                 |                                   | -67                               |
| MCS 9                 |                                   | -66                               |
| <b>802.11ac VHT80</b> |                                   |                                   |
| MCS 0                 |                                   | -86                               |
| MCS 1                 |                                   | -83                               |
| MCS 2                 |                                   | -81                               |
| MCS 3                 |                                   | -78                               |
| MCS 4                 |                                   | -74                               |
| MCS 5                 |                                   | -70                               |
| MCS 6                 |                                   | -69                               |
| MCS 7                 |                                   | -68                               |
| MCS 8                 |                                   | -66                               |
| MCS 9                 |                                   | -64                               |

## Avaya WLAN 9173 Technical Specifications

| FEATURE            | SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                | 400 MHz Cavium CN6130 Processor with 4 MIPS-64 Cores                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Memory             | 1.0GB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| RF Management      | <p>Dynamic channel configuration</p> <p>Dynamic cell size configuration</p> <p>Monitor radio for channel/band optimization, threat assessment, and mitigation</p> <ul style="list-style-type: none"> <li>• dedicated – radio is dedicated to monitoring and does not service clients</li> <li>• timeshare – radio splits duties between servicing clients and monitoring RF</li> </ul> <p>Radio assurance for radio self test and healing</p> <p>2.4GHz &amp; 5.0GHz Honeypot Control – Increase available 2.4GHz &amp; 5.0GHz wireless device density through management of spurious 2.4GHz &amp; 5.0GHz association traffic.</p> <p>Ultra Low Power Mode – Maximize wireless channel re-use and increase wireless device density through tight power controls.</p> |
| Wireless Protocols | IEEE 802.11a, 802.11ac, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11k, 802.11n, 802.11w                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Wired Protocols    | <p>IEEE 802.3 10BASE-T , IEEE 802.3.u 100BASE-TX , 1000BASE-T, 802.3ab 1000BASE-T</p> <p>IEEE 802.1q – VLAN tagging</p> <p>IEEE 802.3ad – Link aggregation</p> <p>IEEE 802.1d – Spanning tree</p> <p>IEEE 802.1p – Layer 2 traffic prioritization</p> <p>IPv6 Control – Increase wireless device density through control of unnecessary IPv6 traffic on IPv4-only networks.</p> <p>DHCP Option 82</p>                                                                                                                                                                                                                                                                                                                                                                |



# Avaya WLAN 9173 Technical Specifications

| FEATURE                                                                              | SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Channel Support 2.4GHz</b><br>(channels available based on country code selected) | 1 2 3 4 5 6 7 8 9 10 11 12 13 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Channel Support 5GHz</b><br>(channels available based on country code selected)   | UNII-1 – Non-DFS channels<br>36 40 44 48<br>UNII-2A – DFS channels<br>52 56 60 64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UNII-2C – DFS channels<br>100 104 108 112 116 120 124 128 132 136 140<br>UNII-3 – Non-DFS channels<br>149 153 157 161 165                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Management Interfaces</b>                                                         | Command line interface Web interface (http / https)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | WOS Enterprise                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Management</b>                                                                    | SNMP v1, v2c, v3<br>RFC 854 Telnet<br>RFC 1155 Management Information for TCP/IP Based Internets<br>RFC 1156 MIB<br>RFC 1157 SNMP<br>RFC 1212 Concise MIB Definitions<br>RFC 1213 SNMP MIB II<br>RFC 1215 A Convention for Defining Traps for use with the SNMP<br>RFC 1350 TFTP<br>RFC 1643 Ethernet MIB<br>RFC 2030 Simple Network Time Protocol SNTP<br>RFC 2578 Structure of Management Information Version 2 (SMIv2)<br>RFC 2579 Textual Conventions for SMIv2<br>RFC 2616 HTTP 1.1<br>RFC 2665 Definitions of Managed Objects for the Ethernet Like Interface Types | RFC 2674 Definitions of Managed Objects for Bridges with Traffic Classes, Multicast Filtering and Virtual LAN Extensions<br>RFC 2863 The Interface Group MIB<br>RFC 3164 BSD Syslog Protocol<br>RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)<br>RFC 3416 Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)<br>RFC 3417 Transport Mappings for the Simple Network Management Protocol (SNMP)<br>RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)<br>RFC 3584 Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework<br>RFC 3636 Definitions of Managed Objects for IEEE Private MIBs<br>Integration with Splunk for accurate search and analysis of intra-organizational IT events<br>Netflow Export v9 and IPFIX compatibility allows for IP traffic statistics collection |
| <b>Carrier Applications</b>                                                          | Passpoint 2.0 Certification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RFC Support</b>                                                                   | RFC 768 UDP<br>RFC 791 IP<br>RFC 2460 IPV6 (Bridging only)<br>RFC 792 ICMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RFC 793 TCP<br>RFC 826 ARP<br>RFC 1122 Requirements for internet hosts – communication layers<br>RFC 1542 BOOTP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Security</b>                                                                      | WPA<br>IEEE 802.11i WPA2, RSN<br>RFC 1321 MD5 Message-digest algorithm<br>RFC 2246 TLS protocol version 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RFC 3280 Internet X.509 PKI certificate and CRL profile<br>RFC 4347 Datagram transport layer security<br>RFC 4346 TLS 802.11u (passpoint certification) protocol version 1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Encryption Types</b>                                                              | Open, WEP, TKIP-MIC: RC4 40, 104 and 128 bits<br>SSL and TLS: RC4 128-bit and RDA 1024 and 2048 bit modular AP                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Authentication</b>                                                                | IEEE 802.1x<br>RFC 2548 Microsoft vendor-specific RADIUS attributes<br>RFC 2716 PPP EAP-TLS<br>RFC 2865 RADIUS Authentication<br>RFC 2866 RADIUS Accounting<br>RFC 2867 Tunnel Accounting<br>RFC 2869 RADIUS Extensions<br>RFC 3576 Dynamic Authorizations extensions to RADIUS<br>RFC 3579 RADIUS Support for EAP<br>RFC 3748 EAP-PEAP<br>• Avaya Identity Engines<br>RFC 5216 EAP-TLS                                                                                                                                                                                   | RFC 5281 EAP-TTLS<br>RFC 2284 EAP-GTC<br>RFC 4186 EAP-SIM<br>RFC 3748 Leap Pass through<br>RFC 3748 Extensible Authentication Protocol Web Page Authentication<br>• WPR, Landing Page, Redirect<br>• Support for Internal WPR, Landing Page and Authentication<br>• Support for External WPR, Landing Page and Authentication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Regulatory Compliance</b>                                                         | CE Mark<br>Safety:<br>UL 60950-1:2003<br>EN 60950:2000<br>EMI and susceptibility (Class A)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | U.S.: FCC Part 15.107 and 15.109<br>Canada: ICES-003<br>Europe: EN 55022, EN 55024<br>EN 301 893 V1.6.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Physical Specifications</b>                                                       | Dimensions (no connectors): 2.75 x 11.25 x 11.25 in.<br>Weight: 2.2lb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Environmental Specifications</b>                                                  | Operating Temperature: 0 to +55C,<br>0-90% humidity, non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## About Avaya

Avaya is a leading, global provider of customer and team engagement solutions and services available in a variety of flexible on-premise and cloud deployment options. Avaya's fabric-based networking solutions help simplify and accelerate the deployment of business critical applications and services. For more information, please visit [www.avaya.com](http://www.avaya.com).

