

The New Generation of Cisco Aironet Access Points



Second-Generation 802.11n Access Points

High definition video promises life-like remote communications. Cloud computing promises agility and reduced costs. Tablets and smartphones promise new employee and customer engagement. Overall, technology tantalizes consumers and businesses alike with the promise of transformation. But the reality for an IT manager is more complicated. There is a high rate of change in the mobility and networking industry, making it difficult for yesterday's networks to adapt. And as mobility becomes a user imperative, new use cases with conflicting security and technical requirements emerge.

To address these needs, Cisco has evolved the previous line of access points (the Cisco Aironet® 1040, 1140, 1260, and 3500 Series) by offering a new line of second-generation 802.11n access points – the Cisco® Aironet 3700, 3600, 2600, and 1600 Series – that can extend spectrum intelligence, antenna density, and client acceleration to new price points in the mainstream.

The [second-generation Cisco Aironet access point portfolio](#) is designed for a broad range of requirements for best-in-class, mission-critical, and enterprise-class service to provide industry-leading performance for secure and reliable wireless connections. Whether you require entry-level wireless connectivity for a small enterprise, mission-critical coverage at thousands of locations, or best-in-class performance with investment protection and future proof expansion for emerging technologies such as 802.11ac or advanced services such as a Wireless Security and Spectrum Intelligence module, you can rely on Cisco's broad portfolio of access points to meet the needs of specific industries, business types, and topologies.

The Cisco Aironet Access Points come in standalone or controller-based models to support the unique requirements for scale and mobility services. Controllers reduce overall operational expenses by simplifying network deployment, operations, and management. They allow network administrators to remotely configure and monitor several access points to thousands of access points in a simple and efficient way. A controller is required to support voice, location services, guest access, and advanced security. Controller-based access points also support [Cisco OfficeExtend](#) for secure remote teleworking and [enterprise wireless mesh](#), which allows access points to dynamically establish wireless connections in hard-to-connect locations.

A wireless network with standalone access points offers a low-cost, entry-level solution that does not require a controller. It is ideal for small-scale networks with less than 10 access points, and offers base-level wireless functionality with the flexibility to scale and add services over time by adding a controller.

Cisco Aironet 3700 Series: High-Density Experience

Figure 1. Cisco Aironet 3700 Series Access Points



The Cisco Aironet 3700 Series (Figure 1) is designed for high-density network environments that use mission-critical, high-performance applications. The Aironet 3700 Series incorporates the High-Density Experience by using an innovative chipset with the best-in-class RF architecture. The Aironet 3700 Series provides three times the performance of current 802.11n based Wi-Fi at a greater distance.

The industry's first access point with an integrated 802.11ac Wave 1 radio supporting 4x4 multiple input, multiple output (MIMO) with three spatial streams offers:

- Three times the performance of current 802.11n-based Wi-Fi at a greater distance
- Optimized access point roaming: Faster attach and release
- Cisco CleanAir® with enhanced support for 80-GHz channel support
- Updated ClientLink 3.0 with support for 802.11a/b/g/n/ac
- Device battery life savings
- Cross-access point noise reduction*
- Enhanced location accuracy*
- Modular design that supports other modules, such as wireless security, Cisco 3G Small Cell, or future technology such as an 802.11ac Wave 2 module
- The 3700i model has integrated antennas for typical office deployments

The 3700e model is for RF-challenging indoor environments and requires external dual-band antennas. (For more information about antennas, visit: [Antenna Product Portfolio for Cisco Aironet 802.11n Access Points](#)).

*Future release



Cisco Aironet 3600 Series: Best in Class

Figure 2. Cisco Aironet 3600 Series Access Points



The Cisco Aironet 3600 Series Access Point (Figure 2) delivers the highest level of 802.11n performance, with the industry's first and only 4 x 4 MIMO, three spatial streams, 802.11n based access point as well as expansion capability for emerging technologies such as 802.11ac radio or advanced services such as a Wireless Security and Spectrum Intelligence module or Cisco's 3G Small Cell Module. The 3600 Series offers better coverage and security in dense-client, high-bandwidth networks that utilize applications such as HD video and virtual desktop infrastructure (VDI).

- Highest 802.11n performance with Cisco CleanAir™ technology for a self-healing, self-optimizing wireless network
- The industry's first 4 x 4 multiple-input multiple-output (MIMO) access point with three spatial streams
- Future-ready modularity, providing flexible upgrades and add-on options for 802.11ac, Wireless Security and Spectrum Intelligence (WSSI) Module or Cisco's 3G Small Cell Module and other future technologies
- Cisco ClientLink 2.0, optimizing performance for tablets, smartphones, and laptops and all 802.11n one-, two-, and three-spatial stream devices, as well as legacy 802.11a/g clients
- Standard 802.3af Power over Ethernet (PoE)
- The 3600i model has integrated antennas for typical office deployments

The 3600e model is for RF-challenging indoor environments and requires external dual-band antennas. (For more information about antennas, visit: [Antenna Product Portfolio for Cisco Aironet 802.11n Access Points](#)).

Cisco Aironet 2600 Series: Mission-Critical

Figure 3. Cisco Aironet 2600 Series Access Points



The Cisco Aironet 2600 Series Access Point (Figure 3) is bring-your-own-device (BYOD)-optimized for connectivity to any client device. Second only to the Cisco Aironet 3600 Series in performance and features, the Cisco Aironet 2600 Series sets the new standard for enterprise wireless technology. This mission-critical access point delivers Cisco's RF excellence features such as Cisco CleanAir and ClientLink 2.0 technology for any small, medium-sized, and large enterprise network.

- Delivers the most advanced features in its class, with great performance, functionality, and reliability at a great price
- Includes 802.11n-based 3 x 4 MIMO, with three spatial streams
- Includes Cisco CleanAir, ClientLink 2.0, and VideoStream technologies, to help ensure an interference-free, high-speed wireless application experience
- Standard 802.3af PoE
- The 2600i model has integrated antennas for typical office deployments
- The 2600e model is for RF challenging indoor environments and requires external dual-band antennas. (For more information about antennas, visit: [Antenna Product Portfolio for Cisco Aironet 802.11n Access Points](#)).



Cisco Aironet 1600 Series: Enterprise Class

Figure 4. Cisco Aironet 1600 Series Access Points



The Cisco Aironet 1600 Series is an entry-level, enterprise-class 802.11n-based access point designed to address the wireless connectivity needs of small and midsize enterprise networks.

- With at least six times the throughput of existing 802.11a/g networks, the 1600 Series offers the performance advantage of 802.11n enterprise-class performance with 3 x 3 MIMO technology with two spatial streams
- Provides efficient wireless coverage through Clean Air Express* client acceleration for entry level networks that have a mixed legacy and non-legacy client base
- Standard 802.3af PoE
- The 1600i model has integrated antennas for typical office deployments
- The 1600e model is for RF-challenging indoor environments and requires external dual-band antennas. (For more information about antennas, visit: [Antenna Product Portfolio for Cisco Aironet 802.11n Access Points](#)).

The Cisco Advantage

Cisco has true enterprise-class RF technology designed to maximize 802.11n performance. Cisco technologies such as [CleanAir](#), [ClientLink 2.0](#), and [VideoStream](#), plus optimized access point radios and antennas, improve performance regardless of where client devices are located.

*Planned for future support

All Cisco Aironet 802.11n access points support:

- A limited lifetime hardware warranty
- 5- or 10-unit Eco-Pack bundles with a single, easy-to-open carton that streamlines the staging and installation process and reduces packaging waste by 50 percent
- Mounting brackets that can be easily retrofitted to existing Cisco legacy access points to minimize migration cost and time

The benefits of deploying Cisco Aironet access points with a Cisco Unified Wireless Network extend from investment protection and future-proofing to better scalability and reliability of the enterprise network. For more details, visit: www.cisco.com/go/wireless.

Cisco Aironet 600 Series OfficeExtend Access Point

Figure 5. Cisco Aironet 600 Series OfficeExtend Access Point



Purposely designed for the teleworking environment, Cisco Aironet 600 Series OfficeExtend Access Points (Figure 5) deliver always-on, secure access to networked business services from the remote home office. The access point connects to the home's broadband Internet access and establishes a secure tunnel to the corporate network so that remote employees can access data, voice, video, and cloud services for a mobility experience consistent with that at the corporate office.

- 802.11n access points for reliable, secure teleworking
- Zero-touch deployment at the home office speeds setup time
- Dual-band support uses all available spectrum to help avoid congestion caused by home devices
- Supports corporate and personal network activity with traffic segmentation



Table 1 compares the features of new Cisco Aironet 802.11ac and 802.11n access points.

Table 1. Cisco Aironet 802.11n Access Point Comparison Chart

Cisco Aironet 802.11n G2 Indoor Access Points	<u>600 Series</u>	<u>1600 Series</u>	<u>2600 Series</u>	<u>3600 Series</u>	<u>3700 Series</u>
Product Image					
Ideal for	Remote Worker	Small or midsize enterprise, midmarket	Small, midsize or large enterprise, midmarket	Midsize or large enterprises	Midsize or large enterprise, Service Providers
Site Type	Home	Indoor office, small warehouse	Indoor office, medium-sized warehouse	Large office, midsize or large warehouse	Large office, midsize or large warehouse
Application Performance profile	Consumer data Deployment flexibility	Enterprise-class performance Voice, video, and multimedia	Any Device/BYOD- optimized Client scalability RF interference mitigation	High-client density HD video and VDI 802.11ac migration Comprehensive security	High-client density HD video and VDI 802.11ac migration Comprehensive security
Future-proof modularity	No	No	No	Yes	Yes
Crowded areas	No	No	Yes	Yes	Yes
Number of radios	2.4 and 5 GHz	2.4 and 5 GHz	2.4 and 5 GHz	2.4 and 5 GHz	2.4 and 5 GHz
Max data rate : 2.4/5 GHz	300 Mbps	300 Mbps	450 Mbps	1.3 Gbps (with 802.11ac module)	1.3 Gbps
MIMO radio design: spatial streams	2 x 3:2	3 x 3:2	3 x 4:3	802.11n: 4 x 4:3 802.11ac: 3x3:3	4 x 4:3
Client count/ClientLink client count	15 (Total Wireless Clients) No ClientLink support	128/32 Per Radio	200/128 Per Radio	200/128 Per Radio	200/128 Per Radio
Autonomous access point option	-	Yes	Yes	Yes	Yes
ClientLink version	-	2.0	2.0	2.0	3.0



Cisco Aironet 802.11n G2 Indoor Access Points	<u>600 Series</u>	<u>1600 Series</u>	<u>2600 Series</u>	<u>3600 Series</u>	<u>3700 Series</u>
CleanAir	-	Clean Air Express*	Yes	Yes	Yes
VideoStream	-	Yes	Yes	Yes	Yes
BandSelect	-	Yes	Yes	Yes	Yes
Rogue access point detection	-	Yes	Yes	Yes	Yes
Adaptive wireless intrusion protection system (wIPS)	-	Yes	Yes	Yes	Yes
OfficeExtend (Integrated-antenna models only)	Yes	Yes	Yes	Yes	Yes
FlexConnect	-	Yes	Yes	Yes	Yes
Power	100 to 240 VAC, 50-60 Hz	802.3af, AC Adapter	802.3af, AC adapter	802.11n: 802.3af, AC adapter; 802.11ac or WSSI module: Enhanced PoE, 802.3at, Universal PoE (UPoE)	Enhanced PoE, 802.3at, Universal PoE (UPoE), AC adapter
Temperature range	0 to 40° C	1600i: 0 to 40° C 1600e: -20 to 50° C	2600i: 0 to 40° C 2600e: -20 to 55° C	3600i: 0 to 40° C 3600e: 0 to 55° C	3700i: 0 to 40° C 3700e: -20 to 55° C 3700p: -20 to 55° C
Antennas	Internal	1600i: Internal 1600e: External	2600i: Internal 2600e: External	3600i: Internal 3600e: External	3600i: Internal 3600e: External 3700p: Professional
Wi-Fi standards	802.11a/b/g/n	802.11a/b/g/n	802.11a/b/g/n	802.11a/b/g/n/ac*	802.11a/b/g/n/ac
Limited Lifetime Warranty	Yes	Yes	Yes	Yes	Yes

*Planned for future support with 802.11ac Module