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Cisco Aironet 600 Series OfficeExtend Access Points



Performance with Investment Protection

- Dual-radio, 802.11n access point avoids congestion from cordless phones, baby monitors, wireless game consoles, and microwave ovens
- Backward-compatible with 802.11a/b/g clients

Remote Connectivity to Corporate Resources

- Supports up to three corporate service set identifiers (SSIDs) and 15 wireless clients
- Four Ethernet ports: Up to two for corporate access and the rest for personal use
- Supports voice-over-Wi-Fi with dual-mode phones, soft phones, or Cisco Unified Wireless IP Phones
- Split tunnel for printing use your personal printer while connected to the corporate WLAN

Easy Installation

- Sleek design ideal for desktop placement
- Simplified Network Management
- Minimal setup and maintenance requirements (zero-touch end-user deployment)
- Numerous controller-based deployment options
- Management similar to corporate WLAN, using the same infrastructure and devices

Secure Connections

- Supports highly secure corporate wireless connectivity to employees' homes
- Allows spouses, partners, and children to access the Internet without introducing additional security risks to corporate policy



Powerful 802.11n Dual-Radio Performance

The Cisco[®] Aironet[®] 600 Series OfficeExtend <u>Access Points</u> provide highly secure enterprise <u>wireless</u> coverage to the home. These dual-band, 802.11n access points extend the corporate network to home teleworkers and mobile contractors. The access point connects to the home's broadband Internet access and establishes a highly 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. The dual-band, simultaneous support for 2.4-GHz and 5-GHz radio frequencies helps assure that corporate devices are not affected by congestion caused by common household devices that use the 2.4-GHz band. The Cisco Aironet 600 Series OfficeExtend Access Points are purposely designed for the teleworker by supporting secure corporate data access and maintaining connectivity for personal home devices with segmented home traffic.

How It Works

The same services that are available on the <u>wireless network</u> at the corporate office are securely accessed through the Cisco Aironet

600 Series from a remote location. Data, voice, and video as well as applications such as Cisco Unified MeetingPlace[®] conferencing, Cisco WebEx[®] technology, and dual-mode phones are supported by the Cisco Aironet 600 Series.

For the initial setup at a home office, the remote worker plugs the access point into a home router connected to or integrated with their broadband modem. The Cisco Aironet 600 Series access point is provisioned in advance and will automatically set up a secure tunnel to the corporate headquarters with a Cisco <u>wireless controller</u>. A preregistered corporate IP phone can also automatically connect with Cisco Unified Communications Manager to access the corporate phone number, voicemail, and user settings.

How the Remote Workforce Benefits

The Cisco Aironet 600 Series helps improve workforce productivity, business resiliency, and work schedule flexibility while reducing travel costs and carbon emissions. It is targeted toward commercial, enterprise, and service provider networks across all industries. The Cisco Aironet 600 Series is appropriate for employees who need reliable and consistent access to networked business services at home or at work, as well as telecommuters who require the same wireless connectivity as at the corporate site. Voice costs are reduced, since users can use Wi-Fi instead of cellular coverage for voice calls.

Table 1 lists the features and benefits of the Cisco Aironet 600 Series OfficeExtend Access Points.

Table 1.	Features and Benefits	

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Feature	Benefits
Performance	 Dual-radio, dual-band, 802.11n access point for the home that provides highly secure, reliable wired and wireless connectivity to home or remote offices. Supports both the 2.4-GHz and 5-GHz radio frequency band simultaneously, allowing users to avoid congestion from home devices.
Simplified operations and management	 Extends real-time services such as voice, wireless, video, and data to remote locations that have no IT staff. Management is similar to that of the corporate <u>wireless LAN</u>, using the same infrastructure and devices (Cisco wireless controllers, Cisco Prime[™] Infrastructure, and Cisco Aironet access points). Cisco Unified Wireless IP Phones may be preconfigured or added in the future.
Robust security	 The Cisco Aironet 600 Series establishes a secure Datagram Transport Layer Security (DTLS) connection between the access point and the controller to offer remote WLAN connectivity, using the same profile as at the corporate office. Secure tunneling mitigates risks of viruses and attacks on the corporate network found in split-tunneling scenarios. Segmentation of home and corporate traffic maintains home-device connectivity without introducing security risks to corporate policy.
End-to-end voice services	 Supports <u>unified communications</u> for improved collaboration through messaging, presence, and conferencing. Supports all <u>Cisco Unified Wireless IP Phones</u> for cost-effective, real-time voice services.
Environmentally responsible	• Enables best practices for green initiatives by reducing commuting hours and emissions.

Product Specifications

Table 2 lists the product specifications for the Cisco Aironet 600 Series OfficeExtend Access Points.

Table 2. Product S	pecifications
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Item	Specification
Part numbers	Cisco Aironet 600 OfficeExtend Series Access Points
	AIR-OEAP602I-x-K9: Dual-band controller-based 802.11a/g/n
	• AIR-OEAP602I-xK910: Eco-pack (dual-band 802.11a/g/n) 10 quantity controller-based access points
	Regulatory domains: (x = regulatory domain)
	Customers are responsible for verifying approval for use in their individual countries. To verify approval and to identify the regulatory domain that corresponds to a particular country, visit http://www.cisco.com/go/aironet/compliance .
Software	Cisco Unified Wireless Network Software Release 7.0 MR1 or later
Controllers supported	 Cisco Virtual, 2500, 5500, 7500, and 8500 Series Wireless Controllers and Cisco Wireless Services Module 2 (WiSM2)
802.11n	Multiple-input multiple-output (MIMO) with two spatial streams
	Maximal ratio combining (MRC)
	• 20- and 40-MHz channels
	PHY data rates up to 300 Mbps ¹
	 Packet aggregation: A-MPDU (Tx/Rx)
	Cyclic shift diversity (CSD) support

¹ For encrypted corporate traffic, the maximum throughput supported is 10 Mbps.

Item	Specification					
Data rates supported	802.11a: 6, 9, 12, 18, 2	24, 36, 48, and 54 Mbps				
	802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps					
	802.11n data rates (2.4 GHz and 5 GHz):					
	MCS Index ²	$GI^{3} = 800 \text{ ns}$		GI = 400 ns		
	MCS IIIdex	20-MHz Rate (Mbps)	40-MHz Rate (Mbps)	20-MHz Rate (Mbps)	40-MHz Rate (Mbps)	
	0	6.5	13.5	7.2	15	
	1	13	27	14.4	30	
	2	19.5	40.5	21.7	45	
	3	26	54	28.9	60	
	4	39	81	43.3	90	
	5	52	108	57.8	120	
	6	58.5	121.5	65	135	
	7	65	135	72.2	150	
	8	13	27	14.4	30	
	9	26	54	28.9	60	
	10	39	81	43.3	90	
	11	52	108	57.8	120	
	12	78	162	86.7	180	
	13	104	216	115.6	240	
	14	117	243	130	270	
	15	130	270	144.4	300	
Frequency band and 20- MHz operating channels			N Regulatory Domain: • 2.412 to 2.462 GHz; 11 channels • 5.180 to 5.240 GHz; 4 channels • 5.745 to 5.825 GHz; 5 channels P Regulatory Domain: • 2.412 to 2.472 GHz; 13 channels • 5.180 to 5.240 GHz; 4 channels R Regulatory Domain: • 2.412 to 2.472 GHz; 13 channels • 5.180 to 5.240 GHz; 4 channels • 5.745 to 5.805 GHz; 4 channels S Regulatory Domain: • 2.412 to 2.472 GHz; 13 channels • 5.745 to 5.240 GHz; 4 channels • 5.180 to 5.240 GHz; 4 channels • 5.180 to 5.240 GHz; 5 channels • 5.745 to 5.825 GHz; 5 channels • 5.745 to 5.825 GHz; 5 channels • 2.412 to 2.462 GHz; 11 channels			
Note: This varias by requir	atony domain. Pofor to th	e product documentation f	• 5.745 to 5.825 GH			
	-	e product documentation for		regulatory domain.		
Maximum number of nonoverlapping channels	 2.4 GHz 802.11b/g: 20 MHz 802.11n: 20 MHz: 3 		5 GHz • 802.11a: 20 MHz: • 802.11n: 20 MHz:			
Note: This varias by regula		e product documentation for				

 ² MCS Index: The Modulation and Coding Scheme (MSC) index determines the number of spatial streams, the modulation, the coding rate, and data rate values.
 ³ GI: A Guard Interval (GI) between symbols helps receivers overcome the effects of multipath delays.

Item	Specification		
Receive sensitivity	2.4 GHz	5 GHz	
Receive Sensitivity	 802.11b: -87 dBm typical @ 11 Mbps 802.11g: -77 dBm typical @ 54 Mbps 802.11n 20 MHz: -71 dBm typical @ MCS15 802.11n 40 MHz: -68 dBm typical @ MCS15 	 802.11a: -74 dBm typical @ 54 Mbps 802.11n 20 MHz: -68 dBm typical @ MCS15 802.11n 40 MHz: -65 dBm typical @ MCS15 	
Maximum transmit power	 2.4 GHz 802.11b (CCK): 20 dBm with one antenna 802.11g: 20 dBm with 2 antennas 802.11n (HT20): 20 dBm with 2 antennas 802.11n (HT40): 20 dBm with 2 antennas 	 5 GHz 802.11a: 20 dBm with 2 antennas 802.11n (HT20): 20 dBm with 2 antennas 802.11n (HT40): 20 dBm with 2 antennas 	
Note: The maximum power specific details.	er setting will vary by channel and according to individ	dual country regulations. Refer to the product documentation for	
Integrated antenna	 2.4 GHz, gain 3.5 dBi, horizontal beamwidth 36 5 GHz, gain 4.0 dBi, horizontal beamwidth 360 		
Interfaces	 4x 10/100/1000BASE-T autosensing (RJ-45) 1x 10/100/1000BASE-T WAN port (RJ-45) USB (not used) 		
Indicators	Status LED indicates boot loader status, assoc	iation status, operating status, boot loader errors, port status	
Dimensions (W x L x H)	 Access point (without cradle): 7.75 x 7 x 1.6 in. (195.3 x 176.3 x 39.65 mm) Access point (with cradle): 8.1 x 7.0 x 2.7 in. (206.15 x 176.3 x 67 mm) 		
Weight	 0.99 lb (0.452 kg) without cradle 1.44 lb (0.653 kg) with cradle 		
Environmental	 Nonoperating (storage) temperature: -13° to +140 F (-25° to 60°C) Operating temperature: 32° to 104 F (0° to 40°C) Operating humidity: 10% to 80% relative humidity (noncondensing) 		
System memory	 64 MB DRAM 16 MB flash		
Power options	 Cisco AP600 local power supply: 100 to 240 VAC; 50 to 60 Hz (AIR-PWR-ADTR-cc, where cc is country code as follows: AP=Asia Pacific; AR=Argentina/Uruguay; AU=Australia; BR=Brazil; CE=Central Europe; CH=China; DM=Denmark; IS=Israel; IT=Italy; JP=Japan; NA=North America; SA=South Africa; SW=Switzerland; UK=United Kingdom) 		
Power draw	Consumption: 12W normal, 15W maximum		
Warranty	Limited Lifetime Hardware Warranty		
Compliance and safety standards	 Safety UL 60950-1, 2nd Edition CAN/CSA-C22.2 No. 60950-1, 2nd Edition IEC 60950-1, 2nd Edition EN 60950-1, 2nd Edition Radio Approvals FCC Part 15.247, 15.407 RSS-210 (Canada) EN 300 328, EN 301 893 (Europe) ARIB-STD 33 (Japan) ARIB-STD 66 (Japan) ARIB-STD 771 (Japan) AS/NZS 4268.2003 (Australia and New Zeal) EMI and susceptibility (Class B) FCC Part 15.107 and 15.109 ICES-003 (Canada) VCCI (Japan) EN 301 489-1 and -17 (Europe) 	and)	
	• IEEE Standard • IEEE 802.11a/b/g, IEEE 802.11n, IEEE 802.	11h, IEEE 802.11d	

ltem	Specification
	Security
	 802.11i, Wi-Fi Protected Access 2 (WPA2), WPA
	• 802.1X
	 Advanced Encryption Standard (AES), Temporal Key Integrity Protocol (TKIP)
	• EAP Type(s)
	 Extensible Authentication Protocol-Transport Layer Security (EAP-TLS)
	 EAP-Tunneled TLS (TTLS) or Microsoft Challenge Handshake Authentication Protocol Version 2 (MSCHAPv2)
	 Protected EAP (PEAP) v0 or EAP-MSCHAPv2
	 Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling (EAP-FAST)
	 PEAPv1 or EAP-Generic Token Card (GTC)
	 EAP-Subscriber Identity Module (SIM)
	Multimedia
	 Wi-Fi Multimedia (WMM)
	Other
	 FCC Bulletin OET-65C
	• RSS-102

Service and Support

Realize the full business value of your Cisco Unified Wireless Network more quickly with intelligent, personalized services from Cisco and our partners. Cisco Services offer proven wireless architectures aligned to your business goals and tightly integrated with media-rich, real-time mobility applications. With our breadth and depth of expertise, we support your success every step of the way as you deploy, manage, and scale integrated wireless solutions for optimized performance, security, and management. Sharing knowledge and leading practices, we can help you create a secure, mobile, and interactive business environment to provide a foundation for innovation, agility, and differentiation.

For More Information

For more information about the Cisco Aironet 600 Series OfficeExtend Access Points, visit <u>http://www.cisco.com/go/wireless</u> or contact your local account representative.



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