Cisco Aironet 340 Series Products

The Cisco Aironet 340 series of wireless LAN (WLAN) products provide a standards-based, field proven, high-speed wireless networking solution for both in-building and building-to-building WLAN applications. The Cisco Aironet 340 series products are easy to manage and deliver a complete solution to customers who require the mobility, flexibility, and freedom of a WLAN to complement or replace a wired LAN. The Cisco Aironet 340 Series utilizes direct sequence spread spectrum (DSSS) radio frequency technology.

- *PC Card, PCI or ISA* wireless adapters contain a radio transmitter/receiver that allows the PC to send and receive messages wirelessly.
- *The access point* functions similarly to a hub in a wired network, but adds wireless benefits like truly mobile computing through roaming.
- *Wireless bridges* can transmit a signal up to 25 miles, line of sight, allowing users to extend their LAN between buildings.

For more information on Cisco Aironet products access:

On CCO:
http://www.cisco.com/warp/public/cc/pd/witc/ao340ap/

For helpful information on wireless networking in general access:
The Wireless Ethernet Compatibility Association web site at: http://www.wi-fi.org

The Wireless LAN Association at: http://www.wlana.org

Frequently Asked Questions

Q. How fast is the 340 Series?
A. The 340 Series supports data rates up to 11 Mbps. Independent throughput test results vary, depending upon the test methodology used. Most recently, the 340 Series achieved an actual throughput of 5.92 Mbps as tested by PC Magazine. In PC Magazine's performance test, the Cisco Aironet products outperformed 3Com, Lucent, Compaq and Apple.

Q. How far can a wireless client communicate to an Access Point?
A. At 11 Mbps, client adapters have a range of 400 feet (120m) in open environments and 100 feet (30m) in typical office environments. At 1 Mbps, client adapter range can increase to 1500 feet (460m) in open environments and 300 feet (90m) in office environments.

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Q. How many users can a Cisco wireless access point support?

A. Theoretically, a Cisco access point can support up to 20,000 addresses for filtering wireless clients. With any shared network-wired or wireless-the number of simultaneous users, the bandwidth available and the applications being implemented determines the throughput and effectiveness of the network.

Cisco Aironet 340 Series wireless networks are comparable to shared 10 Mbps Ethernet LANs in the number of users supported. For a typical application, the number of users per segment that would be placed on a 10 Mbps wired segment could also be placed on an 11 Mbps wireless segment. Additional access points can be added to create additional network segments. For Cisco networks operating at lower data rates, there is less bandwidth available so slightly less wireless clients can be supported. In a typical business environment, a Cisco Access Point can support 25-50 clients.

Q. Is a wireless LAN secure?

A. Cisco products utilize spread spectrum technology, which was designed to be resistant to interference and unauthorized access. In addition, Cisco products require a service set identifier (SSID) code, and there are over 16 million values available to choose. No wireless client can access the network unless they have the SSID security code. Cisco also supports the Wired Equivalency Privacy (WEP) standard.

Q. What is Wired Equivalency Privacy (WEP)?

A. WEP is an optional IEEE 802.11 feature used to provide data encryption of wireless data packets.

As specified in the standard, WEP uses the RC4 algorithm with a 40-bit and 128-bit encryption. When WEP is enabled, each station (clients and Access Points) has a set of keys. The keys are used to encrypt the data before it is transmitted through the airwaves. If a station receives a packet that is encrypted, it can only correctly decrypt the packet if it has the correct key.

Cisco's WEP implementation is in the hardware, so there is minimal performance impact when WEP is used.
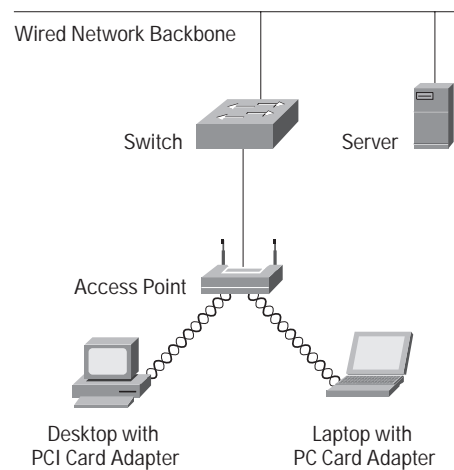
Table 1 Compare the Products

	Cisco Aironet Wireless 340 Series	Apple AirPort	Compaq WL100, WL400	Lucent Orinco Wireless Network	3Com AirConnect
Hardware					
Technology	**802.11b**	802.11b	802.11b	802.11b	802.11b
Chip Set	**Intersil/Prism II**	Lucent	Intersil	Lucent/Rev 0	Intersil
Data Rates (Mbps)	**1, 2, 5.5, 11**	1, 2, 5.5, 11	1, 2, 5.5, 11	1, 2, 5.5, 11	1, 2, 5.5, 11
Security					
Encryption	**40-bit/128-bit**	40-bit	40-bit/128-bit	64-bit/128-bit	None
Management					
Web-based Wireless Network	**Yes**	No	No	No	Yes
Supports SNMP	**Yes**	No	Yes	Yes	Yes
Access Point acts as DHCP Client	**Yes**	Yes	No	Yes	Yes
Power Requirements (mA)					
Transmit	**350**	350	185	285	490
Receive	**250**	300	185	185	220
Sleep	**10**	60	N/A	9	38
OS Drivers					
Windows 95/98/CE	**Yes/Yes/Yes**	No/No/No	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Windows NT 4.0 Workstation	**Yes**	No	Yes	Yes	Yes
Windows 2000 Professional Server	**Yes/Yes**	No/No	Yes/Yes	Yes/Yes	Yes/Yes
Linux	**Yes**	No	Yes	Yes	No
NetWare 4.x/5.x	**Yes/No**	No/No	No/No	Yes/Yes	Yes/Yes
DOS/Windows 3.x	**Yes/Yes**	No/No	No/No	No/Yes	No/No

N/A-Not applicable: This product does not have this feature.

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