

Cisco Aironet 350 Series Wireless Bridge



The Cisco Aironet® 350 Series Wireless Bridge enables high-speed long-range outdoor links between buildings and is ideal for installations subject to plenum rating and harsh environments. It is designed to meet the requirements of even the most challenging applications, with features including:

- High-speed (11-Mbps), high-power (100-mW) radios, delivering building-to-building links of up to 25 miles (40.2 km)
- A metal case for durability and plenum rating and an extended operating temperature rating for harsh environments
- Supports both point-to-point and point-to-multipoint configurations
- Broad range of supported antennas
- Simplified installation, improved performance, and upgradeable firmware, ensuring investment protection

Fixed Wireless Solution

Designed to connect two or more networks (typically located in different buildings), the Cisco Aironet 350 Series Wireless Bridge delivers high data rates and superior throughput for data-intensive, line-of-sight applications. The bridges connect hard-to-wire sites, noncontiguous floors, satellite offices, school or corporate campus settings, temporary networks, and warehouses. They can be configured for point-to-point or point-to-multipoint applications (see Figures 1 and 2) and allow multiple sites to share a single, high-speed connection to the Internet. For functional flexibility, the wireless bridge may also be configured as an access point.

The high-speed links between the wireless bridges deliver throughput several times faster than E1/T1 lines for a fraction of the cost—eliminating the need for expensive leased lines or difficult-to-install fiber-optic cable. Because bridges have no recurring charges, savings on leased-line services quickly pay for the initial hardware investment. Wireless bridges connect discrete sites into a single LAN, even when they are separated by obstacles such as freeways, railroads, and bodies of water that are practically insurmountable for copper and fiber-optic cable. Combining powerful 100-mW radios, industry-leading receive sensitivity, installation tools to assist in bridge placement, delay spread capabilities, and a broad array of directional and omnidirectional antennas, Cisco provides a complete solution for a wide variety of fixed wireless applications.



Figure 1 Point-to-Point Wireless Bridge Solution

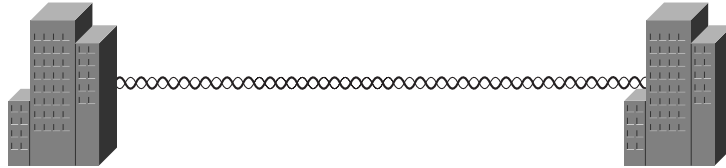
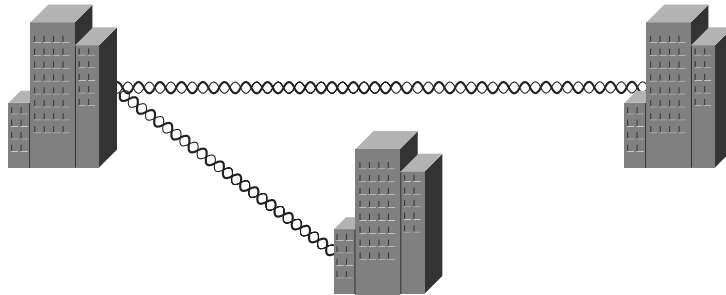


Figure 2 Point-to-Multipoint Wireless Bridge Solution



A Rugged Design

The Cisco Aironet 350 Series Wireless Bridge features an extended operating temperature range of -20 to 55 C, allowing for placement outdoors in a NEMA enclosure or in harsh indoor environments such as warehouses and factories. With a durable metal case, the Cisco Aironet 350 Series Wireless Bridge is UL 2043 certified, and designed to achieve plenum rating as defined by various municipal fire codes.

Simplified Installation and Optimized Performance

The Cisco Aironet 350 Series Wireless Bridge supports a variety of features designed to simplify installation and improve performance. Like Cisco Aironet 350 Series Access Points, Cisco Aironet 350 Series Wireless Bridges obtain their operating power over the Ethernet cable, eliminating the need to run AC power to what are often remotely located wireless devices. (See Figures 3 through 5.)



Figure 3 The Cisco Aironet 350 Wireless Bridge may obtain power from the Catalyst 3524-PWR-XL Switch

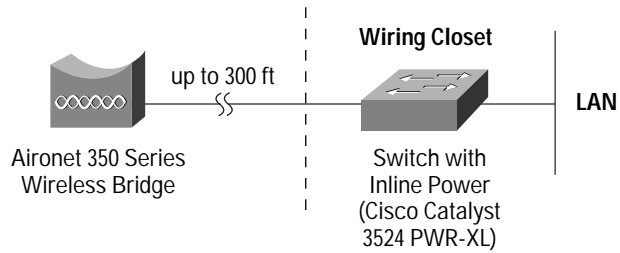


Figure 4 A Cisco Catalyst Inline Power Patch Panel may be used to power the Cisco Aironet 350 Series Wireless Bridge

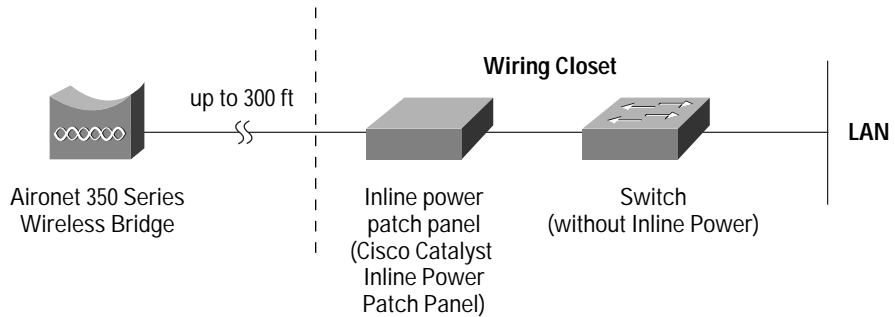
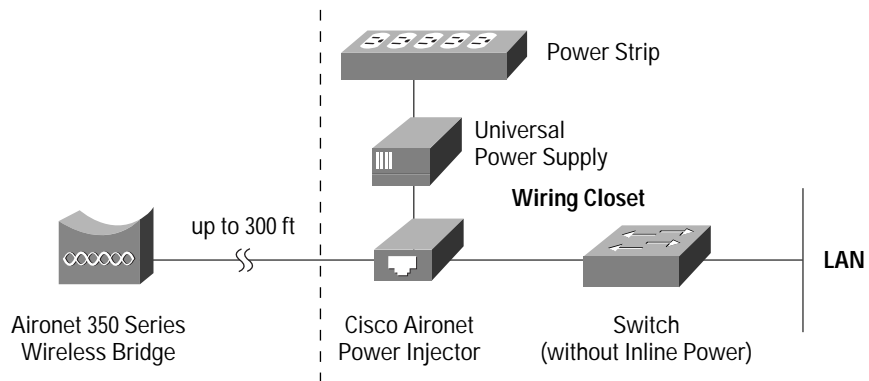


Figure 5 Cisco also offers a power injector to power the Cisco Aironet 350 Series Wireless Bridge



To provide flexibility during installation and configuration, the Cisco Aironet 350 Series Wireless Bridge may be accessed either over the LAN connection or via a console port. The frequency agility option on the Cisco Aironet 350 Series enables the bridges to select the clearest transmission channel, avoiding noise and

interference. Frequency agility simplifies installation and, by intelligently avoiding interference and selecting the best transmission channel, maximizes throughput.



Investment Protection

Cisco will continue to add features, functionality, and enhancements to its bridge firmware. To protect user investment, Cisco Aironet 350 Series Wireless Bridges feature enough storage to handle future firmware upgrades.

Data Rates Supported	1, 2, 5.5, and 11 Mbps
Network Standard (in AP mode)	IEEE 802.11b
Uplink	10/100BaseT Ethernet
Frequency Band	2.4 to 2.497 GHz
Wireless Medium	Direct Sequence Spread Spectrum (DSSS)
Media Access Protocol	Carrier sense multiple access with collision avoidance (CSMA/CA)
Modulation	DBPSK @ 1 Mbps DQPSK @ 2 Mbps CCK @ 5.5 and 11 Mbps
Operating Channels	North America: 11 ETSI: 13 Japan: 14
Nonoverlapping Channels	Three
Receive Sensitivity	1 Mbps: -94 dBm 2 Mbps: -91 dBm 5.5 Mbps: -89 dBm 11 Mbps: -85 dBm
Delay Spread	1 Mbps: 500 ns 2 Mbps: 400 ns 5.5 Mbps: 300 ns 11 Mbps: 140 ns
Available Transmit Power Settings	100 mW (20 dBm) 50 mW (17 dBm) 30 mW (15 dBm) 20 mW (13 dBm) 5 mW (7 dBm) 1 mW 0 dBm
Range (typical, contingent upon antenna type selected)	18 miles (28.9 km) @ 11 Mbps Up to 25 miles (40.2 km) @ 2 Mbps
Compliance	Operates license free under FCC Part 15 and complies as a Class B Device; complies with DOC regulations; ¹ complies with ETS 300.328, FTZ 2100, and MPT 1349 standards; complies with UL 2043
SNMP Compliance	MIB I and MIB II
Antenna	Two RP-TNC connectors (antennas optional, none supplied with unit)
Encryption Key Length	128-bit
Security	128-bit WEP in bridge mode IEEE 802.1x (proposal includes EAP and RADIUS) in AP mode

¹The use of this device in a system operating either partially or completely outdoors may require the user to obtain a license for the system according to the Canadian regulations. For further information, contact your local Industry Canada office.

Status Indicators	Three indicators on the top panel provide information concerning association status, operation, error/warning, firmware upgrade, and configuration, network/modem, and radio status
Automatic Configuration Support	BOOTP and DHCP
Remote Configuration Support	Telnet, HTTP, FTP, TFTP, and SNMP
Local Configuration	Direct console port (with supplied serial cable)
Bridging Protocol	Spanning Tree
Dimensions	6.74 in. (17.1 cm) wide x 6.25 in. (15.9 cm) deep x 1.31 in. (3.3 cm) high
Weight	1.43 lbs (.648 kg)
Environmental	Temperature: -4 to 131 F (-20 to 55 C) 10 to 90% (noncondensing)
Enclosure	Metal case (for plenum rating); UL 2043 certified
Input Power Requirements	24VDC +/- 10% to 60 VDC (Ethernet line power)
Warranty	One year



Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters
Cisco Systems Europe
11 Rue Camille Desmoulins
92782 Issy-les-Moulineaux
Cedex 9
France
www-europe.cisco.com
Tel: 33 1 58 04 60 00
Fax: 33 1 58 04 61 00

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 317 7777
Fax: +65 317 7799

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