



Release Notes for 1100 Series Access Points for Cisco IOS Release 12.2(8)JA

February 18, 2003

These release notes describe features, enhancements, and caveats for Cisco IOS Release 12.2(8)JA. They also provide important information about 1100 series access points.

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Introduction

The Cisco Aironet Access Point is a wireless LAN transceiver that acts as the connection point between wireless and wired networks or as the center point of a standalone wireless network. In large installations, the roaming functionality provided by multiple access points enables wireless users to move freely throughout the facility while maintaining uninterrupted access to the network.

You can configure and monitor 1100 series access points using the command-line interface (CLI), the browser-based management system, or Simple Network Management Protocol (SNMP).

System Requirements

You must have an 1100 series access point to install Cisco IOS Release 12.2(8)JA.

**Note**

Cisco Aironet 340 and 350 Series Access Points and 1200 series access points that currently run firmware version 12.01T or earlier do not support IOS. Do not attempt to load an IOS image on an access point that does not run IOS.

Determining the Software Version


To determine the version of IOS running on your access point, use a Telnet session to log into the access point and enter the **show version** EXEC command. This example shows command output from an access point running Cisco IOS Release 12.2(8)JA:

```
ap1100>show version
Cisco Internetwork Operating System Software
IOS (tm) C1100 Software (C1100-K9W7-M), Version 12.2(8)JA
Copyright (c) 1986-2003 by Cisco Systems, Inc.
```

On access points running IOS, you can also find the software version on the System Software Version page in the access point's web-browser interface.

If your access point does not run IOS, the software version appears at the top left of most pages in the web-browser interface. The home page on access points not running IOS looks like the page in [Figure 1](#).

Figure 1 Home Page on Access Points not Running Cisco IOS

Nwc-Lab5b-Bucki2 **Summary Status** 

Cisco 1200 Series AP 12.00T

Home Map Network Associations Setup Logs Help Uptime: 11 days, 20:21:48

Current Associations				
Clients: 0 of 3	Repeaters: 0 of 0	Bridges: 0 of 0	APs: 4	

Recent Events		
Time	Severity	Description
7 days, 00:18:17	Info	Deauthenticating 00070eb96eb6, reason "Inactivity"
6 days, 23:51:37	Info	Station 00070eb96eb6 Associated
6 days, 23:51:37	Info	Station 00070eb96eb6 Authenticated
6 days, 23:50:32	Info	Deauthenticating 0040963398c9, reason "Inactivity"
6 days, 23:41:07	Info	Station 0040963398c9 Associated

Network Ports				Diagnostics	
Device	Status	Mb/s	IP Addr.	MAC Addr.	
Ethernet	Up	100.0	192.168.138.15	00059a3842c5	
AP Radio: Internal	Up	11.0	192.168.138.15	00059a3842c5	
AP Radio: Module	Up	54.0	192.168.138.15	00059a3842c5	

00023

Upgrading to a New Software Release

For instructions on installing access point software:

- Follow this link to the Cisco Aironet documentation home page:
<http://www.cisco.com/univercd/cc/td/doc/product/wireless/index.htm>
- Follow this path to the product, document, and chapter:
Aironet 1100 Series Wireless LAN Products > Cisco Aironet 1100 Series Access Points > Aironet 1100 Series Access Points, Cisco IOS Release 12.2(8)JA > Cisco Aironet 1100 Series Access Point Installation and Configuration Guide > Managing Firmware and Configurations > Working with Software Images
- Click this link to browse to the Cisco IOS Software Center on Cisco.com:
<http://www.cisco.com/public/sw-center/sw-ios.shtml>

Log into Cisco.com to use the Feature Navigator or the Cisco IOS Upgrade Planner, or click **Wireless Software** to go to the Wireless LAN Software page.

New Features

This section lists new features in Cisco IOS Release 12.2(8)JA.

Support for TACACS+

Cisco IOS Release 12.2(8)JA supports TACACS+. TACACS+ provides detailed accounting information and flexible administrative control over authentication and authorization processes. It provides secure, centralized validation of administrators attempting to gain access to your access point.

Support for 1200 Series Access Points

Cisco IOS Release 12.2(8)JA can be loaded on 1200 series access points that are configured at the factory for IOS.

Installation Notes

This section contains information you should keep in mind when installing 1100 series access points.

Installation in Environmental Air Space

This section provides information on installing 1100 series access points in environmental air space, such as above suspended ceilings.

Cisco Aironet 1100 Series Access Points provide adequate fire resistance and low smoke-producing characteristics suitable for operation in a building's environmental air space, such as above suspended ceilings, in accordance with Section 300-22(C) of the *National Electrical Code* (NEC) and Sections 2-128, 12-010(3) and 12-100 of the *Canadian Electrical Code*, Part 1, C22.1.



Caution

The power injector is not intended for use in extremely high or low temperatures or in environmental air spaces, such as above suspended ceilings.

Power Considerations

This section describes issues you should consider before applying power to an access point.



Caution

The operational voltage range for 1100 series access points is 24 to 60 VDC, and the nominal voltage is 48 VDC. Voltage higher than 60 VDC can damage the equipment.



Caution

Cisco Aironet power injectors are designed for use with Cisco Aironet access points and bridges only. *Do not use the power injector with any other Ethernet-ready device.* Using the power injector with other Ethernet-ready devices can damage the equipment.

Important Notes

This section describes important information about the access point.

Radio MAC Address Appears in ACU

When a Cisco Aironet client device associates to an 1100 or 1200 series access point running IOS, the access point MAC address that appears on the Status page in the Aironet Client Utility (ACU) is the MAC address for the access point radio. The MAC address for the access point Ethernet port is printed on the label on the back of the access point.

Radio MAC Address Appears in Access Point Event Log

When a client device roams from an access point (such as access point alpha) to another access point (access point bravo), a message appears in the event log on access point alpha stating that the client roamed to access point bravo. The MAC address that appears in the event message is the MAC address for the radio in access point bravo instead of the Ethernet port in access point bravo.

Mask Field on IP Filters Page Behaves the Same as in CLI

In Cisco IOS Release 12.2(8)JA, the mask that you enter in the Mask field on the IP Filters page in the access point GUI behaves the same way that a mask behaves when you enter it in the CLI. If you enter 255.255.255.255 as the mask, the access point accepts any IP address. If you enter 0.0.0.0, the access point looks for an exact match with the IP address that you entered in the IP Address field.

Caveats

This section lists open and resolved caveats for 1100 series access points running Cisco IOS Release 12.2(8)JA.

Open Caveats

These caveats are open in Cisco IOS Release 12.2(8)JA:

- CSCea04097—If you remove a RADIUS server from the access point configuration while a device is attempting to authenticate to the server through the access point, the access point sometimes reboots. Workaround: Make sure no devices are attempting to authenticate through the access point before you change or remove a RADIUS server from the access point configuration.
- CSCea04766—You cannot perform a link test from the access point to a client device that is associated on a VLAN other than the native VLAN.
- CSCea14120—SSH is not enabled when you select **Enabled** on the Telnet/SSH page in the GUI. Workaround: Use the CLI to enable SSH. Click this URL to browse to complete instructions for enabling SSH in Cisco IOS:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1835/products_configuration_guide_chapter09186a00800ca7d5.html

- CSCea14429—When the access point is in repeater mode, you cannot use the GUI to disable authentication modes for the repeater radio. Workaround: Use the CLI to disable authentication types for the repeater radio, or use the GUI to change the radio role back to root, disable the authentication types, and then set the role back to repeater.
- CSCea20050—When you upgrade the access point software with the radio off, the access point sometimes resets several times following the upgrade. After several resets, the access point recovers and operates normally. Workaround: Make sure the access point radio is on before you upgrade the access point software.
- CSCdz35651—When you enter the **debug all** command in the CLI, the access point sometimes reboots.
- CSCdz41787—The access point GUI does not work with Netscape Navigator version 6.0. The access point web-browser interface is fully compatible with Netscape Navigator, version 4.x, and Microsoft Internet Explorer, version 5.x or later.
- CSCdz44075—The status LED on top of the access point does not turn red to indicate that the access point is undergoing a firmware upgrade.
- CSCdz45435—Access point loses synchronization with the NTP server. If NTP is enabled, the access point is able to synchronize its time with the time server. However, after 15 minutes the access point time is no longer synchronized and will not synchronize again until the access point is rebooted or NTP is disabled and re-enabled. When the time is unsynchronized, the pages in the access point web-browser interface display access point uptime instead of clock time.
- CSCdz51009—Firmware upgrade fails when you use Microsoft Internet Explorer version 5.01 SP2 to upgrade firmware using the HTTP Upgrade page in the GUI. Workaround: Use a later version of Microsoft Internet Explorer to perform HTTP firmware upgrades.
- CSCdz65877—When a workgroup bridge or a repeater access point with MIC and CDP enabled associates to your access point using a non-native VLAN, your access point displays this message:

```
ap: Critical Memory allocation of 760 bytes failed from 0xA4B54
```

Workaround: Disable MIC or CDP on workgroup bridges or repeaters that are associated to your access point on non-native VLANs.
- CSCdz76044—The Network Map page in the access point GUI incorrectly lists 1230 series access points as client devices rather than as access points.
- CSCdz76076—The Refresh button on the Network Map page in the access point GUI does not refresh the page. Workaround: Use the refresh button on your browser to refresh the Network Map page.
- CSCdz80894—The statistics counters for unicast packets received over the radio interfaces on the Network Interfaces page always indicate 0 regardless of the number of packets received.
- CSCdz84002—When you attempt to load an unsupported file format for the New Startup Configuration File in the access point GUI, the access point sometimes loses its bridge virtual interface (BVI). Workaround: Press and hold the MODE button on the back of the access point to reload the configuration.
- CSCdz88122—If the parent of a repeater access point shuts down, the repeater does not roam to another parent access point until the repeater reboots.
- CSCdz89120—The Use Daylight Savings Time button on the Services: NTP page does not adjust the access point clock to Daylight Saving Time.

Resolved Caveats

No caveats are resolved in Cisco IOS Release 12.2(8)JA.

Troubleshooting

For the most up-to-date, detailed troubleshooting information, refer to the Cisco TAC website at <http://www.cisco.com/tac>. Select **Wireless LAN** under Top Issues.

Related Documentation

This section lists documents related to Cisco IOS Release 12.2(4)JA and to 1100 series access points.

Platform-Specific Documents

These documents describe installation and configuration of 1100 and 1200 series access points:

- *Quick Start Guide: Cisco Aironet 1100 Series Access Points*
- *Cisco Aironet 1100 Series Access Point Installation and Configuration Guide*
- *Cisco Aironet 1100 Series Access Point Command Reference*
- *Quick Start Guide: Cisco Aironet 1200 Series Access Points*
- *Cisco Aironet 1200 Series Access Point Installation and Configuration Guide*
- *Cisco Aironet 1200 Series Access Point Command Reference*
- *Installation Instructions for Cisco Aironet Power Injectors*

Cisco IOS Software Documentation Set

[Table 1](#) lists the contents of the Cisco IOS Release 12.2 software documentation set. These documents are available in electronic form, and you can order them in printed form.

You can find the most current Cisco IOS documentation on Cisco.com. Follow this link path to find the documentation for Cisco IOS Release 12.2:

Technical Documents: Documentation Home Page: Cisco IOS Software Configuration: Cisco IOS Release 12.2

Table 1 Cisco IOS Release 12.2 Documentation Set

Books	Major Topics
<ul style="list-style-type: none"> • <i>Cisco IOS Configuration Fundamentals Configuration Guide</i> • <i>Cisco IOS Configuration Fundamentals Command Reference</i> 	<p>Cisco IOS User Interfaces File Management System Management</p>
<ul style="list-style-type: none"> • <i>Cisco IOS Bridging and IBM Networking Configuration Guide</i> • <i>Cisco IOS Bridging and IBM Networking Command Reference, Volume 1 of 2</i> • <i>Cisco IOS Bridging and IBM Networking Command Reference, Volume 2 of 2</i> 	<p>Transparent Bridging SRB Token Ring Inter-Switch Link Token Ring Route Switch Module RSRB DLSW+ Serial Tunnel and Block Serial Tunnel LLC2 and SDLC IBM Network Media Translation SNA Frame Relay Access NCIA Client/Server Airline Product Set DSPU and SNA Service Point SNA Switching Services Cisco Transaction Connection Cisco Mainframe Channel Connection CLAW and TCP/IP Offload CSNA, CMPC, and CMPC+ TN3270 Server</p>
<ul style="list-style-type: none"> • <i>Cisco IOS Dial Technologies Configuration Guide: Dial Access</i> • <i>Cisco IOS Dial Technologies Configuration Guide: Large-Scale Dial Applications</i> • <i>Cisco IOS Dial Technologies Command Reference, Volume 1 of 2</i> • <i>Cisco IOS Dial Technologies Command Reference, Volume 2 of 2</i> 	<p>Dial Access Modem and Dial Shelf Configuration and Management ISDN Configuration Signaling Configuration Point-to-Point Protocols Dial-on-Demand Routing Dial Backup Dial Related Addressing Service Network Access Solutions Large-Scale Dial Solutions Cost-Control Solutions Internetworking Dial Access Scenarios</p>
<ul style="list-style-type: none"> • <i>Cisco IOS Interface Configuration Guide</i> • <i>Cisco IOS Interface Command Reference</i> 	<p>LAN Interfaces Serial Interfaces Logical Interfaces</p>
<ul style="list-style-type: none"> • <i>Cisco IOS IP Configuration Guide</i> • <i>Cisco IOS IP Command Reference, Volume 1 of 3: Addressing and Services</i> • <i>Cisco IOS IP Command Reference, Volume 2 of 3: Routing Protocols</i> • <i>Cisco IOS IP Command Reference, Volume 3 of 3: Multicast</i> 	<p>IP Addressing IP Services IP Routing Protocols IP Multicast</p>

Table 1 Cisco IOS Release 12.2 Documentation Set (continued)

Books	Major Topics
<ul style="list-style-type: none"> • <i>Cisco IOS AppleTalk and Novell IPX Configuration Guide</i> • <i>Cisco IOS AppleTalk and Novell IPX Command Reference</i> 	AppleTalk Novell IPX
<ul style="list-style-type: none"> • <i>Cisco IOS Apollo Domain, Banyan VINES, DECnet, ISO CLNS, and XNS Configuration Guide</i> • <i>Cisco IOS Apollo Domain, Banyan VINES, DECnet, ISO CLNS, and XNS Command Reference</i> 	Apollo Domain Banyan VINES DECnet ISO CLNS XNS
<ul style="list-style-type: none"> • <i>Cisco IOS Voice, Video, and Fax Configuration Guide</i> • <i>Cisco IOS Voice, Video, and Fax Command Reference</i> 	Voice over IP Call Control Signaling Voice over Frame Relay Voice over ATM Telephony Applications Trunk Management Fax, Video, and Modem Support
<ul style="list-style-type: none"> • <i>Cisco IOS Quality of Service Solutions Configuration Guide</i> • <i>Cisco IOS Quality of Service Solutions Command Reference</i> 	Packet Classification Congestion Management Congestion Avoidance Policing and Shaping Signaling Link Efficiency Mechanisms
<ul style="list-style-type: none"> • <i>Cisco IOS Security Configuration Guide</i> • <i>Cisco IOS Security Command Reference</i> 	AAA Security Services Security Server Protocols Traffic Filtering and Firewalls IP Security and Encryption Passwords and Privileges Neighbor Router Authentication IP Security Options Supported AV Pairs
<ul style="list-style-type: none"> • <i>Cisco IOS Switching Services Configuration Guide</i> • <i>Cisco IOS Switching Services Command Reference</i> 	Cisco IOS Switching Paths NetFlow Switching Multiprotocol Label Switching Multilayer Switching Multicast Distributed Switching Virtual LANs LAN Emulation
<ul style="list-style-type: none"> • <i>Cisco IOS Wide-Area Networking Configuration Guide</i> • <i>Cisco IOS Wide-Area Networking Command Reference</i> 	ATM Frame Relay SMDS X.25 and LAPB

Table 1 Cisco IOS Release 12.2 Documentation Set (continued)

Books	Major Topics
<ul style="list-style-type: none"> • <i>Cisco IOS Mobile Wireless Configuration Guide</i> • <i>Cisco IOS Mobile Wireless Command Reference</i> 	General Packet Radio Service
<ul style="list-style-type: none"> • <i>Cisco IOS Terminal Services Configuration Guide</i> • <i>Cisco IOS Terminal Services Command Reference</i> 	ARA LAT NASI Telnet TN3270 XRemote X.28 PAD Protocol Translation
<ul style="list-style-type: none"> • <i>Cisco IOS Configuration Guide Master Index</i> • <i>Cisco IOS Command Reference Master Index</i> • <i>Cisco IOS Debug Command Reference</i> • <i>Cisco IOS Software System Error Messages</i> • <i>New Features in 12.2-Based Limited Lifetime Releases</i> • <i>New Features in Release 12.2 T</i> • Release Notes (Release note and caveat documentation for 12.2-based releases and various platforms) 	

Obtaining Documentation

These sections explain how to obtain documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com>

Translated documentation is available at this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

Ordering Documentation

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products Marketplace:
http://www.cisco.com/cgi-bin/order/order_root.pl
- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:
<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit comments electronically on Cisco.com. In the Cisco Documentation home page, click the **Fax** or **Email** option in the “Leave Feedback” section at the bottom of the page.

You can e-mail your comments to bug-doc@cisco.com.

You can submit your comments by mail by using the response card behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Document Resource Connection
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web Site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web Site.

Cisco.com

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com is a highly integrated Internet application and a powerful, easy-to-use tool that provides a broad range of features and services to help you with these tasks:

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages

- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

If you want to obtain customized information and service, you can self-register on Cisco.com. To access Cisco.com, go to this URL:

<http://www.cisco.com>

Technical Assistance Center

The Cisco Technical Assistance Center (TAC) is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two levels of support are available: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Cisco TAC inquiries are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

The Cisco TAC resource that you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

Cisco TAC Web Site

You can use the Cisco TAC Web Site to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to this URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

<http://www.cisco.com/register/>

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC Web Site, you can open a case online by using the TAC Case Open tool at this URL:

<http://www.cisco.com/tac/caseopen>

If you have Internet access, we recommend that you open P3 and P4 cases through the Cisco TAC Web Site.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section.



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