



Preface

Audience

This guide is for the networking professional who installs and manages Cisco Aironet Access Points. To use this guide, you should have experience working with the Cisco IOS software and be familiar with the concepts and terminology of wireless local area networks.

The guide covers two Cisco IOS releases: 12.4(10b)JA and 12.3(8)JEC. Cisco IOS Release 12.4(10b)JA supports the following autonomous 32 Mb platforms:

- 1130 series access point
- 1240 series access point
- 1250 series access point
- 1300 outdoor access point/bridge

Cisco IOS Release 12.3(8)JEC is a maintenance release and supports the following autonomous 16 Mb platforms:

- 1100 series access point
- 1200 series access point
- 1230 series access point



Note

This guide does not cover lightweight access points. Configuration for these devices can be found in the appropriate installation and configuration guides on cisco.com.

Purpose

This guide provides the information you need to install and configure your access point. This guide provides procedures for using the Cisco IOS software commands that have been created or changed for use with the access point. It does not provide detailed information about these commands. For detailed information about these commands, refer to the *Cisco IOS Command Reference for Cisco Aironet Access Points and Bridges* for this release. For information about the standard Cisco IOS software commands, refer to the Cisco IOS software documentation set available from the Cisco.com home page at **Support > Documentation**. On the Cisco Support Documentation home page, select **Release 12.4** from the Cisco IOS Software drop-down list. Select **wireless** in the left frame to view the Wireless Support Resources page, then navigate to the access point or bridge for you are using.

This guide also includes an overview of the access point web-based interface (APWI), which contains all the functionality of the command-line interface (CLI). This guide does not provide field-level descriptions of the APWI windows nor does it provide the procedures for configuring the access point from the APWI. For all APWI window descriptions and procedures, refer to the access point online help, which is available from the Help buttons on the APWI pages.

Organization

This guide is organized into these chapters:

[Chapter 1, “Overview,”](#) lists the software and hardware features of the access point and describes the access point’s role in your network.

[Chapter 2, “Using the Web-Browser Interface,”](#) describes how to use the web-browser interface to configure the access point.

[Chapter 3, “Using the Command-Line Interface,”](#) describes how to use the command-line interface (CLI) to configure the access point.

[Chapter 4, “Configuring the Access Point for the First Time,”](#) describes how to configure basic settings on a new access point.

[Chapter 5, “Administering the Access Point,”](#) describes how to perform one-time operations to administer your access point, such as preventing unauthorized access to the access point, setting the system date and time, and setting the system name and prompt.

[Chapter 6, “Configuring Radio Settings,”](#) describes how to configure settings for the access point radio such as the role in the radio network, transmit power, channel settings, and others.

[Chapter 7, “Configuring Multiple SSIDs,”](#) describes how to configure and manage multiple service set identifiers (SSIDs) and multiple basic SSIDs (BSSIDs) on your access point. You can configure up to 16 SSIDs and up to eight BSSIDs on your access point.

[Chapter 8, “Configuring Spanning Tree Protocol,”](#) describes how to configure Spanning Tree Protocol (STP) on your access point, bridge, or access point operating in a bridge mode. STP prevents bridge loops from occurring in your network.

[Chapter 9, “Configuring an Access Point as a Local Authenticator,”](#) describes how to configure the access point to act as a local RADIUS server for your wireless LAN. If the WAN connection to your main RADIUS server fails, the access point acts as a backup server to authenticate wireless devices.

[Chapter 10, “Configuring Cipher Suites and WEP,”](#) describes how to configure the cipher suites required to use authenticated key management, Wired Equivalent Privacy (WEP), and WEP features including MIC, CMIC, TKIP, CKIP, and broadcast key rotation.

[Chapter 11, “Configuring Authentication Types,”](#) describes how to configure authentication types on the access point. Client devices use these authentication methods to join your network.

[Chapter 12, “Configuring WDS, Fast Secure Roaming, Radio Management, and Wireless Intrusion Detection Services,”](#) describes how to configure the access point to participate in WDS, to allow fast reassociation of roaming client services, and to participate in radio management.

[Chapter 13, “Configuring RADIUS and TACACS+ Servers,”](#) describes how to enable and configure the RADIUS and Terminal Access Controller Access Control System Plus (TACACS+), which provide detailed accounting information and flexible administrative control over authentication and authorization processes.

[Chapter 14, “Configuring VLANs,”](#) describes how to configure your access point to interoperate with the VLANs set up on your wired LAN.

[Chapter 15, “Configuring QoS,”](#) describes how to configure and manage MAC address, IP, and EtherType filters on the access point using the web-browser interface.

[Chapter 16, “Configuring Filters,”](#) describes how to configure and manage MAC address, IP, and EtherType filters on the access point using the web-browser interface.

[Chapter 17, “Configuring CDP,”](#) describes how to configure Cisco Discovery Protocol (CDP) on your access point. CDP is a device-discovery protocol that runs on all Cisco network equipment.

[Chapter 18, “Configuring SNMP,”](#) describes how to configure the Simple Network Management Protocol (SNMP) on your access point.

[Chapter 19, “Configuring Repeater and Standby Access Points and Workgroup Bridge Mode,”](#) describes how to configure your access point as a hot standby unit or as a repeater unit.

[Chapter 20, “Managing Firmware and Configurations,”](#) describes how to manipulate the Flash file system, how to copy configuration files, and how to archive (upload and download) software images.

[Chapter 21, “Configuring System Message Logging,”](#) describes how to configure system message logging on your access point.

[Chapter 22, “Troubleshooting,”](#) provides troubleshooting procedures for basic problems with the access point.

[Appendix A, “Protocol Filters,”](#) lists some of the protocols that you can filter on the access point.

[Appendix B, “Supported MIBs,”](#) lists the Simple Network Management Protocol (SNMP) Management Information Bases (MIBs) that the access point supports for this software release.

[Appendix C, “Error and Event Messages,”](#) lists the CLI error and event messages and provides an explanation and recommended action for each message.

Conventions

This publication uses these conventions to convey instructions and information:

Command descriptions use these conventions:

- Commands and keywords are in boldface text.
- Arguments for which you supply values are in italic.
- Square brackets ([]) mean optional elements.
- Braces ({ }) group required choices, and vertical bars (|) separate the alternative elements.
- Braces and vertical bars within square brackets ([{ | }]) mean a required choice within an optional element.

Interactive examples use these conventions:

- Terminal sessions and system displays are in screen font.
- Information you enter is in **boldface screen** font.
- Nonprinting characters, such as passwords or tabs, are in angle brackets (< >).

Notes, cautions, and timesavers use these conventions and symbols:



Tip

Means the following will help you solve a problem. The tips information might not be troubleshooting or even an action, but could be useful information.

**Note**

Means reader take note. Notes contain helpful suggestions or references to materials not contained in this manual.

**Caution**

Means reader be careful. In this situation, you might do something that could result equipment damage or loss of data.

**Warning**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. (To see translations of the warnings that appear in this publication, refer to the appendix "Translated Safety Warnings.")

Waarschuwing

Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van standaard maatregelen om ongelukken te voorkomen. (Voor vertalingen van de waarschuwingen die in deze publicatie verschijnen, kunt u het aanhangsel "Translated Safety Warnings" (Vertalingen van veiligheidsvoorschriften) raadplegen.)

Varoitus

Tämä varoitusmerkki merkitsee vaaraa. Olet tilanteessa, joka voi johtaa ruumiinvammaan. Ennen kuin työskentelet minkään laitteiston parissa, ota selvää sähkökytkentöihin liittyvistä vaaroista ja tavanomaisista onnettomuuksien ehkäisykeinoista. (Tässä julkaisussa esiintyvien varoitusten käännökset löydät liitteestä "Translated Safety Warnings" (käännetyt turvallisuutta koskevat varoitukset).)

Attention

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures. Avant d'accéder à cet équipement, soyez conscient des dangers posés par les circuits électriques et familiarisez-vous avec les procédures courantes de prévention des accidents. Pour obtenir les traductions des mises en garde figurant dans cette publication, veuillez consulter l'annexe intitulée « Translated Safety Warnings » (Traduction des avis de sécurité).

Warnung

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu einer Körperverletzung führen könnte. Bevor Sie mit der Arbeit an irgendeinem Gerät beginnen, seien Sie sich der mit elektrischen Stromkreisen verbundenen Gefahren und der Standardpraktiken zur Vermeidung von Unfällen bewußt. (Übersetzungen der in dieser Veröffentlichung enthaltenen Warnhinweise finden Sie im Anhang mit dem Titel "Translated Safety Warnings" (Übersetzung der Warnhinweise).)

Avvertenza

Questo simbolo di avvertenza indica un pericolo. Si è in una situazione che può causare infortuni. Prima di lavorare su qualsiasi apparecchiatura, occorre conoscere i pericoli relativi ai circuiti elettrici ed essere al corrente delle pratiche standard per la prevenzione di incidenti. La traduzione delle avvertenze riportate in questa pubblicazione si trova nell'appendice, "Translated Safety Warnings" (Traduzione delle avvertenze di sicurezza).

Advarsel	Dette varselsymbolet betyr fare. Du befinner deg i en situasjon som kan føre til personskade. Før du utfører arbeid på utstyr, må du være oppmerksom på de faremomentene som elektriske kretser innebærer, samt gjøre deg kjent med vanlig praksis når det gjelder å unngå ulykker. (Hvis du vil se oversettelser av de advarslene som finnes i denne publikasjonen, kan du se i vedlegget "Translated Safety Warnings" [Oversatte sikkerhetsadvarsler].)
Aviso	Este símbolo de aviso indica perigo. Encontra-se numa situação que lhe poderá causar danos físicos. Antes de começar a trabalhar com qualquer equipamento, familiarize-se com os perigos relacionados com circuitos eléctricos, e com quaisquer práticas comuns que possam prevenir possíveis acidentes. (Para ver as traduções dos avisos que constam desta publicação, consulte o apêndice "Translated Safety Warnings" - "Traduções dos Avisos de Segurança").
¡Advertencia!	Este símbolo de aviso significa peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considerar los riesgos que entraña la corriente eléctrica y familiarizarse con los procedimientos estándar de prevención de accidentes. (Para ver traducciones de las advertencias que aparecen en esta publicación, consultar el apéndice titulado "Translated Safety Warnings.")
Varning!	Denna varningssymbol signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanligt förfarande för att förebygga skador. (Se förklaringar av de varningar som förekommer i denna publikation i appendix "Translated Safety Warnings" [Översatta säkerhetsvarningar].)

Related Publications

These documents provide complete information about the access point:

- *Quick Start Guide: Cisco Aironet 1100 Series Access Points*
- *Quick Start Guide: Cisco Aironet 1130AG Series Access Point*
- *Quick Start Guide: Cisco Aironet 1200 Series Access Points*
- *Quick Start Guide: Cisco Aironet 1240 Series Access Point*
- *Quick Start Guide: Cisco Aironet 1250 Series Access Point*
- *Quick Start Guide: Cisco Aironet 1300 Series Outdoor Access Point/Bridge*
- *Cisco IOS Command Reference for Cisco Aironet Access Points and Bridges*
- *Cisco Aironet Access Point Hardware Installation Guide*
- *Installation Instructions for Cisco Aironet Power Injectors*
- *Installation Instructions for Cisco Aironet 1250 Series Access Point Power Injector*
- *Cisco Aironet 802.11g Radio Upgrade Instructions*
- *Cisco Aironet 1250 Series Access Point Radio Upgrade Instructions*
- *Release Notes for Cisco Aironet 1240 and 1300 Series Access Points for Cisco IOS Release 12.4(10b)JA*
- *Release Notes for Cisco Aironet 1100 and 1200 Series Access Points for Cisco IOS Release 12.3(8)JEC*
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Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New* in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>