



# Release Notes for Cisco Aironet Client Adapter Firmware, Version 5.02.20

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## Introduction

This document describes system requirements, important notes, new and changed information, and upgrade procedures for Cisco Aironet client adapter firmware release 5.02.20.



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# System Requirements

You need the following in order to install client adapter firmware version 5.02.20:

- One of the following Cisco Aironet client adapters:
  - 340, 350, or 4800 series PC, LM, or PCI card
  - 350 series mini PCI card
  - PC-Cardbus (CB20A) card
- A computer running one of the following operating systems:
  - Windows 98, 98 SE, NT, 2000, Me, or XP
  - Windows CE 3.0, 4.0, or 4.1
- The following client adapter software for your computer's operating system:
  - Install Wizard version 1.0 for Windows, which includes PCM/LMC/PCI card driver version 8.3, mini PCI and PC-Cardbus card driver version 3.5, ACU version 6.0, ACM version 2.0, LEAP security module version 6.0, PEAP security module version 1.01, and EAP-SIM security module version 1.0
  - Driver and client utility version 2.30 for Windows CE
- To ensure compatibility between wireless devices, access points to which your client adapter may attempt to authenticate must use the following firmware versions or greater: 12.00T (340, 350, and 1200 series access points) or 12.2(4)JA (1100 series access points).

## Important Notes

### No Support for Linux and Mac OS

Firmware release 5.02.20 is not supported for use on Linux and Mac operating systems.

### Cisco Aironet Software Requires Completion of Encryption Authorization Form

In order to access Cisco Aironet software from the Software Center on Cisco.com, you must now fill out a form to receive authorization to download encrypted software. Registered Cisco.com users are required to fill out the form only once while public users must do so once each session, each time software is downloaded. A form is automatically created for public users. The form for registered Cisco.com users is located at the following URL:

[http://www.cisco.com/cgi-bin/Software/Crypto/crypto\\_main.pl](http://www.cisco.com/cgi-bin/Software/Crypto/crypto_main.pl)

# New and Changed Information

This section describes new and changed information for Cisco Aironet client adapter firmware release 5.02.20.

## Reporting Access Points that Fail LEAP Authentication

Client adapter firmware version 5.02.20 and the following access point firmware versions support a new feature that is designed to detect access points that fail LEAP authentication:

- 12.00T or greater (340, 350, and 1200 series access points)
- 12.2(4)JA or greater (1100 series access points)

An access point running one of these firmware versions records a message in the system log when a client running firmware version 5.02.20 discovers and reports another access point in the wireless network that has failed LEAP authentication.

The process takes place as follows:

1. A client with a LEAP profile attempts to associate to access point A.
2. Access point A does not handle LEAP authentication successfully, perhaps because the access point does not understand LEAP or cannot communicate to a trusted LEAP authentication server.
3. The client records the MAC address for access point A and the reason why the association failed.
4. The client associates successfully to access point B.
5. The client sends the MAC address of access point A and the reason code for the failure to access point B.
6. Access point B logs the failure in the system log.

**Note**

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This feature does not need to be enabled on the client adapter or access point; it is supported automatically in the firmware of both devices. However, both the clients and access points must use these firmware versions or greater.

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## Upgrading to a New Firmware Release

**Caution**

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To minimize the risk of a power failure during the firmware flashing process, which could render your client adapter inoperable, Cisco recommends that your computer be plugged into AC power or have a fully charged battery at the start of flashing. If a power failure does occur, follow the instructions in the “[Obtaining Technical Assistance](#)” section to contact TAC for assistance.

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This section describes how to upgrade to client adapter firmware release 5.02.20 on a computer running Windows 98, 98 SE, NT, 2000, Me, or XP. Refer to the following document for instructions on upgrading the firmware on a Windows CE device:

*Cisco Aironet Wireless LAN Client Adapters Installation and Configuration Guide for Windows CE, version -03*

[http://www.cisco.com/univercd/cc/td/doc/product/wireless/airo\\_350/350cards/win\\_ce/hig/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/wireless/airo_350/350cards/win_ce/hig/index.htm)

## Finding the Firmware Version

To find the firmware version that your client adapter is currently using on a computer running Windows 98, 98 SE, NT, 2000, Me, or XP, open ACU and click the **Status** icon. The firmware version is displayed in the Firmware Version field on the Status screen.

## Upgrading the Firmware

Follow the steps below to upgrade your client adapter’s firmware to version 5.02.20 on a Windows 98, 98 SE, NT, 2000, Me, or XP computer.

**Step 1** Use the computer’s web browser to access the following URL:

<http://www.cisco.com/public/sw-center/sw-wireless.shtml>

**Step 2** Select **Option #2: Aironet Wireless Software Display Tables**.



**Note** You can download software from the Software Selector tool instead of the display tables. To do so, select **Option #1: Aironet Wireless Software Selector**, follow the instructions on the screen, and go to [Step 7](#).

**Step 3** Select **Cisco Aironet Wireless LAN Client Adapters**.

**Step 4** Under Individual Files, find the client adapter firmware.

**Step 5** Click the link that corresponds to your client adapter’s model number (such as 340 or 350 series).

**Step 6** Select the latest firmware file for your specific client adapter type (such as CB or MPI).



**Note** The firmware for PC, LM, and PCI cards is labeled *PCMCIA-LMC-PCI*, the firmware for mini PCI cards is labeled *mini PCI* or *MPI*, and the firmware for PC-Cardbus cards is labeled *CB*.

**Step 7** Read and accept the terms and conditions of the Software License Agreement.

**Step 8** Select the firmware file again to download it.

**Step 9** Save the file to a floppy disk or to your computer’s hard drive.

**Step 10** Find the file using Windows Explorer, double-click it, and extract the image file to a folder.

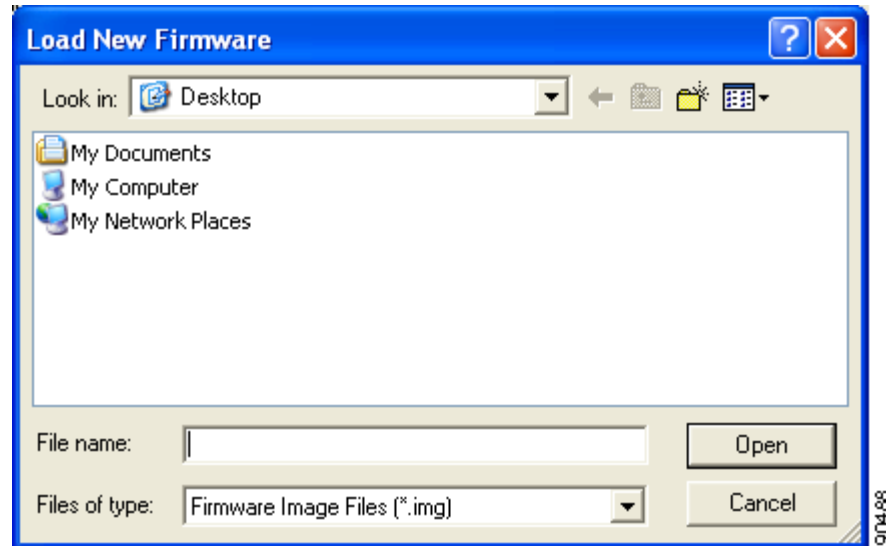


**Note** To extract the file, click **Browse** on the WinZip Self-Extractor screen, select the folder where you want the file to be placed, click **OK** and **Unzip**. After the file has been extracted, click **OK** to close the screen.

**Step 11** Make sure the client adapter is installed in your computer and is operational.

**Step 12** Open ACU and click the **Load Firmware** icon. The Load New Firmware screen appears (see [Figure 1](#)).

**Figure 1** Load New Firmware Screen



- Step 13** Find the location of the new firmware in the Look in box.
- Step 14** Click the firmware image file (\*.img) so that it appears in the File name box at the bottom of the screen.
- Step 15** Click the **Open** button. A progress bar appears while the selected image is loaded into the client adapter's Flash memory.
- Step 16** Click **OK** when the "Firmware Upgrade Complete!" message appears. The OK button cannot be selected until the process is complete or an error occurs.

## Getting Bug Information on Cisco.com

If you are a Cisco registered user, you can use the Cisco TAC Software Bug Toolkit, which consists of three tools (Bug Navigator, Bug Watcher, and Search by Bug ID Number) that help you to identify existing bugs (or caveats) in Cisco software products.

Access the TAC Software Bug Toolkit today at the following URL:

[http://www.cisco.com/cgi-bin/Support/Bugtool/launch\\_bugtool.pl](http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl)

## Troubleshooting

For the most up-to-date, detailed troubleshooting information, refer to the Cisco TAC website at

<http://www.cisco.com/en/US/support/index.html>

Select **Wireless Troubleshooting Center** under Tools & Utilities.

## Related Documentation

For more information about Cisco Aironet client adapters, refer to the following documents:

- *Cisco Aironet Wireless LAN Client Adapters Installation and Configuration Guide for Windows*, version -05
- *Cisco Aironet Wireless LAN Client Adapters Installation and Configuration Guide for Windows CE*, version -03

## Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

### Cisco.com

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

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco web sites can be accessed from this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](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 may have 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.

Registered Cisco.com users can order the Documentation CD-ROM (product number DOC-CONDOCCD=) through the online Subscription Store:

<http://www.cisco.com/go/subscription>

### Ordering Documentation

You can find instructions for ordering documentation at this URL:

[http://www.cisco.com/univercd/cc/td/doc/es\\_inpk/pdi.htm](http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm)

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/en/US/partner/ordering/index.shtml>

- Registered Cisco.com users can order the Documentation CD-ROM (Customer Order Number DOC-CONDOCCD=) 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. On the Cisco Documentation home page, click **Feedback** at the top of the page.

You can e-mail your comments to [bug-doc@cisco.com](mailto: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: Customer Document Ordering  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## Obtaining Technical Assistance

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

## Cisco.com

Cisco.com offers a suite of interactive, networked services that let you access Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com 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

To obtain customized information and service, you can self-register on Cisco.com at this URL:

<http://www.cisco.com>

## Technical Assistance Center

The Cisco 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 website and the Cisco TAC Escalation Center. The avenue of support that you choose depends on the priority of the problem and the conditions stated in service contracts, when applicable.

We categorize Cisco TAC inquiries according to urgency:

- 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.

### Cisco TAC Website

You can use the Cisco TAC website 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 website, 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 website. Some services on the Cisco TAC website require 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://tools.cisco.com/RPF/register/register.do>

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

<http://www.cisco.com/en/US/support/index.html>

If you have Internet access, we recommend that you open P3 and P4 cases through the Cisco TAC website so that you can describe the situation in your own words and attach any necessary files.

### 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.

# Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:  
[http://www.cisco.com/en/US/products/products\\_catalog\\_links\\_launch.html](http://www.cisco.com/en/US/products/products_catalog_links_launch.html)
- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary*, *Internetworking Technology Handbook*, *Internetworking Troubleshooting Guide*, and the *Internetworking Design Guide*. For current Cisco Press titles and other information, go to Cisco Press online at this URL:  
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco monthly periodical that provides industry professionals with the latest information about the field of networking. You can access *Packet* magazine at this URL:  
[http://www.cisco.com/en/US/about/ac123/ac114/about\\_cisco\\_packet\\_magazine.html](http://www.cisco.com/en/US/about/ac123/ac114/about_cisco_packet_magazine.html)
- *iQ Magazine* is the Cisco monthly periodical that provides business leaders and decision makers with the latest information about the networking industry. You can access *iQ Magazine* at this URL:  
[http://business.cisco.com/prod/tree.taf%3fasset\\_id=44699&public\\_view=true&kbns=1.html](http://business.cisco.com/prod/tree.taf%3fasset_id=44699&public_view=true&kbns=1.html)
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in the design, development, and operation of public and private internets and intranets. You can access the *Internet Protocol Journal* at this URL:  
[http://www.cisco.com/en/US/about/ac123/ac147/about\\_cisco\\_the\\_internet\\_protocol\\_journal.html](http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html)
- Training—Cisco offers world-class networking training, with current offerings in network training listed at this URL:  
[http://www.cisco.com/en/US/learning/le31/learning\\_recommended\\_training\\_list.html](http://www.cisco.com/en/US/learning/le31/learning_recommended_training_list.html)

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

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