



Release Notes for Cisco Aironet 802.11a/b/g (CB21AG and PI21AG) Client Administration Utility (ACAU) 2.5

Contents

- [Introduction, page 2](#)
- [System Requirements, page 2](#)
- [Important Notes, page 2](#)
- [New and Changed Information, page 3](#)
- [Finding the Software Version, page 7](#)
- [Obtaining ACAU, page 8](#)
- [Installing ACAU, page 8](#)
- [Upgrading ACAU, page 12](#)
- [Using ACAU, page 14](#)
- [Caveats, page 14](#)
- [Troubleshooting, page 15](#)
- [Related Documentation, page 15](#)
- [Obtaining Documentation, page 15](#)
- [Documentation Feedback, page 17](#)
- [Cisco Product Security Overview, page 17](#)
- [Obtaining Technical Assistance, page 18](#)
- [Obtaining Additional Publications and Information, page 19](#)



Corporate Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

Copyright © 2005 Cisco Systems, Inc. All rights reserved.

Introduction

This document describes system requirements, important notes, new and changed information, installation and upgrade procedures, and caveats for Cisco Aironet Client Administration Utility (ACAU) version 2.5.

ACAU is a utility used by administrators to set software installation options and create *profiles* (saved configurations) for users who install Cisco Aironet CB21AG and PI21AG Wireless LAN Client Adapters in computers running the Windows 2000 or Windows XP operating system. Administrators save the installation settings and profiles to a configuration file. Then when the user installs the client adapter software (driver and client utilities), the Install Wizard uses the instructions in the configuration file to govern the installation and setup of the client utilities and load one or more preconfigured user profiles. Administrators can create configuration files to control the installation and configuration of client adapters for one user or groups of users.

**Note**

To ensure proper operation, use ACAU 2.5 only with client adapter Install Wizard 2.5.

System Requirements

You need the following items in order to install and use ACAU 2.5:

- A computer running the Windows 2000 or XP operating system

**Note**

Cisco recommends a 300-MHz (or greater) processor.

- Service Pack 2 for Windows XP
- 20 MB of free hard disk space (minimum)
- 128 MB of RAM or greater (recommended)

Important Notes

Software Compatibility

ACAU 2.5 is compatible with only the Cisco Aironet CB21AG and PI21AG client adapters.

Name and Location of Configuration File

You can change the name of the ACAU configuration file; however, the name must be changed back to *CiscoAdminConfig.dat* before the user runs the Install Wizard. Otherwise, the Install Wizard does not load the configuration file.

You must also save the configuration file to the drive and directory in which the Install Wizard resides. If you save the file to any other location, it is not processed by the Install Wizard.

Installing the Novell Client

To ensure proper operation, the Novell Client (if used) must be installed on the user's computer prior to the client adapter software.

Host Based EAP Profiles Created with Earlier ACAU Versions

If you created a Host Based EAP profile using ACAU 1.2 or 1.3 and import it for use with ACAU 2.5, it is designated as an EAP-FAST profile in ACAU 2.5. To change it, you must manually reconfigure the profile for Host Based EAP.

New and Changed Information

New Setup Settings Parameters

These two Setup Settings parameters are now available in ACAU:

- **Installation type**—Specifies whether user input is required when the client adapter software is upgraded or uninstalled.

Options: Normal, Silent upgrade, or Silent uninstall

Default: Normal


Installation type	Description
Normal	The Install Wizard prompts the user to choose between uninstalling or upgrading the client adapter software.
Silent upgrade	The Install Wizard upgrades the client adapter software without any user input.
Silent uninstall	The Install Wizard uninstalls the client adapter software without any user input.

- **Profile Migration Tool**—Determines whether the profile migration tool is installed and run on the user’s computer. The tool is designed to migrate Cisco Aironet 350 series and CB20A wireless LAN client adapter profiles to profiles that can be used with Cisco Aironet CB21AG and PI21AG client adapters.

Options: Don’t Install, Install, or Install & Run

Default: Don’t Install

Installation type	Description
Don’t Install	The Install Wizard does not install the profile migration tool on the user’s computer.
Install	The Install Wizard installs the profile migration tool on the user’s computer (in the same directory as ADU).
Install & Run	The Install Wizard installs the profile migration tool on the user’s computer (in the same directory as ADU) and runs the tool after installation. If you choose this option, you can also enter command line options that let you specify how the tool operates. To do so, click Command Line , enter the desired command(s) on the Profile Migration Tool Parameters window, and click OK .

 **Note** See Appendix D of the *Cisco Aironet 802.11a/b/g Wireless LAN Client Adapters (CB21AG and PI21AG) Administration Utility Administrator Guide (OL-7086-02)* for the list of available command line options and more information on the profile migration tool.

Ability to Lock Profiles

As an added security measure, ACAU gives you the option of locking individual profiles, which prevents users from being able to modify or remove these profiles. To lock a profile, simply check the **Locked Profile** check box on the Profile Editor (Security) window.

This feature ensures a high level of security and consistent configurations. It is especially useful if you want to create a standard profile for the corporate network, distribute it to each user, and ensure that it cannot be modified or removed.

The following rules apply to locked profiles:

- Locked profiles can be created only by an administrator using ACAU.
- A profile can be individually locked or unlocked; however, a user’s ability to modify profiles (through ACAU’s Global Settings - User Settings parameters) takes precedence. For example, if a user is not permitted to modify a profile, he or she is also unable to modify an unlocked profile.
- A locked profile cannot be overwritten, either by import or from the conversion of a 350 or CB20A profile through the profile migration tool.
- When a locked profile is exported and then imported onto another machine, the profile remains locked.
- All fields in a locked profile are read-only except password fields, which can be edited.

Secure Session Resume

An **Always Resume the Secure Session** check box has been added to the LEAP Settings, EAP-FAST Settings, and Define PEAP (EAP-GTC) Configuration windows.

- Checking this check box causes the LEAP, EAP-FAST, or PEAP (EAP-GTC) supplicant to always attempt to resume the previous session without prompting the user to re-enter his or her credentials whenever the client adapter becomes disassociated. The session resumes after the client temporarily loses connection to the access point, such as by roaming in and out of range [LEAP, EAP-FAST, and PEAP (EAP-GTC)], or wakes up from suspend or hibernate mode (LEAP and EAP-FAST). This is the default setting.
- Unchecking this check box causes the user to be prompted to re-enter his or her LEAP, EAP-FAST, or PEAP (EAP-GTC) username and password whenever the client adapter temporarily loses association by roaming out of range [LEAP, EAP-FAST, and PEAP (EAP-GTC)] or wakes up from suspend or hibernate mode (LEAP and EAP-FAST).



Note

This check box is available for LEAP and EAP-FAST only if you selected the Automatically Prompt for User Name and Password or Manually Prompt for User Name and Password option. It is available for PEAP (EAP-GTC) only if you selected the Token option.

Enhanced Site Survey Utility

The site survey utility, which is useful in determining the best placement of infrastructure devices within a wireless network, has been modified to include the following enhancements:

- **Fit Columns button**—This button enables you to resize the columns on the AP scan list so that you can view the text in each column without it being truncated.
- **Time of Day field**—This field in the AP scan list shows the date and time when the signal strength of each access point was at its maximum.
- **Other Information field**—This field in the AP scan list contains some new values, such as WMM, WPA, and WPA2.
- **Enable Expert Mode for AP Detailed Information parameter**—This check box on the Options window causes the AP Detailed Information window to display debugging information, including a hexadecimal debug-style dump of raw access point scan data, under the “Expert Mode (Debug Dump)” heading.
- **Accumulate button**—This button changes the behavior of the AP scan list. Instead of displaying only the current AP scan list, the list includes all of the access points (based on MAC address) that have appeared in the scan list since the Accumulate button was last clicked. After a scan line is added to the list, it is never removed nor updated with new scan information unless the signal strength (RSSI) of the latest scan is greater than or equal to any seen previously from that access point.
- **Proximity beeper**—This beeper can be used to identify areas where wireless coverage is good or weak based on the client adapter’s proximity to access points within a particular area. The beeper can be set to sound as the client adapter approaches or moves farther away from an access point.

- Thresholds—You can now perform the following threshold-related tasks:
 - Configure threshold values that trigger audible alerts, entries in the threshold log file, or both
 - Enable audible threshold alerts and the logging of text messages to the threshold log file when a threshold condition occurs
 - Enter a comment in the threshold log file
 - View or delete the threshold log file
- AP scanning—You can now perform the following tasks related to AP scanning:
 - Configure the site survey utility to automatically copy the contents of the AP scan list to a log file
 - Enable AP scan logging
 - View or delete the AP scan log
 - Save or open the AP scan list
- Status bar indicators—Four indicators on the site survey utility’s status bar indicate when certain features are enabled:
 - PRX—The proximity beeper is enabled.
 - ALR—Threshold alerts are enabled.
 - LOG—Threshold logging is enabled.
 - APS—Automatic AP scan list logging is enabled.

The site survey utility is a stand-alone application, separate from ADU, that runs from an executable file. If you check the Install Cisco Aironet Site Survey Utility check box during installation of Install Wizard 2.5, the site survey executable file is installed in the C:\Program Files\Cisco Aironet directory (unless you specify a different directory).

**Note**

The site survey utility can be used only with CB21AG and PI21AG client adapters.

**Note**

Refer to Appendix F of the *Cisco Aironet 802.11a/b/g Wireless LAN Client Adapters (CB21AG and PI21AG) Installation and Configuration Guide* (OL-4211-04) for more information on the site survey utility.

Profile Migration Tool

A profile migration tool is now available for the CB21AG and PI21AG client adapters. This tool is designed to migrate Cisco Aironet 350 series and CB20A wireless LAN client adapter profiles to profiles that can be used with Cisco Aironet CB21AG and PI21AG client adapters. The tool is meant to migrate profiles with minimal modification, but its behavior can be altered by command line options. The legacy 350 and CB20A profiles are not deleted or modified in any way.

Cisco expects the profile migration tool to be executed once, most likely immediately after installing or updating the CB21AG/PI21AG client adapter software. Upon completion, the profile migration tool may be removed from the user’s system.

When the CB21AG/PI21AG client adapter software is installed, the Install Wizard also automatically installs the profile migration tool, unless the Don’t Install option was chosen in ACAU. It is saved in the same directory as ADU.

**Note**

If the Install Wizard is run without using an ACAU-generated configuration file, the profile migration tool is still installed automatically and saved in the same directory as ADU.

**Note**

Profile migration tool 1.0 can be used only with ACAU and Install Wizard 2.5.

**Note**

Refer to Appendix G of the *Cisco Aironet 802.11a/b/g Wireless LAN Client Adapters (CB21AG and PI21AG) Installation and Configuration Guide (OL-4211-04)* for more information on the profile migration tool.

Other Changes

These additional changes are available in ACAU 2.5:

- Certificate-based PEAP (EAP-MSCHAP V2) authentication is now available for the CB21AG and PI21AG client adapters.
- An **Always Do User Authentication** check box has been added to the Define Certificate window for EAP-TLS authentication. Checking this check box causes the client to switch from using machine authentication to using user authentication after the user logs on using his or her username and password. This is the default setting. Unchecking this check box causes the client to continue to use machine authentication after the user's computer logs into the domain.
- EAP-FAST PAC files are tied to the machine, so they cannot be used if copied to another machine.

Finding the Software Version

Follow these steps to find the ACAU software version.

- Step 1** Double-click the **Aironet Client Administration Utility** icon on your Windows desktop to open ACAU. The Cisco Aironet Client Administration Utility window appears.
- Step 2** Choose **About** from the Help drop-down menu. The About ACAU window shows the ACAU version number.
- Step 3** Click **OK** to return to the Cisco Aironet Client Administration Utility window.

Obtaining ACAU

Follow these steps to obtain the latest version of ACAU from Cisco.com.

-
- Step 1** Use your computer's web browser to access the following URL:
<http://www.cisco.com/public/sw-center/sw-wireless.shtml>
 - Step 2** Click **Option #2: Aironet Wireless Software Display Tables**.
 - Step 3** Click **Cisco Aironet Wireless LAN Client Adapters**.
 - Step 4** Scroll down to Windows Systems Administration Tools and click **Aironet Client Administration Utility (ACAU)**. The Software Download page appears.
 - Step 5** Click **acau-v25.exe**. The Software Download Encryption Authorization Form appears.
 - Step 6** Complete the encryption authorization form and click **Submit**. The Software License Agreement page appears.
 - Step 7** If you agree with the terms of the agreement, click **Accept**. Otherwise, click **Decline** to cancel the download.
 - Step 8** When the Software Download page appears, click **acau-v25.exe**.
 - Step 9** Save the file to a folder you specify.
-

Installing ACAU

Follow these steps to install ACAU on your computer for the first time.

**Note**

If you are upgrading to a new version of ACAU, follow the instructions in the [“Upgrading ACAU” section on page 12](#).

-
- Step 1** On the Windows taskbar, click **Start > Run**. The Run window appears.
 - Step 2** Browse to the location where you downloaded the software.
 - Step 3** Click **acau-v25.exe**.
 - Step 4** Click **Open**. The Run window reappears showing the path you specified in Step 2.
 - Step 5** Click **OK**. The Preparing Setup window appears followed by the InstallShield Wizard window (see [Figure 1](#) and [Figure 2](#)).

Figure 1 *Preparing Setup Window*

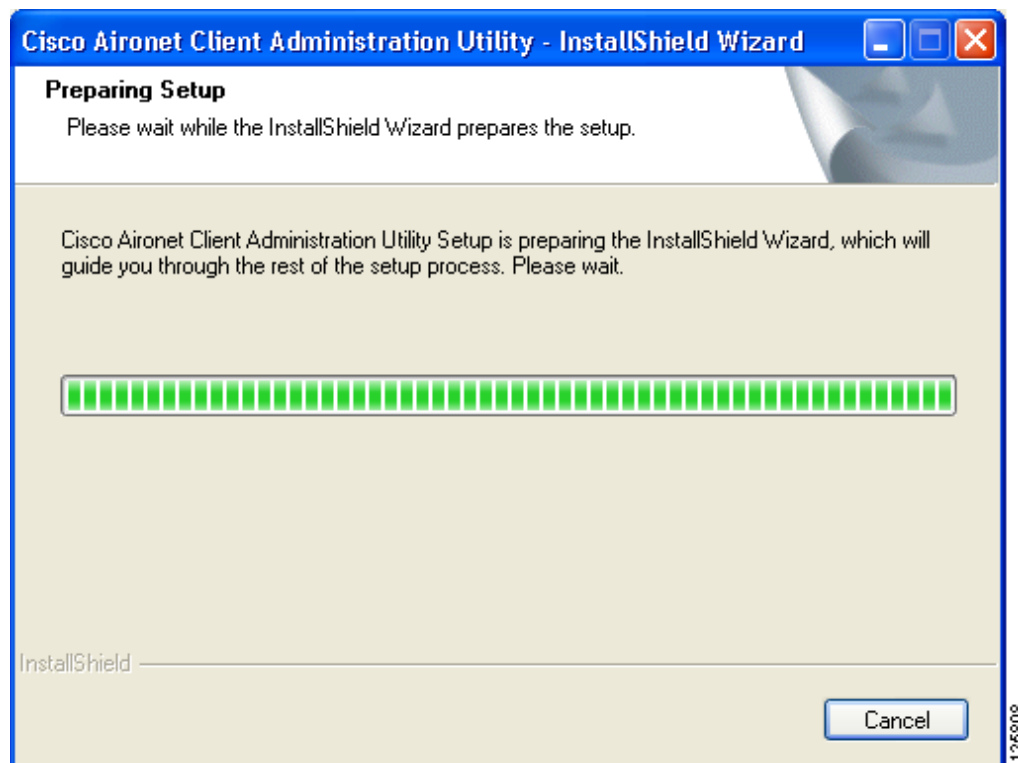
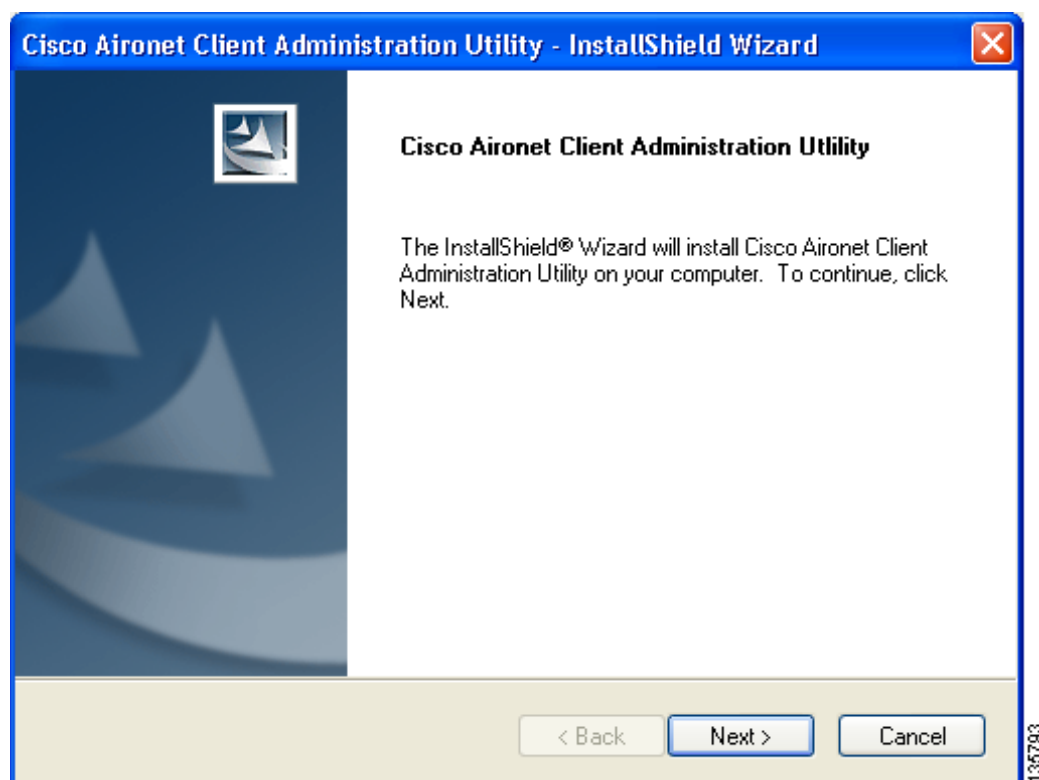
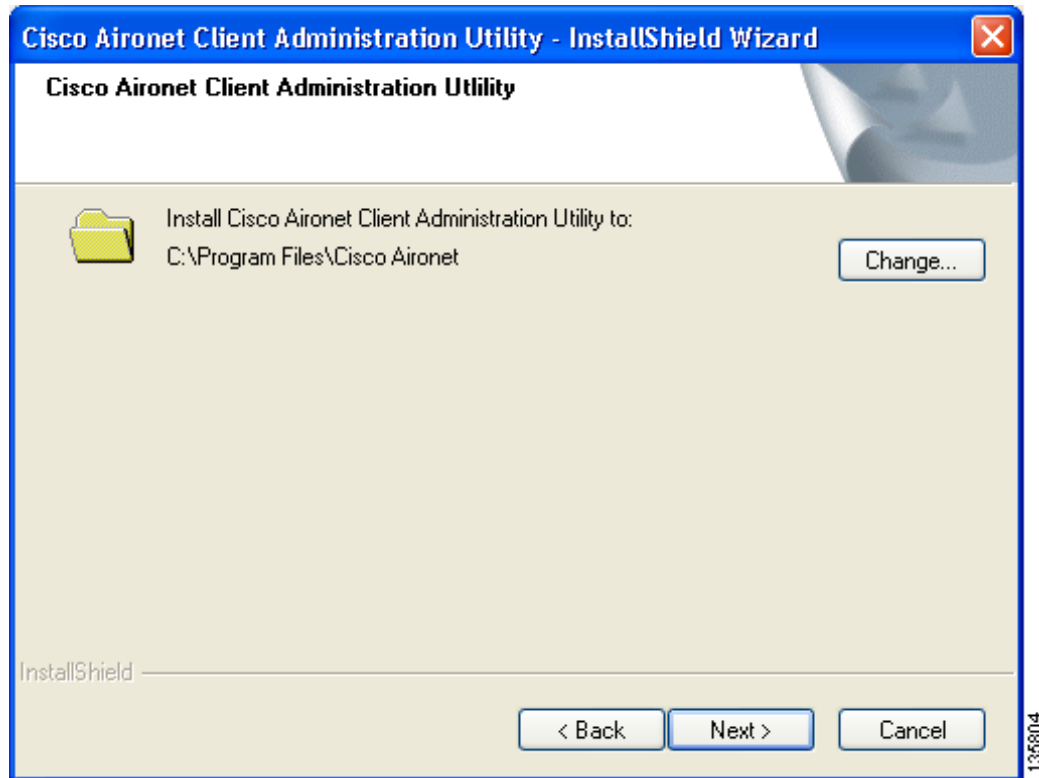


Figure 2 *InstallShield Wizard Window*



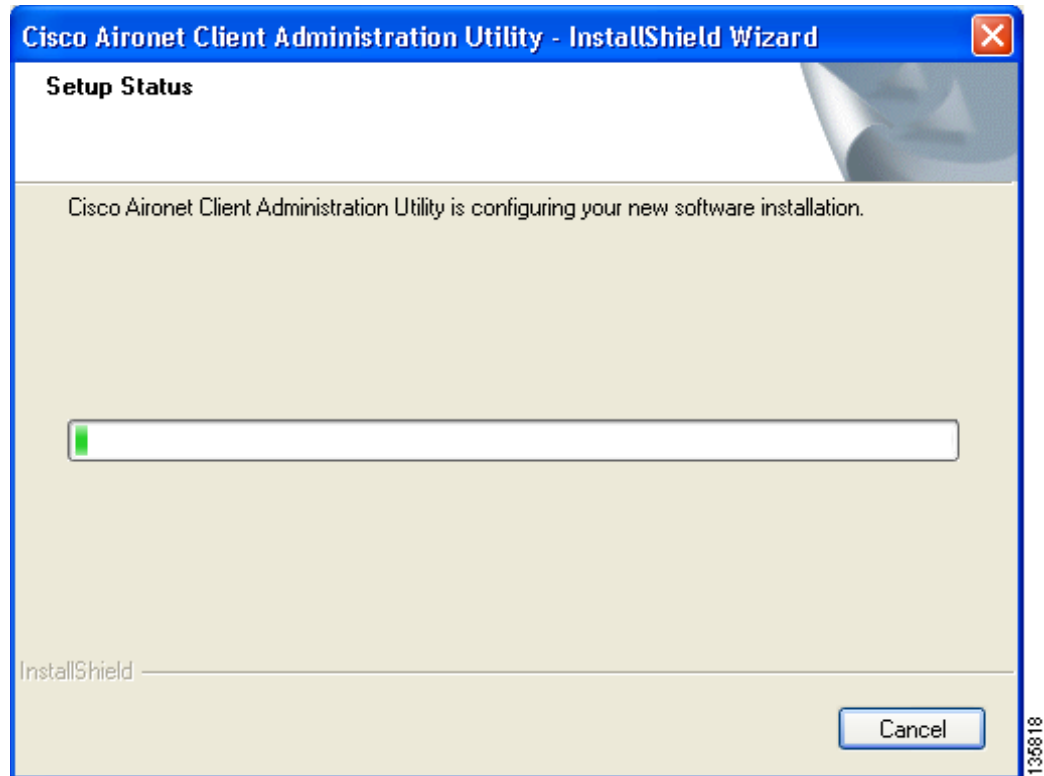
- Step 6** Click **Next**. The Installation Location window appears showing the default location where ACAU will be installed (see [Figure 3](#)).

Figure 3 *Installation Location Window*



- Step 7** If you want to change the default location, click **Change**, browse to the location of your choice, and click **OK**.
- Step 8** Click **Next** to begin the installation process. The Setup Status window appears (see [Figure 4](#)).

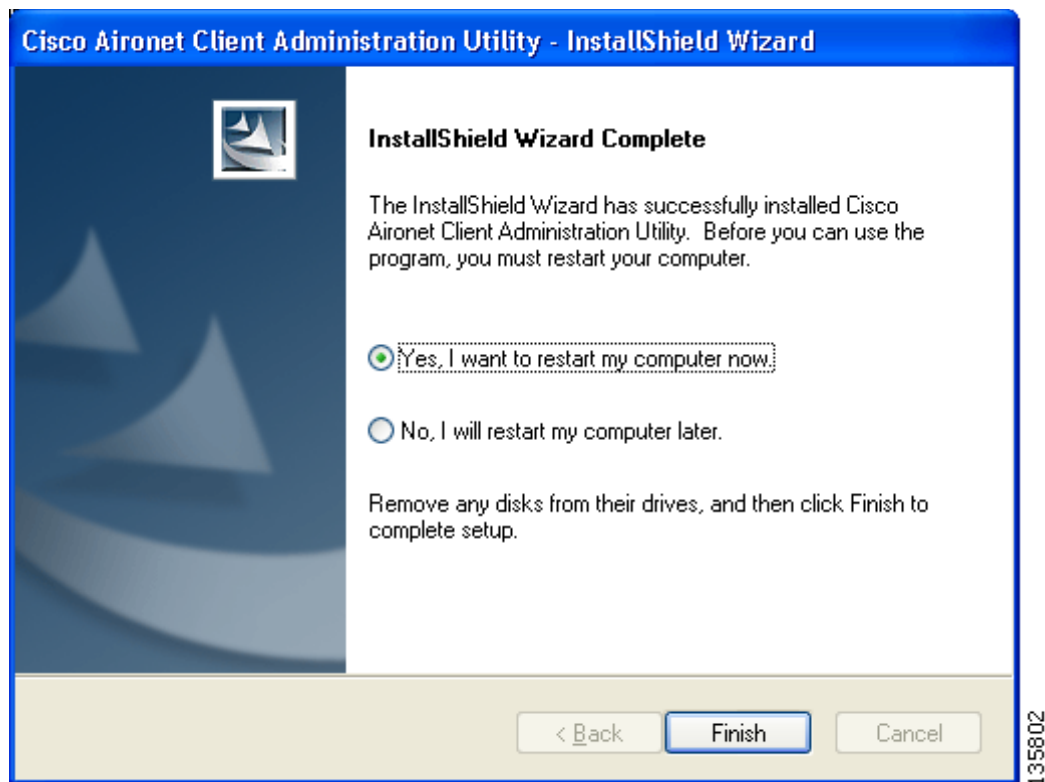
Figure 4 Setup Status Window



The installation process begins, and you are notified as each software component is installed.

Step 9 When ACAU is installed, the InstallShield Wizard Complete window appears ([Figure 5](#)).

Figure 5 InstallShield Wizard Complete Window



Step 10 Click **Finish**. The installation is complete.

Upgrading ACAU

Follow these steps to upgrade your ACAU software to the 2.5 release.

- Step 1** On the Windows taskbar, click **Start > Run**. The Run window appears.
- Step 2** Browse to the location to which you downloaded the software.
- Step 3** Click **acau-v25.exe**.
- Step 4** Click **Open**. The Run window reappears showing the path you specified in Step 2.
- Step 5** Click **OK**. The Preparing Setup window appears followed by the Previous Installation Detected window (see [Figure 6](#) and [Figure 7](#)).

Figure 6 *Preparing Setup Window*

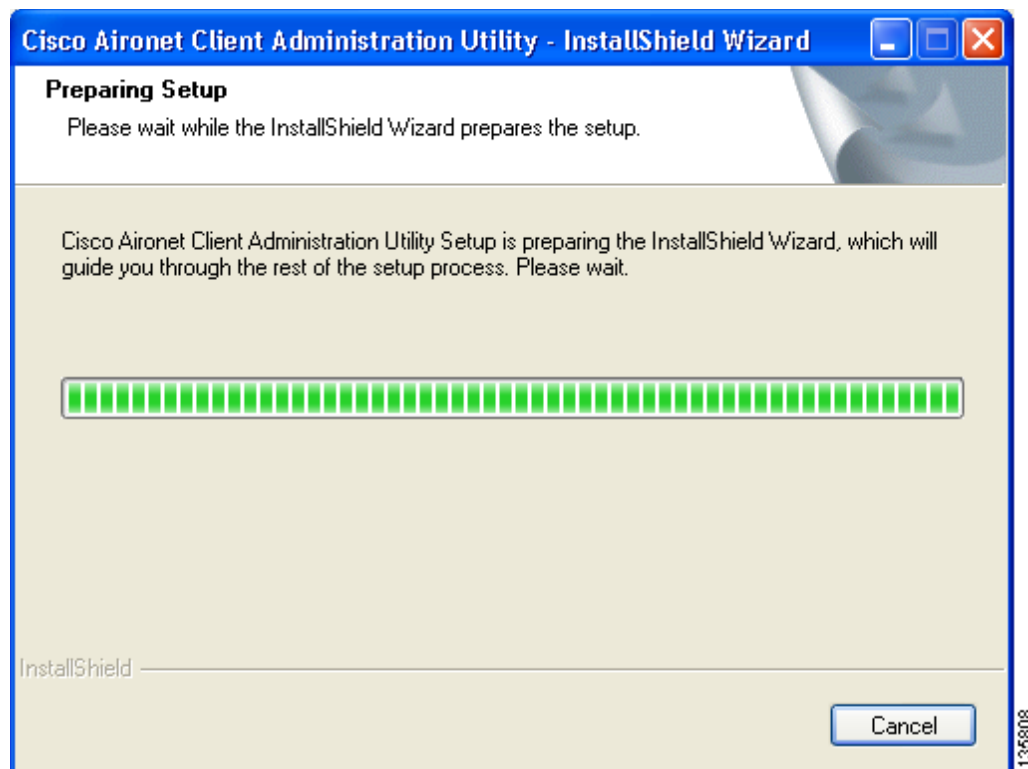
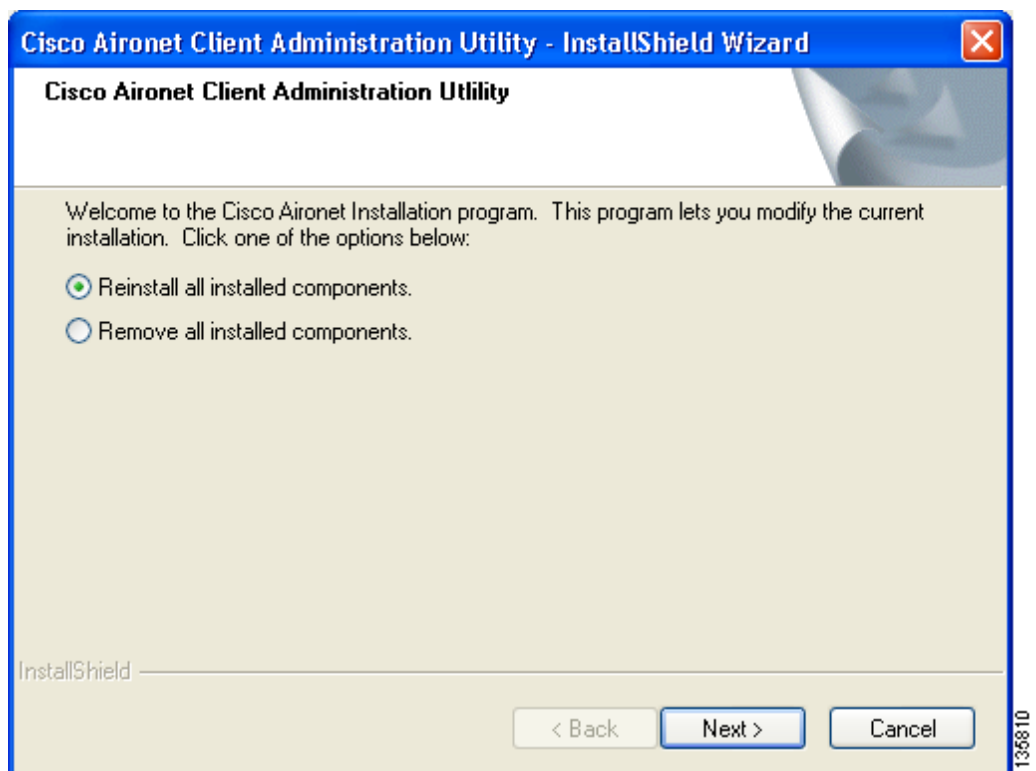


Figure 7 *Previous Installation Detected Window*



Step 6 Perform one of the following:

- If you want to upgrade your ACAU software using new installation settings, you must first uninstall the existing ACAU software from your computer. Follow these steps to do so:
 - a. Choose **Remove all installed components** and click **Next**.
 - b. Click **Yes** to confirm your decision.
 - c. After ACAU has been uninstalled, click **Finish**.
 - d. Follow the instructions in the [“Installing ACAU” section on page 8](#) to install the new ACAU software.
 - If you want to upgrade your ACAU software using the installation settings that were selected during the last installation, follow these steps:
 - a. Choose **Reinstall all installed components** and click **Next**. The Setup Status window appears and notifies you as each software component is installed.
 - b. When the upgrade finishes, the Maintenance Complete window appears. If the window contains an option to restart your computer, choose that option.
 - c. Click **Finish** and allow your computer to restart if it begins the reboot process.
-

Using ACAU

Refer to the *Cisco Aironet 802.11a/b/g Wireless LAN Client Adapters (CB21AG and PI21AG) Administration Utility Administrator Guide (OL-7086-02)* for instructions on using ACAU to set software installation options and configure user profiles.

Caveats

This section lists open and resolved software issues in ACAU 2.5.

Open Caveats

There are no significant open caveats in ACAU 2.5.

Resolved Caveats

The following caveat has been resolved in ACAU 2.5.

- CSCee17781—SMS fails to push profiles to client adapters
When the Microsoft SMS tool is used to install the client adapter software, the profiles stored in the ACAU configuration file are not copied to the user’s computer.

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 identify existing bugs (or caveats) in Cisco software products.

Access the TAC Software Bug Toolkit at the following URL:

http://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>

Click **Product Support** > **Wireless**. Then choose your product and **Troubleshooting** to find information on the problem you are experiencing.

Related Documentation

For more information about ACAU and the Cisco Aironet CB21AG and PI21AG client adapters, refer to the following documents:

- *Cisco Aironet 802.11a/b/g Wireless LAN Client Adapters (CB21AG and PI21AG) Administration Utility Administrator Guide* (OL-7086-02)—Provides instructions for installing ACAU 2.5 and using it to set software installation options and create configuration profiles for CB21AG and PI21AG client adapters.
http://www.cisco.com/en/US/products/hw/wireless/ps4555/prod_maintenance_guides_list.html
- *Cisco Aironet 802.11a/b/g Wireless LAN Client Adapters (CB21AG and PI21AG) Installation and Configuration Guide* (OL-4211-04)—Provides instructions for installing, configuring, and troubleshooting CB21AG and PI21AG client adapters on computers running the Microsoft Windows 2000 or XP operating system.
http://www.cisco.com/en/US/products/hw/wireless/ps4555/products_installation_and_configuration_guides_list.html
- *Release Notes for Cisco Aironet 802.11a/b/g Client Adapters (CB21AG and PI21AG) Install Wizard 2.5* (OL-8008-01)—Describes new features and open and resolved caveats in Install Wizard 2.5.
http://www.cisco.com/en/US/products/hw/wireless/ps4555/prod_release_notes_list.html

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain 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 at this URL:

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

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

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

Product Documentation DVD

Cisco documentation and additional literature are available in the Product Documentation DVD package, which may have shipped with your product. The Product Documentation DVD is updated regularly and may be more current than printed documentation.

The Product Documentation DVD is a comprehensive library of technical product documentation on portable media. The DVD enables you to access multiple versions of hardware and software installation, configuration, and command guides for Cisco products and to view technical documentation in HTML. With the DVD, you have access to the same documentation that is found on the Cisco website without being connected to the Internet. Certain products also have .pdf versions of the documentation available.

The Product Documentation DVD is available as a single unit or as a subscription. Registered Cisco.com users (Cisco direct customers) can order a Product Documentation DVD (product number DOC-DOCDVD=) from Cisco Marketplace at this URL:

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

Ordering Documentation

Beginning June 30, 2005, registered Cisco.com users may order Cisco documentation at the Product Documentation Store in the Cisco Marketplace at this URL:

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

Nonregistered Cisco.com users can order technical documentation from 8:00 a.m. to 5:00 p.m. (0800 to 1700) PDT by calling 1 866 463-3487 in the United States and Canada, or elsewhere by calling 011 408 519-5055. You can also order documentation by e-mail at tech-doc-store-mkpl@external.cisco.com or by fax at 1 408 519-5001 in the United States and Canada, or elsewhere at 011 408 519-5001.

Documentation Feedback

You can rate and provide feedback about Cisco technical documents by completing the online feedback form that appears with the technical documents on Cisco.com.

You can send comments about Cisco documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) 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.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you can perform these tasks:

- Report security vulnerabilities in Cisco products.
- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories and notices for Cisco products is available at this URL:

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

If you prefer to see advisories and notices as they are updated in real time, you can access a Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed from this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you might have identified a vulnerability in a Cisco product, contact PSIRT:

- Emergencies—security-alert@cisco.com

An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- Nonemergencies—psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

**Tip**

We encourage you to use Pretty Good Privacy (PGP) or a compatible product to encrypt any sensitive information that you send to Cisco. PSIRT can work from encrypted information that is compatible with PGP versions 2.x through 8.x.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, at this URL:

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

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

**Note**

Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support & Documentation website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—Your network is “down,” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

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

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

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

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

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

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

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

or view the digital edition at this URL:

<http://ciscoiq.texterity.com/ciscoiq/sample/>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

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

- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:

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

- Networking Professionals Connection is an interactive website for networking professionals to share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:

<http://www.cisco.com/discuss/networking>

- World-class networking training is available from Cisco. You can view current offerings at this URL:

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

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

CCSP, CCVP, the Cisco Square Bridge logo, Follow Me Browsing, and StackWise are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, and iQuick Study are service marks of Cisco Systems, Inc.; and Access Registrar, Aironet, ASIST, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Empowering the Internet Generation, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, Linksys, MeetingPlace, MGX, the Networkers logo, Networking Academy, Network Registrar, *Packet*, PIX, Post-Routing, Pre-Routing, ProConnect, RateMUX, ScriptShare, SlideCast, SMARTnet, StrataView Plus, TeleRouter, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0502R)

Copyright © 2005 Cisco Systems, Inc.
All rights reserved.