



Release Notes for Cisco Aironet 350 and CB20A Client Adapter Install Wizard 1.6 for Windows

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Introduction

This document describes system requirements, important notes, new and changed information, installation and upgrade procedures, and caveats for client adapter Install Wizard version 1.6 and the following software included in the Install Wizard file:

- Firmware version 5.60.17
- PC, LM, and PCI card driver version 8.7
- Mini PCI and PC-Cardbus card driver version 3.10
- Aironet Client Utility (ACU) version 6.5
- Aironet Client Monitor (ACM) version 2.4
- LEAP security module version 6.4
- EAP-FAST security module version 1.0
- PEAP security module version 1.2
- EAP-SIM security module version 1.0



Note Refer to the [“New EAP-SIM Supplicant Available” section on page 5](#) for information about a new EAP-SIM supplicant.

System Requirements

You need the following in order to install Install Wizard 1.6 and use its software components:

- One of the following Cisco Aironet client adapters:
 - 350 series PC, LM, PCI, or mini PCI card
 - CB20A PC-Cardbus card



Note Install Wizard 1.6 and its software components are not supported for use with Cisco Aironet 340 series client adapters.

- A computer running the Windows 2000 or XP operating system



Note Install Wizard 1.6 and its software components are not supported for use with Windows 95, 98, 98 SE, NT, and Me.



Note All drivers and supporting software (Card and Socket Services) for the PC card slot or Cardbus slot must be loaded and configured.

- A display with a minimum resolution of 800 x 600 pixels

- 35 MB of free hard disk space (minimum)



Note The Install Wizard terminates if you attempt to install it on a computer that has less than 35 MB of hard disk space.

- One of the following host supplicants if your wireless network uses host-based EAP authentication with WPA:
 - Funk Odyssey Client supplicant version 2.2 (for Windows 2000)
 - Windows XP Service Pack 1 and Microsoft supplicant Q815485 (for Windows XP)



Note Meetinghouse AEGIS Client supplicant version 2.1 or later is also supported for use with Windows 2000 and XP; however, it was not tested with this client adapter software release.

- The Microsoft 802.1X supplicant, if your wireless network uses EAP-TLS, PEAP, or EAP-SIM authentication
- If your wireless network uses PEAP authentication with a One-Time Password (OTP) user database:
 - SofToken version 1.3, 2.0, or later from Secure Computing; SecurID version 2.5 from RSA; or hardware token from OTP vendors
 - Your software token PIN or hardware token password
- If your wireless network uses EAP-SIM authentication:
 - PCSC-compliant smartcard reader installed in your computer's Type II or Type III PC card slot
 - Gemplus SIM+ smartcard inserted in the reader
 - The SIM card's PIN



Note The EAP-SIM supplicant included in the Install Wizard file supports only Gemplus SIM+ cards; however, an updated supplicant is available that supports standard GSM-SIM cards as well as more recent versions of the EAP-SIM protocol. The new supplicant is available for download from Cisco.com at the following URL:

<http://www.cisco.com/cgi-bin/tablebuild.pl/access-registrar-encrypted>

- The following information from your system administrator:
 - The logical name for your workstation (also referred to as *client name*)
 - The protocols necessary to bind to the client adapter
 - The case-sensitive service set identifier (SSID) for your RF network
 - If your computer is not connected to a DHCP server, the IP address, subnet mask, and default gateway address of your computer
 - The wired equivalent privacy (WEP) keys of the access points with which your client adapter will communicate, if your wireless network uses static WEP for security
 - The username and password for your network account
 - Protected access credentials (PAC) file if your wireless network uses EAP-FAST authentication with manual PAC provisioning

- Access points to which your client adapter may attempt to authenticate must use the following firmware versions or later: 12.00T (340, 350, and 1200 series access points) or Cisco IOS Release 12.2(4)JA (1100 series access points).



Note To use WPA or fast roaming, access points must use Cisco IOS Release 12.2(11)JA or later. To use radio management (RM), access points must use Cisco IOS Release 12.2(13)JA or later. To use QoS and WMM, access points must use Cisco IOS Release 12.3(2)JA or later.

- All necessary infrastructure devices such as access points, servers, gateways, and user databases must be properly configured for any authentication type you plan to enable on the client.

Important Notes

Customized Installation Images (Notice to IT Professionals)



Caution

Use caution when bundling the client adapter software into a customized installation image. If the registry settings are modified, the software may not install and uninstall properly.

Firmware Is Upgraded Automatically

The Install Wizard automatically upgrades the client adapter firmware to the version included in the Install Wizard file.



Note

Applications such as AirMagnet and Wild Packets may fail after the firmware is upgraded. To resolve this problem, use ACU to downgrade the firmware to the previous version. Older versions of client adapter firmware are available from the Software Center on Cisco.com.

Reboot Required When Uninstalling ACU



Caution

When you uninstall ACU, make sure you reboot your computer when prompted. Otherwise, the system may be rendered unable to boot, displaying the message “The Logon User Interface DLL cswGina.dll failed to load. Contact your system administrator to replace the DLL or restore the original DLL.”

Uninstalling Software Components

All profiles are deleted if you use the Uninstall All Components option on the Cisco Aironet Wireless LAN Client Adapter Installation Wizard screen to uninstall the client adapter software. Cisco recommends that you use the Profile Manager’s export feature to save your profiles before uninstalling the software.

Inserting and Removing Client Adapters

The following rules apply when inserting and removing client adapters:

- If you start ACU while a client adapter of one radio type is inserted (such as a 350 series PC card) and then eject the card and replace it with a card of another radio type (such as a CB20A PC-Cardbus card), ACU displays “Your Wireless LAN Adapter is not inserted” until ACU is shut down and restarted.
- The profiles for PC-Cardbus cards are tied to the slot in which the card is inserted. Therefore, you must always insert your PC-Cardbus card into the same slot, create profiles for both slots, or export the profiles for one slot and import them for the other slot.

New EAP-SIM Supplicant Available

A new EAP-SIM supplicant is available for download from Cisco.com. This new supplicant is an upgrade to the one included in the Install Wizard file. It provides new features, supports more recent versions of the EAP-SIM draft standard, and can be used with standard GSM-SIM cards as well as Gemplus SIM+ smartcards.

The new supplicant overwrites any previous EAP-SIM supplicant settings. If you plan to install the Cisco Aironet Install Wizard file after the new supplicant is installed, either perform an express installation or make sure that the EAP-SIM option is not selected on the Custom Installation screen. Otherwise, the EAP-SIM supplicant included in the Install Wizard file overwrites the new supplicant’s settings.

You can access the latest EAP-SIM supplicant at the following URL:

<http://www.cisco.com/cgi-bin/tablebuild.pl/access-registrar-encrypted>

Windows Wireless Network Connection Icon Shows Unavailable Connection (Windows XP Only)

If your computer is running Windows XP and you configured your client adapter using ACU, the Windows Wireless Network Connection icon in the Windows system tray may be marked with a red X and show an unavailable connection even though a wireless connection exists. This condition is caused by a conflict between ACU and Windows XP’s wireless network settings. Simply ignore the Windows icon and use the ACM icon to check the status of your client adapter’s wireless connection.

Supporting Documentation

The *Cisco Aironet 350 and CB20A Wireless LAN Client Adapters Installation and Configuration Guide for Windows* (part number OL-1394-10) provides detailed installation, configuration, and troubleshooting information for Install Wizard 1.6 and its software components:

http://www.cisco.com/en/US/products/hw/wireless/ps4555/products_installation_and_configuration_guides_list.html

New and Changed Information

Finding Domain Controller Timeout Value Added to ACU

When the client adapter uses LEAP or EAP-FAST authentication, the final step in the authentication process is to find the domain controller. In systems without a domain controller, this step can result in authentication delays. ACU 6.5 supports a new LEAP and EAP-FAST configuration parameter that enables you to limit the amount of time that is spent finding a domain controller during the authentication process.

This new parameter, which consists of both a check box and an edit box, appears at the bottom of the LEAP and EAP-FAST Settings screens in ACU. It is entitled Restrict Time Finding Domain Controller to (seconds).

Range of timeout value: 0 to 300 seconds

Default: Unchecked; 0 seconds

- If the check box is not checked, the finding domain controller timeout value is disabled.
- If the check box is checked, the amount of time spent finding the domain controller during the LEAP or EAP-FAST authentication process is limited to the value entered in the edit box (in seconds). A timeout value of 0 causes the authentication process to bypass the “Finding Domain Controller” step.



Note

The finding domain controller timeout value is included in the overall LEAP or EAP-FAST authentication timeout value. For example, if the authentication timeout value is 60 seconds, and the finding domain controller timeout value is 10 seconds, the client adapter has up to 60 seconds to complete the entire authentication process, up to 10 seconds of which is allocated for finding the domain controller.



Note

If you require domain services such as login scripts and roaming desktops, Cisco recommends that you do not check the Restrict Time Finding Domain Controller to (seconds) check box.



Note

Regardless of whether the check box is checked or unchecked, the “Finding Domain Controller” step is bypassed once you are logged into Windows or if you log into the local machine and not into a domain.

Install Wizard Command Line Options

Four Install Wizard 1.6 (IWSetup.exe) command line options are now available. They are intended to be used by system administrators to make the Install Wizard more usable in batch processes. [Appendix G](#) of the *Cisco Aironet 350 and CB20A Wireless LAN Client Adapters Installation and Configuration Guide for Windows* (OL-1394-10) describes the command line options and provides a sample application, the objective of which is to use a batch process to remove the Cisco Aironet client utilities and the Gina file and replace them with third-party elements that use the Cisco Aironet drivers.

Installing or Upgrading Client Adapter Software

Follow these steps to use Install Wizard 1.6 to install or upgrade client adapter software on a computer running Windows 2000 or XP.


Note

Install Wizard 1.6 and its software components are not supported for use with Windows 95, 98, 98 SE, NT, and Me.


Note

You do not need to uninstall any previous versions of Cisco Aironet client adapter software (firmware, drivers, or utilities) or previous versions of the Install Wizard prior to installing Install Wizard 1.6.

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 Choose **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, choose **Option #1: Aironet Wireless Software Selector**, follow the instructions on the screen, and go to [Step 6](#).

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

Step 4 Under Aironet Client Adapter Installation Wizard (For Windows), click **802.11a/b (CB20A, 350 Series, 340 Series)**.

Step 5 Click the Install Wizard 1.6 file.

Step 6 Complete the encryption authorization form; then read and accept the terms and conditions of the Software License Agreement.

Step 7 Click the file again to download it.

Step 8 Save the file to your computer's hard drive.

Step 9 Insert the client adapter into your computer if it is not already inserted.


Caution

Do not eject your client adapter at any time during the installation process, including during the reboot.

Step 10 If a driver is not currently installed for your client adapter, the Found New Hardware Wizard screen appears. Click **Cancel**.

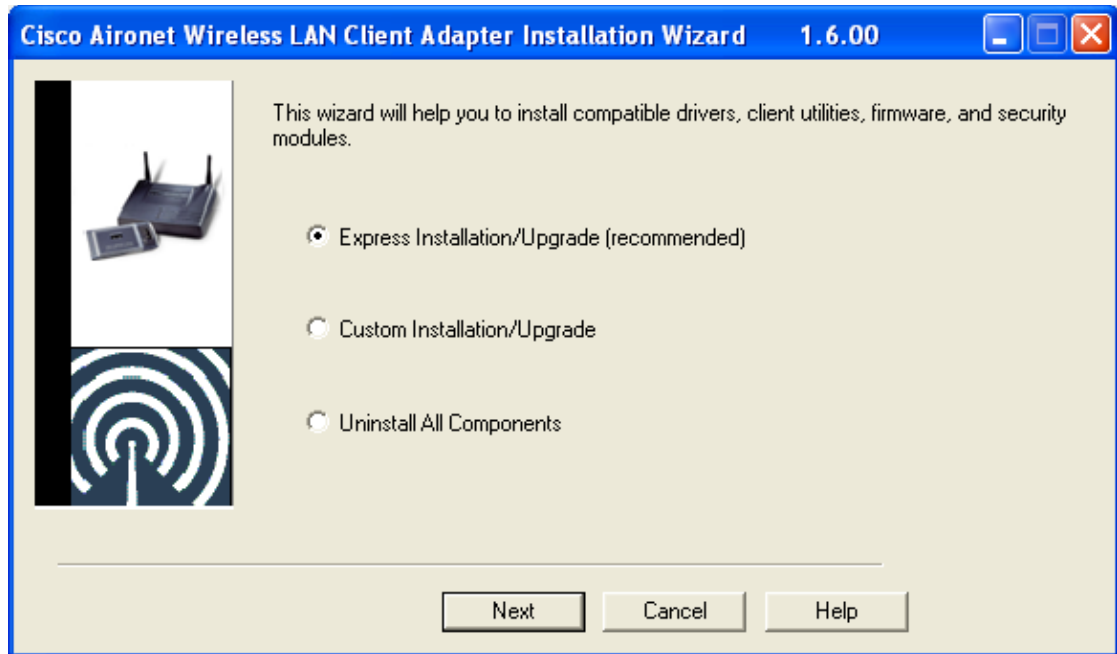
Step 11 Find the Install Wizard file using Windows Explorer, double-click it, and extract its files to a folder.


Note

To extract the files, click **Browse** on the WinZip Self-Extractor screen, choose the folder in which you want the files to be placed, and click **OK** and **Unzip**. After the files are extracted, click **OK** to close the screen.

Step 12 Close Windows Explorer. The Cisco Aironet Wireless LAN Client Adapter Installation Wizard screen appears (see [Figure 1](#)).

Figure 1 Cisco Aironet Wireless LAN Client Adapter Installation Wizard Screen



Step 13 Choose one of the following options and click **Next**:



Note To ensure compatibility among software components, Cisco recommends that you perform an express installation. If you perform a custom installation, Cisco recommends that you install all components.

- **Express Installation/Upgrade (recommended)**—Silently installs the client adapter firmware, drivers, client utilities, and security modules using the default values listed in [Table 1](#).
- **Custom Installation/Upgrade**—Enables you to specify which software components are installed and to change the default values of certain parameters.

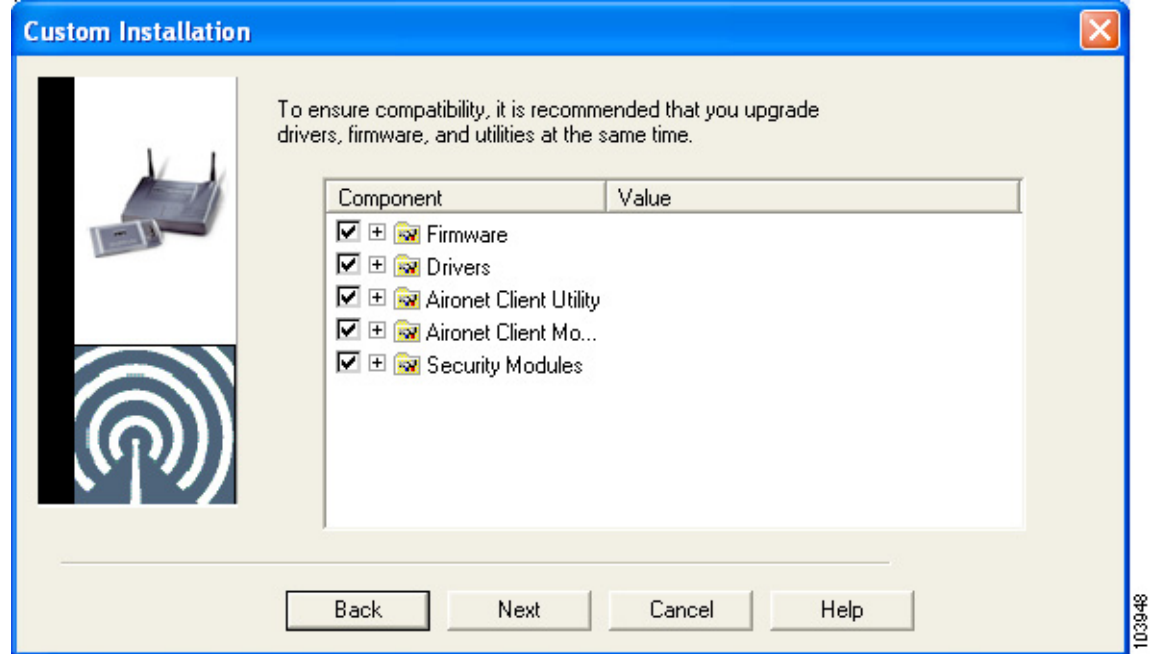
Step 14 If a message appears indicating that you may be required to restart your computer at the end of the installation process, click **OK**.



Note If you click **Cancel**, the installation process terminates.

Step 15 If you chose an express installation, go to [Step 17](#). If you chose a custom installation, the Custom Installation screen appears (see [Figure 2](#)).

Figure 2 Custom Installation Screen



Step 16 Follow these steps to make selections on this screen.

- a. Make sure that a check mark appears beside every software component that you want to install. For every component that is checked, the Install Wizard installs its version of that component. Every component that is not checked remains as it currently is on your system.



Note Click the + sign beside the Security Modules option to reveal the available security components.



Note Some components are dependent on others. Therefore, when you select or deselect these components, the settings of other components may change. A dependency notice appears when this occurs.

- b. Click the + sign beside each component to view additional parameters. The current value of each parameter appears in the Value field.
- c. To change the value of any parameter, click its current value in the Value field. A screen appears that lets you change the existing value.
- d. Enter or select a new value and click **OK**. [Table 1](#) describes each component and its parameters and lists any default value.

Table 1 Software Components and Their Parameters

Component or Parameter	Description						
Firmware	Installs the firmware version included in the Install Wizard file. Default: Checked						
Disable Firmware Checking	<p>The Disable Firmware Checking parameter affects the firmware that is bundled with the driver, not the firmware that is included in the Install Wizard. It controls whether the driver (whenever it loads) installs the firmware with which it is bundled.</p> <p>Note The driver loads each time you insert a client adapter or reboot your computer.</p> <p>Options: Yes or No Default: Yes</p> <table border="1" data-bbox="711 766 1492 1087"> <thead> <tr> <th data-bbox="711 766 1003 806">Disable Firmware Checking</th> <th data-bbox="1003 766 1492 806">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="711 806 1003 947">Yes</td> <td data-bbox="1003 806 1492 947">Prevents the driver from installing the firmware with which it is bundled, enabling the client adapter to retain its current firmware version.</td> </tr> <tr> <td data-bbox="711 947 1003 1087">No</td> <td data-bbox="1003 947 1492 1087">Causes the driver to install the firmware with which it is bundled if that firmware is newer than the firmware that is currently installed in the client adapter.</td> </tr> </tbody> </table> <p>Note The Disable Firmware Checking parameter is functionally equivalent to the Automatically Load New Firmware When NDIS Driver Is Updated parameter on the ACU Preferences screen. The parameter that is set last is the one that governs how the driver behaves.</p>	Disable Firmware Checking	Description	Yes	Prevents the driver from installing the firmware with which it is bundled, enabling the client adapter to retain its current firmware version.	No	Causes the driver to install the firmware with which it is bundled if that firmware is newer than the firmware that is currently installed in the client adapter.
Disable Firmware Checking	Description						
Yes	Prevents the driver from installing the firmware with which it is bundled, enabling the client adapter to retain its current firmware version.						
No	Causes the driver to install the firmware with which it is bundled if that firmware is newer than the firmware that is currently installed in the client adapter.						
Drivers	Installs the driver version included in the Install Wizard file. Default: Checked						
Set Quiet Mode?	<p>Specifies whether the client becomes quiet (to passively scan or listen) when its associated access point is turned off. In quiet mode, the client generates radio frequency energy only in direct response to an access point transmission. When the access point is turned back on, it starts sending beacons, which the client hears and can now respond to.</p> <p>This parameter applies to individual cards rather than profiles. It can be set differently for different cards and remains in effect across ACU sessions and computer reboots.</p> <p>Options: Yes or No Default: No</p> <p>Note You can also change the quiet mode setting in ACU by choosing the Turn Quiet Mode On/Off option from the Commands drop-down menu.</p>						

Table 1 Software Components and Their Parameters (continued)

Component or Parameter	Description
Aironet Client Utility	Installs the ACU version included in the Install Wizard file. Default: Checked
Installation Path	Determines the path where the ACU software will be installed. You can change the default by entering a new path. Default: C:\Program Files\Cisco Systems\Aironet Client Utility
Program Folder	Determines the program folder where the ACU software will be installed. You can change the default by entering a new folder name. Default: Cisco Systems
Place Icon on Desktop	Causes the installation program to add an ACU icon to your computer's desktop to provide quick access to the utility. Options: Yes or No Default: Yes
Allow Non-Administrator Users to Save Settings to the Registry	Enables users without administrative rights to modify profiles in ACU and save them to the registry. Options: Yes or No Default: Yes
Aironet Client Monitor	Installs the ACM version included in the Install Wizard file. Default: Checked
Installation Path	Determines the path where the ACM software will be installed. You can change the default by entering a new path. Default: C:\Program Files\Cisco Systems\Aironet Client Monitor
Program Folder	Determines the program folder where the ACM software will be installed. You can change the default by entering a new folder name. Default: Cisco Systems
Auto Start	Determines whether ACM starts automatically every time Windows boots. Options: Yes or No Default: Yes Note If you choose No, you can later activate ACM by using Windows Explorer to find the path where the ACM software is installed and double-clicking ACUMon.exe .
Start After Install	Determines whether ACM starts automatically after ACM is installed. Options: Yes or No Default: Yes Note If you choose No, you can later activate ACM by using Windows Explorer to find the path where the ACM software is installed and double-clicking ACUMon.exe .

Table 1 Software Components and Their Parameters (continued)

Component or Parameter	Description																								
Program Feature Overrides	<p>Determines which ACM components are enabled. If any components are not selected now and you later want to use them, you must run this installation program again and enable them.</p> <p>Components: See the table below</p> <p>Options per component: Enable or Disable</p> <p>Default per component: Enable</p>																								
	<table border="1"> <thead> <tr> <th>Component</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>About Box (Help)</td> <td>Displays the ACM version number and enables you to access the online help.</td> </tr> <tr> <td>Exit Program</td> <td>Closes ACM for all client adapters.</td> </tr> <tr> <td>Launch Aironet Client Utility</td> <td>Activates ACU, if it is installed.</td> </tr> <tr> <td>Troubleshooting</td> <td>Activates the troubleshooting utility, which enables you to identify and resolve configuration and association problems with your client adapter.</td> </tr> <tr> <td>Preferences</td> <td>Enables you to determine when ACM runs and to select the options that appear on the ACM pop-up menu.</td> </tr> <tr> <td>Turn Radio On/Off</td> <td>Turns the client adapter's radio on or off.</td> </tr> <tr> <td>Reauthenticate</td> <td>Forces your client adapter to try to reauthenticate using the username and password of the current profile.</td> </tr> <tr> <td>Select Profile</td> <td>Enables you to select the active profile for your client adapter.</td> </tr> <tr> <td>Auto Profile Selection</td> <td>Causes the client adapter's driver to automatically select a profile from the list of profiles that were set up in ACU to be included in auto profile selection.</td> </tr> <tr> <td>Other Configuration Application</td> <td>Enables an application other than ACU to configure the client adapter.</td> </tr> <tr> <td>Show Connection Status</td> <td>Provides information on the current status of your client adapter.</td> </tr> </tbody> </table>	Component	Description	About Box (Help)	Displays the ACM version number and enables you to access the online help.	Exit Program	Closes ACM for all client adapters.	Launch Aironet Client Utility	Activates ACU, if it is installed.	Troubleshooting	Activates the troubleshooting utility, which enables you to identify and resolve configuration and association problems with your client adapter.	Preferences	Enables you to determine when ACM runs and to select the options that appear on the ACM pop-up menu.	Turn Radio On/Off	Turns the client adapter's radio on or off.	Reauthenticate	Forces your client adapter to try to reauthenticate using the username and password of the current profile.	Select Profile	Enables you to select the active profile for your client adapter.	Auto Profile Selection	Causes the client adapter's driver to automatically select a profile from the list of profiles that were set up in ACU to be included in auto profile selection.	Other Configuration Application	Enables an application other than ACU to configure the client adapter.	Show Connection Status	Provides information on the current status of your client adapter.
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Table 1 Software Components and Their Parameters (continued)

Component or Parameter	Description
Menu Options (Defaults)	<p>Determines which options are displayed on the ACM pop-up menu.</p> <p>Menu options: About Box (Help), Exit Program, Launch Aironet Client Utility, Troubleshooting, Turn Radio On/Off, Reauthenticate, Select Profile, Show Connection Status</p> <p>Options per menu option: Show or Hide</p> <p>Default per menu option: Show</p>
Security Modules	
LEAP	<p>Installs the LEAP supplicant included in the Install Wizard file. Installing the LEAP supplicant enables you to create a profile in ACU that uses LEAP authentication. If this option is not selected now and you later want to create a profile that uses LEAP, you must run this installation program again and choose this option.</p> <p>Default: Checked</p> <p>Note If you choose LEAP on a Windows XP device, Windows XP's fast user switching feature is disabled.</p>
Allow Saved LEAP User Name and Password	<p>Enables you to create a profile in ACU that uses a saved (rather than temporary) username and password for LEAP authentication. When such a profile is selected, the saved username and password are used to start the LEAP authentication process, and you are not prompted to enter them.</p> <p>Options: Yes or No</p> <p>Default: Yes</p>
EAP-SIM	<p>Installs the EAP-SIM supplicant included in the Install Wizard file. Installing the EAP-SIM supplicant enables the client to support EAP-SIM authentication. If this option is not selected now and you later want to use EAP-SIM, you must run this installation program again and choose this option.</p> <p>Default: Unchecked</p> <p>Note To enable EAP-SIM authentication, your computer must run Windows 2000 with the Microsoft 802.1X supplicant installed or Windows XP.</p> <p>Note If you installed the new EAP-SIM supplicant from Cisco.com (see the “New EAP-SIM Supplicant Available” section on page 5), make sure the EAP-SIM option is not selected. Otherwise, the EAP-SIM supplicant included in the Install Wizard file overwrites the new supplicant's settings.</p>

Table 1 Software Components and Their Parameters (continued)

Component or Parameter	Description
PEAP	<p>Installs the PEAP supplicant included in the Install Wizard file. Installing the PEAP supplicant enables the client to support PEAP authentication. If this option is not selected now and you later want to use PEAP, you must run this installation program again and choose this option.</p> <p>Default: Unchecked</p> <p>Note To enable Cisco PEAP authentication, your computer must run Windows 2000 with the Microsoft 802.1X supplicant installed or Windows XP.</p> <p>Note Service Pack 1 for Windows XP and the Microsoft 802.1X supplicant for Windows 2000 include Microsoft's PEAP supplicant, which supports a Windows username and password only and does not interoperate with Cisco's PEAP supplicant. To use Cisco's PEAP supplicant, install the Install Wizard file after Windows XP Service Pack 1 or the Microsoft 802.1X supplicant for Windows 2000. Otherwise, Cisco's PEAP supplicant is overwritten by Microsoft's PEAP supplicant.</p>
EAP-FAST	<p>Installs the EAP-FAST supplicant included in the Install Wizard file. Installing the EAP-FAST supplicant enables you to create a profile in ACU that uses EAP-FAST authentication. If this option is not selected now and you later want to create a profile that uses EAP-FAST, you must run this installation program again and choose this option.</p> <p>Default: Checked</p> <p>Note The EAP-FAST supplicant is installed and can be enabled only on computers running Windows 2000 or XP.</p> <p>Note If you choose EAP-FAST on a Windows XP device, Windows XP's fast user switching feature is disabled.</p>
Allow Saved EAP-FAST User Name and Password	<p>Enables you to create a profile in ACU that uses a saved (rather than temporary) username and password for EAP-FAST authentication. When such a profile is used, the saved username and password are used to start the EAP-FAST authentication process, and you are not prompted to enter them.</p> <p>Options: Yes or No</p> <p>Default: Yes</p> <p>Note This parameter is applicable only to client adapters that are installed in computers running Windows 2000 or XP.</p>

Table 1 Software Components and Their Parameters (continued)

Component or Parameter	Description
Allow Auto-Provisioning?	<p>Enables a protected access credentials (PAC) file to be obtained automatically as needed (for instance, when a PAC expires, when the client adapter accesses a different server, when the EAP-FAST username cannot be matched to a previously provisioned PAC, etc.).</p> <p>Options: Yes or No</p> <p>Default: Yes</p> <p>Note This parameter is applicable only to client adapters that are installed in computers running Windows 2000 or XP.</p>

e. When you are finished making selections, click **Next**.

Step 17 The installation process begins, and you are notified as each component is installed. Perform one of the following:

- If a message appears asking if you wish to reboot now, click **Yes**.



Note To ensure that your client adapter software is installed properly, Cisco recommends that you click **Yes** to reboot your computer now.

- If a message appears indicating that the system is about to reboot, click **OK** and allow your computer to restart.
- If the following message appears, click **OK** and then reboot your computer: “The installation will complete and applications will be installed when a wireless LAN client adapter is inserted. If an adapter is already inserted, remove and reinsert the adapter or reboot the machine.”

The Found New Hardware screen appears. Depending on your computer’s operating system, you may have to click **Next**. The driver and other software components are installed. Then an ACM icon appears in the Windows system tray (unless you changed the default value during installation). Perform one of the following:

- If a message appears asking if you wish to reboot now, click **Yes**.



Note To ensure that your client adapter software is installed properly, Cisco recommends that you click **Yes** to reboot your computer now.

- If a message appears indicating that the system is about to reboot, click **OK** and allow your computer to restart.

Step 18 If you want to install a second client adapter, allow your computer to reboot completely; then insert the second adapter into your computer. Depending on your computer's operating system, one of the following scenarios occurs:

- The Found New Hardware Wizard screen appears. Depending on your computer's operating system, you may have to click **Next**. The driver and other software components are installed, and another ACM icon appears in the Windows system tray. Click **Yes** or **OK** when a message appears about rebooting your computer.



Note To ensure that your client adapter software is installed properly, Cisco recommends that you reboot your computer now.

- The driver and other software components are installed, and another ACM icon appears in the Windows system tray. Click **Yes** or **OK** when a message appears about rebooting your computer.



Note To ensure that your client adapter software is installed properly, Cisco recommends that you reboot your computer now.

Step 19 If your network setup does not include a DHCP server and you plan to use TCP/IP, follow these steps for your operating system. If you have more than one client adapter installed, repeat this step for each adapter.

- **Windows 2000**—Double-click **My Computer**, **Control Panel**, and **Network and Dial-up Connections**. Right-click **Local Area Connection x** (where *x* represents the number of the connection). Click **Properties**, **Internet Protocol (TCP/IP)**, and **Properties**. Click **Use the following IP address** and enter the IP address, subnet mask, and default gateway address of your computer (which can be obtained from your system administrator). Click **OK**. In the Local Area Connection Properties window, click **OK**.
- **Windows XP**—Right-click **Wireless Network Connection** and click **Properties**. Click **Internet Protocol (TCP/IP)** and click **Properties**. Choose **Use the following IP address** and enter the IP address, subnet mask, and default gateway address of your computer (which can be obtained from your system administrator). Click **OK**.

Step 20 If you are prompted to restart your computer, click **Yes**. The installation is complete.

Finding Version Numbers

Follow the instructions in this section to find the version numbers of your client adapter's software components.

Finding the Install Wizard Version

Follow these steps to find the version of the Install Wizard that is currently installed for your client adapter.

-
- Step 1** Open Windows Explorer.
 - Step 2** Find the Install Wizard files.
 - Step 3** Right-click the **IWSetup.exe** or **Setup.exe** file.
 - Step 4** Click **Properties**.
 - Step 5** Click the **Version** tab. The File version field shows the version of the currently installed Install Wizard file.
-

Finding the Firmware and Driver Versions

To find the firmware and driver versions that are currently installed for your client adapter, click the ACU **Status** icon. The Firmware Version field on the Status screen shows the current firmware version, and the NDIS Driver Version field shows the current driver version.

Finding the ACU Version

To find the version of ACU that is currently installed for your client adapter, click the ACU **About** icon. The About Aironet Client Utility screen shows the current ACU version.

Finding the ACM Version

To find the version of ACM that is currently installed for your client adapter, right-click the **ACM** icon and click the **About** option. The About screen shows the current ACM version.

Caveats

This section describes the resolved and closed caveats for the software components in this release.

Resolved Caveats

The following caveats are resolved in the software components of this release.

- CSCee21739—Removal of Novell software is not recognized
Computers using LEAP authentication do not recognize when Novell software is uninstalled. As a result, the user's credentials are not obtained from the Windows login module. Instead, the user continues to be prompted for a separate username and password.
- CSCee49331—ACU hangs at “Finding Domain Controller” step until LEAP times out
A 350 series client adapter that is configured for LEAP authentication may become unresponsive during the “Finding Domain Controller” step until the LEAP authentication timeout period expires. To resolve this problem, a new feature that enables you to restrict the amount of time spent finding the domain controller was added to ACU 6.5. See the [“Finding Domain Controller Timeout Value Added to ACU” section on page 6](#) for more information.
- CSCef42776—350 client stops responding after 1 to 3 hours
A 350 series client adapter that is configured through Windows XP rather than ACU disassociates from its access point after being idle for 1 to 3 hours. The client adapter must be reset using the Restart Card menu option in ACU.
- CSCeg21816—ACU does not save PAC if auto-provisioning is enabled
Some HH3 PC tablets running Windows 2000 cannot save an EAP-FAST PAC file when auto-provisioning is enabled. Therefore, the user is prompted to auto-provision a PAC whenever the client adapter attempts to authenticate.
- CSCeg21850—Enter Wireless Network Password screen appears in the background
The Enter Wireless Network Password screen for EAP-FAST appears in the background. You must click **Alt-Tab** to bring the screen to the foreground.
- CSCeg32864—PAC provisioning fails on Novell networks
When the client adapter is used on a computer that is running Novell software, ACU imports PAC files under the wrong username. As a result, PAC provisioning fails.
- CSCeg77559—350 client using WPA and TKIP causes high rate of CPU usage
A 350 series client adapter can cause a high rate of CPU usage when it is configured for WPA and TKIP. As a result, other clients that are associated to the same access point may lose their association.
- CSCeh21284—Client loses connection because it cannot switch between multiple PACs
When the client reauthenticates or roams to another access point in an environment with multiple Cisco Secure ACS servers, it may lose its connection because it is unable to switch to a different PAC, even one that was provisioned previously.
- CSCeh30173—EAP-FAST error message appears for 350 client
Computers running EAP-FAST authentication with a 350 series client adapter may display an error message indicating that the currently installed software or firmware does not support EAP-FAST.

- CSCeh30646—User is prompted to provision PAC even if it was already provisioned
The user may be prompted to provision an EAP-FAST PAC even if it was previously provisioned by the same Cisco Secure ACS server.
- CSCeh39240—Client may hang after exiting suspend mode
The client adapter may become unresponsive after exiting suspend mode and attempting to resume operation.
- CSCeh40608—350 client does not pass traffic to Linksys access point
A 350 series client adapter that is configured for WPA-PSK cannot pass data when associated to a Linksys 802.11g access point.
- CSCeh55490—ACU may hang at “Finding Domain Controller” step due to long controller name
If the domain controller’s name contains more than 13 characters, ACU may become unresponsive during the “Finding Domain Controller” step of LEAP or EAP-FAST authentication.
- CSCin32330—Many PEAP login screens appear when computer is left idle
If you leave your computer idle while it is using PEAP authentication, you may receive three PEAP login screens upon resume. To resolve this problem, cancel the first two login screens and use the last one (which is on top) to log in.

Closed Caveats

The following caveats, which are listed as open caveats in the Release Notes for Install Wizard 1.5, have been closed and are not resolved in Install Wizard 1.6.

- CSCec13533—Login delay using Microsoft WPA supplicant
When you activate a host-based EAP profile under Windows XP with Microsoft’s WPA supplicant (Q815485) installed, it can take up to 90 seconds after login for the Windows desktop to appear and several minutes for the client to authenticate. This problem could not be reproduced.
- CSCec47650—Dell Inspiron 8000 shuts down when Windows 2000 3D screen saver used
The Dell Inspiron 8000 laptop may shut down upon entering screen saver mode when a 3D screen saver is used. To work around this problem, choose a non-3D screen saver.
- CSCef21799—PEAP supplicant does not support automated Next Token mode with SofToken
The PEAP supplicant does not support automated Next Token mode with SofToken. To work around this problem when using Next Token mode, copy the PIN from the SofToken application and paste it into the PEAP window rather than using the automatic SofToken import facility.
- CSCef66051—Intermittent drive mapping with SLP
If you use Service Location Protocol (SLP) to map network drives, you may experience intermittent mapping problems with your client adapters. To work around this issue, install a Novell patch and modify the Novell drive mapping if necessary.
- CSCin58253—PEAP login screen takes a long time to display for WPA clients
The PEAP login screen (Static Password or One Time Password) can take up to 3 minutes to display after you activate a profile that is configured for PEAP and WPA. To work around this problem, use Windows XP to configure the client adapter.

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 at the following URL:

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>

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 Cisco Aironet 350 and CB20A client adapters for Windows, refer to the following documents:

- *Cisco Aironet 350 and CB20A Wireless LAN Client Adapters Installation and Configuration Guide for Windows*, OL-1394-10
http://www.cisco.com/en/US/products/hw/wireless/ps4555/products_installation_and_configuration_guides_list.html
- *Release Notes for Cisco Aironet 350 and CB20A Client Adapter Firmware 5.60.17*, OL-7684-01
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/univercd/home/home.htm>

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

Documentation DVD

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

Registered Cisco.com users (Cisco direct customers) can order a Cisco Documentation DVD (product number DOC-DOCDVD=) from the Ordering tool or Cisco Marketplace.

Cisco Ordering tool:

<http://www.cisco.com/en/US/partner/ordering/>

Cisco Marketplace:

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

Ordering Documentation

You can find instructions for ordering documentation at this URL:

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 Ordering tool:
<http://www.cisco.com/en/US/partner/ordering/>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 1 800 553-NETS (6387).

Documentation Feedback

You can send comments about technical 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
- Nonemergencies—psirt@cisco.com



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 that has the most recent creation date in this public key server list:

<http://pgp.mit.edu:11371/pks/lookup?search=psirt%40cisco.com&op=index&exact=on>

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

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

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

Cisco Technical Support Website

The Cisco Technical Support 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, 365 days a year, at this URL:

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

Access to all tools on the Cisco Technical Support 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 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 TAC 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 TAC 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, 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>

- *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>

- 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>

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