Release Notes for Cisco Aironet 340, 350, and CB20A Client Adapter Install Wizard 1.2 for Windows

Contents

This document contains the following sections:

- Introduction, page 2
- System Requirements, page 2
- Important Notes, page 4
- New and Changed Information, page 6
- Installing or Upgrading Client Adapter Software, page 11
- Finding Version Numbers, page 20
- Caveats, page 21
- Troubleshooting, page 23
- Related Documentation, page 24
- Obtaining Documentation, page 24
- Obtaining Technical Assistance, page 25
- Obtaining Additional Publications and Information, page 27

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

Copyright © 2003 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 client adapter Install Wizard version 1.2 and the following software included in the Install Wizard file:

- Firmware version 5.30.17
- PC, LM, and PCI card driver version 8.4
- Mini PCI and PC-Cardbus card driver version 3.7
- Aironet Client Utility (ACU) version 6.2
- Aironet Client Monitor (ACM) version 2.2
- LEAP security module version 6.2
- PEAP security module version 1.01
- 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 version 1.2 and use its software components:

- One of the following Cisco Aironet client adapters:
  - 340 or 350 series PC, LM, or PCI card
  - 350 series mini PCI card
  - CB20A PC-Cardbus card
- A computer running the Windows 98, 98 SE, NT, 2000, Me, or XP operating system

Note Windows NT Service Pack 6 or greater is required for computers running Windows NT.

Note PC-Cardbus cards are not supported for use with Windows NT.

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.

- A maximum of eight network connections if your computer is running Windows 98 or 98 SE
- Software with WPA support 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 support patch 815485 (for Windows XP)

Note Meetinghouse AEGIS Client supplicant version 2.1 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 greater 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 the ftpeng FTP server at the following URL:

ftp://ftpeng.cisco.com/ftp/pwlan/eapsim/CiscoEapSim.dll

- 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

- 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 Cisco IOS Release 12.2(4)JA (1100 series access points).

Note To use WPA or fast roaming (CCKM), access points must use Cisco IOS Release 12.2(11)JA or greater. To use radio management (RM), access points must use Cisco IOS Release 12.2(13)JA or greater.

- All necessary infrastructure devices (such as access points, servers, gateways, user databases, etc.) 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.

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 340 series PC card) and then eject the card and replace it with a card of another radio type (such as a 350 series PC 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 the ftpeng FTP server. 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 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 new EAP-SIM supplicant at the following URL:

ftp://ftpeng.cisco.com/ftp/pwlan/eapsim/CiscoEapSim.dl

WPA Migration Mode Not Supported by Clients

Although the software components included in client adapter Install Wizard version 1.2 support Wi-Fi Protected Access (WPA) authenticated key management for 350 series and CB20A cards on computers running Windows 2000 or XP (see the "WPA Support" section on page 7 for more information), they do not include support for WPA migration mode.

In order to use Cisco Aironet client adapters with WPA, the access point must be configured only for the WPA TKIP cipher. The use of the following migration-mode-supporting ciphers is not supported by Cisco WPA clients:

- TKIP + WEP128
- TKIP + WEP40

To support the coexistence of Cisco Aironet WPA clients and non-WPA clients, it is necessary to configure separate VLANs and encryption policies on the access point. Specifically, a VLAN with TKIP encryption mode and a VLAN with a compatible WEP encryption mode specified would be required.

Note Refer to the documentation for your access point for specific instructions.

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.

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 fill out a form to receive authorization to download encrypted software. Registered Cisco.com users are required to fill out the form only once, but 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 at the following URL:

http://www.cisco.com/cgi-bin/Software/Crypto/crypto_main.pl

Supporting Documentation

The *Cisco Aironet 340, 350, and CB20A Wireless LAN Client Adapters Installation and Configuration Guide for Windows* (part number OL-1394-07) pertains specifically to versions of the software that are included in Install Wizard version 1.2. If you are using, installing, or upgrading to previous versions of client adapter software, refer to a previous version of this manual for information and instructions.

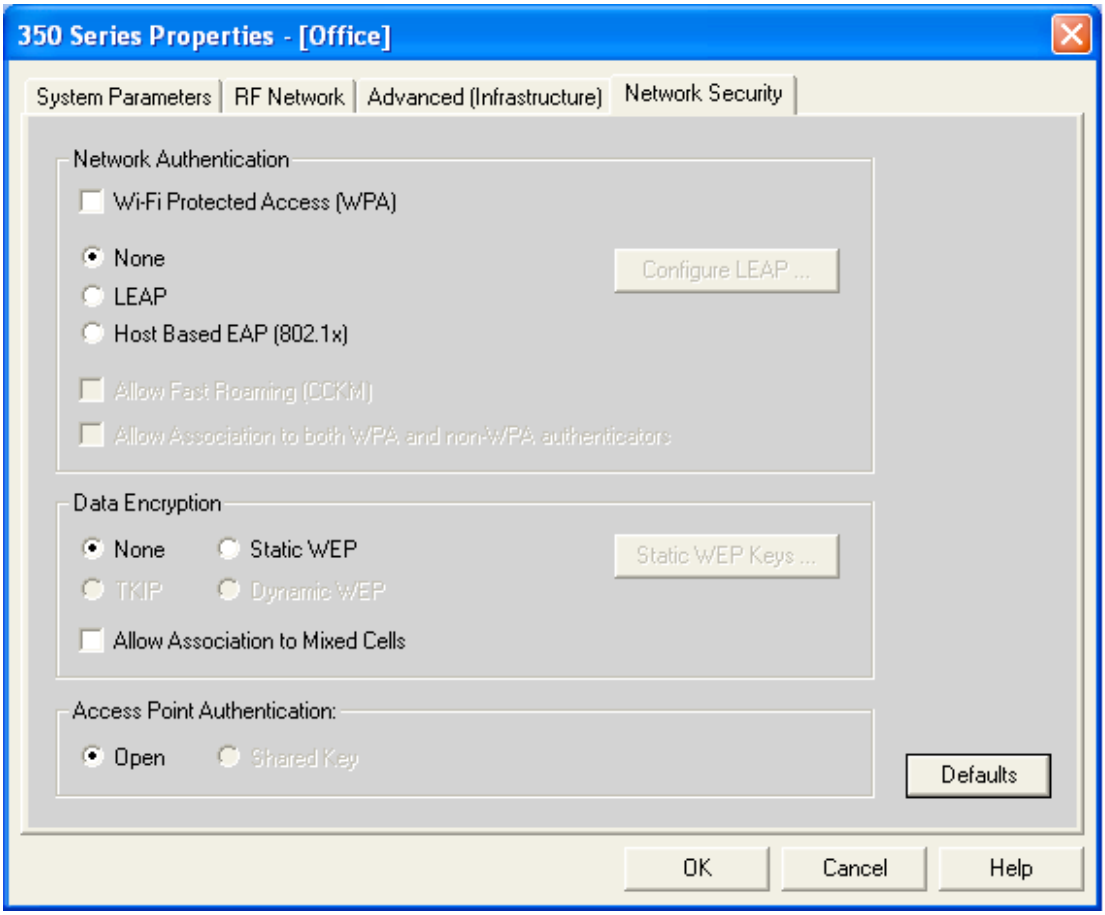
New and Changed Information

Redesigned Network Security Screen

The Network Security screen in ACU has been redesigned to accommodate additional security features (see Figure 1).

Note Refer to Chapter 5 of the *340, 350, and CB20A Wireless LAN Client Adapters Installation and Configuration Guide for Windows* (part number OL-1394-07) for instructions on enabling client security features using this new screen.

Figure 1 Network Security Screen



WPA Support

Wi-Fi Protected Access (WPA) is a standards-based, interoperable security enhancement that greatly increases the level of data protection and access control for existing and future wireless LAN systems. It is derived from and will be compatible with the upcoming IEEE 802.11i standard. WPA leverages Temporal Key Integrity Protocol (TKIP) and Michael message integrity check (MIC) for data protection and 802.1X for authenticated key management. WPA is supported by the Cisco Wireless Security Suite.

WPA supports two mutually exclusive key management types: WPA and WPA-Pre-shared key (WPA-PSK). Using WPA key management, clients and the authentication server authenticate to each other using an EAP authentication method, and the client and server generate a pairwise master key (PMK). The server generates the PMK dynamically and passes it to the access point. Using WPA-PSK key management, however, you configure a pre-shared key on both the client and the access point, and that pre-shared key is used as the PMK.

Only 350 series and CB20A cards that are installed on computers running Windows 2000 or XP and running LEAP or host-based EAP authentication can be used with WPA. Support for WPA is available in the software components included in Install Wizard version 1.2 or greater. However, if you want to use host-based EAP authentication with WPA, you must install additional software with WPA support. The following WPA software is recommended for use with Cisco Aironet client adapters:

- Funk Odyssey Client supplicant version 2.2 (for Windows 2000)
- Windows XP Service Pack 1 and Microsoft support patch 815485 (for Windows XP)

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

Note Refer to Chapter 5 of the *340, 350, and CB20A Wireless LAN Client Adapters Installation and Configuration Guide for Windows* (version OL-1394-07) for instructions on enabling WPA.

Note WPA must also be enabled on the access point. Access points must use Cisco IOS Release 12.2(11)JA or greater to enable WPA. Refer to the documentation for your access point for instructions on enabling this feature.

Table 1 illustrates CKIP, WPA TKIP, and CCKM support in the client adapter Install Wizard releases to date.

Table 1 CKIP, WPA TKIP, and CCKM Support in Install Wizard Releases

Clients Supported	LEAP/Host-Based EAP and CKIP/WPA TKIP/ CCKM	Install Wizard Version	Third-Party Supplicant Required	Operating System Supported
340, 350, CB20A	LEAP with CKIP	1.0 or later	No	Windows 95, 98, NT, 2000, Me, XP
340, 350, CB20A	LEAP with CCKM and CKIP	1.1 or later	No	Windows 98, NT, 2000, Me, XP
350, CB20A	LEAP with CCKM and WPA TKIP	1.2 or later	No	Windows 2000 and XP
350, CB20A	LEAP with WPA (no CCKM)	1.2 or later	No	Windows 2000 and XP
350, CB20A	PEAP with WPA (no CCKM)	1.2 or later	No[1]	Windows XP
350, CB20A	PEAP with WPA (no CCKM)	1.2 or later	Yes	Windows 2000
350, CB20A	EAP-TLS with WPA (no CCKM)	1.2 or later	No[1]	Windows XP
350, CB20A	EAP-TLS with WPA (no CCKM)	1.2 or later	Yes	Windows 2000

Table 1 CKIP, WPA TKIP, and CCKM Support in Install Wizard Releases (continued)

Clients Supported	LEAP/Host-Based EAP and CKIP/WPA TKIP/ CCKM	Install Wizard Version	Third-Party Supplicant Required	Operating System Supported
350, CB20A	EAP-SIM with WPA (no CCKM)	1.2 or later	No[1]	Windows XP
350, CB20A	EAP-SIM with WPA (no CCKM)	1.2 or later	Yes	Windows 2000
350, CB20A	WPA PSK Mode	1.2 or later, ACU not required	No[1]	Windows XP
350, CB20A	WPA PSK Mode	1.2 or later, ACU not required	Yes	Windows 2000

1. Windows XP does not require a third-party supplicant, but you must install Windows XP Service Pack 1 and Microsoft support patch 815485.

Radio Management Support

A new parameter entitled Enable Radio Management Support has been added to the Advanced (Infrastructure) Parameters screen in ACU. Checking this check box enables the access point to which the client adapter is associated to control the use of radio management (RM), provided RM is enabled on the access point.

RM is a system-wide feature that involves multiple infrastructure nodes and is a feature of the Cisco Structured Wireless-Aware Network (SWAN). The RM feature on the access point acts on radio measurement requests from other network devices to instruct the access point and its associated clients to perform required radio measurements and then report them.

Cisco SWAN uses RM data to provide:

- Rogue access point detection and location
- Interference detection to isolate and locate network interference
- Assisted site surveys for simplified WLAN deployment processes
- Air/radio frequency (RF) scanning and monitoring
- Streamlined WLAN management and operations support

This parameter is available in ACU version 6.2 or greater and only for 350 series client adapters using firmware version 5.30.17 or greater.

Note Access points must use Cisco IOS Release 12.2(13)JA or greater to enable RM. Refer to the documentation for your access point for instructions on enabling this feature.

Ability to Disable Fast Roaming (CCKM)

In the previous client adapter release (Install Wizard version 1.1 and client adapter firmware version 5.20.17), fast roaming (CCKM) was enabled automatically by the client adapter firmware. Now, however, you can enable or disable fast roaming in ACU by checking or unchecking the Allow Fast Roaming (CCKM) check box on the Network Security screen.

New and Changed Status Fields

Three new status fields have been added to the Status screen in ACU:

- Broadcast Encryption Type—Indicates the type of encryption that is being used for broadcast and multicast packets.

  Value: None, WEP, TKIP, or CKIP

- WPA Authentication—Indicates whether WPA is enabled on the client adapter and the access point to which it is associated.

  Value: None or WPA

- Fast Roaming—Indicates whether fast roaming is enabled on the client adapter.

  Value: None or CCKM

Two status fields have been changed on the Status screen in ACU:

- Using Message Integrity Check—This field has been renamed Message Integrity Check (MIC), and its possible values are now None, MMH, and Michael to reflect the MIC type.
  - None—MIC is disabled.
  - MMH—MIC is enabled and is being used with CKIP.
  - Michael—MIC is enabled and is being used with WPA and TKIP.
- WEP (Wired Equivalent Privacy)—This field has been renamed Data Encryption Type, and its possible values are now None, WEP, TKIP, and CKIP to indicate the type of encryption that is being used for unicast packets.

New Statistics Fields

Three new statistics fields have been added to the Statistics screen in ACU:

- WPA Mismatches—The number of probe responses or beacons received that do not qualify for association because of a mismatched WPA information element. WPA information elements are sent by access points to advertise supported authentication modes and supported ciphers. This field is displayed only if WPA is enabled.
- RM Requests Received—The number of valid radio management (RM) request frames that were received successfully. This field is displayed only if RM is enabled.
- RM Reports Transmitted—The number of radio management (RM) report frames that were generated and transmitted in response to a valid RM request. This field is displayed only if RM is enabled.

Other Changes

The following changes have also been made to the 340, 350, and CB20A client adapter software for Windows:

- The Install Wizard version number now appears in the title bar of the Cisco Aironet Wireless LAN Client Adapter Installation Wizard screen (see Figure 2 on page 12).
- The Setup.exe file, which is extracted from the Install Wizard file, has been renamed *IWSetup.exe*.
- The minimum value for the LEAP Authentication Timeout Value field on the LEAP Settings screen in ACU has changed from 45 seconds to 10 seconds.

Installing or Upgrading Client Adapter Software

Follow the steps below to use Install Wizard version 1.2 to install or upgrade client adapter software on a computer running Windows 98, 98 SE, 2000, Me, or XP. If your computer is running Windows NT, follow the installation instructions in the *Cisco Aironet 340, 350, and CB20A Wireless LAN Client Adapters Installation and Configuration Guide for Windows* (part number OL-1394-07).

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 version 1.2.

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 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 6.

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

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

Step 5 Select version 1.2 of the Install Wizard file.

Step 6 Read and accept the terms and conditions of the Software License Agreement.

Step 7 Select 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.

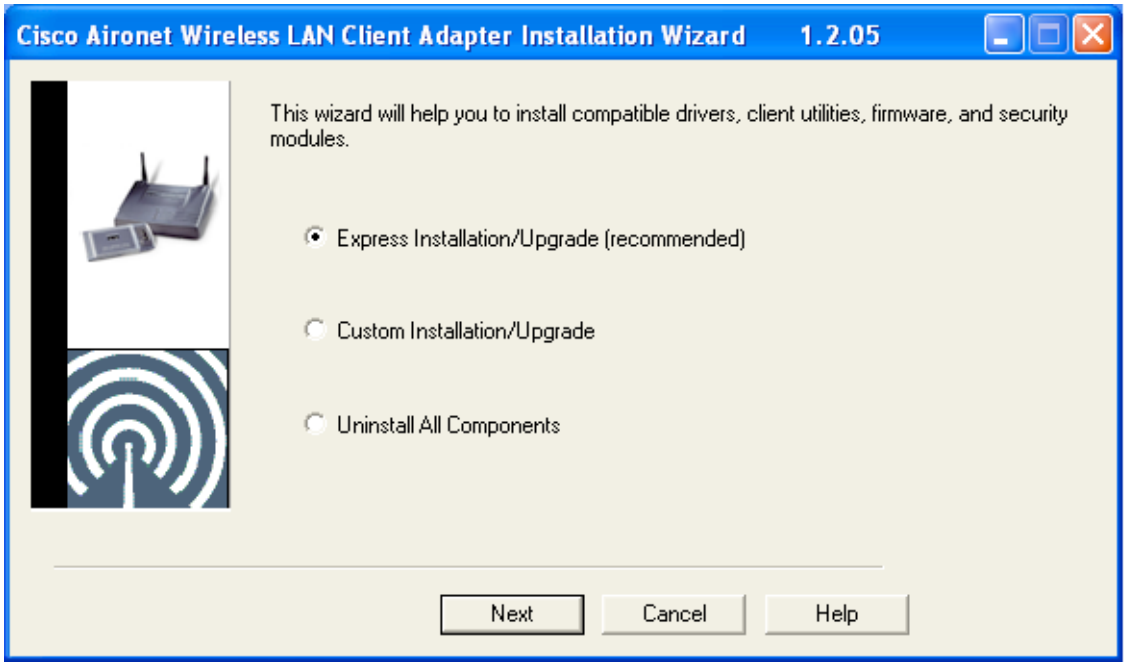
Step 10 If a driver is not currently installed for your client adapter, the Found New Hardware Wizard screen appears. Click **Cancel**.

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, select 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 2).

Figure 2 Cisco Aironet Wireless LAN Client Adapter Installation Wizard Screen



Step 13 Select 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.

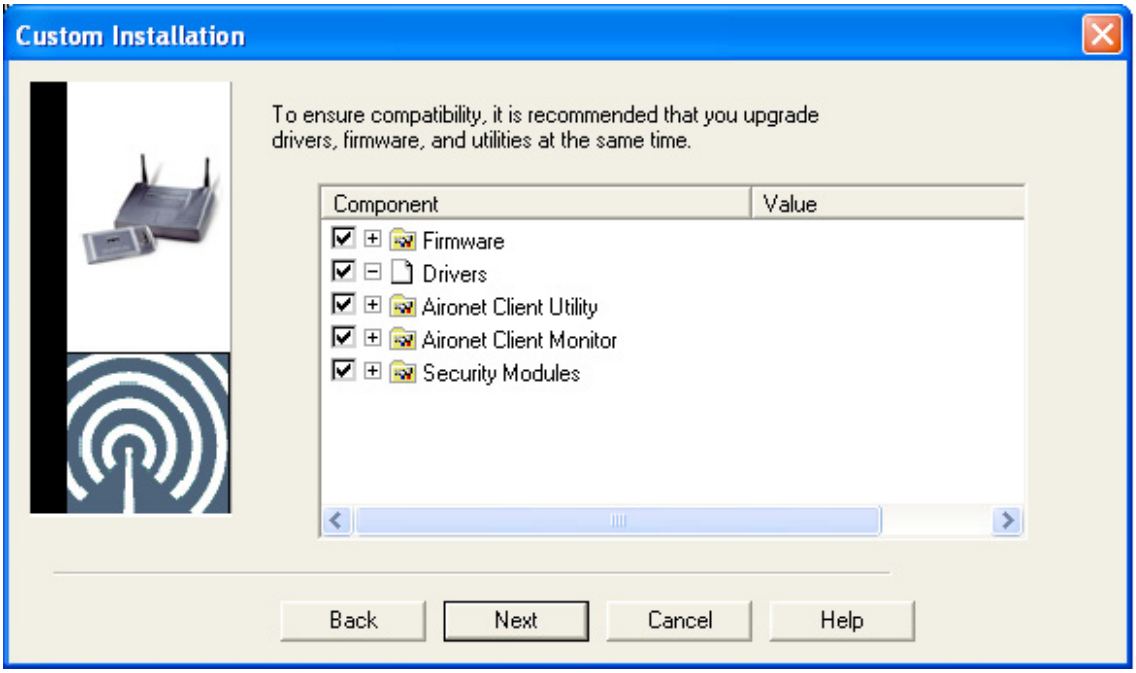
- **Express Installation/Upgrade (recommended)**—Silently installs the client adapter firmware, drivers, client utilities, and security modules using the default values listed in Table 2.
- **Custom Installation/Upgrade**—Enables you to specify which software components are installed and to change the 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 selected an express installation, go to Step 17. If you selected a custom installation, the Custom Installation screen appears (see Figure 3).

Figure 3 Custom Installation Screen



Step 16 Follow the steps below to make selections on this screen.

a. Make sure 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 2 describes each component and its parameters and lists any default value.

Table 2 Software Components and Their Parameters

<table>
<tr><th>Component or Parameter</th><th>Description</th></tr>
<tr><td>Firmware</td><td>Installs the firmware version included in the Install Wizard file.
Default: Checked</td></tr>
<tr><td>Disable Firmware Checking</td><td>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.
Note The driver loads each time you insert a client adapter or reboot your computer.
Options: Yes or No
Default: Yes
<table><tr><th>Disable Firmware Checking</th><th>Description</th></tr><tr><td>Yes</td><td>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>No</td><td>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></table>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.</td></tr>
<tr><td>Drivers</td><td>Installs the driver version included in the Install Wizard file.
Default: Checked</td></tr>
<tr><td>Aironet Client Utility</td><td>Installs the ACU version included in the Install Wizard file.
Default: Checked</td></tr>
<tr><td>Installation Path</td><td>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</td></tr>
<tr><td>Program Folder</td><td>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</td></tr>
<tr><td>Place Icon on Desktop</td><td>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</td></tr>
</table>

Table 2 Software Components and Their Parameters (continued)

Component or Parameter	Description
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 on computers running Windows NT, 2000, or XP. **Options:** Yes or No **Default:** Yes **Note** This option is not available for Windows 98, 98 SE, and Me because these versions of Windows do not support different classes of users.
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 select 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 select 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 2 Software Components and Their Parameters (continued)

<table>
<tr><th>Component or Parameter</th><th>Description</th></tr>
<tr><td>Program Feature Overrides</td><td>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.
Components: See the table below
Options per component: Enable or Disable
Default per component: Enable

<table>
<tr><th>Component</th><th>Description</th></tr>
<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>
</table>
</td></tr>
</table>

Table 2 Software Components and Their Parameters (continued)

Component or Parameter	Description
Menu Options (Defaults)	Determines which options are displayed on the ACM pop-up menu. **Menu options:** About Box (Help), Exit Program, Launch Aironet Client Utility, Troubleshooting, Turn Radio On/Off, Reauthenticate, Select Profile, Show Connection Status **Options per menu option:** Show or Hide **Default per menu option:** Show
Security Modules	
LEAP	Installs the LEAP supplicant version 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 select this option. **Default:** Checked **Note** If you select LEAP on a Windows XP device, Windows XP's fast user switching feature is disabled.
Allow Saved LEAP User Name and Password	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. **Options:** Yes or No **Default:** Yes
EAP-SIM	Installs the EAP-SIM supplicant version 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 select this option. **Default:** Unchecked **Note** To enable EAP-SIM authentication, your computer must run Windows 2000 with the Microsoft 802.1X supplicant installed or Windows XP. **Note** If you installed the new EAP-SIM supplicant from the ftpeng FTP server (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.

Table 2 Software Components and Their Parameters (continued)

Component or Parameter	Description
PEAP	Installs the PEAP supplicant version 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 select this option. **Default:** Unchecked **Note** To enable Cisco PEAP authentication, your computer must run Windows 2000 with the Microsoft 802.1X supplicant installed or Windows XP. **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 Service Pack 1 for Windows XP or the Microsoft 802.1X supplicant for Windows 2000. Otherwise, Cisco's PEAP supplicant is overwritten by Microsoft's PEAP supplicant.

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.

- 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 computer is not connected to a DHCP server and you plan to use TCP/IP, follow the steps below for your operating system. If you have more than one client adapter installed, repeat this step for each adapter.

- **Windows 98, 98 SE, and Me**—Double-click **My Computer**, **Control Panel**, and **Network**. Select **TCP/IP > Cisco Systems Wireless LAN Adapter**. Click **Properties**, select **Specify an 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 Network window, click **OK**.
- **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**. Select **Internet Protocol (TCP/IP)** and click **Properties**. Select **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 the steps below 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 select the **About** option. The About screen shows the current ACM version.

Caveats

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

Open Caveats

Open Firmware Caveats

The following caveats have not been resolved in client adapter firmware version 5.30.17.

- CSCeb85992—Client scanning problems with LEAP

  Clients using LEAP sometimes experience scanning problems, such as sending probe requests in only the current channel rather than scanning through all channels.

- CSCec33568—Full SSID may not appear on ACU and ACM Status screens

  Some characters may be dropped from the end of the SSID on the ACU Status screen and the ACM Connection Status screen. This issue has no impact on client operation or performance.

Open ACU Caveats

The following caveats have not been resolved in ACU version 6.2.

- CSCec27947—ACU and ACM show broadcast SSID rather than associated SSID

  On Windows XP devices, ACM and the ACU Status screen sometimes show the access point's broadcast SSID rather than the SSID to which the client adapter is associated.

- CSCec39505—ACU sometimes misreports signal strength for CB20A client adapters

  The ACU Status screen sometimes misreports a signal strength of 100% for CB20A client adapters.

- CSCeb86187—LEAP Authentication Status screen takes a long time to display

  The LEAP Authentication Status screen can take up to 20 seconds to display after you switch to a LEAP-enabled profile or use the Manual LEAP Login option.

- 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.

Open ACM Caveats

The following caveat has not been resolved in ACM version 2.2.

- CSCec06303—ACM icon disappears from system tray

  The ACM icon may disappear from the Windows system tray while ACM is running.

Open Driver Caveats

The following caveats have not been resolved in PC, LM, and PCI card driver version 8.4 and mini PCI and PC-Cardbus card driver version 3.7.

- 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.

- CSCec33661—Some Dell laptops fail to obtain IP address

  Some Dell laptops fail to obtain an IP address from the DHCP server after being undocked. To work around this issue, restart your computer.

- CSCec47650—Dell Inspiron 8000 shuts down when Windows 2000 3D screen saver used

  The Dell Inspiron 8000 laptop might shut down upon entering screen saver mode when a 3D screen saver is used. To work around this issue, select a non-3D screen saver.

Open Security Module Caveats

The following caveat has not been resolved in PEAP security module version 1.01.

- 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.

Resolved Caveats

Resolved ACU Caveats

The following caveats are resolved in ACU version 6.2.

- CSCin41979—Unable to specify packet size in text field on Linktest screen

  When you start to enter a value in the Packet Size text field on the Linktest screen, the following message appears, "Please enter an integer between 64 and 2048." Click **OK** and use the slider to change the parameter's value.

- CSCea86777—ACU shows wrong version number and older icon

  The Cisco logo on the main ACU screen shows the wrong version number of the utility. However, the About Aironet Client Utility screen, which is accessible from the About icon, displays the correct ACU version number. Also, the ACU icon that appears on your computer's desktop looks as it did prior to the 6.0 release.

- CSCea67790—Client remains associated when profile is removed from auto profile selection

  The client remains associated when the profile it is using is removed from the Auto Selected Profiles list in ACU's profile manager. To work around this issue, select the desired profile using the Use Selected Profile option.

- CSCin07193—ACU fails to operate when the site survey or link test is running and you remove the client adapter

  If you click the Start button on the Site Survey or Linktest screen and then remove the client adapter, ACU fails to operate.

Resolved Driver Caveats

The following caveat is resolved in mini PCI and PC-Cardbus card driver version 3.7.

- CSCdx81363—Compaq device locks up during FTP transfers

  The Compaq EVO N180 locks up while performing continuous FTP transfers. To work around this issue, reboot your computer. To completely resolve the issue, upgrade the BIOS in your EVO N180 device.

Resolved Security Module Caveats

The following caveats are resolved in LEAP security module version 6.2, PEAP security module version 1.01, and EAP-SIM security module version 1.0.

- CSCin24968 and CSCea17024—Client takes too long to find domain controller

  The final step of the LEAP authentication process may take a long time to complete; however, no harm is caused. Simply minimize the LEAP Authentication Status screen and continue working.

- CSCdx65896—ACU and Windows XP show incorrect EAP-SIM authentication state

  ACU and the Windows Network Connection icon on the Windows XP taskbar may indicate a connection status when EAP-SIM authentication is still in the pending state or the authentication server fails to respond. This is a Microsoft issue and requires a fix to Windows XP.

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

Select **Hardware Support** > **Wireless Devices**. Then select your product and **Troubleshooting** to find information on the problem you are experiencing.

Related Documentation

For more information about Cisco Aironet 340, 350, and CB20A client adapters for Windows, refer to the following documents:

- *Cisco Aironet 340, 350, and CB20A Wireless LAN Client Adapters Installation and Configuration Guide for Windows*, OL-1394-07

  http://www.cisco.com/univercd/cc/td/doc/product/wireless/airo_350/350cards/windows

- *Release Notes for Cisco Aironet 340, 350, and CB20A Client Adapter Firmware 5.30.17*, OL-4533-01

  http://www.cisco.com/univercd/cc/td/doc/product/wireless/airo_350/350cards/windows/firmrn/index.htm

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 websites can be accessed from this URL:

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

Documentation CD-ROM

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

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html

All users can order monthly or quarterly subscriptions 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_inpck/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

- 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.

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.

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://tools.cisco.com/RPF/register/register.do

Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available: the Cisco TAC website and the Cisco TAC Escalation Center. The type 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. There is little or no impact to your business operations.
- Priority level 3 (P3)—Operational performance of the network is impaired, but most business operations remain functional. You and Cisco are willing to commit resources during normal business hours to restore service to satisfactory levels.
- Priority level 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively impacted by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.
- Priority level 1 (P1)—An existing 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.

Cisco TAC Website

The Cisco TAC website provides online documents and tools to help troubleshoot and resolve technical issues with Cisco products and technologies. 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/tac/caseopen

If you have Internet access, we recommend that you open P3 and P4 cases online so that you can fully describe the situation 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 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

- 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 quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access *Packet* magazine at this URL:

  http://www.cisco.com/go/packet

- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. 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/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html

- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:

  http://www.cisco.com/en/US/learning/le31/learning_recommended_training_list.html

This document is to be used in conjunction with the documents listed in the "Related Documentation" section.

CCIP, CCSP, the Cisco Arrow logo, the Cisco *Powered* Network mark, Cisco Unity, Follow Me Browsing, FormShare, 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 Aironet, ASIST, BPX, Catalyst, CCDA, CCDP, CCIE, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, the Cisco IOS logo, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Empowering the Internet Generation, Enterprise/Solver, EtherChannel, EtherSwitch, Fast Step, GigaStack, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, MGX, MICA, the Networkers logo, Networking Academy, Network Registrar, *Packet*, PIX, Post-Routing, Pre-Routing, RateMUX, Registrar, ScriptShare, SlideCast, SMARTnet, StrataView Plus, Stratm, SwitchProbe, TeleRouter, The Fastest Way to Increase Your Internet Quotient, TransPath, and VCO are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries.

All other trademarks mentioned in this document or Web site 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. (0304R)

Copyright © 2003 Cisco Systems, Inc.
All rights reserved.