



Release Notes for Cisco Aironet Client Utilities (Version 2.30) and Drivers (Version 2.30) for Windows CE

Contents

This document contains the following sections:

- [Introduction, page 1](#)
- [System Requirements, page 2](#)
- [Important Notes, page 2](#)
- [New and Changed Information, page 3](#)
- [Installing or Upgrading to the New Client Utility and Driver Release, page 6](#)
- [Caveats, page 9](#)
- [Troubleshooting, page 10](#)
- [Related Documentation, page 11](#)
- [Obtaining Documentation, page 11](#)
- [Obtaining Technical Assistance, page 12](#)
- [Obtaining Additional Publications and Information, page 14](#)

Introduction

This document describes system requirements, important notes, new and changed information, installation and upgrade procedures, and caveats for the following releases of Cisco Aironet client adapter software:

- Version 2.30 of the Cisco Aironet client utilities for Windows CE
- Version 2.30 of the Cisco Aironet client adapter driver for Windows CE

The client utilities, driver, and help files are released together in a single file entitled WinCE-PCMCIA-LMC-v230.exe.



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System Requirements

You need the following in order to install client utility and driver release 2.30 for Windows CE:

- One of the following Windows CE devices equipped with a Type II or Type III PC card slot:
 - Pocket PC (PPC) running Windows CE 3.0 with an ARM, StrongARM, MIPS, SH3, or X86 processor
 - Handheld PC (HPC) running Windows CE 3.0 with an ARM, StrongARM, MIPS, SH4, or X86 processor
 - A computing device running Windows CE .NET 4.0 or 4.1 with an ARM, StrongARM, or X86 processor



Note ViewSonic devices running Windows CE .NET are not supported.



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

- Client adapter firmware version 5.02.19 or greater (recommended)
- Laptop or PC running a Windows operating system and ActiveSync
- Serial or USB connection from the laptop or PC to the Windows CE device
- PPC 2002 device, if your wireless network uses EAP-TLS or PEAP authentication
- Certificate Authority (CA) and user certificates for EAP-TLS authentication or CA certificate for PEAP authentication
- If your wireless network uses PEAP authentication with a One-Time Password (OTP) user database:
 - The hardware token from an OTP vendor
 - Your hardware token password
- Access points to which your client adapter may attempt to authenticate must use the following firmware versions or greater: 11.23T (340 and 350 series access points), 12.2(4)JA (1100 series access points), or 11.54T (1200 series access points).
- All necessary infrastructure devices (such as access points, servers, gateways, user databases, etc.) must be properly configured for the authentication type you plan to enable on the client.

Important Notes

Recommended Firmware Version

Client adapter firmware version 5.02.19 or greater is recommended for use with client utility and driver version 2.30 for Windows CE. If your client adapter is using a previous firmware version, follow the instructions in the *Cisco Aironet Wireless LAN Client Adapters Installation and Configuration Guide for Windows CE* to upgrade the firmware after installing client utility and driver release 2.30.

Using Client Adapters with Both Windows and Windows CE Devices

After you install Install Wizard version 1.0 on a Windows computer, the firmware of any client adapter that is inserted into that computer may be automatically upgraded to version 5.02.19. If you insert a client adapter that has been upgraded to firmware version 5.02.19 into a Windows CE device, the adapter functions only if the device is running client utility and driver version 2.30 or greater for Windows CE.

Cisco Aironet Software Requires Completion of Encryption Authorization Form

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

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

Supporting Documentation

Version -03 of the *Cisco Aironet Wireless LAN Client Adapters Installation and Configuration Guide for Windows CE* pertains specifically to client utility and driver version 2.30. If you are using, installing, or upgrading to older versions of client adapter software, refer to the previous version of this manual (-02) for information and instructions.

New and Changed Information

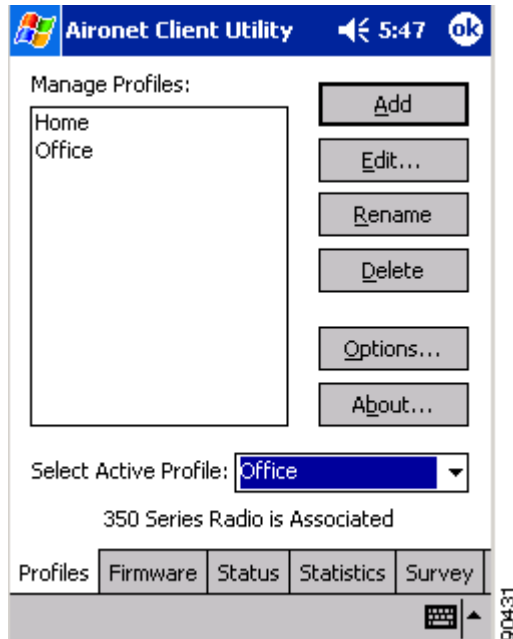
Integration of Client Utilities

Previous client adapter software releases for Windows CE included the following seven client utilities:

- Aironet Client Utility (ACU)
- Cisco Link Status (CLS)
- Client Statistics Utility (CSU)
- Load New Firmware (LNF)
- Site Survey Tool (SST)
- Client Encryption Manager (CEM)
- Wireless Login Module (WLM)

In release 2.30, all of the utilities except WLM (which remains as a separate utility) are integrated into ACU. [Figure 1](#) shows ACU's primary screen, which is entitled *Profiles*.

Figure 1 Profiles Screen



The Firmware, Status, Statistics, and Survey tabs along the bottom of the screen (for PPC devices) or top of the screen (for HPC and Windows CE .NET devices) enable you to activate the functionality of the former LNF, CLS, CSU, and SST utilities, respectively. CEM functionality has moved to the ACU Properties and WEP Keys screens.

**Note**

The procedures for enabling WEP and LEAP have changed from previous releases. Refer to the *Cisco Aironet Wireless LAN Client Adapters Installation and Configuration Guide for Windows CE* for instructions.

Profile Manager Feature

ACU's new profile manager feature allows you to create and manage up to 8 *profiles* (or saved configurations) for your client adapter. These profiles enable you to use your client adapter in different locations, each of which requires different configuration settings. For example, you may want to set up profiles for using your client adapter at the office, at home, and in public areas such as airports. After the profiles are created, you can easily switch between them without having to reconfigure your client adapter each time you enter a new location.

Profiles are stored in the registry of the Windows CE device. They are lost only if the Windows CE device is defaulted (hard reset) or if both the primary and backup batteries run out of power.

**Note**

Refer to the *Cisco Aironet Wireless LAN Client Adapters Installation and Configuration Guide for Windows CE* for information on creating, selecting, editing, renaming, and deleting profiles.

Ability to Save LEAP Username and Password

In previous releases, your LEAP username and password were temporary and had to be re-entered whenever a LEAP profile was selected, the client adapter was ejected and reinserted, or the Windows CE device was reset. Now you can configure your client adapter to use either temporary or saved LEAP credentials. Temporary credentials are still entered in WLM while saved credentials are entered in three new fields on the ACU Properties screen: User Name, User Password, and User Domain. After your LEAP credentials are saved, the client adapter should LEAP authenticate automatically whenever a LEAP profile is selected, the adapter is ejected and reinserted, or the Windows CE device is reset.

Ability to Periodically Scan for a Better Access Point

The Offline Channel Scan parameter has been added to the ACU Properties screen. If you enable this feature, the client adapter periodically scans for a better access point with the same SSID if the signal strength falls below 50%.

Other Changes

The following changes have also been made to client utility and driver release 2.30 for Windows CE:

- Windows CE .NET 4.0 and 4.1 devices are supported in this release.
- Windows CE 2.11 devices are not supported in this release.
- PPC 2002 devices now support EAP-TLS and PEAP authentication.



Note Support for EAP-TLS and PEAP authentication will be available for Windows CE .NET devices in a future release.

- The default value for the Power Save Mode parameter in ACU has been changed from CAM to Fast PSP.
- ACU now enables you to display signal strength in decibels with respect to milliwatts (dBm) rather than as a percentage on the ACU status and site survey screens. To set the signal strength display units, tap the **Options** button on the ACU Profiles screen, select **Percent** or **dBm**, and tap **OK**.
- You can enter up to 80 characters when creating or renaming a profile, but due to limited screen size, long profile names may not be completely displayed.

Installing or Upgrading to the New Client Utility and Driver Release

This section describes how to install or upgrade to client utility and driver release 2.30 for Windows CE.

Uninstalling the Current Driver and Client Utilities

Cisco recommends that you uninstall the existing driver and client utilities for your client adapter before upgrading to more recent versions. Follow the steps below to uninstall your client adapter's current driver and client utilities.

-
- Step 1** Eject the client adapter and remove it from the Windows CE device.
 - Step 2** Select **Start > Settings > System** tab > **Remove Programs** (on PPC devices) or **Start > Settings > Control Panel > Remove Programs** (on HPC and Windows CE .NET devices).
 - Step 3** Select **Cisco Wireless LAN Adapter**.
 - Step 4** Tap the **Remove** button.
 - Step 5** When asked to verify your decision to remove the adapter, tap **Yes**.
 - Step 6** Tap **OK**. The driver, client utilities, registry entries, and Cisco directory are removed.
 - Step 7** Go to the [“Loading a New Driver and Client Utilities”](#) section below for instructions on loading the new driver and client utilities.
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Loading a New Driver and Client Utilities

Follow the steps below to install client utility and driver version 2.30 for your client adapter.

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- Step 1** Connect your Windows CE device to a laptop or PC running Microsoft ActiveSync. This is typically done using a serial or USB cable.

A message appears on the Windows CE device indicating that it is connecting to the host. After the Windows CE device is connected, the New Partnership window appears on the laptop or PC. This window asks if you want to set up a partnership.



Note Cisco recommends that you install the latest version of ActiveSync.

- Step 2** Perform one of the following:
 - If you want to establish a partnership that enables you to synchronize files between the laptop or PC and the Windows CE device, select **Yes**, click **Next**, and follow the instructions on the screen to specify the files to be synchronized and to finish setting up the partnership.
 - If you do not want to synchronize files and want to connect as a “guest,” select **No** and click **Next**. The screen indicates that you are connected as a guest.

Step 3 Use the laptop or PC's web browser to access the following URL:

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

Step 4 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 9](#).

Step 5 Select **Cisco Aironet Wireless LAN Client Adapters**.

Step 6 Find the section for Windows CE client adapter drivers and utilities.

Step 7 Select the link for Windows CE 3.0 or Windows CE .NET, depending on your device's operating system.

Step 8 Select the **WinCE-PCMCIA-LMC-v230.exe** file.

Step 9 Read and accept the terms and conditions of the Software License Agreement.

Step 10 Select the **WinCE-PCMCIA-LMC-v230.exe** file to download it.

Step 11 Save the file to the hard drive of your laptop or PC.

Step 12 Find the file using Windows Explorer, double-click it, and extract its files to a folder.



Note Make sure you keep all of the extracted files together in one folder. Moving them to different locations may prevent the software from operating correctly.

Step 13 Double-click the **ceInstall.exe** file.

Step 14 If you are using a PPC 2002 device, the Install 802.1X Support screen appears. If you are planning to use EAP-TLS or PEAP authentication, click **Yes**. Otherwise, click **No**.



Note If you select Yes, the PPC 2002 802.1X backport, which provides support for 802.1X security, is installed. The backport then becomes part of the base Windows CE operating system and cannot be uninstalled.

Step 15 If you are using a PPC 2002 device, the Cisco PEAP screen appears. If you are planning to use Cisco PEAP authentication, make sure the **Install Cisco PEAP Support** check box is checked and click **Next**. Otherwise, uncheck the **Install Cisco PEAP Support** check box and click **Next**.



Note If you uncheck the **Install Cisco PEAP Support** check box, the Microsoft PEAP supplicant (rather than the Cisco PEAP supplicant) is installed.

Step 16 If you are not using a PPC 2002 device, the Cisco Aironet Wireless LAN Adapter Setup screen appears. Click **Next** to start the Windows CE Application Manager (CeAppMgr), which is installed with ActiveSync. CeAppMgr interrogates the Windows CE device to determine its processor type.



Note If a Windows CE device is not connected to the laptop or PC (as instructed in [Step 1](#)), click **Exit** to quit the setup program and connect a Windows CE device or click **Next** to continue the installation. If you select **Exit**, click **OK** to shut down CeAppMgr and start again beginning with [Step 1](#). If you select **Next**, a message appears indicating that the software will be downloaded the next time a mobile device is connected. Click **OK**. The next time a Windows CE device is connected to the laptop or PC via ActiveSync, CeAppMgr starts automatically, and you are prompted to install the software.

Step 17 When the Installing Applications dialog box appears asking if you want to install the client adapter using the default application installation directory, click **Yes**. The default directory is \Windows\Start Menu\Programs\Cisco on PPC devices and \Windows\Programs\Cisco on HPC and Windows CE .NET devices.

A message and a progress bar appear indicating that the client adapter (and 802.1X backport if you are using a PPC 2002 device) is being installed.

The driver and help files are copied to the \Windows directory, and the client utilities are installed in the \Windows\Start Menu\Programs\Cisco directory on PPC devices or the \Windows\Programs\Cisco directory on HPC and Windows CE .NET devices. Shortcuts to ACU and WLM are automatically added to the desktop on HPC and Windows CE .NET devices.

Step 18 When the installation process is complete on the laptop or PC, a message appears asking you to view the screen of the Windows CE device to see if any additional steps are required to complete the installation. Click **OK** to terminate the installation process on the laptop or PC.

Step 19 Complete any required steps on the Windows CE device.

Step 20 Disconnect the Windows CE device.

Step 21 If you are using a PPC 2002 device and you installed the 802.1X backport, reset your Windows CE device now. (You should have been notified earlier that a reset would be required after installation.)

Step 22 Insert the client adapter into the PC card slot of the Windows CE device. The Windows CE device should configure the client adapter, and the green LED on the adapter should blink. If this does not happen, remove the client adapter, reset the Windows CE device, and reinsert the client adapter.

Step 23 The Cisco Wireless LAN Adapter Settings dialog box appears. (If the dialog box does not appear, select one of the following:

- **Start > Settings > the Connections tab > Network Adapters > Cisco Wireless LAN Adapter > Properties** on PPC devices,
- **Start > Settings > Control Panel > Network > the Adapters tab > Cisco Wireless LAN Adapter > Properties** on HPC devices, or
- **Start > Settings > Network and Dial-up Connections > the Cisco Wireless LAN Client Adapter icon** on Windows CE .NET devices.)

Step 24 Perform one of the following:

- If your device is connected to a DHCP server, select **Obtain an IP address via DHCP or Use server-assigned IP address** and tap **OK**.
- If your device is not connected to a DHCP server, select **Specify an IP address or Use specific IP address** and follow the steps below:
 - a. Enter the IP address, subnet mask, and default gateway address you want to assign to your device. They can be obtained from your system administrator.
 - b. Select the **Name Servers** tab and enter the primary and secondary DNS and WINS you want to assign to your device. They can be obtained from your system administrator.
 - c. Tap **OK**.

The driver and client utility installation is complete. To verify that you have properly installed the driver and client utilities, check the client adapter's LEDs. If the installation was successful, the client adapter's green LED blinks.



Note

Refer to the *Cisco Aironet Wireless LAN Client Adapters Installation and Configuration Guide for Windows CE* (version -03) for information on configuring your client adapter.

Caveats

This section describes resolved and open caveats for client utility and driver release 2.30 for Windows CE.

Resolved Caveats

The following caveats are resolved in client utility and driver release 2.30 for Windows CE.

- CSCdx73802—Client adapter driver not loading correctly on Windows CE 3.0 device
The client adapter is detected in the Windows CE 3.0 device, but the driver does not run, and the green LED remains solid.
- CSCdw03461—Overlapping icons in the Cisco folder
After you install the driver and client utilities, the icons for the utilities overlap one another in the Cisco folder.
- CSCdx17502—Client adapter not found after Symbol device suspends and resumes
After some Symbol devices are suspended and resumed, ACU indicates that the installed client adapter is not found. To resolve this issue, reset the Symbol device.
- CSCin13763—Windows CE devices fail to get an IP address
When an HP Jornada or Compaq iPAQ 3800 device with MIC and WEP enabled is turned off and on again, it fails to get an IP address from the DHCP server.

Open Caveats

The following caveats have not been resolved in client utility and driver release 2.30 for Windows CE.

- CSCin33123—50% success rate shown for zero packet size
If you enter zero (0) in the Packet Size field on the Active Mode Setup site survey screen, this value is accepted. If you then start the test, the Site Survey - Active screen shows the percent successful as 50%.
- CSCea41179—WLM does not appear as the main window on some Windows CE devices
When LEAP is enabled and ACU is running, the Wireless Login Module screen appears behind the ACU screen. Also, WLM runs minimized after the client adapter is removed and reinserted or the Windows CE device is turned off and on.
- CSCin36854—Renew button on ACU Status screen is not functioning
The Renew button on the ACU Status screen is designed to initiate a release and renew of the client adapter's DHCP-assigned IP address. However, the following conditions can prevent the new IP address from being obtained: 1) not being associated, 2) mismatched client and access point settings, or 3) a noisy environment. If the Renew button does not work as you believe it should, reset your Windows CE device. (The Renew button has no effect if your device is set up to have a static IP address.)
- CSCin36846—Certificate enrollment continually fails after incorrect password is entered
After an incorrect password is entered on the Certificate Enrollment screen, the client enrollment process continues to fail, even if the correct password is later entered. To resolve this problem, close the screen and start the enrollment process again with the correct username and password.
- CSCin36868—Change Password screen does not work
The Change Password screen for PEAP authentication does not work. Administrators should not enable settings that require users to change passwords on the client.
- CSCea41169—Inability to minimize ACU on HPC devices
ACU cannot be minimized on some HPC devices.

Getting Bug Information on Cisco.com

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

Access the TAC Software Bug Toolkit today at:

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/tac>. Select **Wireless Technologies** under Top Issues.

Related Documentation

For more information about Cisco Aironet client adapters for Windows CE, refer to the *Cisco Aironet Wireless LAN Client Adapters Installation and Configuration Guide for Windows CE* (version -03) at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/wireless/airo_350/350cards/win_ce/hig/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 web sites 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 monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

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

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

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_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>

- Registered Cisco.com users can order the Documentation CD-ROM (Customer Order Number DOC-CONDOCCD=) through the online Subscription Store:
<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

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You can e-mail your comments to bug-doc@cisco.com.

You can submit your comments by mail by using the response card behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

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

Cisco.com

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

Cisco.com provides a broad range of features and services to help you with these tasks:

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages
- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

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

<http://www.cisco.com>

Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two levels of support are available: the Cisco TAC website and the Cisco TAC Escalation Center. The avenue of support that you choose depends on the priority of the problem and the conditions stated in service contracts, when applicable.

We categorize Cisco TAC inquiries according to urgency:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

Cisco TAC Website

You can use the Cisco TAC website to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC website, go to this URL:

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

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC website. Some services on the Cisco TAC website require a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

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

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

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

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

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

Obtaining Additional Publications and Information

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

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

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