



Routine Procedures

This chapter provides procedures for common tasks related to the client adapter.

The following topics are covered in this chapter:

- [Inserting and Removing a PC Card, page 8-2](#)
- [Upgrading the Client Adapter Software, page 8-3](#)
- [Client Utility Procedures, page 8-8](#)
- [CA and User Certificate Procedures \(Host-Based EAP Only\), page 8-11](#)
- [Restarting the Client Adapter, page 8-12](#)

Inserting and Removing a PC Card

This section provides instructions for inserting a PC card into or removing a PC card from a Windows CE device.

Inserting a PC Card into a Windows CE Device

Follow the steps below to insert a PC card into a Windows CE device.


Caution

This procedure and the physical connections it describes apply generally to conventional PC card slots. In cases of custom or nonconventional equipment, be alert to possible differences in PC card slot configurations.

Step 1

Before you begin, examine the PC card. One end has a dual-row, 68-pin PC card connector. The card is keyed so it can be inserted only one way into the PC card slot.

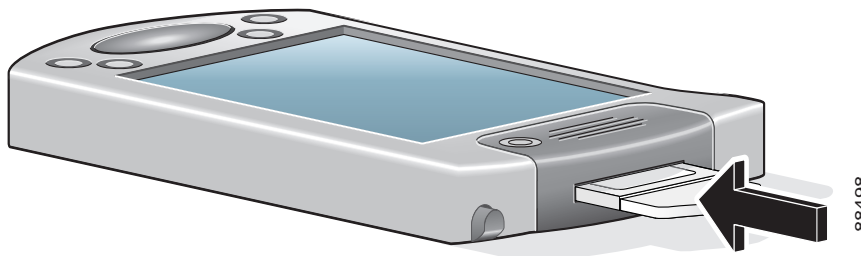

Caution

Do not force the PC card into your computer's PC card slot. Forcing it will damage both the card and the slot. If the PC card does not insert easily, remove the card and reinsert it.

Step 2

Insert the PC card into the PC card slot, applying just enough pressure to make sure it is fully seated (see [Figure 8-1](#)).

Figure 8-1 Inserting a PC Card into a Computing Device



Removing a PC Card from a Windows CE Device

Follow the instructions below whenever you need to remove the PC card from your Windows CE device.

To remove a PC card after it is successfully installed and configured, press the Eject button and pull the card out of the PC card slot. When the PC card is reinserted, your connection to the network should be re-established.

Upgrading the Client Adapter Software

This section provides instructions for the following procedures:

- Upgrading the firmware, see below
- Upgrading the driver and client utilities, [page 8-6](#)

Upgrading the Firmware

The client adapter is shipped with the firmware installed in its Flash memory; however, a more recent version of the firmware may be available from Cisco.com. Cisco recommends using the most current version of radio firmware. Follow the instructions in this section to find the version of your client adapter's firmware and to upgrade it if a more recent version is available from Cisco.com.



Note

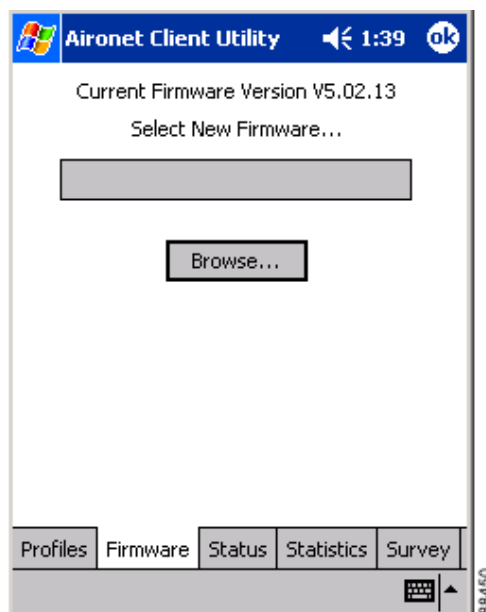
Firmware version 5.02.19 or greater is recommended for use with client adapter driver and utility version 2.30.

Finding the Firmware Version

Follow the steps below to determine if you need to upgrade the client adapter's firmware.

- Step 1** To find the version of firmware that your client adapter is currently using, follow the steps below:
- Double-tap the **ACU** icon or select **Start > Programs > Cisco > ACU**.
 - Tap the **Firmware** tab. The Firmware screen appears (see [Figure 8-2](#)).

Figure 8-2 Firmware Screen



The current version of your client adapter's firmware is shown at the top of the screen, provided a client adapter is inserted in your Windows CE device.

- Step 2** To find the latest firmware version available on Cisco.com, follow the steps below:
- a. Use your computer's web browser to access the following URL:
<http://www.cisco.com/public/sw-center/sw-wireless.shtml>
 - b. Select **Option #2: Aironet Wireless Software Display Tables**.
 - c. Select **Cisco Aironet Wireless LAN Client Adapters**.
 - d. Find the section for client adapter firmware.
 - e. Select the link for your client adapter's series (for example, 350 Series).
 - f. Look at the available filenames for radio firmware. The numbers that follow the "v" indicate the version number. For example, v50219 indicates a firmware version of 5.02.19.
- Step 3** If the firmware available from Cisco.com has a higher number than the firmware currently installed in your client adapter, follow the instructions in the "[Loading New Firmware](#)" section below to upgrade the firmware.
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Loading New Firmware



Caution

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

Follow the instructions below to load new firmware into your client adapter.

- 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.
- Step 2** Perform one of the following:
- If you want to establish a partnership that allows 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 client adapter firmware.

Step 7 Select the link for your client adapter's series (for example, 350 Series).

Step 8 Select the firmware file for your client adapter.

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

Step 10 Select the firmware file to download it.

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

Step 12 Locate the file using Windows Explorer, double-click it, and extract the image file (*.img) to a folder.

Step 13 In the ActiveSync window on the laptop or PC, click the **Explore** button to view the files on the Windows CE device.

Step 14 Drag and drop the firmware image from Windows Explorer to a location in the ActiveSync window.



Note If your Windows CE device is a PPC running Windows CE 3.0, you must copy the firmware image to the My Documents folder or a folder under My Documents.

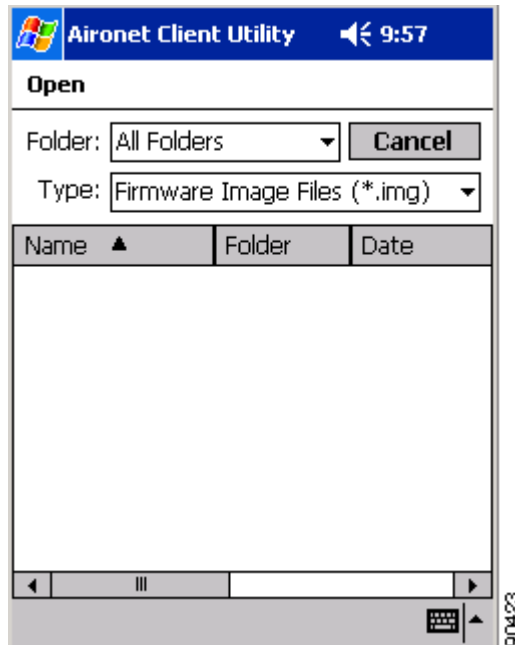
Step 15 After the file is copied, disconnect the Windows CE device.

Step 16 Make sure the client adapter is installed in your Windows CE device and is operational.

Step 17 On your Windows CE device, open ACU and tap the **Firmware** tab. The Firmware screen appears (see [Figure 8-2](#)).

Step 18 Tap the **Browse** button. The Open window appears (see [Figure 8-3](#)).

Figure 8-3 Open Window



Step 19 Perform one of the following:

- If you are using a PPC device, select the folder from the Folder drop-down menu where the new firmware image is located. Then tap the new firmware image file (*.img) in the Name field in the center of the window.
- If you are using an HPC or Windows CE .NET device, locate the new firmware image file (*.img) and select it so that it appears in the Name field at the bottom of the screen.

Step 20 Tap **OK**.



Note If the OK button is unavailable, tap the **Enter** key on the Windows CE device's keyboard.

A progress bar displays as the new firmware is loaded. If the selected image is loaded successfully into the client adapter's Flash memory, a "Firmware Upgrade Complete!" message appears.

Step 21 Tap **OK** to exit the Firmware screen.

Upgrading the Driver and Client Utilities

Follow the instructions in this section to find the versions of your client adapter's driver and client utilities and to upgrade them if more recent versions are available from Cisco.com.



Note The driver, client utilities, and online help files are installed together.

Finding the Driver and Client Utility Versions

Follow the instructions in this section to determine if you need to upgrade the client adapter's driver or client utilities.

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- Step 1** To find the version of the driver that your client adapter is currently using, follow the steps below:
- Double-tap the **ACU** icon or select **Start > Programs > Cisco > ACU** to open ACU.
 - Tap the **Status** tab. The current version of your client adapter's driver is shown on the Status screen, provided the adapter is installed in the Windows CE device and is operational.
- Step 2** To find the version of ACU or WLM that your client adapter is using, follow the steps below:
- To find the version of ACU, tap the **About** button on the Profiles screen. The About screen displays the current version of ACU.
 - To find the version of WLM, double-tap the **Wireless Login Module** icon or select **Start > Programs > Cisco > Wireless Login Module**. The current version of the utility is shown below the Password field on the Wireless Login Module screen.
- Step 3** To find the latest driver and client utility versions available on Cisco.com, follow the steps below:
- Use your computer's web browser to access the following URL:
<http://www.cisco.com/public/sw-center/sw-wireless.shtml>
 - Select **Option #2: Aironet Wireless Software Display Tables**.
 - Select **Cisco Aironet Wireless LAN Client Adapters**.
 - Find the section for Windows CE client adapter drivers and utilities.
 - Select the link for Windows CE 3.0 or Windows CE .NET, depending on your device's operating system.



Note If you are not sure which version of Windows CE your device is running, refer to the [“Finding the Windows CE Version”](#) section on page 3-2 for instructions.

- Look at the release numbers of the driver and client utilities in the description below the filename. These are the latest available versions on Cisco.com.
- Step 4** If the driver or client utility version available from Cisco.com is greater than the version currently being used by your client adapter, follow the instructions in the [“Uninstalling the Current Driver and Client Utilities”](#) section below to remove the current driver and client utilities and then follow the instructions in the [“Installing the Driver and Client Utilities”](#) section on page 3-2 to install the new driver and client utilities.
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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.

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- Step 1** Eject the client adapter and remove it from the Windows CE device.
 - Step 2** Select **Start > Settings > System** tab > **Remove Programs** (on a PPC device) or **Start > Settings > Control Panel > Remove Programs** (on an HPC or Windows CE .NET device).
 - 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 [“Installing the Driver and Client Utilities”](#) section on page 3-2 for instructions on loading a new driver and client utilities.
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Client Utility Procedures

This section provides instructions for the following procedures:

- Opening a client utility, [page 8-8](#)
- Exiting a client utility, [page 8-8](#)
- Finding the version of a client utility, [page 8-9](#)
- Deleting client utility icons on HPC and Windows CE .NET devices, [page 8-10](#)

Opening a Client Utility

To open ACU on your Windows CE device, double-tap the **ACU** icon or select **Start > Programs > Cisco > ACU**. The Profiles screen appears.

To open WLM on your Windows CE device, double-tap the **Wireless Login Module** icon or select **Start > Programs > Cisco > Wireless Login Module**. The Wireless Login Module screen appears.

Exiting a Client Utility

To exit ACU or WLM, tap **OK**.

Finding the Version of a Client Utility

To find the version of ACU or WLM that your client adapter is currently using, follow the steps below.

- To find the version of ACU, tap the **About** button on the Profiles screen. The About screen appears (see [Figure 8-4](#)).

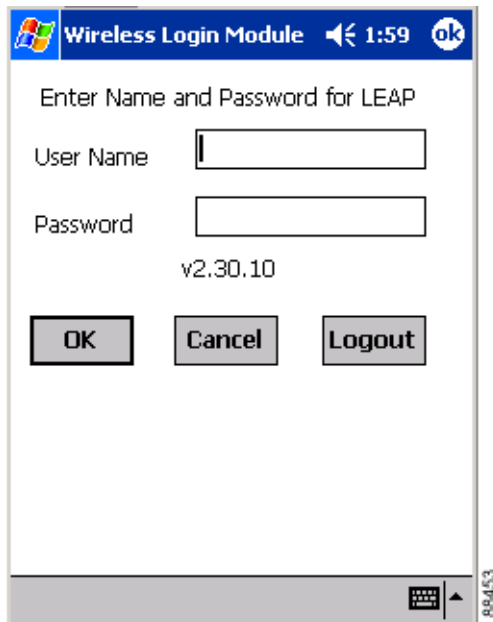
Figure 8-4 About Screen



The About screen displays the current version of ACU.

- To find the version of WLM, double-tap the **Wireless Login Module** icon or select **Start > Programs > Cisco > Wireless Login Module**. The Wireless Login Module screen appears (see Figure 8-5).

Figure 8-5 Wireless Login Module Screen



The Wireless Login Module screen displays the current version of WLM below the Password field.

Deleting Client Utility Icons on HPC and Windows CE .NET Devices

Icons for ACU and WLM are automatically added to the desktop of HPC and Windows CE .NET devices when you install the client utilities. If you wish to remove these icons from your desktop, hold down the **Alt** key and tap the icon. Then tap **Delete** and **Yes** to confirm your decision.



Note

You can also use File Explorer or Windows Explorer to browse to the desktop, select the icon, and delete it.

CA and User Certificate Procedures (Host-Based EAP Only)

Follow the instructions in this section to view or remove CA and user certificates for use with EAP-TLS or PEAP authentication.



Note

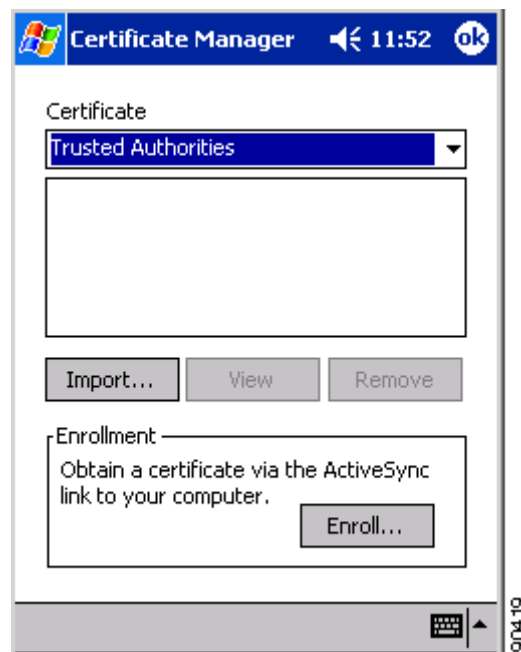
Refer to [Chapter 5](#) for instructions on obtaining CA and user certificates.

Viewing CA and User Certificates

Follow the steps below to view details about the CA and user certificates for your Windows CE device.

- Step 1** Select **Start > Programs > Cisco > CertMgr**. The Certificate Manager screen appears (see [Figure 8-6](#)).

Figure 8-6 Certificate Manager Screen



- Step 2** Select **Trusted Authorities** (if you want to view a CA certificate) or **My Certificates** (if you want to view a user certificate) in the Certificate drop-down menu.
- Step 3** Select the certificate that you want to view.
- Step 4** Tap the **View** button. A screen appears that enables you to access information about the certificate, including its issuer, expiration date, and serial number.

Removing CA and User Certificates

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- Step 1** Select **Start > Programs > Cisco > CertMgr**. The Certificate Manager screen appears (see [Figure 8-6](#)).
- Step 2** Select **Trusted Authorities** (if you want to remove a CA certificate) or **My Certificates** (if you want to remove a user certificate) in the Certificate drop-down menu.
- Step 3** Select the certificate that you want to remove.
- Step 4** Tap the **Remove** button. The certificate is removed.
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Restarting the Client Adapter

ACU enables you to restart the client adapter when necessary. For example, you might want to restart the adapter for the following reasons:

- If your client adapter is experiencing poor throughput, you might want to restart the client adapter to try to force it to disassociate from the access point to which it is currently associated in the hope that it will reassociate to an access point with a stronger signal.
- If you use LEAP and then disable it in ACU, you might want to restart the client adapter to ensure that the adapter stops using the dynamic WEP key assigned during LEAP authentication.

Follow the steps below to restart the client adapter.

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- Step 1** Go to the ACU Profiles screen.
- Step 2** Perform one of the following:
- Change the active profile and then select it again.
 - Select the active profile in the Manage Profiles box, tap the **Edit** button, and tap **OK**.

The driver stops the client adapter's radio, writes the configuration (although no parameter settings have been changed), and restarts the radio.
