



## Installing the Client Adapter

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This chapter provides instructions for installing the client adapter driver and client utilities.

The following topics are covered in this chapter:

- [Finding the Windows CE Version, page 3-2](#)
- [Installing the Driver and Client Utilities, page 3-2](#)
- [Verifying Installation, page 3-5](#)
- [Deciding How to Configure Your Client Adapter \(Windows CE .NET Only\), page 3-6](#)

## Finding the Windows CE Version

The messages that appear during the installation of the client adapter driver and utilities (as well as the client utility windows themselves) vary depending on your Windows CE device. Follow the instructions below to find the version of Windows CE that your device is using.

- If your Windows CE device is a Pocket PC (PPC) device, tap **Start > Settings > the System tab > About**. The Windows CE version is shown.




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**Note** If the version is 4.20.xx, the device is a PPC 2003. If the version is 3.00.xx, you must check the build number. If the build number is lower than 11178, the device is a PPC 2000; otherwise, the device is a PPC 2002.

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- If your Windows CE device is a Handheld PC (HPC) device, tap **Start > Settings > Control Panel > System > System** tab. The core system version indicates the version of Windows CE that the device is running (such as 3.0).
- If your Windows CE device is a CE .NET device, tap **Start > Settings > Control Panel > System**. The Windows CE version is shown under System on the General tab.

## Installing the Driver and Client Utilities

The WinCE-PCMCIA-LMC-v260.exe file is a self-extracting zip file that extracts all of the files necessary to install the driver and client utilities (version 2.60). The main installation utility extracted from this file is ceInstall.exe.

Follow these steps to install the driver and client utilities for your client adapter.



**Note**

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This procedure is meant to be used the first time the driver and client utilities are installed on a Windows CE device. If Cisco Aironet client adapter software is already installed on your Windows CE device, follow the instructions in [Chapter 8](#) to first uninstall any existing software and then follow the instructions here to upgrade to new software.

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**Note**

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Firmware version 5.40.10 is recommended for use with client adapter driver and utility version 2.60. [Chapter 8](#) provides instructions for finding the version of your client adapter's firmware and upgrading it if necessary.

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**Note**

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Client adapter driver and utility version 2.60 is not supported for use with Cisco Aironet 340 series client adapters.

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**Note**

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The driver and client utilities must be installed before you insert a client adapter into a Windows CE device.

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**Note**

Client adapter driver and utility version 2.60 is not yet available on the CD that ships with Cisco Aironet client adapters. If you are installing older versions of client adapter drivers and utilities, refer to a previous version of this manual for installation, configuration, and operation instructions.

**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, choose **Yes**, click **Next**, and follow the instructions on the window 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,” choose **No** and click **Next**. The window 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** Choose **Option #2: Aironet Wireless Software Display Tables**.

**Note**

You can download software from the Software Selector tool instead of the display tables. To do so, choose **Option #1: Aironet Wireless Software Selector**, follow the instructions on the window, and go to [Step 9](#).

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

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

**Step 7** Click the link for Windows CE 3.0 or Windows CE .NET, depending on your device’s operating system.

**Step 8** Click the **WinCE-PCMCIA-LMC-v260.exe** file.

**Step 9** Complete the encryption authorization form; then read and accept the terms and conditions of the Software License Agreement.

**Step 10** Click the **WinCE-PCMCIA-LMC-v260.exe** file again 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 window appears. If you are planning to use EAP-TLS or PEAP authentication, click **Yes**. Otherwise, click **No**.




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**Note** If you choose 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.

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- Step 15** If you are using a PPC 2002, PPC 2003, or Windows CE .NET 4.2 device, the Cisco PEAP window 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**.




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**Note** If you install the Cisco PEAP supplicant and later want to use the Microsoft PEAP supplicant, you must default your Windows CE device and reinstall the client adapter software.

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- Step 16** If you installed the 802.1X backport on a PPC 2002 device, a message appears indicating that you must reset your device when the installation is complete. Click **OK**.

- Step 17** If you are not using a PPC 2002 device, the Cisco Aironet Wireless LAN Adapter Setup window 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 platform type.




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**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 choose **Exit**, click **OK** to shut down CeAppMgr and start again beginning with [Step 1](#). If you choose **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.

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- Step 18** 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 19** When the installation process is complete on the laptop or PC, a message appears asking you to view the window 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 20** Complete any required steps on the Windows CE device.

- Step 21** Disconnect the Windows CE device.

- Step 22** 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 23** Insert the client adapter into the PC card slot of the Windows CE device. Refer to [Chapter 8](#) for specific instructions on inserting the client adapter.
- 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 24** The Cisco Wireless LAN Adapter Settings dialog box appears. If the dialog box does not appear, perform one of the following:
- Tap **Start > Settings > the Connections tab > Connections > Advanced > Network Card > Cisco Wireless LAN Adapter** on PPC 2003 devices.
  - Tap **Start > Settings > the Connections tab > Network Adapters > Cisco Wireless LAN Adapter > Properties** on PPC 2002 devices.
  - Tap **Start > Settings > Control Panel > Network > the Adapters tab > Cisco Wireless LAN Adapter > Properties** on HPC devices.
  - Tap **Start > Settings > Network and Dial-up Connections > the Cisco Wireless LAN Client Adapter icon** on Windows CE .NET devices.
- Step 25** Perform one of the following:
- If your device is connected to a DHCP server, choose **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, choose **Specify an IP address** or **Use specific IP address** and follow these steps:
    - 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. Choose 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**.
- Step 26** The driver and client utility installation is complete. Go to the “[Verifying Installation](#)” section below to determine if the installation was successful.

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## Verifying Installation

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**

If your installation was unsuccessful or you experienced problems during or after driver installation, refer to [Chapter 9](#) for troubleshooting information.

Now that your client adapter is properly installed, you are ready to go to [Chapter 4](#) to create profiles for your client adapter unless your device is running Windows CE .NET. If your device is running Windows CE .NET, go to the “[Deciding How to Configure Your Client Adapter \(Windows CE .NET Only\)](#)” section on page 3-6.

## Deciding How to Configure Your Client Adapter (Windows CE .NET Only)

Windows CE .NET is the only Windows CE operating system that enables you to configure your client adapter without using ACU. Therefore, if your device is running Windows CE .NET, you must decide whether to configure your client adapter through the operating system or ACU. To help you with your decision, [Table 3-1](#) compares the Windows CE .NET and ACU client adapter features.

**Table 3-1 Comparison of Windows CE .NET and ACU Client Adapter Features**

Feature	Windows CE .NET	ACU
Configuration parameters	Limited	Extensive
Capabilities		
Create profiles	Yes	Yes
Upgrade radio firmware	No	Yes
Security		
Static WEP	Yes	Yes
LEAP authentication with dynamic WEP	No	Yes
LEAP authentication with WPA	No	Yes (on Windows CE .NET 4.2 devices)
EAP-FAST authentication with dynamic WEP	No	Yes
EAP-FAST authentication with WPA	No	Yes (on Windows CE .NET 4.2 devices)
EAP-TLS authentication with dynamic WEP	Yes (on Windows CE .NET 4.2 devices)	Yes (on PPC 2002 devices)
PEAP authentication with dynamic WEP	Yes (on Windows CE .NET 4.2 devices)	Yes (on PPC 2002 devices)
Diagnostics		
Status window	Limited	Extensive
Statistics window (transmit & receive)	No	Yes
Site survey tool	No	Yes

Perform one of the following:

- If you are planning to configure your client adapter through ACU instead of through Windows CE .NET and you are using a PPC 2003 device, follow the instructions in [Chapter 4](#) and [Chapter 5](#) to configure your client adapter through ACU.
- If you are planning to configure your client adapter through ACU instead of through Windows CE .NET and you are using a device other than a PPC 2003, follow these steps:
  - a. Tap **Start > Settings > Network and Dial-up Connections** > the **Cisco Wireless LAN Client Adapter** icon > the **Wireless Networks** tab.
  - b. Uncheck the **Use Windows to configure my wireless network settings** check box.
  - c. Follow the instructions in [Chapter 4](#) and [Chapter 5](#) to configure your client adapter through ACU.
- If you are planning to configure your client adapter through Windows CE .NET instead of through ACU, go to [Appendix E](#) and follow the instructions there.
- If you are planning to configure your client adapter through Windows CE .NET but you want to use ACU's diagnostic tools, go to [Appendix E](#) to configure the adapter through Windows CE .NET; then follow the instructions in [Chapter 7](#) to use ACU's diagnostic tools.

