



## Using EAP Authentication

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This chapter explains the sequence of events that occurs and the actions you must take when a profile that is set for EAP authentication is selected for use.

The following topics are covered in this chapter:

- [Overview, page 6-2](#)
- [Using LEAP, page 6-2](#)
- [Using LEAP with the Windows Username and Password, page 6-3](#)
- [Using LEAP with a Manually Prompted Login, page 6-4](#)
- [Using LEAP with a Saved Username and Password, page 6-7](#)
- [Using EAP-TLS, page 6-8](#)
- [Using PEAP \(EAP-GTC\), page 6-8](#)
- [Using PEAP \(EAP-MSCHAP V2\), page 6-10](#)

## Overview

This chapter explains the sequence of events that occurs after you (or auto profile selection) select a profile that uses EAP authentication or you eject and reinsert the client adapter, reboot the computer, or log on while this profile is selected. The chapter contains six sections based on the profile's authentication type and its username and password settings:

- LEAP with the Windows username and password, [page 6-3](#)
- LEAP with a manually prompted login, [page 6-4](#)
- LEAP with a saved username and password, [page 6-7](#)
- EAP-TLS, [page 6-8](#)
- PEAP (EAP-GTC), [page 6-8](#)
- PEAP (EAP-MSCHAP V2), [page 6-10](#)

Also provided are an overview of LEAP authentication and instructions for restarting the LEAP authentication process when necessary (see the “Using LEAP” section below).

Follow the instructions for your profile's authentication type and credential settings to successfully authenticate.

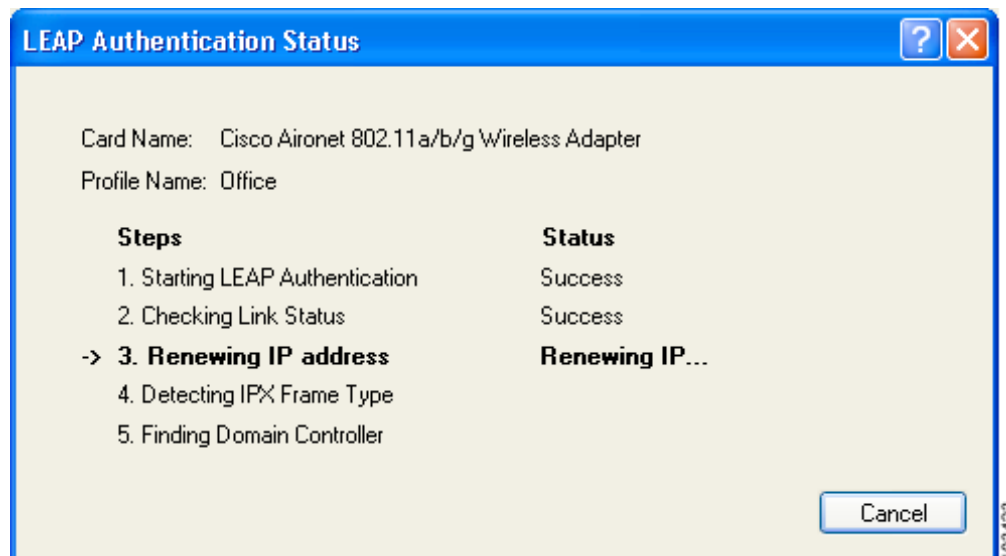

**Note**

If any error messages appear during authentication, refer to [Chapter 10](#) for explanations and recommended actions.

## Using LEAP

When LEAP authentication begins, the LEAP Authentication Status window appears (see [Figure 6-1](#)).

**Figure 6-1** LEAP Authentication Status Window



This window provides information about the status of LEAP authentication. [Table 6-1](#) lists and explains the stages of LEAP authentication. As each stage is completed, a status message (such as *Success*) appears in the Status field. If any error messages appear, refer to the [“Error Messages” section on page 10-12](#) for an explanation and the recommended action to take.

**Table 6-1 Stages of LEAP Authentication**

Stage	Explanation
Starting LEAP Authentication	The client adapter associates to an access point, and the LEAP authentication process begins.
Checking Link Status	The client adapter is LEAP authenticated, and the network connection is verified.
Renewing IP Address	If DHCP is enabled, the IP address is released and renewed.
Detecting IPX Frame Type	The IPX frame type is reset if AutoDetect is enabled.
Finding Domain Controller	If you are logging into a domain and the active profile specifies that the domain name be included, an attempt is made to find the domain controller to make sure subsequent access to the domain is successful.

To force your client adapter to try to reauthenticate using the username and password of the current profile, choose **Reauthenticate** from the ASTU pop-up menu or the ADU Action drop-down menu. When you choose this option, the LEAP Authentication Status window appears, and the authentication process begins.

If your client adapter is unable to authenticate using the specified username and password, you are prompted to re-enter them. If you click **Cancel**, a message appears indicating that the current profile will be disabled until you choose the Reauthenticate option, reboot your computer, or eject and reinsert the client adapter.

## Using LEAP with the Windows Username and Password

### After Profile Selection or Card Insertion

After you (or auto profile selection) select a profile that uses your Windows username and password for LEAP authentication or you eject and reinsert the client adapter while this profile is selected, the following events occur:

1. The LEAP Authentication Status window appears.
2. If your client adapter authenticates, the window shows that each stage was successful and then disappears. ASTU and the Link Status field on the ADU Current Status window show *Authenticated*.

If the authentication attempt fails, ASTU and ADU show *Authentication Failed*, and an error message appears after the LEAP timeout period has expired. Refer to the [“Error Messages” section on page 10-12](#) for the necessary action to take.

## After a Reboot or Logon

After your computer reboots or you log on, follow these steps to LEAP authenticate.

- Step 1** When the Windows login window appears, enter your Windows username and password and click **OK**. The domain name is optional.



**Note** If your computer has Novell Client 32 software installed, a separate LEAP login window appears before the Novell login window. If this occurs, enter your Windows and Novell username and password in the login windows and click **OK**.

The LEAP Authentication Status window appears.

- Step 2** If your client adapter authenticates, the window shows that each stage was successful and then disappears. ASTU and the Link Status field on the ADU Current Status window show *Authenticated*.  
If the authentication attempt fails, ASTU and ADU show *Authentication Failed*, and an error message appears after the LEAP timeout period has expired. Refer to the “[Error Messages](#)” section on page 10-12 for the necessary action to take.
- Step 3** Windows continues to log you onto the system.

## Using LEAP with a Manually Prompted Login

### After Profile Selection

After you (or auto profile selection) select a profile that uses LEAP authentication with a manually prompted login, follow these steps to LEAP authenticate.



**Note** This procedure is applicable the first time a manual LEAP profile is selected. After you follow these steps to enter your LEAP credentials, you can switch profiles without having to re-enter your credentials until you reboot your computer, eject and reinsert your client adapter, or change the profile in any way (including its priority in auto profile selection).

- Step 1** Perform one of the following:
- If you activate a manual LEAP profile, the Enter Wireless Network Password window appears (see [Figure 6-2](#)).

Figure 6-2 Enter Wireless Network Password Window

Enter Wireless Network Password

Please enter your LEAP username and password to log on to the wireless network

User Name :

Password :

Log on to :

Card Name : Cisco Aironet 802.11a/b/g Wireless Adapter

Profile Name : Office

OK

Cancel

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Enter your LEAP username and password and click **OK**. The domain name can be entered in the Log On To field; it is optional.

- If auto profile selection selects a manual LEAP profile, you must choose the **Manual LEAP Login** option from ASTU or the ADU Action drop-down menu (see Figure 6-3).

Figure 6-3 Action Drop-Down Menu

Cisco Aironet Desktop Utility - Current Profile: Office

Action Options Help

Disable Radio

Disable Tray Icon

Troubleshooting

Manual LEAP Login

Reauthenticate

Exit

Management Diagnostics

Profile Name: Office

Link Status: Authenticated

Authentication: LEAP Data Encryption: WEP

Network Type: Infrastructure Current Channel: 1

Wireless Mode: 2.4 GHz 11 Mbps IP Address: 169.254.232.217

Signal Strength:  Excellent

Advanced

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When the Enter Wireless Network Password window appears (see [Figure 6-2](#)), enter your LEAP username and password and click **OK**. The domain name is optional.

- Step 2** The LEAP Authentication Status window appears. If your client adapter authenticates, the window shows that each stage was successful and then disappears. ASTU and the Link Status field on the ADU Current Status window show *Authenticated*.

If the authentication attempt fails, ASTU and ADU show *Authentication Failed*, and an error message appears after the LEAP timeout period has expired. Refer to the “[Error Messages](#)” section on page 10-12 for the necessary action to take.

## After a Reboot, Logon, or Card Insertion

After your computer reboots, you log on, or you eject and reinsert the client adapter, the adapter does not automatically attempt to authenticate. You must manually invoke the authentication process. To do so, follow these steps.

- Step 1** If you rebooted your computer or logged on, complete your standard Windows login.
- Step 2** Open ASTU or ADU.
- Step 3** Choose the **Manual LEAP Login** option from the ASTU pop-up menu or the ADU Action drop-down menu.
- Step 4** When the Enter Wireless Network Password window appears (see [Figure 6-4](#)), enter your LEAP username and password and click **OK**. The domain name can be entered in the Log On To field; it is optional.

**Figure 6-4** Enter Wireless Network Password Window

The screenshot shows a standard Windows-style dialog box with a blue title bar. The text inside is as follows:

Enter Wireless Network Password

Please enter your LEAP username and password to log on to the wireless network

User Name :

Password :

Log on to :

Card Name : Cisco Aironet 802.11a/b/g Wireless Adapter

Profile Name : Office

Buttons: OK, Cancel

Small text in bottom right: 103424

The LEAP Authentication Status window appears.

- Step 5** If your client adapter authenticates, the window shows that each stage was successful and then disappears. ASTU and the Link Status field on the ADU Current Status window show *Authenticated*.
- If the authentication attempt fails, ASTU and ADU show *Authentication Failed*, and an error message appears after the LEAP timeout period has expired. Refer to the “[Error Messages](#)” section on page 10-12 for the necessary action to take.
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## Using LEAP with a Saved Username and Password

### After Profile Selection or Card Insertion

After you (or auto profile selection) select a profile that uses LEAP authentication with a saved LEAP username and password or you eject and reinsert the client adapter while this profile is selected, the following events occur:

1. The LEAP Authentication Status window appears.
2. If your client adapter authenticates, the window shows that each stage was successful and then disappears. ASTU and the Link Status field on the ADU Current Status window show *Authenticated*.

If the authentication attempt fails, ASTU and ADU show *Authentication Failed*, and an error message appears after the LEAP timeout period has expired. Refer to the “[Error Messages](#)” section on page 10-12 for the necessary action to take.

### After a Reboot or Logon

After your computer reboots or you log on, the following events occur:

1. After you enter your Windows username and password, the LEAP authentication process begins automatically using your saved LEAP username and password.



**Note** If you unchecked the **No Network Connection Unless User Is Logged In** check box on the LEAP Settings window, the LEAP authentication process begins before the Windows login window appears.

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2. If your client adapter authenticates, the LEAP Authentication Status window shows that each stage was successful and then disappears. ASTU and the Link Status field on the ADU Current Status window show *Authenticated*.

If the authentication attempt fails, ASTU and ADU show *Authentication Failed*, and an error message appears after the LEAP timeout period has expired. Refer to the “[Error Messages](#)” section on page 10-12 for the necessary action to take.

3. Windows continues to log you onto the system.

## Using EAP-TLS

After you (or auto profile selection) select a profile that uses EAP-TLS authentication or you eject and reinsert the client adapter, reboot the computer, or log on while this profile is selected, the EAP authentication process begins automatically, and the client adapter should EAP authenticate.

If your client adapter authenticates, ASTU and the Link Status field on the ADU Current Status window show *Authenticated*. If the authentication attempt fails, ASTU and ADU show *Authentication Failed*.

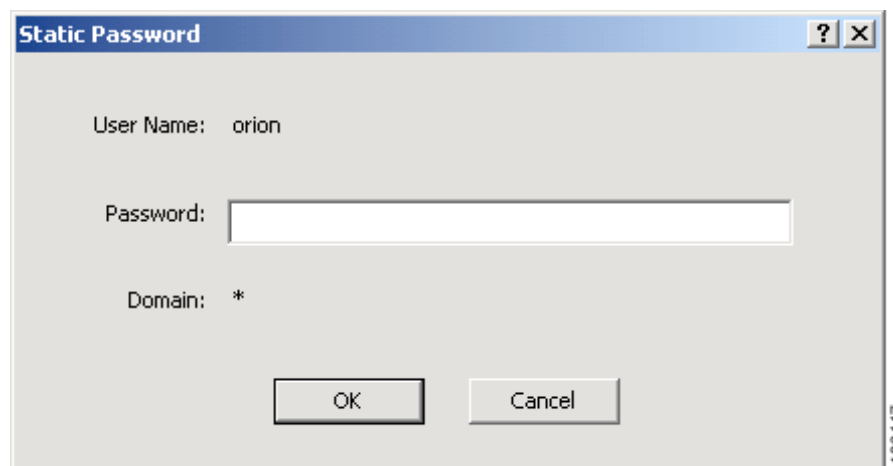
## Using PEAP (EAP-GTC)

After you (or auto profile selection) select a profile that uses PEAP (EAP-GTC) authentication or you eject and reinsert the client adapter, reboot the computer, or log on while this profile is selected, follow the steps in one of the sections below to EAP authenticate. Choose the section appropriate for your user database.

### Windows NT or 2000 Domain Databases or LDAP Databases Only

- Step 1** When the Static Password window appears (see [Figure 6-5](#)), enter your PEAP authentication password (which is registered with the RADIUS server).

**Figure 6-5** Static Password Window



**Note**

The username is filled in automatically. If you entered a domain name on the PEAP (EAP-GTC) Advanced Configuration window, it appears in the Domain field. Otherwise, an asterisk appears to indicate that a domain was not specified.

**Step 2** Click **OK** to begin the authentication process.



**Note** If the password is invalid or entered incorrectly, the Static Password window reappears, enabling you to re-enter it.

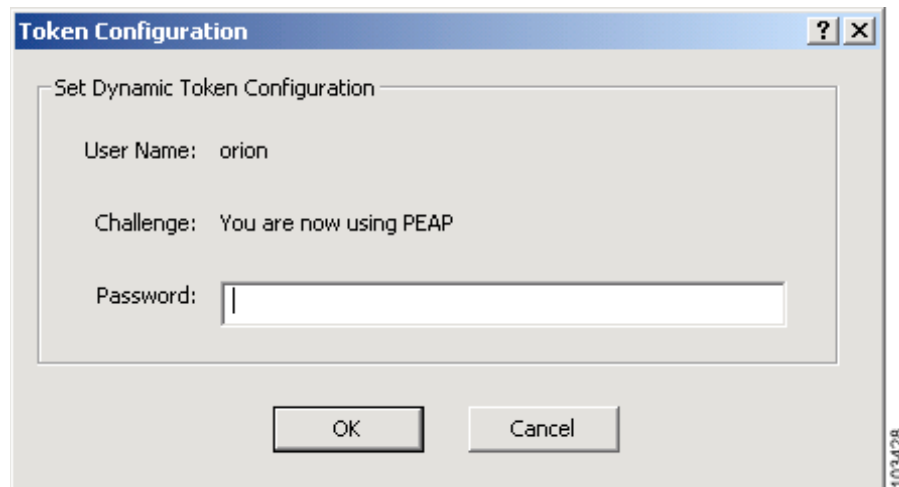
If your client adapter authenticates, ASTU and the Link Status field on the ADU Current Status window show *Authenticated*. If the authentication attempt fails, ASTU and ADU show *Authentication Failed*.

## OTP Databases Only

**Step 1** Use your hardware token device or SofToken program to obtain the one-time password.

**Step 2** When the Token Configuration window appears (see [Figure 6-6](#)), enter the one-time password.

**Figure 6-6** Token Configuration Window



**Note** The username is filled in automatically.

**Step 3** Click **OK** to begin the authentication process.



**Note** If the password is invalid or entered incorrectly, the Token Configuration window reappears, enabling you to re-enter it.

If your client adapter authenticates, ASTU and the Link Status field on the ADU Current Status window show *Authenticated*. If the authentication attempt fails, ASTU and ADU show *Authentication Failed*.

## Using PEAP (EAP-MSCHAP V2)

After you (or auto profile selection) select a profile that uses PEAP (EAP-MSCHAP V2) authentication or you eject and reinsert the client adapter, reboot the computer, or log on while this profile is selected, the EAP authentication process begins automatically. The client adapter should EAP authenticate using either your Windows credentials or the username and password entered in the Define PEAP (EAP-MSCHAP V2) Configuration window.

If your client adapter authenticates, ASTU and the Link Status field on the ADU Current Status window show *Authenticated*. If the authentication attempt fails, ASTU and ADU show *Authentication Failed*.