6

Using EAP Authentication

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

This chapter explains the sequence of events that occurs as soon as you select a profile that uses EAP authentication as well as after you eject and reinsert the client adapter, reset the Windows CE device, or are informed that your username and password have expired. The chapter contains three sections based on the profile's authentication type:

- Using LEAP or EAP-FAST, see below
- Using EAP-TLS, page 6-5
- Using PEAP, page 6-6

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

Note   If any error messages appear during authentication, refer to Chapter 9 for explanations and recommended actions.
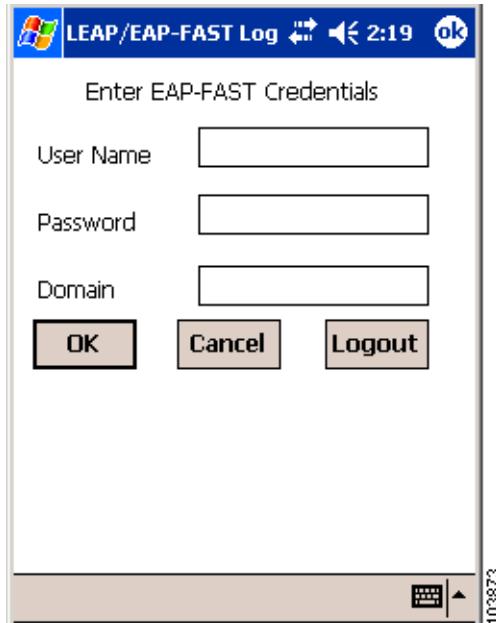
Using LEAP or EAP-FAST

With a Temporary Username and Password

After you select a profile that uses LEAP or EAP-FAST authentication (with a temporary username and password) or you eject and reinsert the client adapter or reset your Windows CE device while this profile is selected, follow these steps to authenticate using LEAP or EAP-FAST.

Step 1   The Wireless Login Module screen appears (see Figure 6-1).

Figure 6-1   Wireless Login Module Screen

> **Note** You can also start WLM by selecting **Start > Programs > Cisco > Wireless Login Module**. You may want to do this if you inadvertently exited WLM after it started or if you roam to a different part of the network where a different login is required.

Step 2 Obtain your LEAP or EAP-FAST username and password from your system administrator.

> **Note** The password is optional because not all host accounts on the RADIUS server are set up with a password.

Step 3 Enter your LEAP or EAP-FAST username in the User Name field.

Step 4 Enter your LEAP or EAP-FAST password in the Password field if your RADIUS server account was set up with a password.

> **Note** For security reasons, the characters entered for the password are displayed as asterisks.

Step 5 If your RADIUS server account specifies a domain, enter the domain name in the Domain field.

Step 6 Tap **OK**. If the username and password were entered correctly, they are written to volatile memory on the client adapter. The username and password remain on the client adapter until a different profile is selected, the client adapter is ejected and reinserted, or the Windows CE device is reset.

> **Note** If you want to terminate the LEAP or EAP-FAST session, tap the **Logout** button. If you want to exit WLM, tap the **Cancel** button.

Step 7 One of three scenarios occurs:

1. The client adapter authenticates to the RADIUS server using your username and password and receives a dynamic, session-based WEP key. The ACU Profiles screen indicates if your client adapter is authenticated to an access point.

2. If you enter the username or password incorrectly or enter ones that are not valid for the RADIUS server on the network, the Wireless Login Module screen reappears with a message indicating that your login was incorrect. You are able to retry immediately by re-entering the username and password.

3. The client adapter times out while trying to authenticate, possibly because it is out of range of an access point. After 30 seconds, a message appears indicating that the authentication attempt timed out and that you need to rerun WLM.

With a Saved Username and Password

After you select a profile that uses LEAP or EAP-FAST authentication (with a saved username and password) or you eject and reinsert the client adapter or reset your Windows CE device while this profile is selected, the client adapter should authenticate automatically. The ACU Profiles screen indicates if your client adapter is authenticated to an access point.

> **Note** If you entered your username or password incorrectly in the ACU Properties screen or entered ones that are not valid for the RADIUS server on the network, the Wireless Login Module screen appears with a message indicating that your login was incorrect. Tap **Cancel**; then change your username or password on the ACU Properties screen and tap **OK**.

> **Note** If you want to log out of a LEAP or EAP-FAST session, select **Start > Programs > Cisco > Wireless Login Module** and tap the **Logout** button on the Wireless Login Module screen.

After Your EAP-FAST Credentials Expire

If the EAP-FAST credentials (username and password) for your current profile expire or become invalid, follow these steps to change your password.

Step 1 When the Password Expired screen appears (see Figure 6-2) to indicate that your password has expired, enter your old password in the Old Password field.

Figure 6-2   Password Expired Screen

Step 2 Enter your new password in both the New Password and Confirm New fields and tap **OK**.

Step 3 If prompted, log off and on again in order to update your local cached account with your new password.

Using EAP-TLS

After you select a profile that uses host-based EAP authentication and configure the card for EAP-TLS, follow these steps to EAP authenticate.

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> **Note**   These instructions are applicable after profile selection, card ejection and reinsertion, or reset.

Step 1   If a message appears informing you that you need to accept a certificate to begin the EAP authentication process, tap the message and follow the instructions provided to accept the certificate.
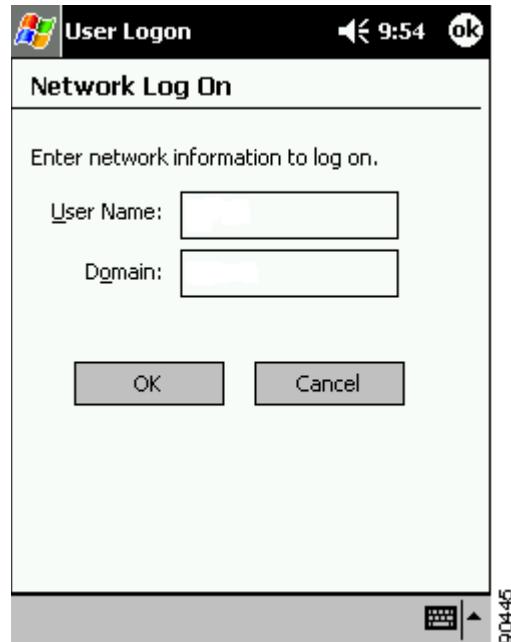
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> **Note**   You should not have to accept a certificate for future authentication attempts. After you accept one, the same certificate is used subsequently.

Step 2   If a message appears indicating the root certification authority for the server's certificate and it is the correct certification authority, tap **OK** to accept the connection. Otherwise, tap **Cancel**.

Step 3   If a message appears indicating the server to which your client adapter is connected and it is the correct server to connect to, tap **OK** to accept the connection. Otherwise, tap **Cancel**.

Step 4   The User Logon screen appears (see Figure 6-3).

Figure 6-3   User Logon Screen

Step 5   Enter your EAP-TLS username and optional domain name (which are registered with the RADIUS server) in the appropriate fields. For example, if your EAP-TLS username is *jsmith* and the domain name is *corporate*, you would enter **jsmith** in the User Name field and **corporate** in the Domain field.

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> **Note**   If your network uses a Cisco Secure ACS server, you must leave the Domain field blank and enter the fully qualified domain name in the User Name field as follows: *username@fully.qualified.domain*. For example, if your EAP-TLS username is *jsmith* and the domain name is *corporate on Cisco.com*, you would enter **jsmith@corporate.cisco.com** in the User Name field and leave the Domain field blank.

Step 6   Tap **OK**. The client adapter should now EAP authenticate.

To verify authentication on a PPC 2002 device, select **Start** > **Programs** > **Cisco** > **AuthMgr**. The Status field at the bottom of the screen shows the authentication status. If the authentication is successful, the Status field displays *Authenticated*, and the IP Address field displays the IP address of the client adapter.

Using PEAP

After Profile Selection, Card Insertion, or Reset

After you select a profile that uses host-based EAP authentication and configure the card for PEAP, follow these steps to EAP authenticate.
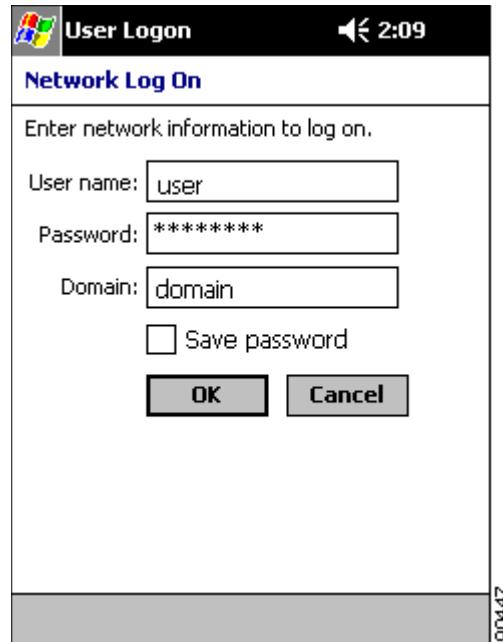
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> **Note**   These instructions are applicable for use with Windows NT or 2000 domain, LDAP, or OTP user databases after profile selection, card ejection and reinsertion, or reset.

Step 1   If a message appears informing you that you need to select a certificate or other credentials to access the network, tap this message.

Step 2   If a message appears indicating the root certification authority for the server's certificate and it is the correct certification authority, tap **OK** to accept the connection. Otherwise, tap **Cancel**.

Step 3   If a message appears indicating the server to which your client adapter is connected and it is the correct server to connect to, tap **OK** to accept the connection. Otherwise, tap **Cancel**.

Step 4   The Static Password screen appears (see Figure 6-4).

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> **Note**   If a message appears prompting you to process your logon information for your wireless network, tap this message. Then the Static Password screen appears.

Figure 6-4   Static Password Screen

Step 5   Enter your PEAP username and password (which are registered with the RADIUS server) in the appropriate fields.

Step 6   If applicable, enter your domain name in the Domain field.

> **Note**   A domain name is not required for OTP databases.

Step 7   Tap **OK**. The client adapter should now EAP authenticate.

To verify authentication on a PPC 2002 device, select **Start > Programs > Cisco > AuthMgr**. The Status field at the bottom of the screen shows the authentication status. If the authentication is successful, the Status field displays *Authenticated*, and the IP Address field displays the IP address of the client adapter.

After Your Password Expires (Windows NT or 2000 Domain Databases Only)

If you are using a Windows NT or 2000 domain database with PEAP and the password for your current username expires, follow these steps to change your password.

Step 1   When the Change Password screen appears (see Figure 6-5) to indicate that your password has expired, enter your old password in the Old Password field.

Figure 6-5   Change Password Screen

Step 2   Enter your new password in both the New Password and Confirm New Password fields.

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Note   The password is also changed in the Windows NT or 2000 domain user database.

Step 3   Tap **OK**. The client adapter should authenticate using your new password.