



Advanced Configuration

This chapter describes the client utility used with a Cisco Aironet Wireless LAN Adapter.

The following topics are covered in this chapter:

- [Overview, page 6-2](#)
- [Opening the Client Utility, page 6-2](#)
- [Basic Properties, page 6-3](#)
- [Location Profiles, page 6-7](#)
- [Advanced Properties, page 6-10](#)
- [Turning Your Client Adapter Radio On or Off, page 6-21](#)

Overview

This section explains how to use the client utility to load new firmware and to configure your client adapter for use in a wireless network. This section also explains how you can use the client utility to set parameters that govern how the adapter transmits or receives data, and controls the adapter’s operation within an infrastructure or ad hoc network.

Opening the Client Utility

The easiest way to open the ACU is to click the Aironet icon on the menu bar (Mac OS X), or Aironet control module (Mac OS 9), and select **Open Aironet Client Utility**. Refer to the [“Desktop Controls” section on page 4-2](#).

As an alternative, you can open the ACU as an application. To open the client utility, follow the steps below.

	Mac OS X	Mac OS 9
Step 1	Double-click the MacOS X icon on the desktop.	Double-click the MacOS 9 icon on the desktop.
Step 2	Expand the Applications folder.	Expand the Cisco pcm340PPC folder.
Step 3	Double-click the Aironet Client Utility icon.	Double-click the pcm340PPC icon.

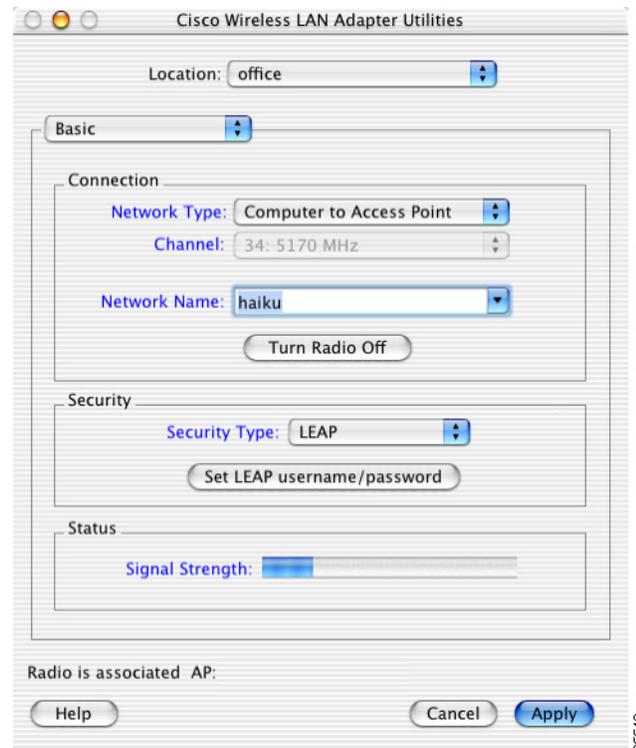
The client utility screen appears, and the computer searches for the client adapter radio. When the radio is found, the basic properties screen appears.

Basic Properties

The basic properties screen displays when you open the client utility. The screen provides useful information about your client adapter and enables you to quickly set key configuration parameters needed to successfully communicate with an access point or another wireless device.

The basic properties screen for Mac OS X is shown in [Figure 6-1](#). Except for the Location field, it is the same as the Mac OS 9 basic properties screen.

Figure 6-1 Client Utility Basic Properties Screen



Note

You can click the blue words on any client utility screen to obtain descriptive information, such as Security Type and Signal Strength.

The basic properties screen provides the following information:

- **Location**—Selects or defines wireless network profiles for specific operating locations. (Mac OS X only)
- **Connection**—Specifies the network type, the network name, and the frequency channel for computer to computer (Ad-Hoc) networks. You can also turn the radio on or off.
- **Security**—Specifies the WEP and LEAP security settings. You can enable WEP and set up to four WEP keys, enable LEAP and set your LEAP username and password, or disable security.
- **Status**—Shows a bar graph to represent the signal strength of the received RF signal.

- Association Status—Shows the association status of your client adapter.
 - Radio associated—Your client adapter is associated to an access point or other wireless device. For an access point, the name and IP address are shown.
 - Radio not associated—Your client adapter is ready and enabled but not associated to an access point or wireless device.

Table 6-1 lists and describes the parameters that can be set from the basic properties screen. Follow the instructions in the table to initially set or change any parameter. Click **Apply** at the bottom of the basic properties screen to save any changes you make and send the current settings to the radio.

Table 6-1 Basic Properties Parameters

Parameter	Description						
Location (Mac OS X only)	Specifies unique radio network profile settings for different locations, such as your office, your home, the factory, or the airport. For each profile, you can specify unique connection and security settings. Click the up and down arrows to select a different profile. For additional information see the “Location Profiles” section on page 6-7 . Default: Default						
Network Type	Specifies the type of network in which your client adapter is installed. Default: Computer to Access Point						
	<table border="1"> <thead> <tr> <th>Network Type</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Computer to Access Point</td> <td>Also referred to as <i>infrastructure</i>. Used to set up a connection to a wired Ethernet network (through an access point).</td> </tr> <tr> <td>Computer to Computer</td> <td>Also referred to as <i>ad hoc</i> or <i>peer to peer</i>. Used to set up a small network between two or more wireless devices. For example, an ad hoc network could be set up between computers in a conference room so users can share information in a meeting.</td> </tr> </tbody> </table>	Network Type	Description	Computer to Access Point	Also referred to as <i>infrastructure</i> . Used to set up a connection to a wired Ethernet network (through an access point).	Computer to Computer	Also referred to as <i>ad hoc</i> or <i>peer to peer</i> . Used to set up a small network between two or more wireless devices. For example, an ad hoc network could be set up between computers in a conference room so users can share information in a meeting.
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Table 6-1 Basic Properties Parameters (continued)

Parameter	Description
Channel	<p>Specifies which frequency your client adapter uses as the channel for communications. These channels conform to the IEEE 802.11 Standard for your regulatory domain.</p> <ul style="list-style-type: none"> In infrastructure mode, this parameter is set automatically and cannot be changed. The client adapter listens to the entire spectrum, selects the best access point to associate to, and uses the same frequency as that access point. In ad hoc mode, the channel of the client adapter must be set to match the channel used by the other clients with which you wish to communicate. <p>Range: Dependent on client adapter radio and regulatory domain Example for 2.4-GHz client adapters: 1 to 11 (2412 to 2462 MHz) in North America Example for 5-GHz client adapters: 36, 40, 44, 48, 52, 56, 60, and 64 (5180, 5200, 5220, 5240, 5260, 5280, 5300, and 5320 MHz) in North America</p> <p>Default: Dependent on client adapter radio and regulatory domain Example for 2.4-GHz client adapters: 6 (2437 MHz) in North America Example for 5-GHz client adapters: 36 (5180 MHz) in North America</p> <p>Note Refer to Appendix D, “Channels, Power Levels, and Antenna Gains,” for a list of channel identifiers, channel center frequencies, and regulatory domains for each channel.</p>
Network Name	<p>Network name is the same as service set identifier (SSID) and it identifies the wireless network that you want to access.</p> <p>Range: Up to 32 characters (case sensitive)</p> <p>Note If you leave this parameter blank, your client adapter can associate to any access point or wireless device on the network that is configured to allow broadcast SSIDs. If the access points or wireless devices with which you wish to communicate are not configured to allow broadcast SSIDs, the value of this parameter must exactly match their SSID or network name. Otherwise, you will not be able to associate with the access point or wireless device.</p>

Table 6-1 Basic Properties Parameters (continued)

Parameter	Description								
Security	Specifies the type of security for your client adapter, which must match the security type of your wireless network. Refer to Chapter 5, “Security Features,” for more information about configuring WEP and LEAP security. Default: None								
	<table border="1"> <thead> <tr> <th>Security Type</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>Disable security.</td> </tr> <tr> <td>WEP</td> <td>Enables Wired Equivalent Privacy (WEP) for your client adapter. You must also set WEP keys.</td> </tr> <tr> <td>LEAP</td> <td>Enables LEAP (also referred to as <i>EAP - Cisco Wireless</i>) for your client adapter. You must also set a LEAP username and password.</td> </tr> </tbody> </table>	Security Type	Description	None	Disable security.	WEP	Enables Wired Equivalent Privacy (WEP) for your client adapter. You must also set WEP keys.	LEAP	Enables LEAP (also referred to as <i>EAP - Cisco Wireless</i>) for your client adapter. You must also set a LEAP username and password.
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[Table 6-2](#) describes the buttons on the basic properties screen.

Table 6-2 Buttons on the Basic Properties Screen

Button	Description
Turn Radio On Turn Radio Off	Turns the client adapter radio on or off. The button changes to indicate the operation to be performed; for example: <i>Turn Radio On</i> indicates the radio is turned on when you click the button and <i>Turn Radio Off</i> indicates the radio is turned off when you click the button.
Set WEP Key	Opens the WEP keys dialog box, where you can configure up to 4 WEP keys. This button is visible only if you select WEP security. For additional information, see Chapter 5, “Security Features.”
Set LEAP Username/Password	Opens the LEAP username and password prompt. This button is visible only if you select LEAP security. For additional information see Chapter 5, “Security Features.”
Cancel	Exits the application or screen without saving revised settings.
Apply	Saves the revised settings and sends the parameters to the radio.
Help	Opens the client utility help screen. For additional information, see the “Client Utility” section on page 4-7.

Location Profiles

Using location profiles, you can specify unique client adapter settings for different physical locations, such as your office, home, or the airport. For example, you can specify unique connection and security settings for each location profile. These unique settings are stored in your Macintosh and recalled when you select a new location.

The following list identifies the key configurations for a location:

- Specify unique connection parameters on the basic properties screen (see [Figure 6-1](#)) or the advanced properties screen (see [Figure 6-6](#)).
 - Set the network type
 - Set the network name or SSID
- Specify security parameters on the basic properties screen (see [Figure 6-1](#)) or the advanced properties screen (see [Figure 6-6](#)). Refer to [Chapter 5, “Security Features”](#) for information on LEAP and WEP and instructions on setting these security features.
 - If WEP is selected, set up to four WEP keys
 - If LEAP is selected, set your LEAP username and password

The way you initialize locations depends on the operating system you use:

- Mac OS X—Use the Location Profile feature of the ACU
- Mac OS 9—Use the Macintosh Location Manager in conjunction with the ACU

When using the Mac OS X operating system, you open the ACU and select a location from the location drop-down list. All subsequent configuration changes apply to the selected location. For the Mac OS 9 operating system, you open the Macintosh Location Manager and select a location.

Selecting a Mac OS X Location Profile

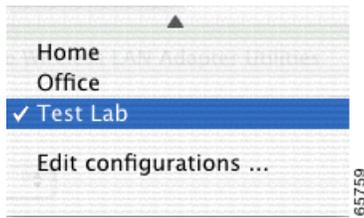
Using the client utility, you can specify different wireless network profile settings for different operating locations, such as your office, your home, the factory, or the airport. You can change location profiles two places:

- Aironet icon on the menu bar
- Client utility basic or advanced screens

The Aironet icon provides the easiest way to change locations. Simply click the Aironet icon and select the desired location. For more information, see [Using the Aironet Menu Bar Icon \(Mac OS X\)](#), page 4-2.

To select a location profile from the client utility basic or advanced screens, follow the steps below:

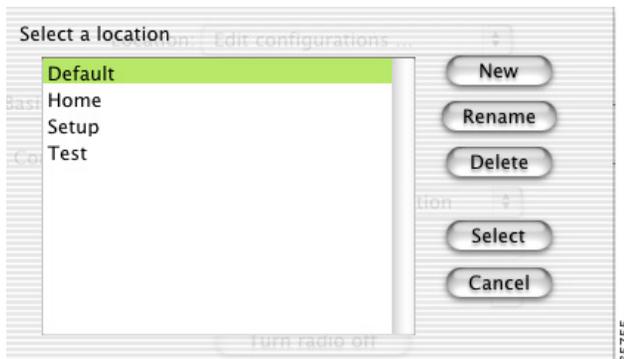
-
- Step 1** Click the up and down arrows at the end of the Location field and select the desired location from the drop-down menu (see [Figure 6-2](#)).

Figure 6-2 Location Drop-Down Menu

Step 2 Click **Apply** on the basic or advanced properties screen to activate the selected location profile.

Editing a Mac OS X Location Profile

To add a new location profile name or to rename, delete, or select an existing location profile, click **Edit Configurations** from the location drop-down menu (see [Figure 6-2](#)). The Edit Configurations screen appears (see [Figure 6-3](#)).

Figure 6-3 Edit Configurations Screen

Use the buttons on the Edit Configurations screen to perform the following operations:

- To add a new location profile name, click **New** and enter a new name in the drop-down screen. Click **OK** to add the new name or click **Cancel** to return to the basic or advanced screen without setting a new name. When you create a new location profile name, you should enter the specific connection and security settings for that location on the basic or advanced screens.
- To rename an existing location profile, click **Rename** and enter the revised name in the drop-down screen. Click **OK** to revise the name or click **Cancel** to return to the basic or advanced screen without changing the name.
- To delete an existing location profile, select the profile to delete from the Edit Configuration screen and click **Delete**. The basic or advanced screen appears.
- To select an existing location profile as the client utility default location, select the profile from the Edit Configuration screen and click **Select**. The basic or advanced screen appears.
- To exit the Edit Configuration screen without making changes, click **Cancel**. The basic or advanced screen appears.

Table 6-3 lists and describes the buttons on the Edit Configurations screen.

Table 6-3 Buttons on the Edit Configurations Screen

Button	Description
New	Allows you to specify a name for a new location profile.
Rename	Allows you to rename an existing location profile name.
Delete	Allows you to delete an existing location profile name.
Select	Allows you to select the location profile name to be used as the client utility default.
Cancel	Exits the application or dialog box without saving revised settings.

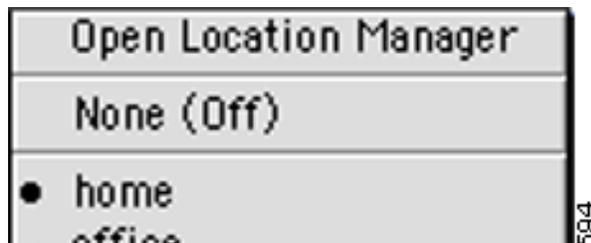
Selecting a Mac OS 9 Location

You change locations on Mac OS 9 using the Macintosh Location Manager feature, which is also available on the control strip.

To change an Mac OS 9 Location, follow the steps below:

-
- Step 1** Click the Location Manager icon on the control strip.

Figure 6-4 Location Manager (Mac OS 9)



- Step 2** Select a location.
-

Editing a Mac OS 9 Location

To select, add, remove, or rename an Mac OS 9 location, refer to Macintosh help. This section summarizes the procedure for initializing a Macintosh location; refer to the Mac help for details.

To initialize a Mac OS 9 Location, follow the steps below:

-
- Step 1** Open the Mac Location Manager application (see [Figure 6-5](#)). The control strip includes an icon for launching the Mac Location Manager.

Figure 6-5 Location Manager Screen (Mac OS 9)



- Step 2** Select the desired Edit Location.
- Step 3** Check the Cisco Wireless LAN checkbox.
- Step 4** Click **Edit** to change the Aironet client adapter properties, as necessary.
- Step 5** Click **Apply**. The system updates the stored configuration information.

Advanced Properties

The advanced properties screen provides the following tabs (see [Figure 6-6](#)):

- **Connection**—specifies the network type and the network name for your wireless network. You can also turn the radio on or off.
- **RF Settings**—specifies RF (radio) parameters.
- **Status**—displays client adapter status information.
- **Scanner**—displays information about detected access points.

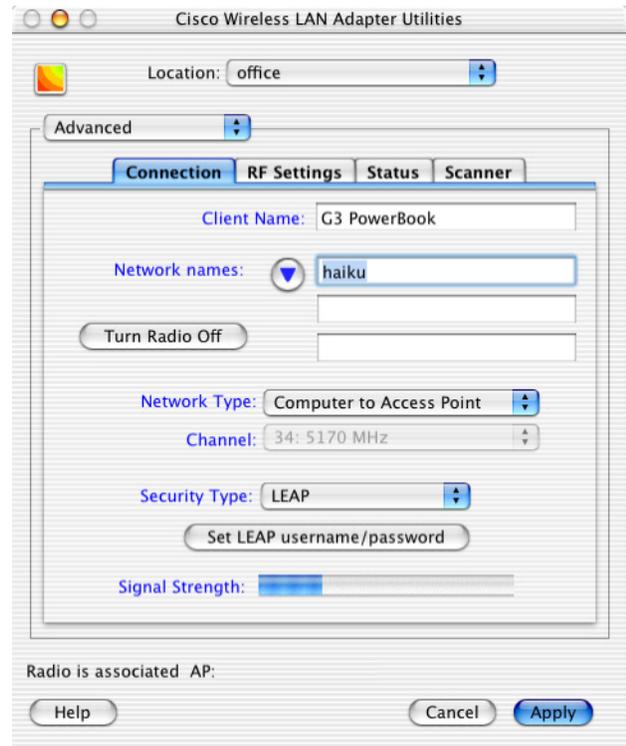
To access the desired advanced properties screen, perform the following steps:

- Step 1** Click the up and down arrows to the right of the basic properties field (see [Figure 6-1](#)).
- Step 2** Select **Advanced** on the drop-down menu. The advanced properties screen appears.
- Step 3** Select the **Connection**, **RF Settings**, **Status**, or **Scanner** tab. The corresponding screen appears.

Setting Connection Parameters

To access the advanced connection properties screen, click the **Connection** tab (see [Figure 6-6](#)).

Figure 6-6 Client Utility Advanced Connection Properties Screen



The advanced connection properties screen is similar to the basic properties screen but allows you to specify a client name for your client adapter and up to three network names or SSIDs, and the network type.

[Table 6-4](#) lists and describes the client adapter's system parameters on the advanced connection parameters screen. Follow the instructions in the table to initially set or change any parameter. Click **Apply** at the bottom of the advanced connection properties screen to save any changes you have made and send the current settings to the radio, or click **Cancel** to exit the client utility.

Table 6-4 Advanced Connection Properties Screen Parameters

Parameter	Description						
Location (Mac OS X only)	Specifies different wireless network profile settings used in various locations, such as your office, home, factory, or airport. For each profile, you can specify unique connection parameters required for that operating location. For additional information see the “ Location Profiles ” section on page 6-7. Default: Default						
Client Name	A logical name for your client adapter. It enables an administrator to quickly determine which devices are connected to the access point. This name is included in the access point’s list of connected devices. Range: Up to 16 characters Note Each computer on the network should have a unique client name.						
Network Name	Network name is the same as service set identifier (SSID) and it identifies the wireless network that you want to access. Up to three names can be specified for different wireless networks. For Mac OS X, press the right arrow to display all three names (see Figure 6-6). Range: Up to 32 characters (case sensitive) for each name Note If you leave this parameter blank, your client adapter can associate to any access point or wireless device on the network that is configured to allow broadcast SSIDs. If the access points or wireless devices with which you wish to communicate are not configured to allow broadcast SSIDs, the value of this parameter must exactly match their SSID or network name. Otherwise, you cannot access the access point or wireless device.						
Network Type	Specifies the type of network in which your client adapter is installed. Default: Computer to access point						
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Table 6-4 Advanced Connection Properties Screen Parameters (continued)

Parameter	Description								
Channel	<p>Specifies which frequency your client adapter uses as the channel for communications. These channels conform to the IEEE 802.11 Standard for your regulatory domain.</p> <ul style="list-style-type: none"> In infrastructure mode, this parameter is set automatically and cannot be changed. The client adapter listens to the entire spectrum, selects the best access point to associate to, and uses the same frequency as that access point. In ad hoc mode, the channel of the client adapter must be set to match the channel used by the other clients with which you wish to communicate. <p>Range: Dependent on client adapter radio and regulatory domain Example for 2.4-GHz client adapters: 1 to 11 (2412 to 2462 MHz) in North America Example for 5-GHz client adapters: 36, 40, 44, 48, 52, 56, 60, and 64 (5180, 5200, 5220, 5240, 5260, 5280, 5300, and 5320 MHz) in North America</p> <p>Default: Dependent on client adapter radio and regulatory domain Example for 2.4-GHz client adapters: 6 (2437 MHz) in North America Example for 5-GHz client adapters: 36 (5180 MHz) in North America</p> <p>Note Refer to Appendix D, “Channels, Power Levels, and Antenna Gains,” for a list of channel identifiers, channel center frequencies, and regulatory domains for each channel.</p>								
Security	<p>Specifies the type of security for your client adapter, which must match the security type of your wireless network. Refer to Chapter 5, “Security Features,” for more information about configuring WEP and LEAP security.</p> <p>Default: None</p> <table border="1"> <thead> <tr> <th>Security Type</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>Disable security.</td> </tr> <tr> <td>WEP</td> <td>Enables Wired Equivalent Privacy (WEP) for your client adapter. You must also set WEP keys.</td> </tr> <tr> <td>LEAP</td> <td>Enables LEAP (also referred to as <i>EAP - Cisco Wireless</i>) for your client adapter. You must also set a LEAP username and password.</td> </tr> </tbody> </table>	Security Type	Description	None	Disable security.	WEP	Enables Wired Equivalent Privacy (WEP) for your client adapter. You must also set WEP keys.	LEAP	Enables LEAP (also referred to as <i>EAP - Cisco Wireless</i>) for your client adapter. You must also set a LEAP username and password.
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Table 6-5 describes the buttons on the advanced connection properties screen.

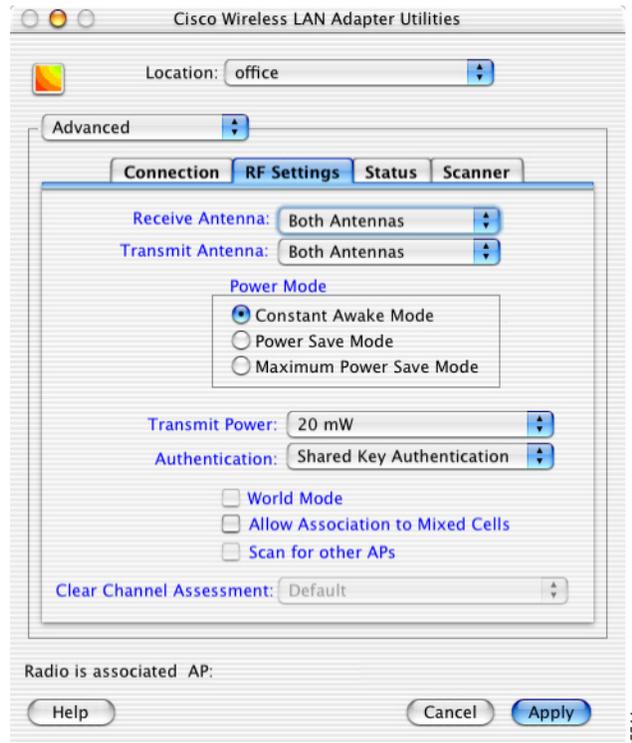
Table 6-5 Buttons on the Advanced Connection Properties Screen

Button	Description
Turn Radio On Turn Radio Off	Turns the client adapter radio on or off. The button changes to indicate the operation to be performed; for example: <i>Turn Radio On</i> indicates the radio is turned on when you click the button and <i>Turn Radio Off</i> indicates the radio is turned off when you click the button.
Set WEP Key	Opens the WEP keys dialog box, where you can configure up to four WEP keys. This button is visible only if you select WEP security. For additional information, see Chapter 5, “Security Features.”
Set LEAP Username/Password	Opens the LEAP username and password prompt. This button is visible only if you select LEAP security. For additional information see Chapter 5, “Security Features.”
Cancel	Exits the application or screen without saving revised settings.
Apply	Saves the revised settings and sends the current settings to the radio.
Help	Opens the client utility help screen (for additional information see the “Client Utility” section on page 4-7.

Setting RF Parameters

The advanced RF settings screen (see [Figure 6-7](#)) enables you to set parameters that control how your client adapter transmits and receives data. To access this screen, click the **RF Settings** tab on the advanced properties screen.

Figure 6-7 Client Utility Advanced RF Settings Screen



Use the advanced RF settings screen to specify advanced radio parameters. This screen includes the following information:

- Location (Mac OS X only)—defines wireless network profiles for various operating locations. In each profile you can specify a network type, network name, plus WEP and LEAP security settings for that operating location. For additional information, see the [“Location Profiles” section on page 6-7](#).
- Radio Status—Shows the operational mode of your client adapter. If your client adapter is associated to an access point or wireless device, the name and IP address are displayed.
 - Radio associated—Your client adapter is associated to an access point or other wireless device. The access point or wireless device name and IP address are shown.
 - Radio not associated—Your client adapter is ready and enabled but not associated to an access point or wireless device.

[Table 6-6](#) lists and describes the parameters on the Client Utility Advanced RF Network Settings screen. Follow the instructions in the table to initially set or change any parameters. Click **Apply** at the bottom of the screen to save any changes you make and to send the current settings to the radio.

Table 6-6 Client Utility Advanced RF Settings Screen Parameters

Parameter	Description
Location (Mac OS X only)	<p>Supports different wireless network profiles for different operating locations. For each profile you can specify unique RF network parameters required for that operating location. For additional information see the “Location Profiles” section on page 6-7.</p> <p>Default: Default</p>
Receive Antenna	<p>Specifies the antenna that your client adapter uses to receive data.</p> <ul style="list-style-type: none"> • PC and Cardbus card—The integrated, permanently attached antenna operates best when used in both antennas (also referred to as <i>diversity mode</i>). Diversity mode allows the card to use the better signal from its two antenna ports. <p>Range: Left Antenna, Right Antenna, Both Antennas</p> <p>Default: Both Antennas</p> • LM card—The LM card is shipped without an antenna; however, an antenna can be connected through the card’s external connector. If a snap-on antenna is used, diversity mode is recommended. Otherwise, select the mode that corresponds to the antenna port to which the antenna is connected. <p>Range: Left Antenna, Right Antenna, Both Antennas</p> <p>Default: Both Antennas</p> • PCI client adapter—The PCI client adapter must use the right antenna. <p>Default: Right Antenna</p>
Transmit Antenna	<p>Specifies the antenna that your client adapter uses to transmit data. See the Receive Antenna parameter above for information on the options available for your client adapter.</p>

Table 6-6 Client Utility Advanced RF Settings Screen Parameters (continued)

Parameter	Description								
Power Save Mode	<p>Sets your client adapter to its optimum power consumption setting.</p> <p>Range: Constant Awake Mode, Power Save Mode, and Maximum Power Save Mode</p> <p>Default: Constant Awake Mode (CAM)</p>								
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Table 6-6 Client Utility Advanced RF Settings Screen Parameters (continued)

Parameter	Description	
Transmit Power	Defines the level at which your client adapter transmits power. This value must not be higher than that allowed by your country's regulatory agency (FCC in the U.S., DOC in Canada, ETSI in Europe, MKK in Japan, etc.). Options: Dependent on the power table programmed into the client adapter; see the table below Default: The minimum level allowed by your country's regulatory agency	
	Client Adapter Type	
	Possible Power Levels	
	340 series PC cards	30 mW or 1 mW
	340 series LM cards and PCI cards	30 mW, 15 mW, 5 mW, or 1 mW
	350 series client adapters	100 mW, 50 mW, 30 mW, 20 mW, 5 mW, or 1 mW
PC-Cardbus card	20 mW, 10 mW, or 5 mW	
	Note Reducing the transmit power level conserves battery power but decreases radio range.	
	Note When World Mode is enabled, the client adapter is limited to the maximum transmit power level allowed by the country of operation's regulatory agency (refer to Appendix D, "Channels, Power Levels, and Antenna Gains").	
	Note If you are using an older version of a 340 or 350 series client adapter, your power level options may be different than those listed here.	

Table 6-6 Client Utility Advanced RF Settings Screen Parameters (continued)

Parameter	Description						
Authentication	<p>Defines how your client adapter attempts to authenticate to an access point.</p> <p>Values: Open Authentication or Shared Authentication</p> <p>Default: Open Authentication</p>						
	<table border="1"> <thead> <tr> <th>Authentication Type</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Open</td> <td>Allows your client adapter, regardless of its WEP settings, to associate and attempt to communicate with an access point.</td> </tr> <tr> <td>Shared</td> <td> <p>Allows your client adapter to associate only with access points that have the same WEP keys.</p> <p>The access point sends a known unencrypted “challenge packet” to the client adapter, which encrypts the packet and sends it back to the access point. The access point attempts to decrypt the encrypted packet and sends an authentication response packet indicating the success or failure of the decryption back to the client adapter.</p> <p>Because the challenge packet is unencrypted, Shared Key Authentication is less secure than the WEP Key and Open Authentication. Use this setting only if your access point requires WEP keys to associate.</p> </td> </tr> </tbody> </table>	Authentication Type	Description	Open	Allows your client adapter, regardless of its WEP settings, to associate and attempt to communicate with an access point.	Shared	<p>Allows your client adapter to associate only with access points that have the same WEP keys.</p> <p>The access point sends a known unencrypted “challenge packet” to the client adapter, which encrypts the packet and sends it back to the access point. The access point attempts to decrypt the encrypted packet and sends an authentication response packet indicating the success or failure of the decryption back to the client adapter.</p> <p>Because the challenge packet is unencrypted, Shared Key Authentication is less secure than the WEP Key and Open Authentication. Use this setting only if your access point requires WEP keys to associate.</p>
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	<p>Note If LEAP is enabled on your client adapter, Open is the only available option.</p> <p>Note The Shared Authentication option is available only if the client adapter has been assigned a WEP key and WEP is enabled. Refer to the “Configuring WEP Key Security” section on page 5-5 for instructions on setting a WEP key and enabling WEP.</p>						
World Mode	<p>Check this check box to learn the legal transmit power level and channel set from the access point to which the client adapter is associated. This parameter is available only in computer-to-access point (infrastructure) mode and helps users who travel between countries use the client adapter in different regulatory domains.</p> <p>Default: Deselected</p> <p>Note When World Mode is enabled, only the transmit power levels supported by the country of operation’s regulatory agency are available.</p>						

Table 6-6 Client Utility Advanced RF Settings Screen Parameters (continued)

Parameter	Description										
Allow Association To Mixed Cells	<p>If your network's access points are set to communicate with either WEP-enabled or WEP-disabled clients (that is, if the Use of Data Encryption by Stations parameter on the AP Radio Data Encryption screen is set to Optional), you must select this check box, even if your client adapter is not using WEP. If this setting is not enabled, your client adapter cannot establish a connection with the access point.</p> <p>Default: Deselected</p> <p>Note For security reasons, Cisco recommends that both WEP-enabled and WEP-disabled clients not be allowed in the same cell because broadcast packets will be sent unencrypted, even to clients running WEP.</p>										
Allow Scan For Other Aps	<p>Selecting this check box causes the client to look for a better access point if its signal strength becomes low and to switch associations if it finds one.</p> <p>Default: Selected</p> <p>Note This parameter is available only if your client adapter is using radio firmware version 4.25.30 or greater.</p>										
Clear Channel Assessment	<p>Specifies the method that determines whether the channel on which your client adapter will operate is clear prior to the transmission of data.</p> <p>Options: Firmware Default (XXX), Carrier/Correlation (Car/Cor), Energy Detect (ED), or ED or Car/Cor</p> <p>Default: Firmware Default (XXX)</p> <table border="1"> <thead> <tr> <th>Method</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Firmware Default (XXX)</td> <td> <p>The Clear Channel Assessment (CCA) mechanism will report that the channel is busy based on the default value of the client adapter's firmware. The firmware's CCA default value is shown in parentheses (XXX).</p> <p>Note The CCA default value is Car/Cor.</p> </td> </tr> <tr> <td>Carrier/Correlation (Car/Cor)</td> <td> <p>The CCA mechanism will report that the channel is busy upon detection of a direct-sequence spread spectrum (DSSS) signal. This signal may be above or below the ED threshold.</p> </td> </tr> <tr> <td>Energy Detect (ED)</td> <td> <p>The CCA mechanism will report that the channel is busy upon detection of any energy above the ED threshold.</p> </td> </tr> <tr> <td>ED or Car/Cor</td> <td> <p>The CCA mechanism will report that the channel is busy upon detection of a DSSS signal or any energy above the ED threshold.</p> </td> </tr> </tbody> </table> <p>Note This parameter is available only for 2.4-GHz client adapters using firmware version 4.25.30 or greater.</p>	Method	Description	Firmware Default (XXX)	<p>The Clear Channel Assessment (CCA) mechanism will report that the channel is busy based on the default value of the client adapter's firmware. The firmware's CCA default value is shown in parentheses (XXX).</p> <p>Note The CCA default value is Car/Cor.</p>	Carrier/Correlation (Car/Cor)	<p>The CCA mechanism will report that the channel is busy upon detection of a direct-sequence spread spectrum (DSSS) signal. This signal may be above or below the ED threshold.</p>	Energy Detect (ED)	<p>The CCA mechanism will report that the channel is busy upon detection of any energy above the ED threshold.</p>	ED or Car/Cor	<p>The CCA mechanism will report that the channel is busy upon detection of a DSSS signal or any energy above the ED threshold.</p>
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Turning Your Client Adapter Radio On or Off

Your client adapter radio can be turned on or off. Turning the radio off prevents the adapter from transmitting RF energy. You might want to turn off the client adapter radio when you are not transmitting data and want to conserve battery power or when you are using a laptop on an airplane and want to prevent the adapter's transmissions from potentially interfering with electronic devices.

If the radio is not turned off, it periodically sends out inquiry packets even if it is not associated to an access point, as required by the 802.11 specification. Therefore, it is important to turn it off around devices that are susceptible to RF interference.



Note Your client adapter is not associated while the radio is off.

Turning the Radio On

To turn your radio on, perform one of the following actions:

- Select **Radio On** from the Aironet desktop control (menu bar icon or control strip module).
- Select **Radio On** from the File drop-down menu of the ACU.
- Click the **Turn Radio On** button on the basic properties screen.
- Click the **Turn Radio On** button on the advanced properties screen.



Note The menu option changes to Radio Off after you turn the radio on.

Turning the Radio Off

To turn your radio off, perform one of the following actions:

- Select **Radio Off** from the Aironet desktop control (menu bar icon or control strip module).
- Select **Radio Off** from the File drop-down menu of the ACU.
- Click the **Turn Radio Off** button on the basic properties screen.
- Click the **Turn Radio Off** button on the advanced properties screen.



Note The menu option changes to Radio On after you turn the radio off.
