WPA RADIUS features WPA used in coordination with a RADIUS server. (This should only be used when a RADIUS server is connected to the Router.) WPA Radius offers two encryption methods, TKIP and AES, with dynamic encryption keys. It offers five authentication methods: EAP-TLS, EAP-TTLS, EAP-MD5, EAP-PEAP, and LEAP.

Click the **Next** button to continue and the screen in Figure 6-19 appears. Click the **Back** button to return to the previous screen.

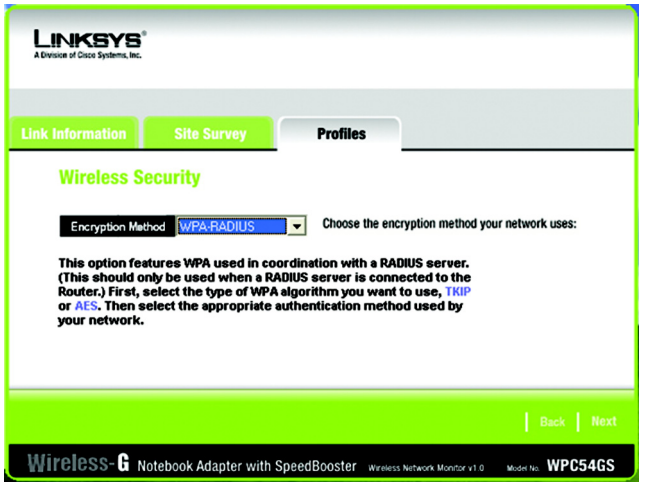

Figure 6-17: WPA RADIUS Settings

Select the type of algorithm, **TKIP** or **AES**, for the *Encryption Type*.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

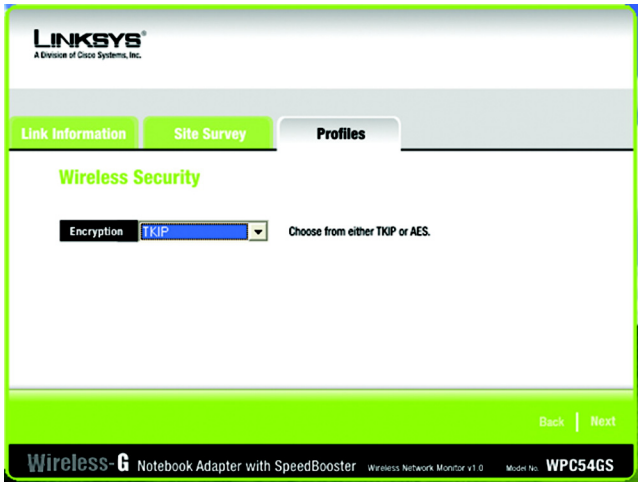

Figure 6-18: Encryption Type

The screen in Figure 6-20 appears next. Select the *Authentication Method* from the drop-down menu. The options are described below.

EAP-TLS

Enter the Login name of your wireless network in the *Login Name* field. From the *Certificate* drop-down menu, select the certificate you have installed to authenticate you on your wireless network. Select **Validate server cerificate** to make sure that the certificate for the server is valid.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

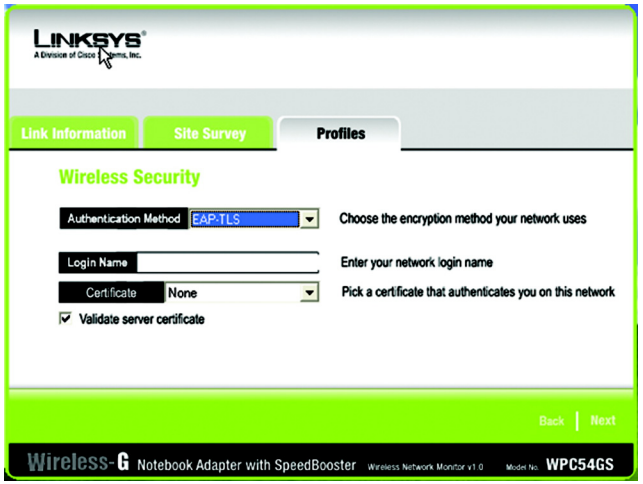

Figure 6-19: EAP-TLS Authentication

EAP-TTLS

Enter the Login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field. Select **Validate server cerificate** to make sure that the certificate for the server is valid. Select the *TTLS Protocol* from the drop-down menu.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

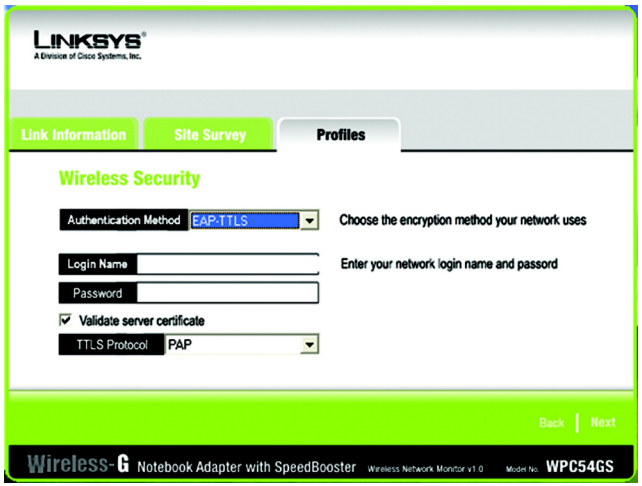

Figure 6-20: EAP-TTLS Authentication

EAP-MD5

Enter the Login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

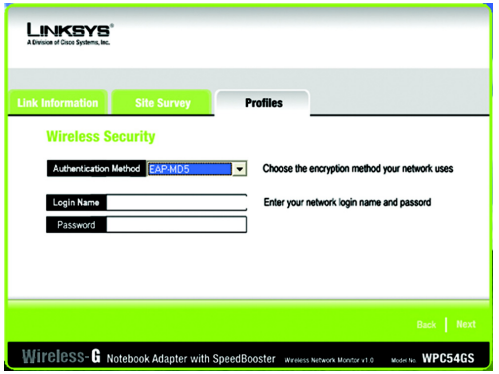

Figure 6-21: EAP-MD5 Authentication

EAP-PEAP

Enter the Login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field. Select **Validate server cerificate** to make sure that the certificate for the server is valid. Then, select the *Peap Inner EAP* from the drop-down menu.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

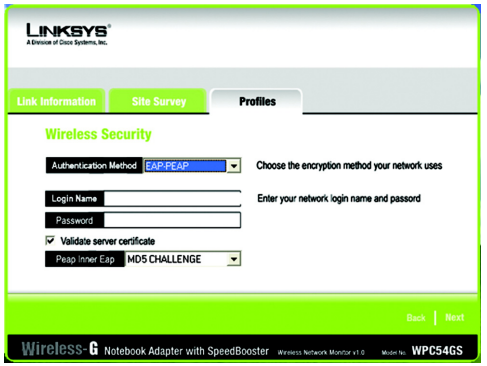

Figure 6-22: EAP-PEAP Authentication

LEAP

Enter the Login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

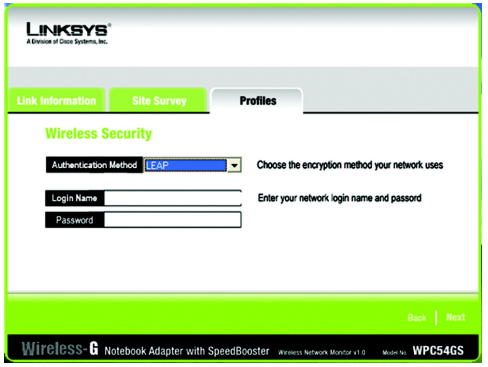

Figure 6-23: EAP-LEAP Authentication

RADIUS

RADIUS features WPA used in coordination with a RADIUS server. (This should only be used when a RADIUS server is connected to the Router.) It offers five authentication methods: EAP-TLS, EAP-TTLS, EAP-MD5, EAP-PEAP, and LEAP.

Click the **Next** button to continue and the screen in Figure 6-19 appears. Click the **Back** button to return to the previous screen.

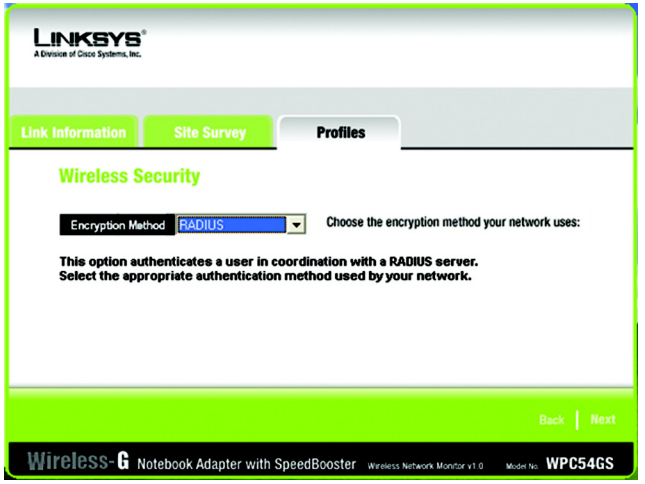

Figure 6-24: RADIUS Settings

The screen in Figure 6-26 appears next. Select the *Authentication Method* from the drop-down menu. The options are described below.

EAP-TLS

Enter the Login name of your wireless network in the *Login Name* field. From the *Certificate* drop-down menu, select the certificate you have installed to authenticate you on your wireless network. Select **Validate server cerificate** to make sure that the certificate for the server is valid.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

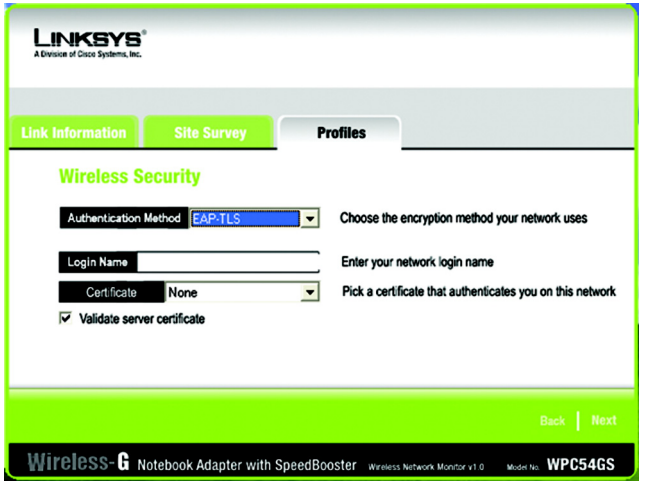

Figure 6-25: EAP-TLS Authentication

EAP-TTLS

Enter the Login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field. Select **Validate server cerificate** to make sure that the certificate for the server is valid. Select the *TTLS Protocol* from the drop-down menu.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

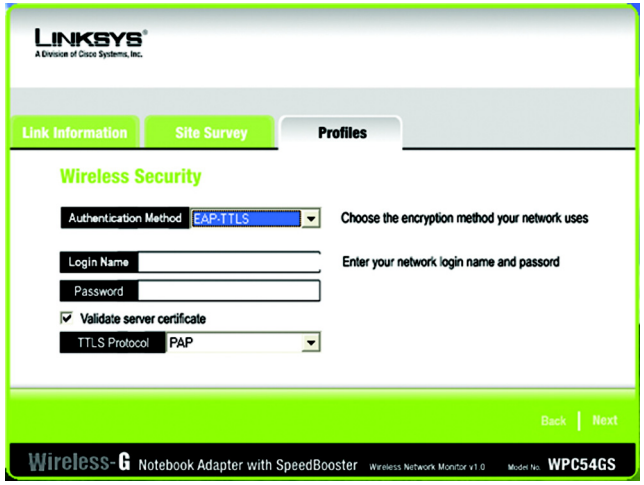

Figure 6-26: EAP-TTLS Authentication

EAP-MD5

Enter the Login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

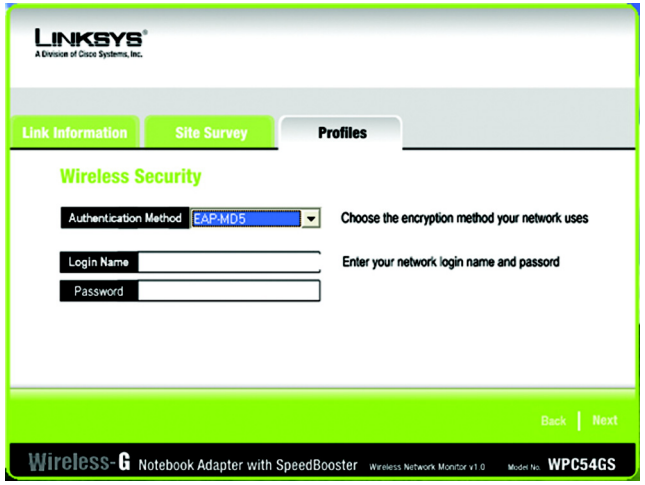

Figure 6-27: EAP-MD5 Authentication

EAP-PEAP

Enter the Login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field. Select **Validate server cerificate** to make sure that the certificate for the server is valid. Then, select the *Peap Inner EAP* from the drop-down menu.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

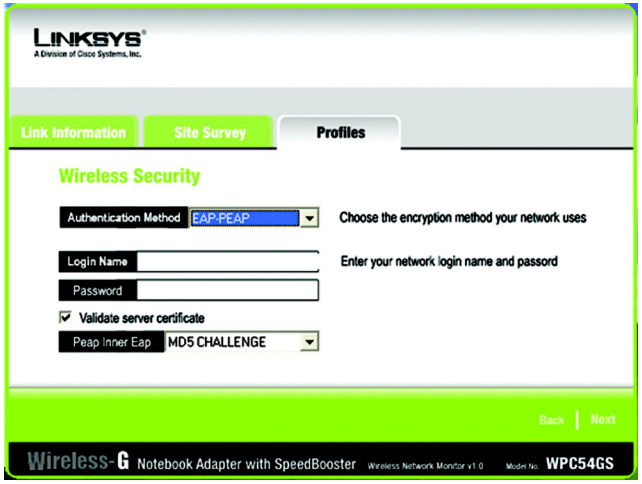

Figure 6-28: EAP-PEAP Authentication

LEAP

Enter the Login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field.

Click the **Next** button to continue. Click the **Back** button to return to the previous screen.

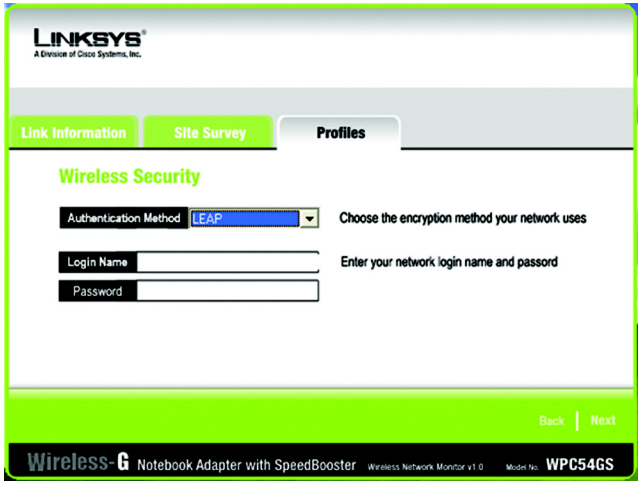

Figure 6-29: LEAP Authentication

7. The *Confirm New Settings* screen will appear next showing the new settings. To save the new settings, click the **Save** button. To edit the new settings, click the **Back** button. To exit the Wireless Network Monitor, click **Exit**.

Figure 6-30: TKIP Settings

8. The *Congratulations* screen will appear next. Click **Activate new settings now** to implement the new settings immediately and return to the *Link Information* screen. Click **Activate new settings later** to keep the current settings active and return to the *Profiles* screen.

You have successfully created a connection profile.

Figure 6-31: EAP-TLS Authentication

Appendix A: Troubleshooting

This appendix consists of two parts: "Common Problems and Solutions" and "Frequently Asked Questions." This appendix provides solutions to problems that may occur during the installation and operation of the Wireless-G Notebook Adapter. Read the description below to solve your problems. If you can't find an answer here, check the Linksys website at *www.linksys.com*.

Common Problems and Solutions

1. ***My computer does not recognize the Wireless-G Notebook Adapter.***
   Make sure that the Wireless-G Notebook Adapter is properly inserted into the PC Card slot.

2. ***The Wireless-G Notebook Adapter does not work properly.***
   Reinsert the Wireless-G Notebook Adapter into the notebook or desktop's USB port.
   For Windows 98SE or Me, right-click on **My Computer**, and select **Properties**. Select the **Device Manager** tab, and click on the **Network Adapter**. You will find the Wireless-G Notebook Adapter if it is installed successfully. If you see a yellow exclamation mark, the resources may be conflicting and you must follow the steps below:
   - Uninstall the driver software from your PC.
   - Restart your PC and repeat the hardware and software installation as specified in this User Guide.

3. ***I cannot communicate with the other computers linked via Ethernet in the Infrastructure configuration.***
   Make sure that the notebook or desktop is powered on.
   Make sure that the Wireless-G Notebook Adapter is configured with the same SSID and WEP settings as the other computers in the Infrastructure configuration.

Frequently Asked Questions

Can I run an application from a remote computer over the wireless network?
This will depend on whether or not the application is designed to be used over a network. Consult the application's user guide to determine if it supports operation over a network.

Can I play computer games with other members of the wireless network?
Yes, as long as the game supports multiple players over a LAN (local area network). Refer to the game's user guide for more information.

What is the IEEE 802.11b standard?
It is one of the IEEE standards for wireless networks. The 802.11b standard allows wireless networking hardware from different manufacturers to communicate, provided that the hardware complies with the 802.11b standard. The 802.11b standard states a maximum data transfer rate of 11Mbps and an operating frequency of 2.4GHz.

What IEEE 802.11b features are supported?
The product supports the following IEEE 802.11b functions:

- CSMA/CA plus Acknowledge protocol
- Multi-Channel Roaming
- Automatic Rate Selection
- RTS/CTS feature
- Fragmentation
- Power Management

What is ad-hoc mode?
When a wireless network is set to ad-hoc mode, the wireless-equipped computers are configured to communicate directly with each other. The ad-hoc wireless network will not communicate with any wired network.

What is infrastructure mode?
When a wireless network is set to infrastructure mode, the wireless network is configured to communicate with a wired network through a wireless access point.

What is roaming?
Roaming is the ability of a portable computer user to communicate continuously while moving freely throughout an area greater than that covered by a single access point. Before using the roaming function, the workstation must make sure that it is the same channel number with the access point of dedicated coverage area.

To achieve true seamless connectivity, the wireless LAN must incorporate a number of different functions. Each node and access point, for example, must always acknowledge receipt of each message. Each node must

mbps: *one million bits per second; a unit of measurement for data transmission.*

fragmentation: *breaking a packet into smaller units when transmitting over a network medium that cannot support the original size of the packet.*