

**Virginia State Police  
Bureau of Criminal Investigation  
High Technology Crimes Unit**



**Suggestions on Securing Your Wireless Connection**

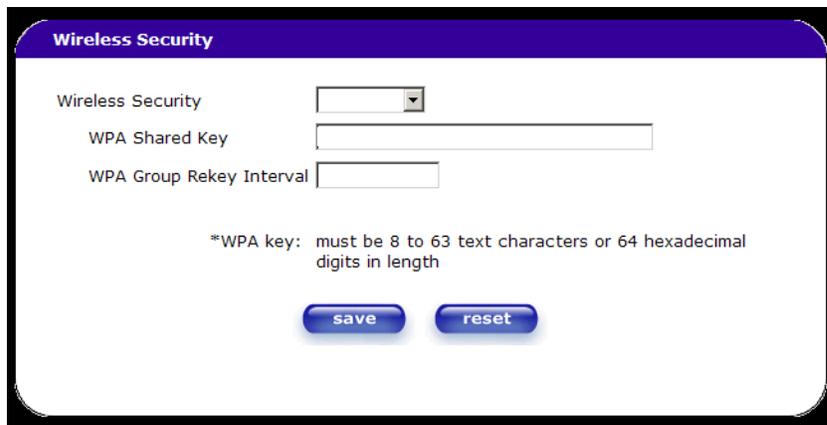
Each wireless router has its own software configuration and that configuration software may also change from model to model. Therefore, it is important to retain and read the literature that came with your router. If you do not have a copy of the router’s manual you should attempt to obtain one from the router’s manufacturer’s web site.

There are three basic security configurations available in most router’s software packages. In order to enter that configuration most users would type the following into their Internet browser address bar: `http://192.168.1.1`



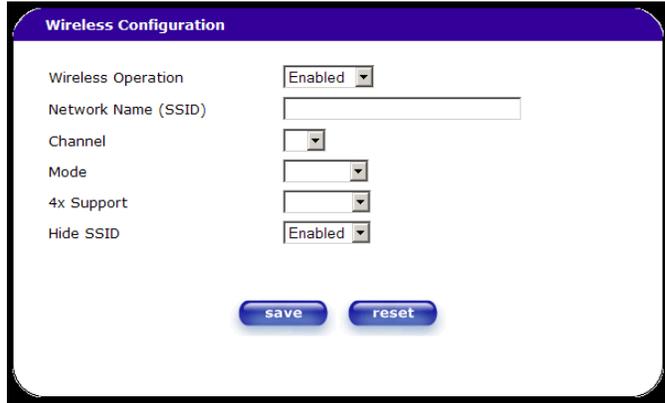
Once at the opening configuration page for your router you may be asked to enter a user name and password. If so, you will need to obtain these from the literature that came with your router or from your Internet service provider.

The first security screen to access would be the wireless password screen.



This screen, (though it will probably look different in your particular software), allows you to assign a password to your wireless access. Choose the type of security you wish to impose (WPA is stronger than WEP). For the “WPA Shared Key” type in the proper amount of keystrokes, however, do not create this sequence a logical term found in the dictionary or a name.

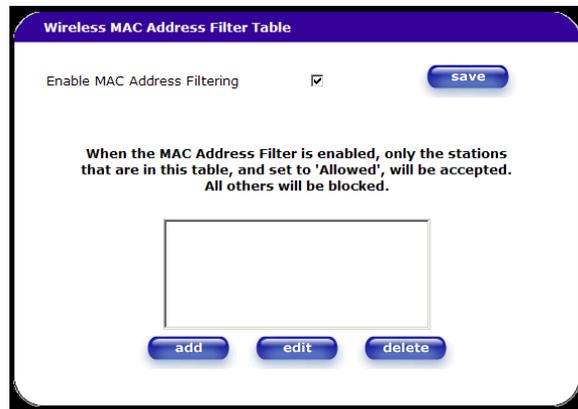
The next security screen configured should be the general wireless operation screen. Along with some other choices, here you will find the SSID which is the name of your router. The default, or usual, name for a Linksys router is “Linksys.” Change this name to another. Whatever name you choose it should not identify you, your residence or computer equipment.



The image shows a web-based configuration page titled "Wireless Configuration". It features several settings: "Wireless Operation" is set to "Enabled" via a dropdown menu; "Network Name (SSID)" is an empty text input field; "Channel" is a dropdown menu; "Mode" is a dropdown menu; "4x Support" is a dropdown menu; and "Hide SSID" is set to "Enabled" via a dropdown menu. At the bottom of the page, there are two buttons: "save" and "reset".

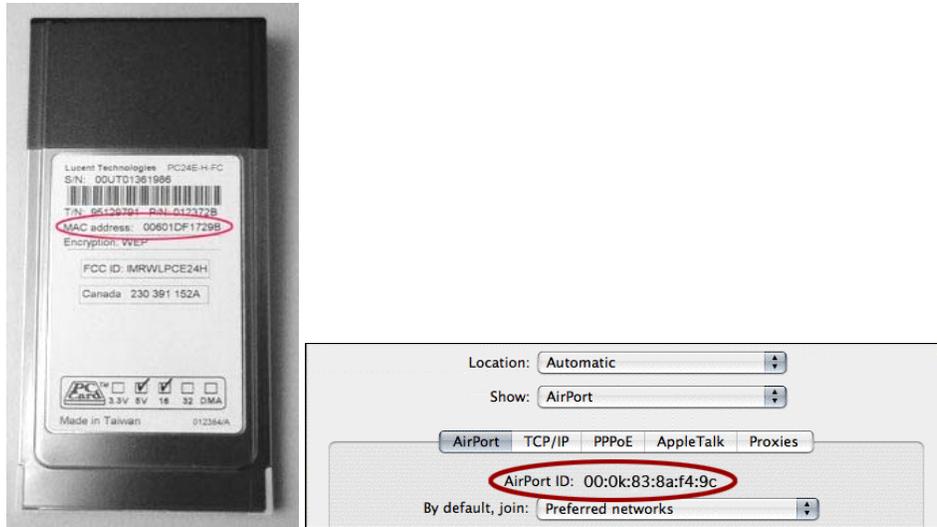
The selections for the channel do not really matter. The “Mode” usually concerns a specific piece of wireless equipment you may want to use on your system. In example, some wireless connections will only work on a “G” network or may accept B/G networks. Your wireless equipment literature should recommend which mode to choose. The same information is true of the “4x Support” choice. The important selection here is the “Hide SSID” which should be enabled. This prevents most individuals from seeing your wireless network on their computers.

The last security screen should be the MAC Filtering page.



The image shows a web-based configuration page titled "Wireless MAC Address Filter Table". It features a checkbox labeled "Enable MAC Address Filtering" which is checked. To the right of the checkbox is a "save" button. Below the checkbox, there is a text box containing the following text: "When the MAC Address Filter is enabled, only the stations that are in this table, and set to 'Allowed', will be accepted. All others will be blocked." Below this text is an empty rectangular table. At the bottom of the page, there are three buttons: "add", "edit", and "delete".

A MAC Address is the address of a specific piece of wireless equipment and can usually be found written on a label on the device. The address appears in the following format:



Use the displayed MAC address from the label of your device and “add” it in the “MAC Filter Table” Since each wireless device usually has a unique MAC address, (there may be some duplications but not frequently), entering the MAC address of your wireless device, such as a laptop computer or PDA, will only allow a device with that specific MAC address to access your wireless network.

After completing the three above configurations your wireless network is as secure as most home users can make it. You should, of course, enable the firewall and service applications on your router as well as having antivirus, anti spyware and firewall software active on your computer.