

# Alternate Setup Method

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The Web-Based Advanced User Interface is a web-based tool that you can use to set up the Router if you don't want to use the Easy Install Wizard. You can also use it to manage advanced functions of the Router. From the Web-Based Advanced User Interface, you can perform the following tasks:

- View the Router's current settings and status
- Configure the Router to connect to your ISP with the settings that they provided you
- Change the current network settings such as the Internal IP address, the IP address pool, DHCP settings, and more
- Set the Router's firewall to work with specific applications (port forwarding)
- Set up security features such as client restrictions, MAC address filtering, WEP, and WPA
- Enable the DMZ feature for a single computer on your network
- Change the Router's internal password
- Enable/Disable UPnP (Universal Plug-and-Play)
- Reset the Router
- Back up your configuration settings
- Reset the Router's default settings
- Update the Router's firmware

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## Step 1 | Connect your Router

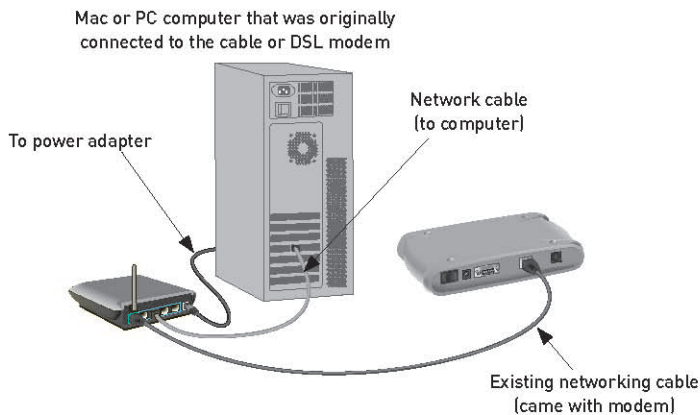
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- 1.1 Turn off the power to your modem by unplugging the power supply from the modem.
- 1.2 Locate the network cable that is connected between your modem and your computer and unplug it from your computer, leaving the other end connected to your modem.
- 1.3 Plug the loose end of the cable you just unplugged into the port on the back of the Router labeled "Modem".
- 1.4 Connect a new network cable (not included) from the back of the computer to one of the wired computers ports labeled "1-4".  
**Note:** It does not matter which numbered port you choose.

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- 1.5 Turn your cable or DSL modem on by reconnecting the power supply to the modem.



**Note:** Your Router may have ports in different locations than depicted in the illustration above.

- 1.6 Before plugging the power cord into the Router, plug the cord into the wall, then plug the cord into the Router's power jack.
- 1.7 Verify that your modem is connected to the Router by checking the lights on the front of the Router. The green light labeled "Modem" should be ON if your modem is connected correctly to the Router. If it is not, recheck your connections.
- 1.8 Verify that your computer is connected properly to the Router by checking the lights labeled "1-4". The light that corresponds to the numbered port connected to your computer should be ON if your computer is connected properly. If it is not, recheck your connections.

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## Step 2 | Set up your Computer's Network Settings to Work with a DHCP Server

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See the section in this User Manual called “Manually Configuring Network Settings” for directions.

## Step 3 | Configure the Router Using the Web-Based Advanced User Interface

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Using your Internet browser, you can access the Router's Web-Based Advanced User Interface. In your browser, type “192.168.2.1” (you do not need to type in anything else such as “http://” or “www”). Then press the “Enter” key.

Address	192.168.2.1
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**PLEASE NOTE:** If you have difficulty accessing the Router's Web-Based Advanced User Interface, go to the section entitled “Manually Configuring Network Settings”.

### Logging into the Router

You will see the Router's home page in your browser window. The home page is visible to any user who wants to see it. To make any changes to the Router's settings, you have to log in. Clicking the “Login” button or clicking on any one of the links on the home page will take you to the login screen. The Router ships with no password entered. In the login screen, leave the password blank and click the “Submit” button to log in.

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#### Login

Before you can change any settings, you need to log in with a password. If you have not yet set a custom password, then leave this field blank and click “Submit.”

Password

Default = leave blank

Clear

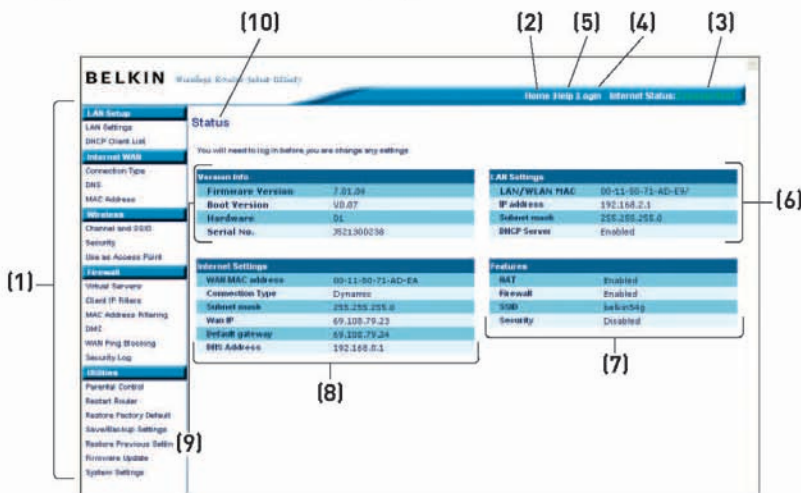
Submit

## Logging out of the Router

One computer at a time can log into the Router for the purposes of making changes to the settings of the Router. Once a user has logged in to make changes, there are two ways that the computer can be logged out. Clicking the “Logout” button will log the computer out. The second method is automatic. The login will time out after a specified period of time. The default login time-out is 10 minutes. This can be changed from 1 to 99 minutes. For more information, see the section in this manual entitled “Changing the Login Time-Out Setting”.

## Using the Web-Based Advanced User Interface

The home page is the first page you will see when you access the Web-Based Advanced User Interface (UI). The home page shows you a quick view of the Router's status and settings. All advanced setup pages can be reached from this page.



### 1. Quick-Navigation Links

You can go directly to any of the Router's UI pages by clicking directly on these links. The links are divided into logical categories and grouped by tabs to make finding a particular setting easier to find. Clicking on the purple header of each tab will show you a short description of the tab's function.

### 2. Home Button

The “Home” button is available in every page of the UI. Pressing this button will take you back to the home page.

### 3. Internet Status Indicator

This indicator is visible in all pages of the UI, indicating the connection status of the Router. When the indicator says “connection OK” in GREEN, the Router is connected to the Internet. When the Router is not connected to the Internet, the indicator will read “no connection” in RED. The indicator is automatically updated when you make changes to the settings of the Router.

### 4. Login/Logout Button

This button enables you to log in and out of the Router with the press of one button. When you are logged into the Router, this button will change to read “Logout”. Logging into the Router will take you to a separate login page where you will need to enter a password. When you are logged into the Router, you can make changes to the settings. When you are finished making changes, you can log out of the Router by clicking the “Logout” button. For more information about logging into the Router, see the section called “Logging into the Router”.

### 5. Help Button

The “Help” button gives you access to the Router’s help pages. Help is also available on many pages by clicking “more info” next to certain sections of each page.

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## 6. LAN Settings

Shows you the settings of the Local Area Network (LAN) side of the Router. Changes can be made to the settings by clicking on any one of the links (IP Address, Subnet Mask, DHCP Server) or by clicking the “LAN” “Quick Navigation” link on the left side of the screen.

## 7. Features

Shows the status of the Router’s NAT, firewall, and wireless features. Changes can be made to the settings by clicking on any one of the links or by clicking the “Quick Navigation” links on the left side of the screen.

## 8. Internet Settings

Shows the settings of the Internet/WAN side of the Router that connects to the Internet. Changes to any of these settings can be made by clicking on the links or by clicking on the “Internet/WAN” “Quick Navigation” link on the left side of the screen.

## 9. Version Info

Shows the firmware version, boot-code version, hardware version, and serial number of the Router.

## 10. Page Name

The page you are on can be identified by this name. This User Manual will sometimes refer to pages by name. For instance “LAN > LAN Settings” refers to the “LAN Settings” page.

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## Step 4 | Configure your Router for Connection to your Internet Service Provider (ISP)

The “Internet/WAN” tab is where you will set up your Router to connect to your Internet Service Provider (ISP). The Router is capable of connecting to virtually any ISP’s system provided you have correctly configured the Router’s settings for your ISP’s connection type. Your ISP connection settings are provided to you by your ISP. To configure the Router with the settings that your ISP gave you, click “Connection Type” **(A)** on the left side of the screen. Select the connection type you use. If your ISP gave you DNS settings, clicking “DNS” **(B)** allows you to enter DNS address entries for ISPs that require specific settings. Clicking “MAC address” **(C)** will let you clone your computer’s MAC address or type in a specific WAN MAC address, if required by your ISP. When you have finished making settings, the “Internet Status” indicator will read “connection OK” if your Router is set up properly.

**(A)** Connection Type

**(B)** DNS

**(C)** MAC Address

**WAN >**

The Internet/WAN Tab is where you will set up your Router to connect to your Internet Service Provider. The Router is capable of connecting to virtually any Internet Service Provider's system provided that you have correctly configured the Router's settings for your ISP's connection type. To configure the Router to connect to your ISP, click on "Connection type" on the Internet/WAN Tab on the left of the screen.

Connection types supported:

- **Dynamic:** including ISPs that require a host name and ISPs that bind the connection to a specific MAC address.
- **Static IP address:** the Router supports a connection to an ISP which assigns a static IP address.
- **PPPoE:** the Router supports a dynamic connection type which requires a PPPoE login for authentication.
- **PPTP:** For European users ONLY. The Router supports connections to European ISPs which connect via PPTP.
- **Telstra BigPond:** Australian users ONLY. The router supports connection to Telstra BigPond.

## Setting your Connection Type

From the “Connection Type” page, you can select the type of connection you use. Select the type of connection you use by clicking the button **(1)** next to your connection type and then clicking “Next” **(2)**.

The screenshot shows the 'WAN > Connection Type' configuration page. On the left is a navigation menu with 'Connection Type' highlighted. The main content area lists four connection types: Dynamic, Static, PPPoE, and PPTP, each with a radio button. The 'Dynamic' radio button is selected and circled with a '1'. Below these options is the 'Telstra BigPond' option. At the bottom right, a 'Next >' button is circled with a '2'. The page title is 'WAN > Connection Type' and the page number '5' is visible in the top right corner.

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## Setting your Internet Service Provider (ISP) Connection Type to Dynamic IP

A dynamic connection type is the most common connection type used with cable modems. Setting the connection type to “dynamic” in many cases is enough to complete the connection to your ISP. Some dynamic connection types may require a host name. You can enter your host name in the space provided if you were assigned one. Your host name is assigned by your ISP. Some dynamic connections may require that you clone the MAC address of the PC that was originally connected to the modem.



## Change WAN MAC Address

If your ISP requires a specific MAC address to connect to the service, you can enter a specific MAC address or clone the current computer's MAC address through this link.

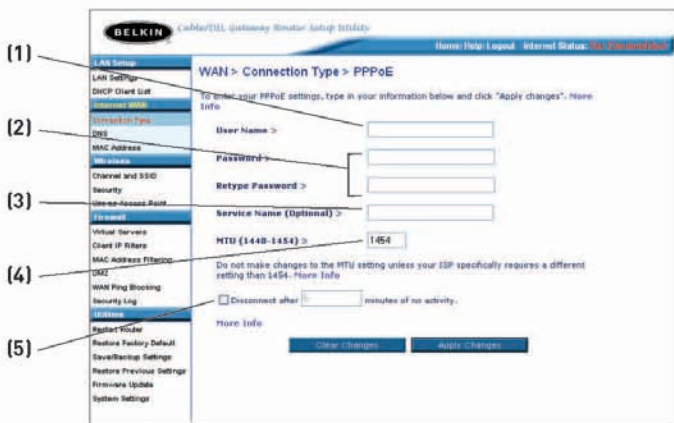




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## Setting your ISP Connection Type to PPPoE

Most DSL providers use PPPoE as the connection type. If you use a DSL modem to connect to the Internet, your ISP may use PPPoE to log you into the service. If you have an Internet connection in your home or small office that doesn't require a modem, you may also use PPPoE.



### Your connection type is PPPoE if:

1. Your ISP gave you a user name and password, which is required to connect to the Internet;
2. Your ISP gave you software such as WinPOET or Eternet300 that you use to connect to the Internet; or
3. You have to double-click on a desktop icon other than your browser to get on the Internet.

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**1. User Name**

This space is provided to type in your user name that was assigned by your ISP.

**2. Password**

Type in your password and re-type it into the "Retype Password" box to confirm it.

**3. Service Name**

A service name is rarely required by an ISP. If you are not sure if your ISP requires a service name, leave this blank.

**4. MTU**

The MTU setting should never be changed unless your ISP gives you a specific MTU setting. Making changes to the MTU setting can cause problems with your Internet connection including disconnection from the Internet, slow Internet access, and problems with Internet applications working properly.

**5. Disconnect after x minutes...**

This feature is used to automatically disconnect the Router from your ISP when there is no activity for a specified period of time. For instance, placing a check mark next to this option and entering "5" into the minute field will cause the Router to disconnect from the Internet after five minutes of no Internet activity. This option should be used if you pay for your Internet service by the minute.

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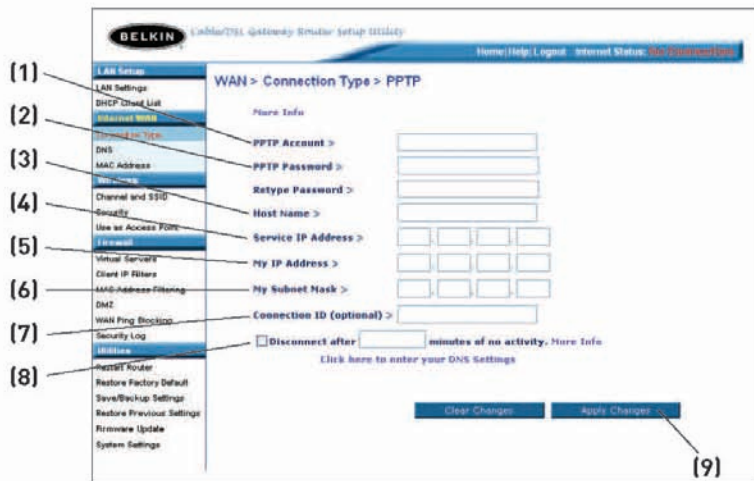
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## Setting your Internet Service Provider (ISP) Connection Type to Point-to-Point Tunneling Protocol (PPTP)

[European Countries Only]. Some ISPs require a connection using PPTP protocol, a type of connection most common in European countries. This sets up a direct connection to the ISP's system. Type in the information provided by your ISP in the space provided. When you have finished, click "Apply Changes" (9). After you apply the changes, the "Internet Status" indicator will read "connection OK" if your Router is set up properly.



### 1. PPTP Account

Provided by your ISP. Enter your PPTP User ID here.

### 2. PPTP Password

Type in your password and retype it into the "Retype Password" box to confirm it.

### 3. Host Name

Provided by your ISP. Enter your host name here.

### 4. Service IP Address

Provided by your ISP. Enter your PPTP gateway/service IP address here.

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**5. My IP Address**

Provided by your ISP. Enter the IP address here.

**6. My Subnet Mask**

Provided by your ISP. Enter the IP address here.

**7. Connection ID**

Provided by your ISP. Enter the connection ID here.

**8. Disconnect after x minutes...**

This feature is used to automatically disconnect the Router from your ISP when there is no activity for a specified period of time. For instance, placing a check mark next to this option and entering "5" into the minute field will cause the Router to disconnect from the Internet after five minutes of no Internet activity. This option should be used if you pay for your Internet service by the minute.

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## Setting your Connection Type if you are a Telstra® BigPond User

[Australia Only]. Your user name and password are provided to you by Telstra BigPond. Enter this information below. Choosing your state from the drop-down menu **(6)** will automatically fill in your login server IP address. If your login server address is different than the one provided here, you may manually enter the login server IP address by placing a check in the box next to “User decide login server manually” **(4)** and type in the address next to “Login Server” **(5)**. When you have entered all of your information, click “Apply Changes” **(7)**. After you apply the changes, the “Internet Status” indicator will read “connection OK” if your Router is set up properly.



### 1. Select your State

Select your state from the drop-down menu **(6)**. The “Login Server” box will automatically be filled in with an IP address. If for some reason this address does not match the address that Telstra has given, you can manually enter the login server address. See “User decide login server manually” **(4)**.

### 2. User Name

Provided by your ISP. Type in your user name here.

### 3. Password

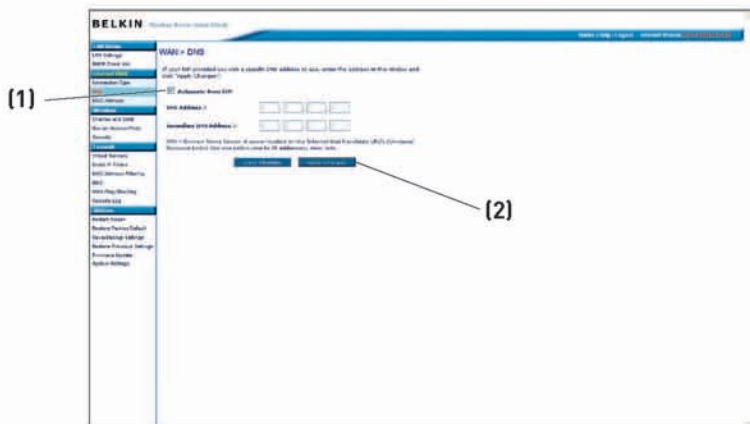
Type in your password and retype it into the “Retype Password” box to confirm it.

## 4. User Decide Login Server Manually

If your login server IP address is not available in the “Select Your State” drop-down menu (6), you may manually enter the login server IP address by placing a check in the box next to “User decide login server manually” and typing in the address next to “Login Server” (5).

## Setting Custom Domain Name Server (DNS) Settings

A “Domain Name Server” is a server located on the Internet that translates Universal Resource Locators (URLs) like “www.belkin.com” into IP addresses. Many Internet Service Providers (ISPs) do not require you to enter this information into the Router. The “Automatic from ISP” box (1) should be checked if your ISP did not give you a specific DNS address. If you are using a static IP connection type, then you may need to enter a specific DNS address and secondary DNS address for your connection to work properly. If your connection type is dynamic or PPPoE, it is likely that you do not have to enter a DNS address. Leave the “Automatic from ISP” box checked. To enter the DNS address settings, uncheck the “Automatic from ISP” box and enter your DNS entries in the spaces provided. Click “Apply Changes” (2) to save the settings.



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### **Configuring your WAN Media Access Controller (MAC) Address**

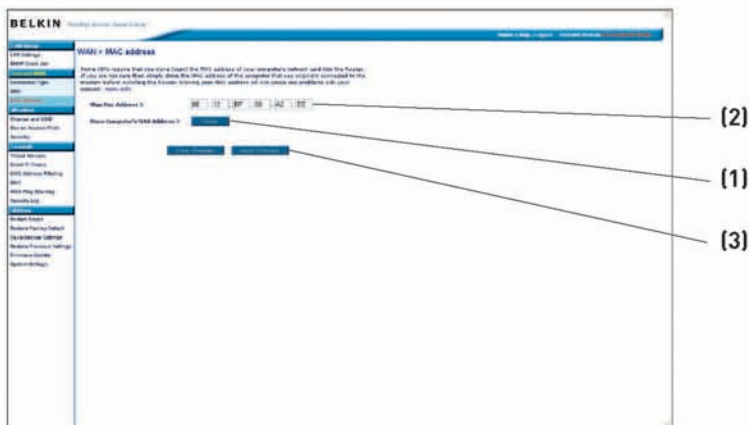
All network components including cards, adapters, and routers, have a unique “serial number” called a MAC address. Your Internet Service Provider may record the MAC address of your computer's adapter and only let that particular computer connect to the Internet service. When you install the Router, its own MAC address will be “seen” by the ISP and may cause the connection not to work. Belkin has provided the ability to clone (copy) the MAC address of the computer into the Router. This MAC address, in turn, will be seen by the ISP's system as the original MAC address and will allow the connection to work. If you are not sure whether your ISP needs to see the original MAC address, simply clone the MAC address of the computer that was originally connected to the modem. Cloning the address will not cause any problems with your network.

## Cloning your MAC Address

To clone your MAC address, make sure that you are using the computer that was **ORIGINALLY CONNECTED** to your modem before the Router was installed. Click the “Clone” button **(1)**. Click “Apply Changes” **(3)**. Your MAC address is now cloned to the Router.

## Entering a Specific MAC Address

In certain circumstances you may need a specific WAN MAC address. You can manually enter one in the “MAC Address” page. Type in a MAC address in the spaces provided **(2)** and click “Apply Changes” **(3)** to save the changes. The Router’s WAN MAC address will now be changed to the MAC address you specified.



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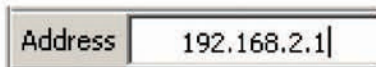
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# Using the Web-Based Advanced User Interface

Using your Internet browser, you can access the Router's Web-Based Advanced User Interface. In your browser, type "192.168.2.1" (do not type in anything else such as "http://" or "www") then press the "Enter" key.

You will see the Router's home page in your browser window.



## Viewing the LAN Settings

Clicking on the header of the "LAN Setup" tab **(1)** will take you to its header page. A quick description of the functions can be found here. To view the settings or make changes to any of the LAN settings, click on "LAN Settings" **(2)** or to view the list of connected computers, click on "DHCP Client List" **(3)**.



## Changing LAN Settings

All settings for the internal LAN setup of the Router can be viewed and changed here.

### 1. IP Address

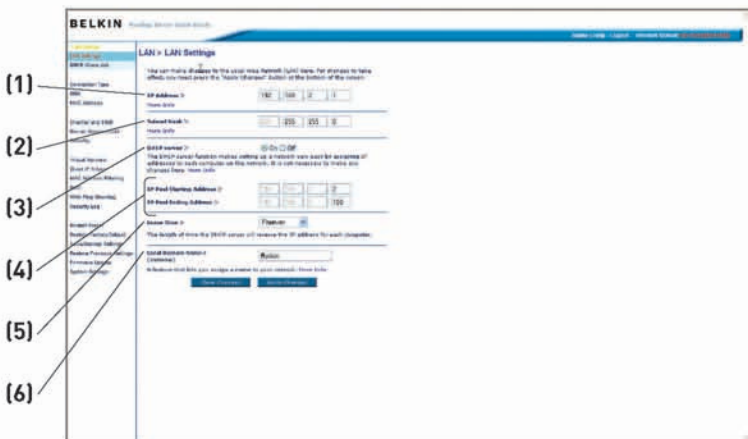
The “IP address” is the internal IP address of the Router. The default IP address is “192.168.2.1”. To access the Web-Based Advanced User Interface, type this IP address into the address bar of your browser. This address can be changed if needed. To change the IP address, type in the new IP address and click “Apply Changes”. The IP address you choose should be a non-routable IP.

Examples of a non-routable IP are:

192.168.x.x (where x is anything between 0 and 255), and  
10.x.x.x (where x is anything between 0 and 255).

### 2. Subnet Mask

There is no need to change the subnet mask. This is a unique, advanced feature of your Belkin Router. It is possible to change the subnet mask if necessary; however, do **NOT** make changes to the subnet mask unless you have a specific reason to do so. The default setting is “255.255.255.0”.



### 3. DHCP Server

The DHCP server function makes setting up a network very easy by assigning IP addresses to each computer on the network automatically. The default setting is “On”. The DHCP server can be turned OFF if necessary; however, in order to do so you must manually set a static IP address for each computer on your network. To turn off the DHCP server, select “Off” and click “Apply Changes”.

### 4. IP Pool

The range of IP addresses set aside for dynamic assignment to the computers on your network. The default is 2–100 (99 computers). If you want to change this number, you can do so by entering a new starting and ending IP address and clicking on “Apply Changes”. The DHCP server can assign 100 IP addresses automatically. This means that you cannot specify an IP address pool larger than 100 computers. For example, starting at 50 means you have to end at 150 or lower so as not to exceed the 100-client limit. The starting IP address must be lower in number than the ending IP address.

### 5. Lease Time

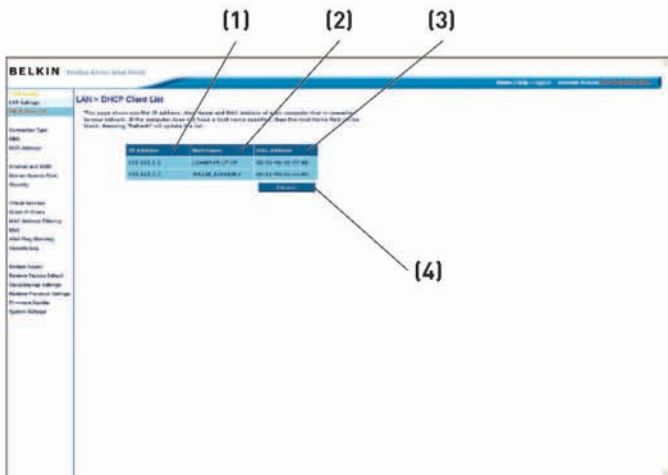
The length of time the DHCP server will reserve the IP address for each computer. We recommend that you leave the lease time set to “Forever”. The default setting is “Forever”, meaning that any time a computer is assigned an IP address by the DHCP server, the IP address will not change for that particular computer. Setting lease times for shorter intervals such as one day or one hour frees IP addresses after the specified period of time. This also means that a particular computer's IP address may change over time. If you have set any of the other advanced features of the Router such as DMZ or client IP filters, these are dependent on the IP address. For this reason, you will not want the IP address to change.

### 6. Local Domain Name

The default setting is “Belkin”. You can set a local domain name (network name) for your network. There is no need to change this setting unless you have a specific advanced need to do so. You can name the network anything you want such as “MY NETWORK”.

## Viewing the DHCP Client List Page

You can view a list of the computers (known as clients), which are connected to your network. You are able to view the IP address **(1)** of the computer, the host name **(2)** (if the computer has been assigned one), and the MAC address **(3)** of the computer's network interface card (NIC). Pressing the "Refresh" **(4)** button will update the list. If there have been any changes, the list will be updated.



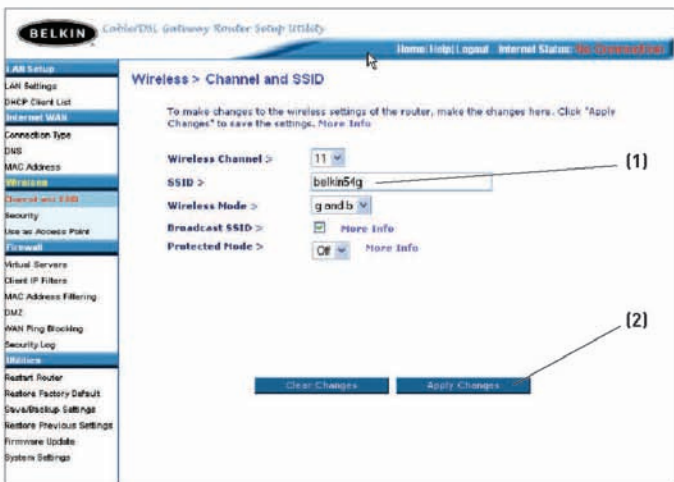
## Configuring the Wireless Network Settings

Clicking on the header of the “Wireless” tab will take you to the “Wireless” header page. Under the “Wireless” tab, there are links that allow you to make changes to the wireless network settings.



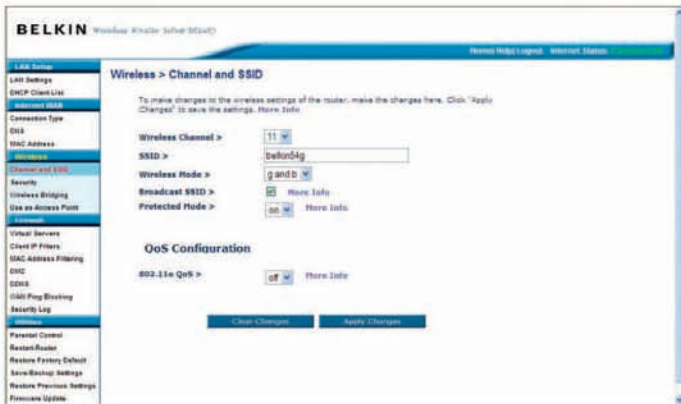
## Changing the Wireless Network Name (SSID)

To identify your wireless network, a name called the SSID (Service Set Identifier) is used. The default SSID of the Router is “belkin54g”. You can change this to anything you want to or you can leave it unchanged. If there are other wireless networks operating in your area, you will want to make sure that your SSID is unique (does not match that of another wireless network in the area). To change the SSID, type in the SSID that you want to use in the “SSID” field (1) and click “Apply Changes” (2). The change is immediate. If you make a change to the SSID, your wireless-equipped computers may also need to be reconfigured to connect to your new network name. Refer to the documentation of your wireless network adapter for information on making this change.



## Using the Wireless Mode Switch

Your Router can operate in three different wireless modes: “g and b”, “g only”, and “b only”. The different modes are explained on the next page.





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## **g and b Mode**

In this mode, the Router is compatible with 802.11b and 802.11g wireless clients simultaneously. This is the factory default mode and ensures successful operation with all Wi-Fi-compatible devices. If you have a mix of 802.11b and 802.11g clients in your network, we recommend setting the Router to g and b mode. This setting should only be changed if you have a specific reason to do so.

## **g only Mode**

g only mode works with 802.11g clients only. This mode is recommended only if you want to prevent 802.11b clients from accessing your network. To switch modes, select the desired mode from the “Wireless Mode” drop-down box. Then, click “Apply Changes”.

## **b only Mode**

We recommend you DO NOT use this mode unless you have a very specific reason to do so. This mode exists only to solve unique problems that may occur with some 802.11b client adapters and is NOT necessary for interoperability of 802.11g and 802.11b standards.

## **When to use b only Mode**

In some cases, older 802.11b clients may not be compatible with 802.11g wireless. These adapters tend to be of inferior design and may use older drivers or technology. Switching to this mode can solve problems that sometimes occur with these clients. If you suspect that you are using a client adapter that falls into this category of adapters, first check with the adapter vendor to see if there is a driver update. If there is no driver update available, switching to b only mode may fix your problem. Please note that switching to b only mode will decrease 802.11g performance.

## **QoS (Quality of Service) Configuration**

QoS prioritizes important data on your network such as multimedia content and Voice over IP (VoIP) so it will not be interfered with by other data being sent over the network. Based on 802.11e, you can turn this feature on or off by selecting it from the drop-down menu (3) and choosing the acknowledgement mode you want to use. If you plan to stream multimedia content or use VoIP on your network, we recommend that you enable the QoS feature.

## **Changing the Wireless Channel**

There are a number of operating channels you can choose from. In the United States, there are 11 channels. In Australia, the United Kingdom, and most of Europe, there are 13 channels. In a small number of other countries, there are other channel requirements. Your Router is configured to operate on the proper channels for the country you reside in. The default channel is 11 (unless you are in a country that does not allow channel 11). The channel can be changed if needed. If there are other wireless networks operating in your area, your network should be set to operate on a channel that is different than the other wireless