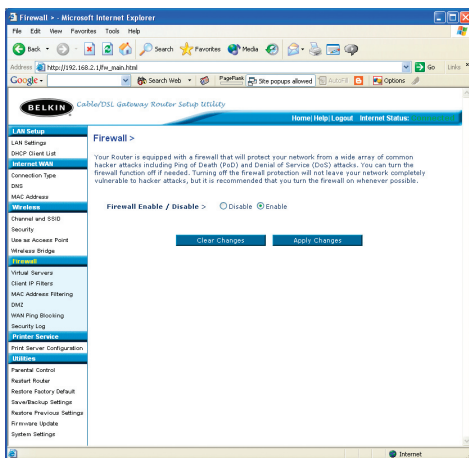


## Configuring the Firewall

Your Router is equipped with a firewall that will protect your network from a wide array of common hacker attacks including:

- IP Spoofing
- SYN flood
- Land Attack
- UDP flooding
- Ping of Death (PoD)
- Tear Drop Attack
- Denial of Service (DoS)
- ICMP defect
- IP with zero length
- RIP defect
- Smurf Attack
- Fragment flooding
- TCP Null Scan

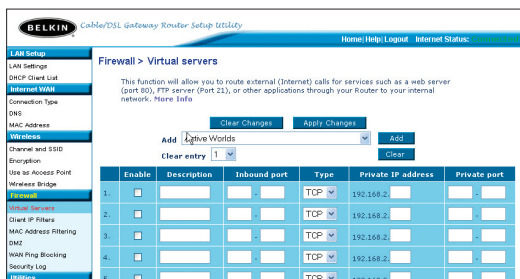


The firewall also masks common ports that are frequently used to attack networks. These ports appear to be “Stealth”, meaning that for all intents and purposes, they do not exist to a would-be hacker. You can turn the firewall function off if needed, however, it is recommended that you leave the firewall enabled. Disabling the firewall protection will not leave your network completely vulnerable to hacker attacks, but it is recommended that you leave the firewall enabled.

# Using the Web-Based Advanced User Interface

## Configuring Internal Forwarding Settings

The Virtual Servers function will allow you to route external (Internet) calls for services such as a web server (port 80), FTP server (Port 21), or other applications through your Router to your internal network. Since your internal computers are protected by a firewall, computers outside your network (over the Internet) cannot get to them because they cannot be “seen.” A list of common applications has been provided in case you need to configure the Virtual Server function for a specific application. If your application is not listed, you will need to contact the application vendor to find out which port settings you need.



## Choosing an Application

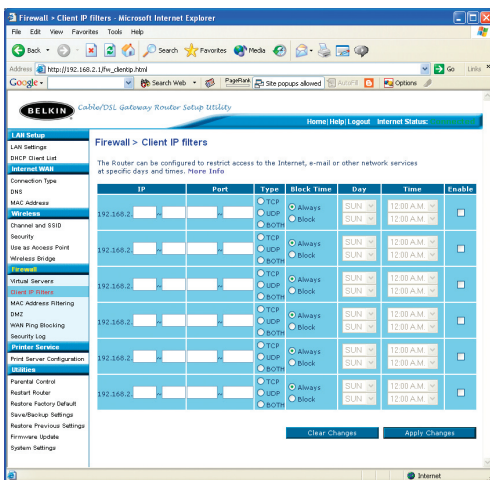
Select your application from the drop-down list. Click “Add”. The settings will be transferred to the next available space in the screen. Click “Apply Changes” to save the setting for that application. To remove an application, select the number of the row that you want to remove then click “Clear”.

## Manually Entering Settings into the Virtual Server

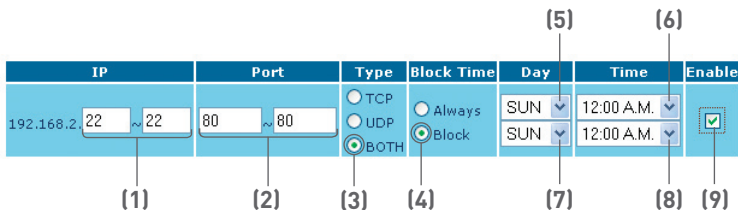
To manually enter settings, enter the IP address in the space provided for the internal (server) machine, the port(s) required to pass, select the port type (TCP or UDP), and click “Apply Changes”. Each inbound port entry has two fields with 5 characters maximum per field that allows a start and end port range, e.g. [xxxxx]-[xxxxx]. For each entry, you can enter a single port value by filling in the two fields with the same value (e.g. [7500]-[7500]) or a wide range of ports (e.g. [7500]-[9000]). If you need multiple single port value or mixture of ranges and a single value, you must use multiple entries up to the maximum of 20 entries (e.g. 1. [7500]-[7500], 2. [8023]-[8023], 3. [9000]-[9000]). You can only pass one port per internal IP address. Opening ports in your firewall can pose a security risk. You can enable and disable settings very quickly. It is recommended that you disable the settings when you are not using a specific application.

## Setting Client IP Filters

The Router can be configured to restrict access to the Internet, e-mail, or other network services at specific days and times. Restriction can be set for a single computer, a range of computers, or multiple computers.



To restrict Internet access to a single computer for example, enter the IP address of the computer you wish to restrict access to in the IP fields (1). Next, enter “80” in both the port fields (2). Select “Both” (3). Select “Block” (4). You can also select “Always” to block access all of the time. Select the day to start on top (5), the time to start on top (6), the day to end on the bottom (7), and the time to stop (8) on the bottom. Select “Enable” (9). Click “Apply Changes”. The computer at the IP address you specified will now be blocked from Internet access at the times you specified. **Note:** Be sure you have selected the correct time zone under “Utilities> System Settings> Time Zone”.



# Using the Web-Based Advanced User Interface

## Setting MAC Address Filtering

The MAC address filter is a powerful security feature that allows you to specify which computers are allowed on the network. Any computer attempting to access the network that is not specified in the filter list will be denied access. When you enable this feature, you must enter the MAC address of each client (computer) on your network to allow network access to each. The “Block” feature lets you turn on and off access to the network easily for any computer without having to add and remove the computer’s MAC address from the list.

The screenshot shows the 'Firewall > MAC Address Filtering' configuration page. On the left is a sidebar with navigation links. The main content area includes a checkbox to 'Enable MAC Address Filtering' (labeled 1), a table for the 'MAC Address Filtering List' with columns for 'Block', 'Host', and 'MAC Address' (labeled 2), and an '<< Add' button (labeled 3). There are also 'Clear Changes' and 'Apply Changes' buttons at the bottom.

To enable this feature, select “Enable MAC Address Filtering” (1). Next, enter the MAC address of each computer on your network by clicking in the space provided (2) and entering the MAC address of the computer you want to add to the list. Click “Add” (3), then “Apply Changes” to save the settings. To delete a MAC address from the list, simply click “Delete” next to the MAC address you wish to delete. Click “Apply Changes” to save the settings.

**Note:** You will not be able to delete the MAC address of the computer you are using to access the Router’s administrative functions (the computer you are using now).

## Enabling the Demilitarized Zone (DMZ)

The DMZ feature allows you to specify one computer on your network to be placed outside of the firewall. This may be necessary if the firewall is causing problems with an application such as a game or video conferencing application. Use this feature on a temporary basis. The computer in the DMZ is NOT protected from hacker attacks.

The screenshot shows the Belkin Cable/DSL Gateway Router Setup Utility web interface. The top navigation bar includes "Home/Help/Logout" and "Internet Status: Connected". The left sidebar contains a menu with categories: LAN Setup, Internet WAN, Wireless, Firewall, and DMZ. The main content area is titled "Firewall > DMZ" and contains the following text: "The DMZ feature allows you to specify one computer on your network to be placed outside of the NAT firewall. This may be necessary if the NAT feature is causing problems with an application such as a game or video conferencing application. Use this feature on a temporary basis. The computer in the DMZ is not protected from hacker attacks. To put a computer in the DMZ, enter the last digits of its IP address in the field below and select 'Enable'. Click 'Submit' for the change to take effect. More Info". Below this text is a table titled "IP Address of Virtual DMZ Host >".

	Static IP	Private IP	Enable
1.	67.113.196.172	192.168.2. <input type="text"/>	<input type="checkbox"/>

At the bottom of the table are two buttons: "Clear Changes" and "Apply Changes".

To put a computer in the DMZ, enter the last digits of its IP address in the IP field and select "Enable". Click "Apply Changes" for the change to take effect. If you are using multiple static WAN IP addresses, it is possible to select which WAN IP address the DMZ host will be directed to. Type in the WAN IP address you wish the DMZ host to direct to, enter the last two digits of the IP address of the DMZ host computer, select "Enable" and click "Apply Changes".

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# Using the Web-Based Advanced User Interface

## Blocking an ICMP Ping

Computer hackers use what is known as “pinging” to find potential victims on the Internet. By pinging a specific IP address and receiving a response from the IP address, a hacker can determine that something of interest might be there. The Router can be set up so it will not respond to an ICMP ping from the outside. This heightens the level of security of your Router.

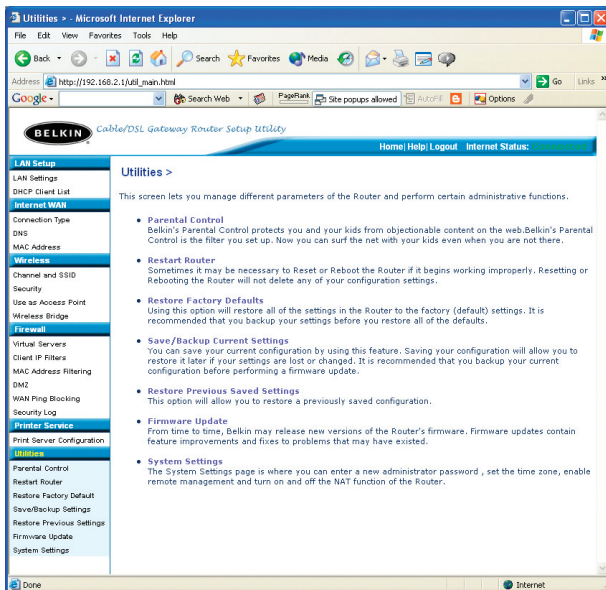


To turn off the ping response, select “Block ICMP Ping” [1] and click “Apply Changes”. The Router will not respond to an ICMP ping.

# Using the Web-Based Advanced User Interface

## Utilities Tab

This screen lets you manage different parameters of the Router and perform certain administrative functions.



## Parental Control

See separate Parental Control User Manual from Belkin.

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# Using the Web-Based Advanced User Interface

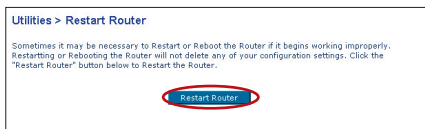
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## Restarting the Router

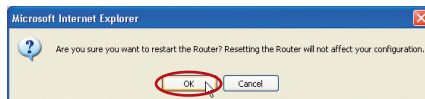
Sometimes it may be necessary to restart or reboot the Router if it begins working improperly. Restarting or rebooting the Router will NOT delete any of your configuration settings.

## Restarting the Router to Restore Normal Operation

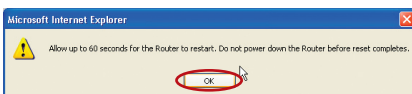
1. Click the “Restart Router” button.



2. The following message will appear. Click “OK”.



3. The following message will appear. Restarting the Router can take up to 60 seconds. It is important not to turn off the power to the Router during the restart.



4. A 60-second countdown will appear on the screen. When the countdown reaches zero, the Router will be restarted. The Router home page should appear automatically. If not, type in the Router's address (default = 192.168.2.1) into the navigation bar of your browser.