

16.3.1 Lab: Configure Wireless Security

Introduction

Print and complete this lab.

In this lab, you will configure and test the wireless settings on the Linksys WRT300N.

Recommended Equipment

- Two computers with Windows XP or Windows Vista
- An Ethernet NIC installed in computer 1
- A Wireless NIC installed in computer 2
- Linksys WRT300N Wireless Router
- Ethernet patch cable

Step 1

Ask the instructor for the following information that is used during the lab.

Default Login Information:

User Name (if any) _____

Password _____

Basic Wireless Settings:

Network Name (SSID) _____

Important: Only use configurations assigned by the instructor.

Note: use computer 1 for all lab instructions unless stated.

Step 2

Connect computer 1 to an **Ethernet** ports on the wireless router with an Ethernet patch cable.

Plug in the power of the wireless router. Boot the computer and log in as an administrator.

Step 3

Open the command prompt.

Type **ipconfig**.

What is the IP address for the computer?

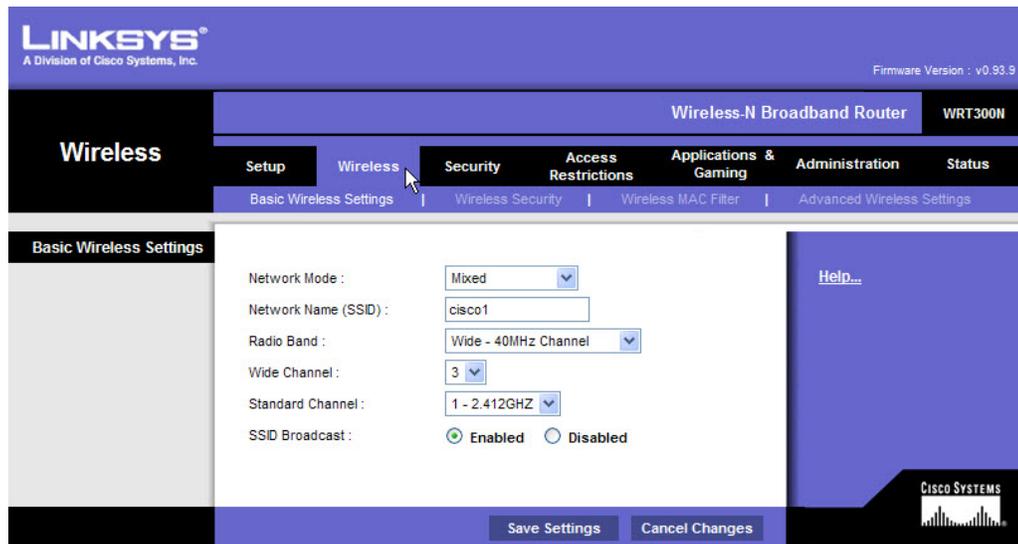
What is the default gateway for the computer?

Step 4

Open Internet Explorer and connect to the wireless router.

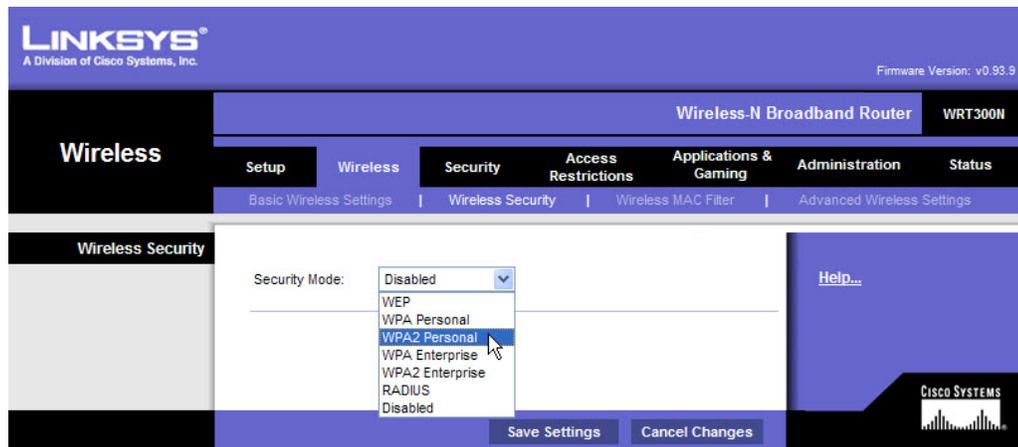
Type "admin" in the "Password:" field.

The Setup screen appears. Click **Wireless** tab.



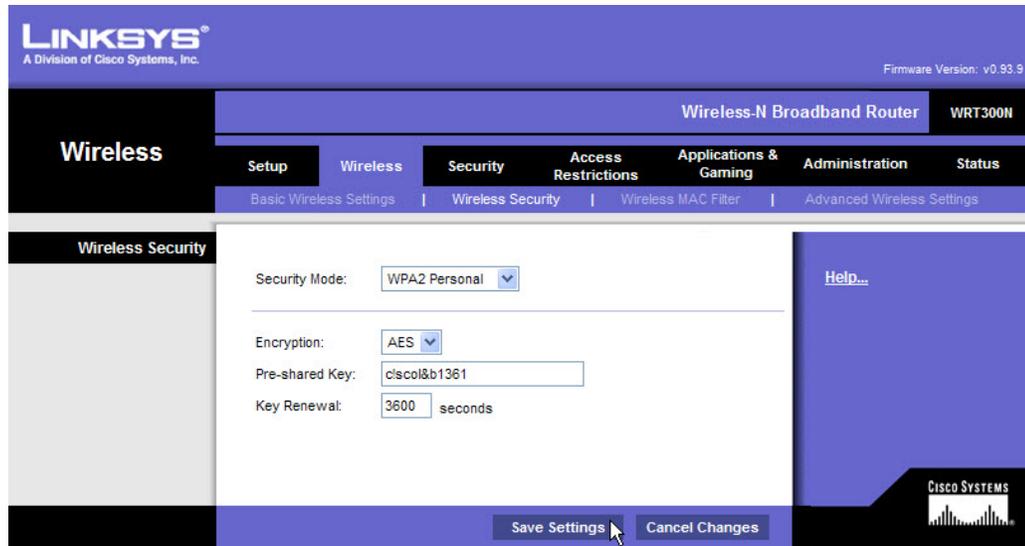
Step 5

Click **Wireless Security** tab, then for Security Mode select **WPA2 Personal**.



Set the following settings:
Encryption – AES
Pre-shared Key – c!scol&b1361
Key Renewal – 3600

Click **Save Settings > Continue**.



Keep Internet Explorer open to the Linksys router.

Step 6

Log in to computer 2, the wireless computer, as the administrator.

Connect to the wireless network. If asked for a security key or passphrase enter:
c!scol&b1361

Open the command prompt.

Type **ipconfig /all**.

What is the physical address of the wireless NIC?

Type **ping IPaddress**. Where IPaddress is the IP address of computer 1.

Was the ping successful?

Keep the command prompt window open.

Step 7

From computer 1, make sure Internet Explorer is active.

Under the Wireless tab click **Wireless MAC Filter**.

LINKSYS®
A Division of Cisco Systems, Inc. Firmware Version : v0.93.9

Wireless-N Broadband Router WRT300N

Wireless

Setup Wireless Security Access Restrictions Applications & Gaming Administration Status

Basic Wireless Settings Wireless Security Wireless MAC Filter Advanced Wireless Settings

Wireless MAC Filter

Enabled Disabled

Prevent PCs listed below from accessing the wireless network.

Permit PCs listed below to access the wireless network.

Wireless Client List

MAC 01:	00:00:00:00:00:00	MAC 26:	00:00:00:00:00:00
MAC 02:	00:00:00:00:00:00	MAC 27:	00:00:00:00:00:00
MAC 03:	00:00:00:00:00:00	MAC 28:	00:00:00:00:00:00

Help...

Select **Enabled** > **Prevent** > click **Wireless Client List** button.

LINKSYS®
A Division of Cisco Systems, Inc. Firmware Version : v0.93.9

Wireless-N Broadband Router WRT300N

Wireless

Setup Wireless Security Access Restrictions Applications & Gaming Administration Status

Basic Wireless Settings Wireless Security Wireless MAC Filter Advanced Wireless Settings

Wireless MAC Filter

Enabled Disabled

Prevent PCs listed below from accessing the wireless network.

Permit PCs listed below to access the wireless network.

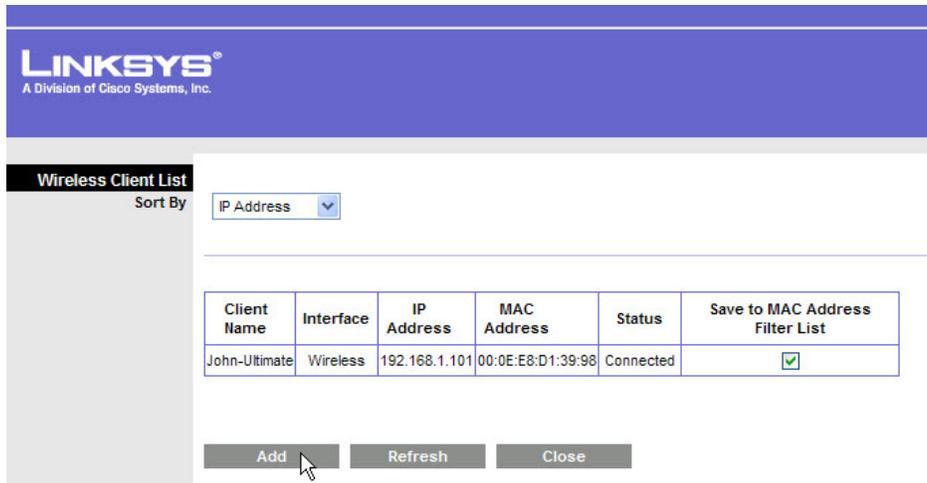
Wireless Client List

MAC 01:	00:00:00:00:00:00	MAC 26:	00:00:00:00:00:00
MAC 02:	00:00:00:00:00:00	MAC 27:	00:00:00:00:00:00
MAC 03:	00:00:00:00:00:00	MAC 28:	00:00:00:00:00:00

Help...

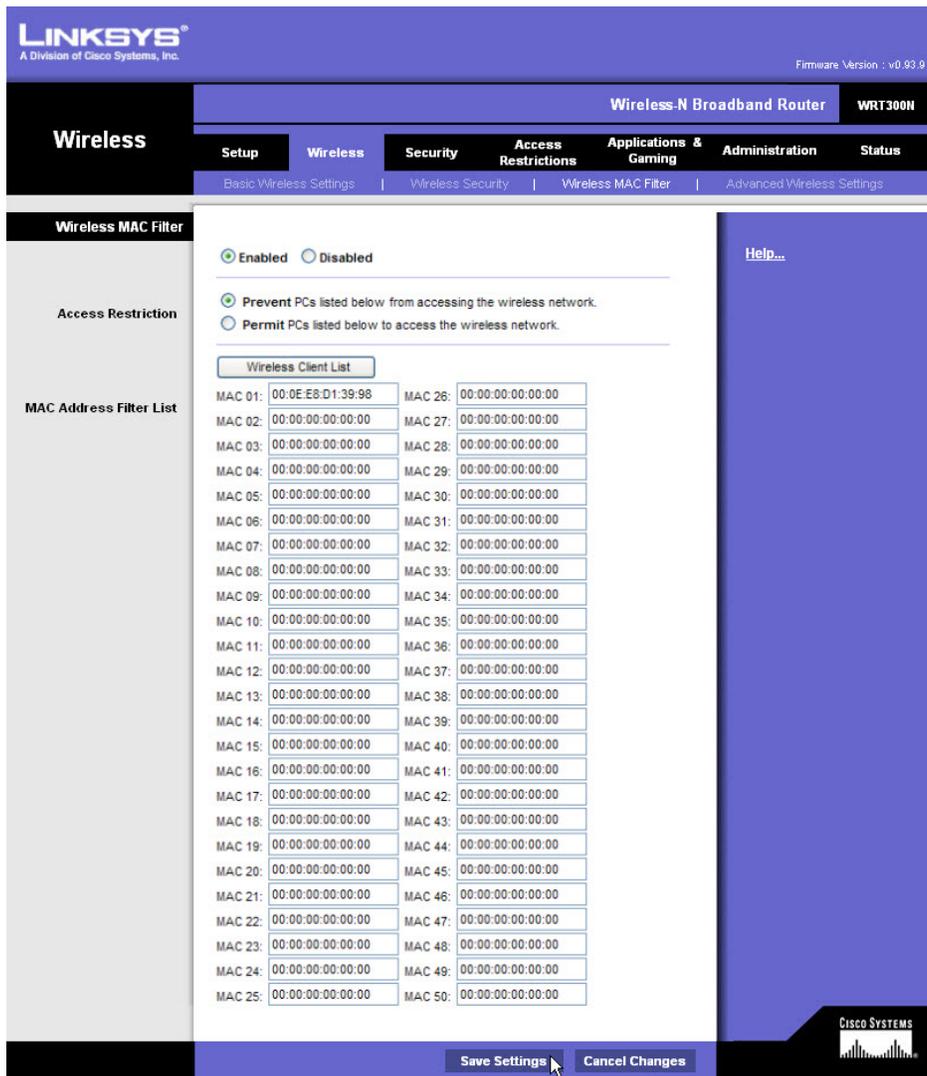
Step 8

Select **Save to MAC Address Filter List** check box for computer 2.



Click **Add**.

The Wireless MAC Filter window opens.



Click **Save Settings > Continue**.

Step 9

From computer 2:

In the command prompt window type **ping IPAddress**. Where IPAddress is the IP address of computer 1.

Was the ping successful?

Step 10

From computer 1, click **the browser** so it is activated.

Click **Administration** on the main tab bar.

The screenshot shows the Linksys Administration interface for a WRT300N router. The page is titled "Administration" and includes a navigation bar with tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The "Administration" tab is selected, and the "Router Access" section is active. The "Router Password" field is highlighted, and the password "lab1631" is entered. The "Re-enter to confirm" field also contains "lab1631". The "Web Access" section shows "Web Utility Access" checked for HTTP and "Web Utility Access via Wireless" set to "Enabled". The "Remote Access" section shows "Remote Management" set to "Disabled", "Web Utility Access" set to "HTTP", and "Remote Upgrade" set to "Disabled". The "Allowed Remote IP Address" is set to "Any IP Address". The "Remote Management Port" is set to "8080". The "Upnp" section shows "Upnp" set to "Enabled", "Allow Users to Configure" set to "Enabled", and "Allow Users to Disable Internet Access" set to "Disabled". The "Backup and Restore" section has buttons for "Backup Configurations" and "Restore Configurations". The "Save Settings" and "Cancel Changes" buttons are visible at the bottom of the page.

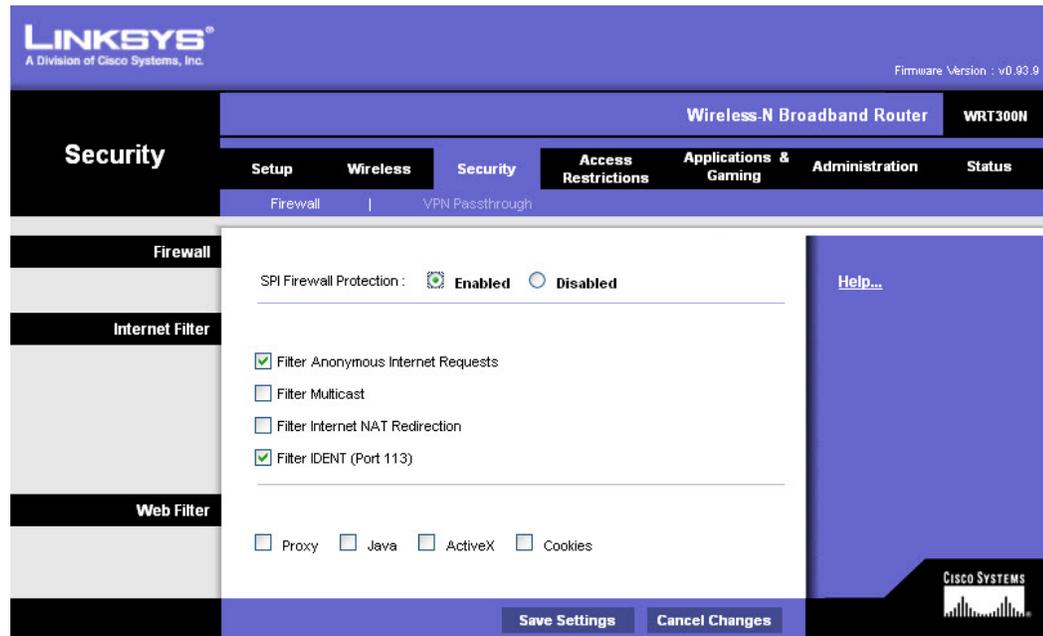
Highlight the Router Password, type **lab1631**. Type the same password in Re-enter to confirm.

Click **Cancel Changes**. Do not save the new password.

Step 11

Click **Security** on the main tab bar.

By default SPI Firewall Protection is Enabled.



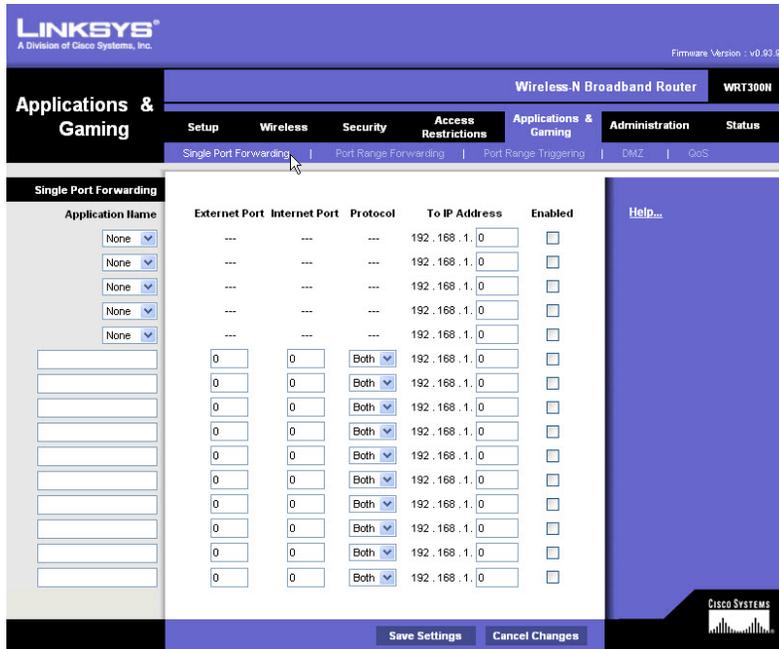
What Internet Filters are activated?

What Web Filters are activated?

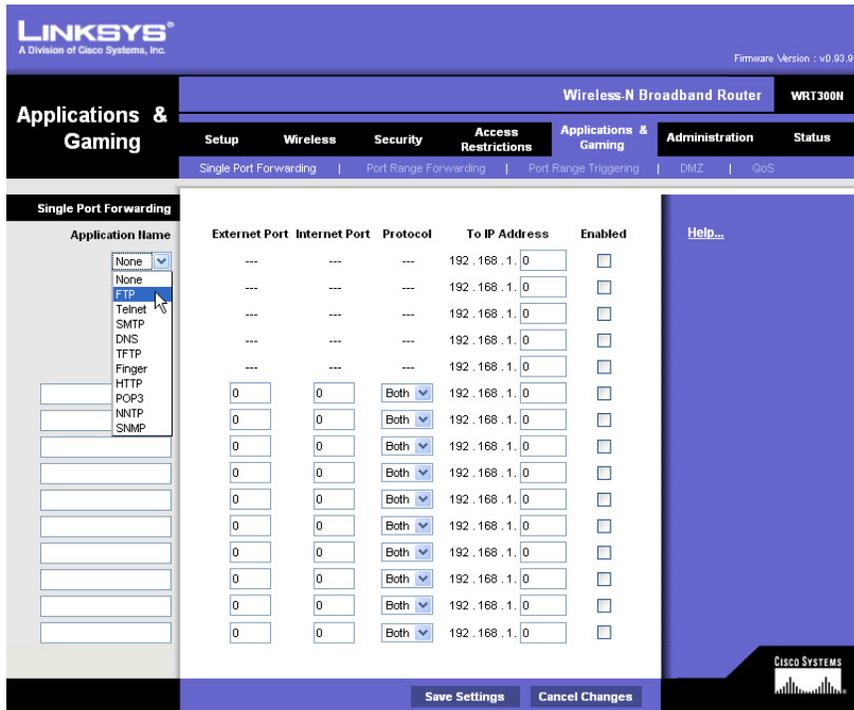
Step 12

Click **Applications & Gaming** on the main tab bar.

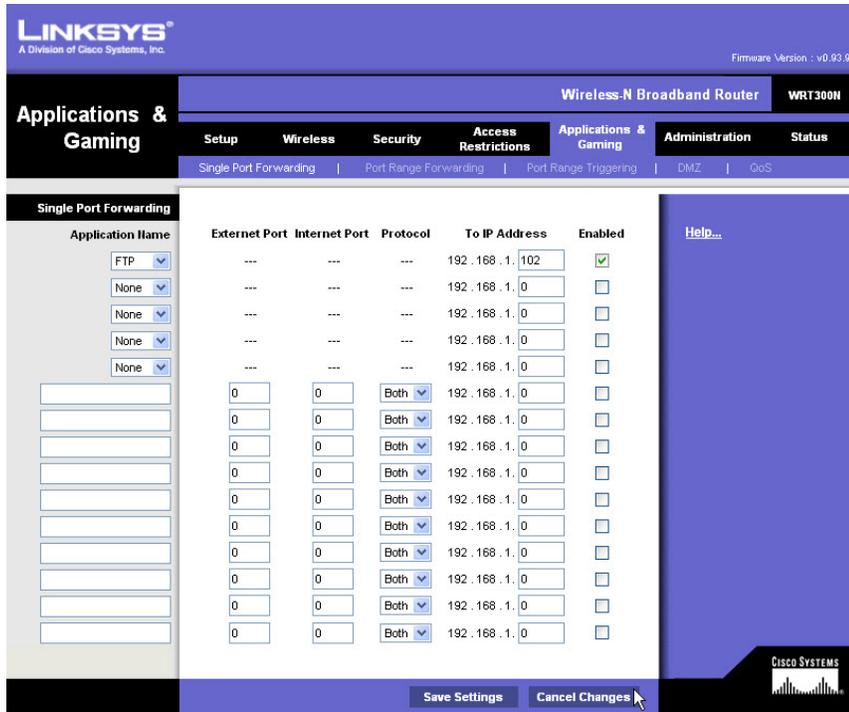
Click Single Port Forwarding.



To forward an otherwise blocked port to a specific computer, select Application Name **FTP**.



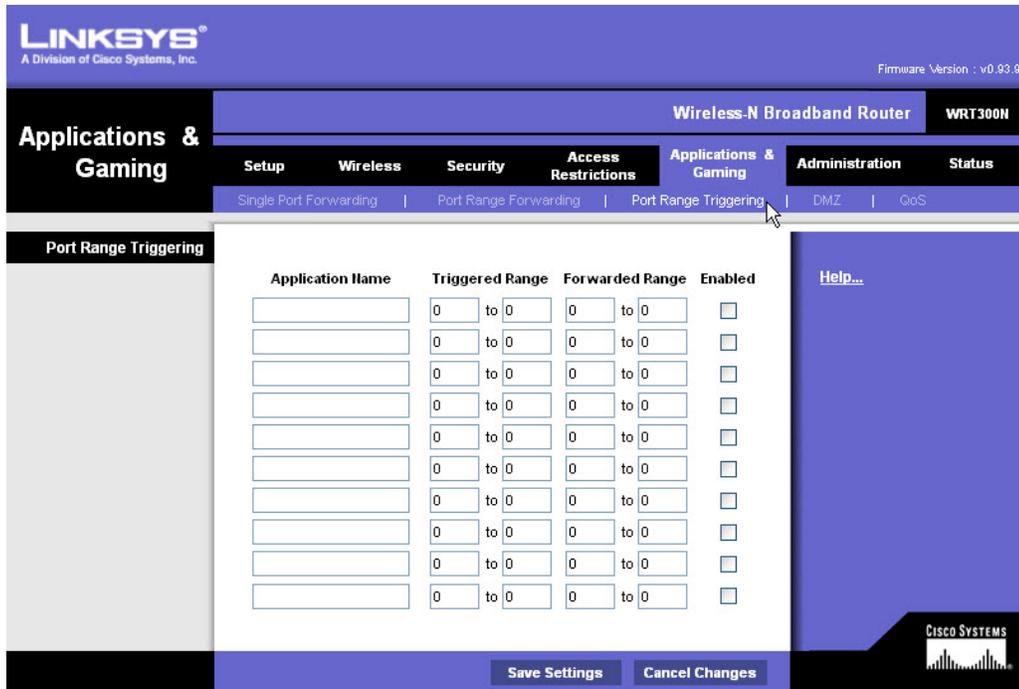
Type the last octet of the IP address for the computer and then click **Enabled** checkbox.



Click **Cancel Changes**. Do not save the new setting.

Step 13

Click **Port Range Triggering**.



To open an otherwise blocked port, type in the application name **IRC**. Then type the Triggered Range **6660 to 7000**, Forwarded Range **113 to 113** and then click **Enabled** checkbox.

LINKSYS®
A Division of Cisco Systems, Inc. Firmware Version : v0.93.9

Applications & Gaming Wireless-N Broadband Router WRT300N

Setup Wireless Security Access Restrictions Applications & Gaming Administration Status

Single Port Forwarding Port Range Forwarding Port Range Triggering DMZ QoS

Port Range Triggering

Application Name	Triggered Range	Forwarded Range	Enabled
IRC	6660 to 7000	113 to 113	<input checked="" type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>
	0 to 0	0 to 0	<input type="checkbox"/>

Help...

Save Settings Cancel Changes

CISCO SYSTEMS

Click **Cancel Changes**. Do not save the new setting.

Step 14

From computer 1, click **Wireless** tab.

Click **Wireless MAC Filter > Disable**.

Click **Save Settings > Continue**.