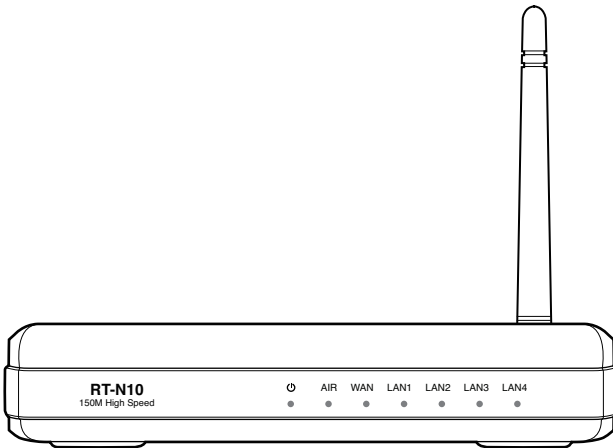




RT-N10
ASUS Wireless EZ N Router



User Manual

E4808
First Edition V1
June 2009

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About this guide

This user guide contains information that you need to install and configure the ASUS Wireless Router.

How this guide is organized

This guide contains the following parts:

- **Chapter 1: Knowing your wireless router**

This chapter provides information on the package contents, system requirements, hardware features, and LED indicators of the ASUS Wireless Router.

- **Chapter 2: Getting started**

This chapter provides instructions on setting up the Router, Repeater, and Access Point (AP) modes of the ASUS Wireless Router.

- **Chapter 3: Configuring the network clients**

This chapter provides instructions on setting up the clients in your network to work with your ASUS Wireless Router.

- **Chapter 4: Configuring via the web GUI**

This chapter provides instructions on configuring the ASUS Wireless Router using its web graphics user interface (web GUI).

- **Chapter 5: Installing the utilities**

This chapter provides information on the utilities that are available from the support CD.

- **Chapter 6: Troubleshooting**

This chapter provides you with a troubleshooting guide for solving common problems you may encounter when using the ASUS Wireless Router.

- **Appendices**

This chapter provides you with the regulatory Notices and Safety Statements.

Conventions used in this guide



WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Instructions that you **MUST** follow to complete a task.



NOTE: Tips and additional information to aid in completing a task.

1

Knowing your wireless router

Package contents

Check the following items in your ASUS Wireless Router package.

- RT-N10 Wireless Router x1
- Power adapter x1
- Support CD (manual, utilities) x1
- RJ45 cable x1
- Detachable antenna x1
- Quick Start Guide x1



Note: If any of the items is damaged or missing, contact your retailer.

System requirements

Before installing the ASUS Wireless Router, ensure that your system/network meets the following requirements:

- An Ethernet RJ-45 port (10Base-T/100Base-TX)
- At least one IEEE 802.11b/g/n device with wireless capability
- An installed TCP/IP and Internet browser

Before you proceed

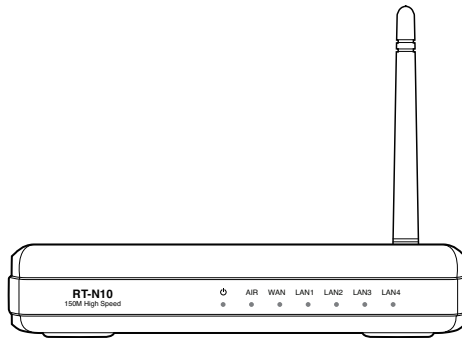
Take note of the following guidelines before installing the ASUS Wireless Router:

- The length of the Ethernet cable that connects the device to the network (hub, ADSL/cable modem, router, wall patch) must not exceed 100 meters.
- Place the device on a flat and stable surface as far from the ground as possible.
- Keep the device clear from metal obstructions and away from direct sunlight.
- Keep the device away from transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators, and other industrial equipment to prevent signal loss.
- Install the device in a central area to provide ideal coverage for all wireless mobile devices.


- Install the device at least 20cm from a person to insure that the product is operated in accordance with the RF Guidelines for Human Exposure adopted by the Federal Communications Commission.

Hardware features

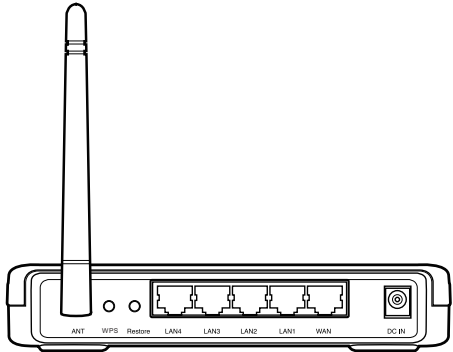
Front panel



Status indicators

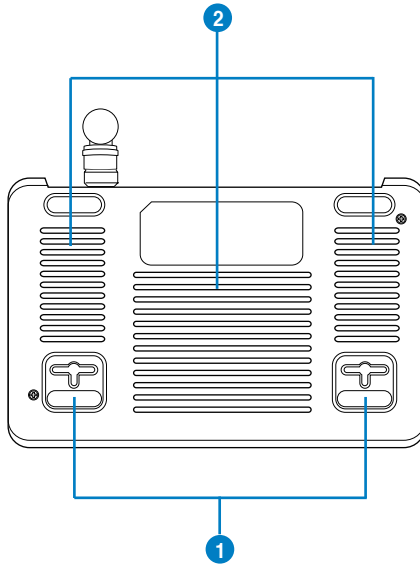
| LED | Status | Indication |
|---|----------------|---|
|  (Power) | Off | No power |
| | On | System ready |
| | Flashing-slow | Rescue mode |
| | Flashing-quick | WPS processing |
| AIR | Off | No power |
| | On | Wireless system ready |
| | Flashing | Transmitting or receiving data (wireless) |
| LAN 1-4 (Local Area Network) | Off | No power or no physical connection |
| | On | Has physical connection to an Ethernet network |
| | Flashing | Transmitting or receiving data (through Ethernet cable) |
| WAN (Wide Area Network) | Off | No power or no physical connection |
| | On | Has physical connection to an Ethernet network |
| | Flashing | Transmitting or receiving data (through Ethernet cable) |

Rear panel



| Label | Description |
|------------------|---|
| WAN | Connect an RJ-45 Ethernet cable to this port to establish WAN connection. |
| LAN1-LAN4 | Connect RJ-45 Ethernet cables to these ports to establish LAN connection. |
| DC IN | Insert the AC adapter into this port to connect your router to a power source. |
| WPS | Press this button to launch the WPS wizard. |
| Restore | Press this button for more than five seconds to restore the system to its factory default settings. |

Bottom panel



| Item | Description |
|------|--|
| 1 | Mounting hooks Use the mounting hooks to mount your router on concrete or wooden surfaces using two round head screws. |
| 2 | Air vents These vents provide ventilation to your router. |



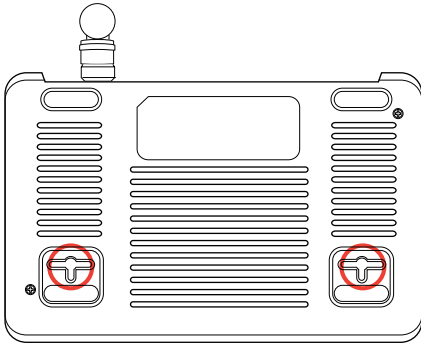
Note: For details on mounting your router on a wall or ceiling, refer to the section **Mounting options** on the next page of this user manual.

Mounting options

Out of the box, the ASUS Wireless Router is designed to sit on a raised flat surface like a file cabinet or book shelf. The unit may also be converted for mounting to a wall or ceiling.

To mount the ASUS Wireless Router:

1. Look on the underside for the two mounting hooks.
2. Mark two upper holes in a flat surface.
3. Tighten two screws until only 1/4" is showing.
4. Latch the hooks of the ASUS Wireless Router onto the screws.



Note: Re-adjust the screws if you cannot latch the ASUS Wireless Router onto the screws or if it is too loose.

Getting started 2

Setting up the wireless router

The ASUS Wireless Router includes a web graphics user interface (web GUI) that allows you to configure the wireless router using your web browser on your computer.



Note: For details on configuring your wireless router using the web GUI, refer to **Chapter 4: Configuring via the web GUI**.

The web GUI integrates a Quick Internet Setup (QIS) function that detects the Internet connection type automatically and guides you through setting up a network quickly.

The QIS web page appears automatically after you connected your devices and launched the web browser. You may also launch the QIS from the Network Map on the web GUI. Refer to **Using the Network Map** in Chapter 4 of this user manual for details.



Note: We recommend that you use wired connection for initial configuration to avoid possible setup problems due to wireless uncertainty.

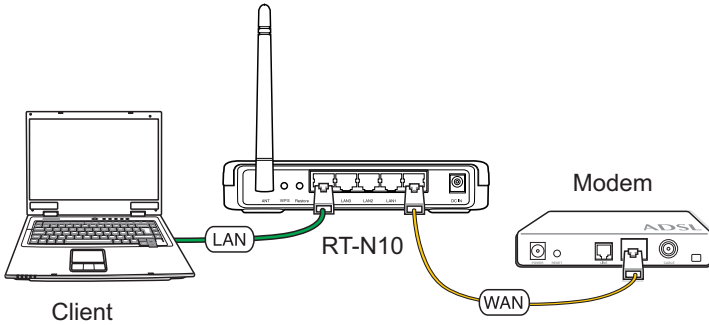
The RT-N10 supports three operation modes: Router (IP Sharing mode), Repeater, and Access Point (AP). Refer to the following sections on initially setting up an operation mode using the QIS.

Setting up the Router mode using the QIS

In the Router mode, the RT-N10 connects to WAN (Internet) by PPPoE, Automatic IP, PPTP, L2TP, or Static IP, and provides you with wireless radio. The NAT, firewall, and IP sharing services in LAN are enabled.

To set up the Router mode using the QIS:

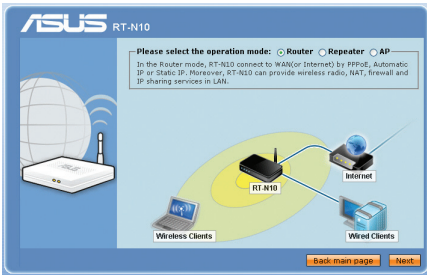
1. Connect your devices.



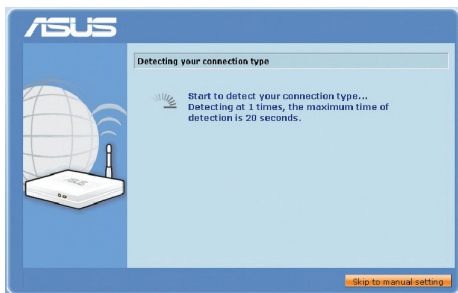
2. Launch the web browser and the QIS web page appears automatically. Choose the Router mode, then click **Next**.



Note: If the QIS web page does not appear after you launched the web browser, disable the proxy settings of the web browser.



Then the QIS starts to detect your Internet connection type.



Note: The PPPoE Internet connection type is used in this setup case.

3. Key in the user name and password. Click **Apply all settings**.



Note: The above setup screen varies with different Internet connection types.

4. The Internet connection setup is completed.
 - Click Going to Internet to go to your home page.

- Click **Simply Wireless Security Setting** to configure basic security settings including the SSID, authentication and encryption methods, and security key for the ASUS Wireless Router.

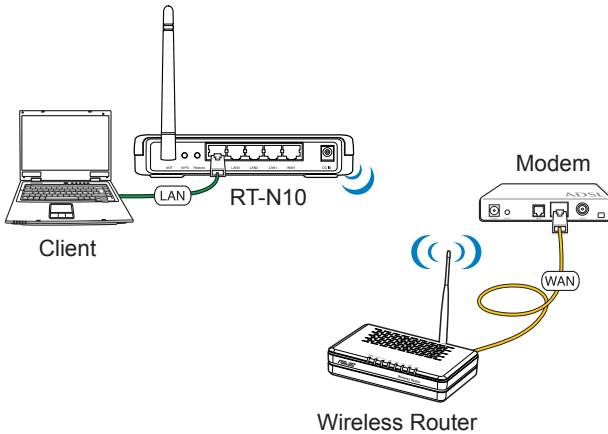
- Click **Advanced Setting** page to manually configure advanced settings for the ASUS Wireless Router.

Setting up the Repeater mode using the QIS

In the Repeater mode, the RT-N10 extends your wireless network and provides you with higher quality wireless radio. The NAT, firewall, and IP sharing services are disabled.

To set up the Repeater mode using the QIS:

1. Connect your devices.



2. Launch the web browser and the QIS web page appears automatically. Choose the Repeater mode, then click **Next**.



Note: If the QIS web page does not appear after you launched the web browser, disable the proxy settings of the web browser.

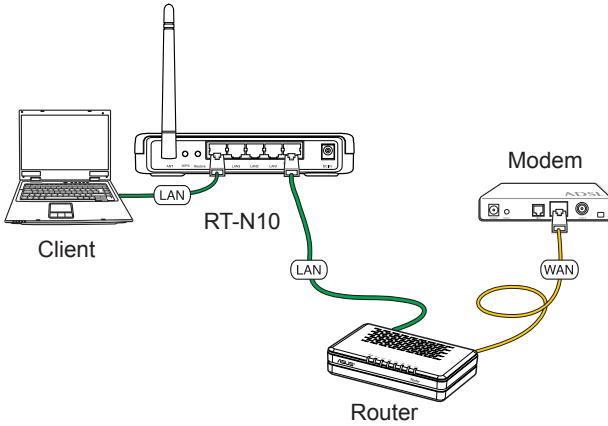
3. Select the AP whose wireless signal you want to extend, then click **Connect**.

Setting up the AP mode using the QIS

In the AP mode, the RT-N10 receives the WAN IP address from the router connected to the WAN port and provides you with wireless radio. The NAT, firewall, and IP sharing services are disabled.

To set up the AP mode using the QIS:

1. Connect your devices.



2. Launch the web browser and the QIS web page appears automatically. Choose the AP mode, then click **Next**.



Note: If the QIS web page does not appear after you launched the web browser, disable the proxy settings of the web browser.

3. Configure the wireless security settings including the SSID, authentication and encryption methods. Click **Finish**.

3 Configuring the network clients

Accessing the wireless router

Setting an IP address for wired or wireless clients

To access the ASUS Wireless Router, you must have the correct TCP/IP settings on your wired or wireless clients. Ensure that the clients' IP addresses are within the same subnet as the ASUS Wireless Router.

By default, the ASUS Wireless Router integrates the DHCP server function, which automatically assigns IP addresses to the clients in your network.

But in some instances, you may want to manually assign static IP addresses on some of the clients or computers in your network rather than automatically getting IP addresses from your wireless router.

Follow the instructions below that correspond to the operating system installed on your client or computer.

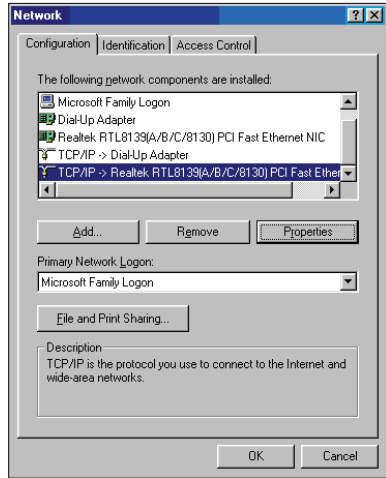


Note: In the Router mode, if you want to manually assign an IP address to your client, we recommend that you use the following settings:

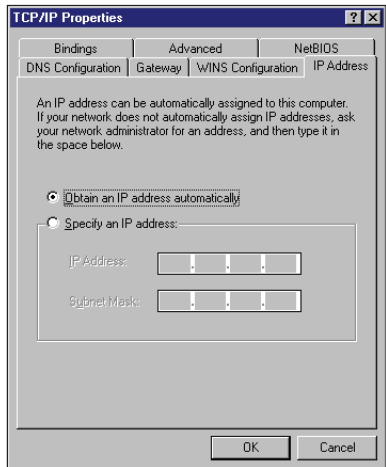
- **IP address:** 192.168.1.xxx (xxx can be any number between 2 and 254. Ensure that the IP address is not used by another device)
 - **Subnet Mask:** 255.255.255.0 (same as the ASUS Wireless Router)
 - **Gateway:** 192.168.1.1 (IP address of the ASUS Wireless Router)
 - **DNS:** 192.168.1.1 (ASUS Wireless Router) or assign a known DNS server in your network
-

Windows® 9x/ME

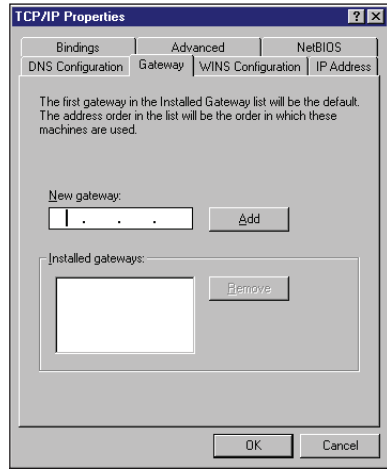
1. Click **Start > Control Panel > Network** to display the Network setup window.
2. Select **TCP/IP** then click **Properties**.



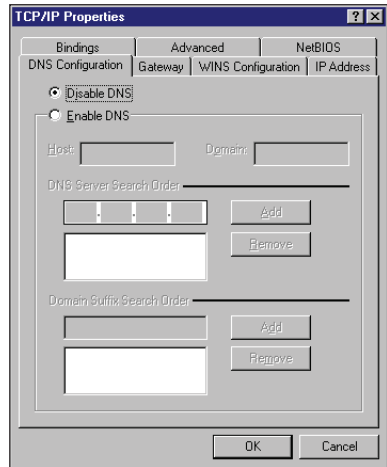
3. If you want your computer to automatically obtain an IP address, click **Obtain an IP address automatically** then click **OK**. Otherwise, click **Specify an IP address**, then key in the **IP address** and **Subnet Mask**.



4. Select the **Gateway** tab, and key in **New gateway** then click **Add**.

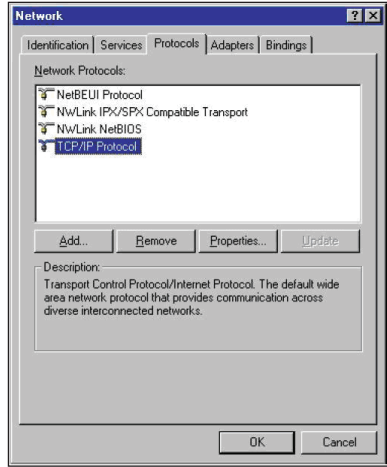


5. Select the **DNS configuration** tab and click **Enable DNS**. Key in **Host**, **Domain**, and **DNS Server Search Order**, then click **Add**.
6. Click **OK**.

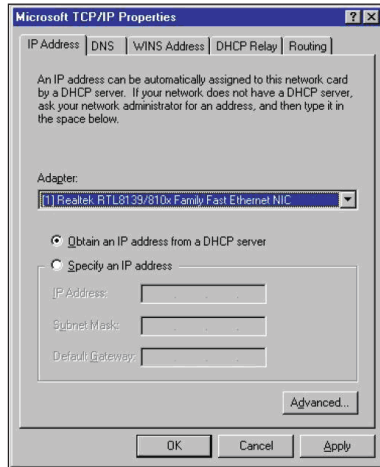


Windows® NT4.0

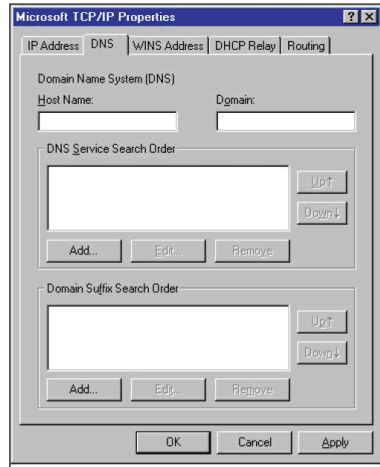
1. Go to **Control Panel > Network** to display the Network setup window then select the **Protocols** tab.
2. Select **TCP/IP Protocol** from the Network Protocols list then click **Properties**.



3. From the IP Address tab of the Microsoft TCP/IP Properties window, you can:
 - Select the type of network adapter installed in your system.
 - Set the router to assign IP address automatically.
 - Manually set up the IP address, subnet mask, and default gateway.

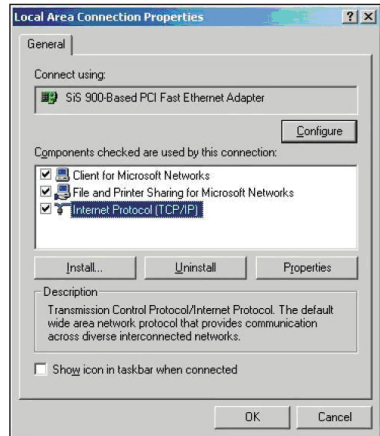


4. Select the **DNS** tab then click **Add** under the **DNS Service Search Order** and key in DNS.

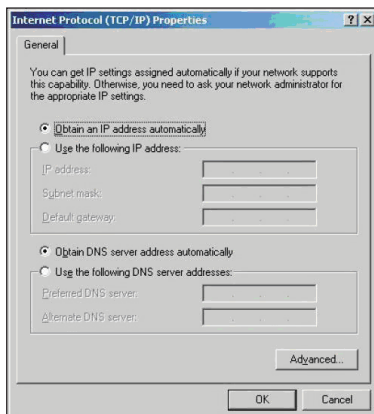


Windows® 2000

1. Click **Start > Control Panel > Network and Dial-up Connection**. Right-click **Local Area Connection** then click **Properties**.

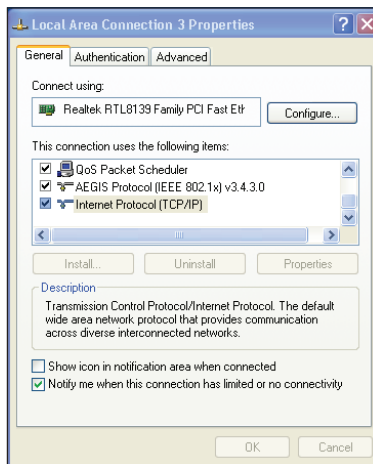


2. Select **Internet Protocol (TCP/IP)**, then click **Properties**.
3. Select **Obtain an IP address automatically** if you want the IP settings to be assigned automatically. Otherwise, select **Use the following IP address**: and key in **IP address**, **Subnet mask**, and **Default gateway**.
4. Select **Obtain DNS server address automatically** if you want the DNS server settings to be assigned automatically. Otherwise, select **Use the following DNS server addresses**: and key in the **Preferred** and **Alternate DNS server**.
5. Click **OK** when done.

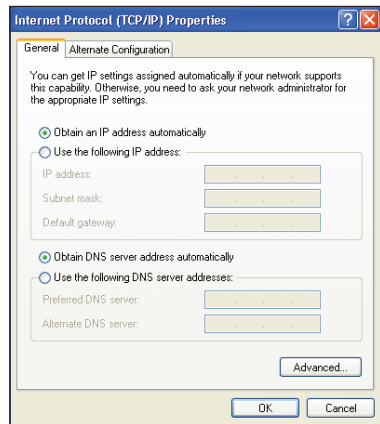


Windows® XP

1. Click **Start > Control Panel > Network Connection**. Right-click **Local Area Connection** then select **Properties**.

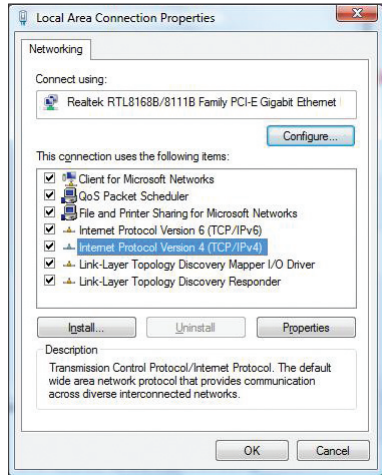


2. Select **Internet Protocol (TCP/IP)**, then click **Properties**.
3. Select **Obtain an IP address automatically** if you want the IP settings to be assigned automatically. Otherwise, select **Use the following IP address:** and key in **IP address**, **Subnet mask**, and **Default gateway**.
4. Select **Obtain DNS server address automatically** if you want the DNS server settings to be assigned automatically. Otherwise, select **Use the following DNS server addresses:** and key in the **Preferred and Alternate DNS server**.
5. Click **OK** when done.

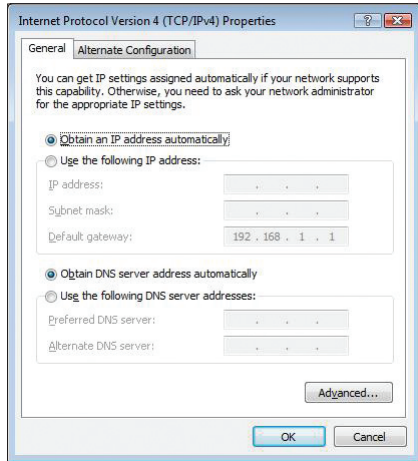


Windows® Vista

1. Go to **Start > Control Panel > Network and Internet > Network and Sharing Center**. Click **View status > Properties > Continue**.



2. Select **Internet Protocol Version 4 (TCP/IPv4)**, then click **Properties**.
3. Select **Obtain an IP address automatically** if you want the IP settings to be assigned automatically. Otherwise, select **Use the following IP address:** and key in **IP address** and **Subnet mask**.
4. Select **Obtain DNS server address automatically** if you want the DNS server settings to be assigned automatically. Otherwise, select **Use the following DNS server addresses:** and key in the **Preferred and Alternate DNS server**.
5. Click **OK** when done.



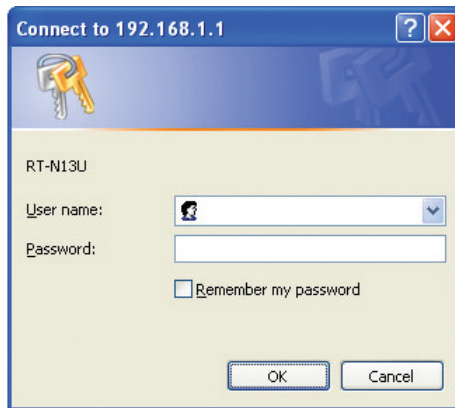
4 Configuring via the web GUI

Configuring via the web GUI

The router's web graphics user interface (web GUI) allows you to configure these features: **Network Map** and **EZQoS Bandwidth Management**.

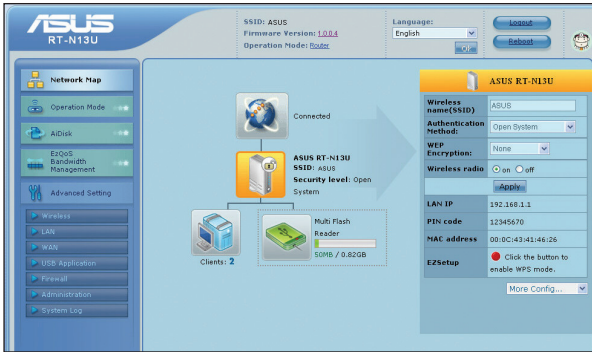
To access the web GUI:

1. In the Router mode, launch a web browser, then key in the router's default IP address (192.168.1.1). The login page of the router's web GUI appears.
2. On the login page, key in the default user name (**admin**) and password (**admin**).



Note: In the Repeater and AP modes, use Device Discovery included in the support CD to find the router's IP address.

- From the main page, click the navigation menu or links to configure the various features of the ASUS Wireless Router.





Using the Network Map


Network Map allows you to view the status and configure the connection settings of the Internet, system, and clients in your network. It enables you to quickly set up your Wide Area Network (WAN) using the Quick Internet Setup (QIS) feature, or to quickly set up your Local Area Network (LAN) using the WPS Wizard.



Note: For more details on WPS, refer to the section **WPS Wizard** in Chapter 5 of this user manual.

To view the status or configure the settings, click any of these icons displayed on the main page:

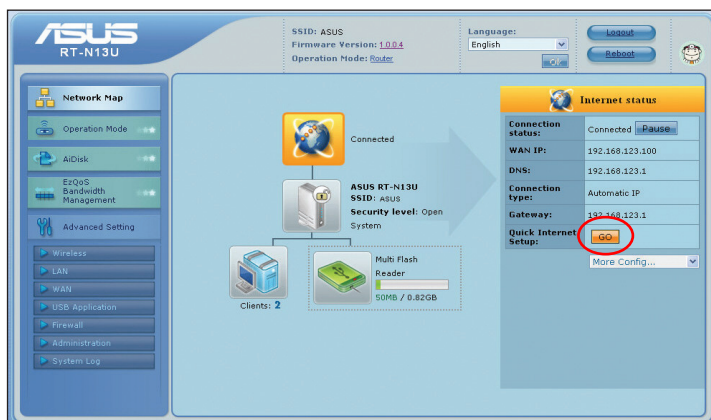
| Icon | Description |
|---|---|
|  | <p>Internet status</p> <p>Click this icon to display information on the Internet connection status, WAN IP address, DNS, connection type, and gateway address. From the Internet status screen, use the Quick Internet Setup (QIS) feature to quickly set up your WAN.</p> |
|  | <p>System status</p> <p>Click this icon to display information on the SSID, authentication method, WEP encryption, LAN IP, PIN code, MAC address, or turn the wireless radio on/off. Launch the WPS wizard from the System status screen.</p> |

| Icon | Description |
|---|--|
|  | <p>Client status</p> <p>Click this icon to display information about the clients or computers in the network, and allows you to block/unblock a client.</p> |

Using the Quick Internet Setup (QIS) again

The Quick Internet Setup (QIS) web page appears automatically after you connected your devices and launched the web browser.

You may also click **GO** in the QIS field under **Internet status** to launch the QIS.



Creating multiple SSID profiles

The RT-N10 allows you to create multiple SSID profiles that meet various working scenarios.

To create a SSID profile:

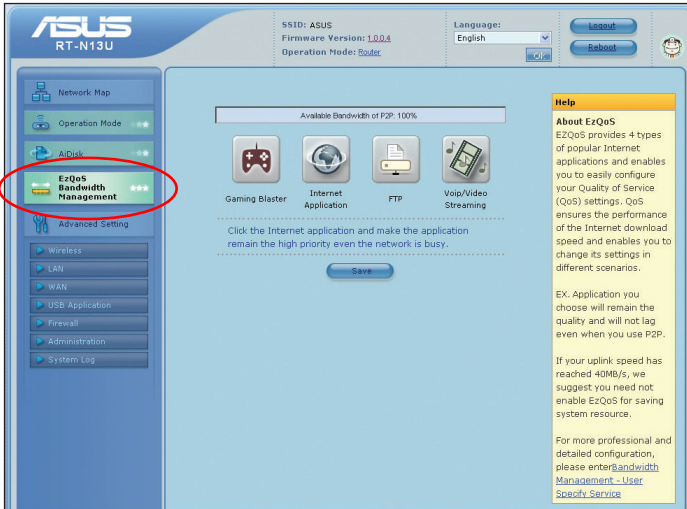
1. Under **System status**, click **Add SSID**.
2. Configure the profile settings, then click **Add**.
3. Click **Apply all setting** to save the new settings.

Managing bandwidth with EzQoS





EzQoS Bandwidth Management enables you to set the bandwidth priority and manage the network traffic.

To set up the bandwidth priority:

1. Click **EzQoS Bandwidth Management** from the navigation menu at the left side of your screen.



2. Click each of these four applications to set the bandwidth priority:

| Icon | Description |
|---|---|
|  | Gaming Blaster The router handles gaming traffic at first priority. |
|  | Internet Application The router handles the e-mail, web browsing and other Internet applications traffic at first priority. |
|  | FTP The router handles at first priority the traffic of downloading/uploading data to/from the FTP server. |
|  | Voip/Video Streaming The router handles the audio/video traffic at first priority. |

3. Click **Save** to save the configuration settings.

Upgrading the firmware



Note: Download the latest firmware from the ASUS website at <http://www.asus.com>

To upgrade the firmware:

1. Click **Advanced Setting** from the navigation menu at the left side of your screen.



2. Under the **Administration** menu, click **Firmware Upgrade**.
3. In the **New Firmware File** field, click **Browse** to locate the new firmware on your computer.
4. Click **Upload**. The uploading process takes about three minutes.



Note: If the upgrade process fails, the wireless router automatically enters the rescue mode and the power LED indicator at the front panel flashes slowly. To recover or restore the system, use the Firmware Restoration utility. For more details on this utility, refer to the section **Firmware Restoration** in Chapter 5 of this user manual.