

**ASUS**

**Broad range wireless family router**

**RT-G32**

**User's Manual**

## Table of Contents

Logging on to the Wireless Router .....	2
Wireless Router Configuration .....	3
<b>Network Map</b> .....	3
Internet Status.....	3
System Status .....	4
Client Status .....	5
<b>Advanced Setup</b> .....	6
<b>Wireless</b> .....	6
General.....	7
WPS .....	8
Wireless MAC Filter .....	8
Professional.....	9
<b>LAN</b> .....	10
LAN IP .....	10
DHCP Server.....	11
Route .....	12
<b>WAN</b> .....	13
Internet Connection.....	13
Port Trigger .....	14
Virtual Server.....	15
DMZ.....	16
DDNS .....	17
<b>Firewall</b> .....	17
General.....	17
URL Filter.....	18
MAC Filter.....	19
LAN to WAN Filter .....	19
<b>Administration</b> .....	20
System .....	21
Firmware Upgrade.....	21
Restore/Save/Upload Setting.....	22
<b>System Log</b> .....	23
General Log .....	23
Routing Table .....	23

## Logging on to the Wireless Router

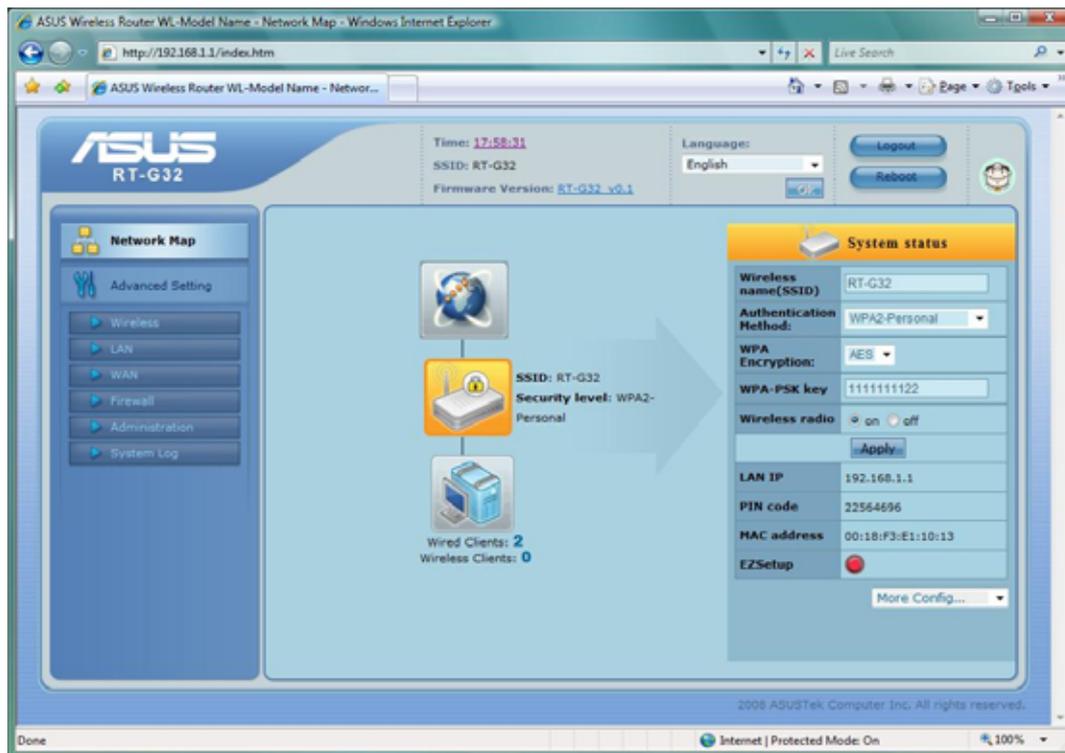
1. In your web browser, enter this IP address: <http://192.168.1.1>



2. Enter the default User name & Password → **admin & admin**



3. The RT-G32 home page appears. The home page display quick links to help you easily configure the features in the wireless router.



## Wireless Router Configuration

Using the preinstalled Wireless Router Web-Based Controller, you can easily access the quick links and make the necessary configurations. This will make it easy for you to manage and monitor the wireless router and the network devices connected to it.

### Network Map Internet Status

This page allows you to view current connection status, WAN IP, DNS, Connection type, and Gateway status. Click “GO” at Quick Internet Setup wizard, you can easily to configure Internet setup.



## System Status

This page is to view the Wireless system status or configuration.



**Wireless Name (SSID):** Assign an identification string of up to 32 characters for your wireless connection.

**Authentication Method:** This field enables the authentication methods for wireless clients.

**WPA Encryption:** Enable WPA encryption to encrypt data.

**WPA-PSK Key:** This field requires a password of 8 to 63 characters to start the encryption process. If you leave this field blank, the default [00000000] will be assigned as your password.

**Wireless Radio:** To enable wireless radio or disable.

**LAN IP:** Current connected LAN IP address

**PIN Code:** WPS PIN Code

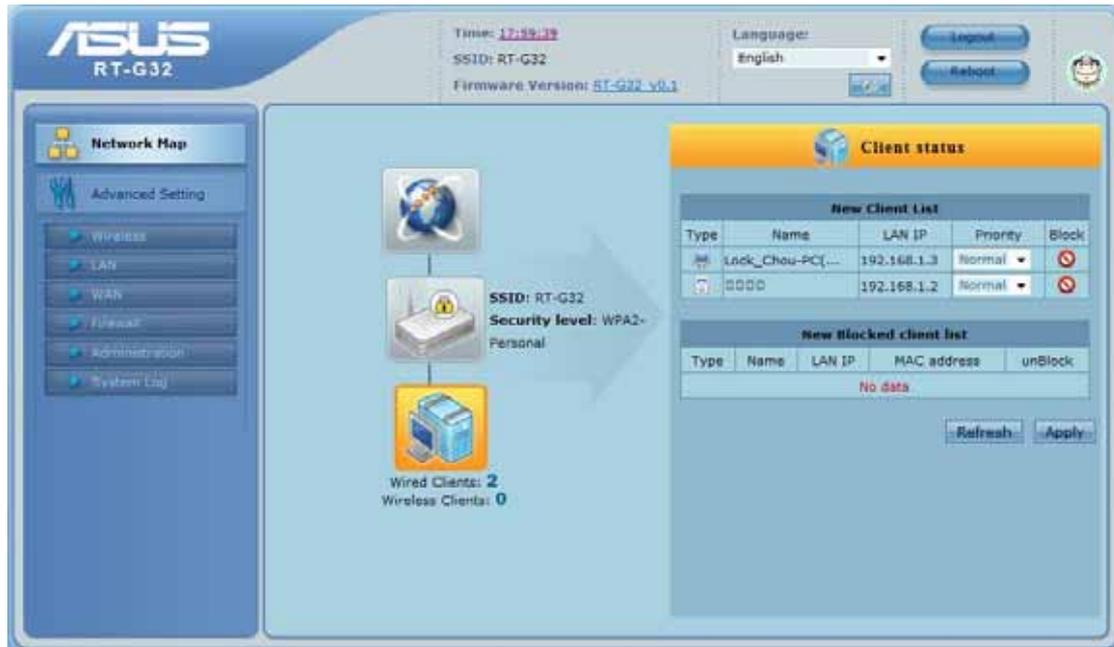
**MAC Address:** Current connected MAC address

**EZSetup:** WPS connection button

**More Config:** For more configuration, click the drag down list, there have Wireless-General, WPS, LAN IP, DHCP Server, Route, and General Log options.

## Client Status

This page allows you to view the new client lists and new blocked client lists.



## Advanced Setup

In this advanced setup, you can overview the complete RT-G32 router functions. There have “Wireless”, “LAN”, “WAN”, “Firewall”, “Administration”, and “System Log” sections. You can simply click each function to do the further configuration in the advanced setup page.

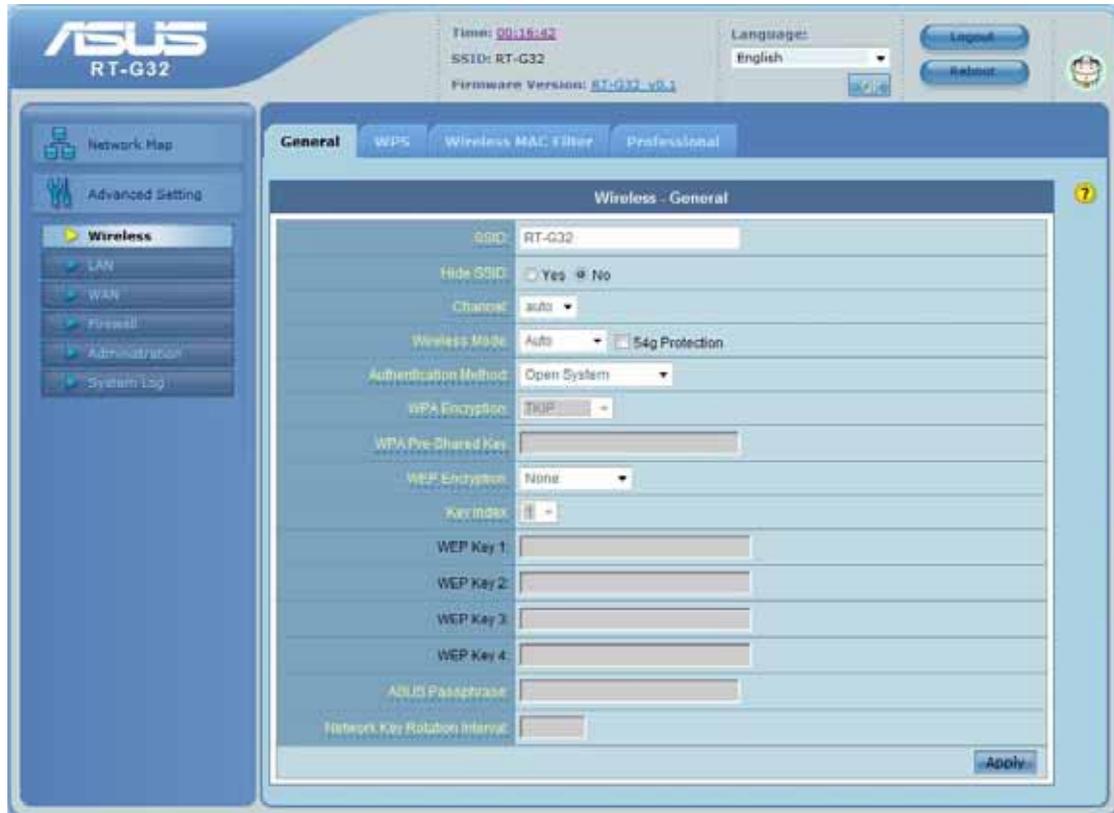


## Wireless

Configure your wireless connection, security, and other advanced parameters.

## General

This page allows user to configure basic wireless settings.



**SSID:** Assign an identification string of up to 32 characters for your wireless connection.

**Hide SSID:** If [YES] is selected, your SSID does not show in site surveys by wireless mobile clients and they can only connect to your ASUS Wireless Router with your SSID of AP.

**Channel:** The radio channel for wireless connection operation.

**Wireless Mode:** This field indicates the 802.11g interface mode. Select [Auto] to allow the connection to the ASUS Wireless Router of 802.11g and 802.11b wireless mobile clients. Select [54g] to maximize performance, but disconnect 802.11b clients. Select [54g Protection] to enable G-Mode protection for 802.11g traffic automatically in the presence of 11b traffic.

**Authentication Method:** This field enables the authentication methods for wireless clients.

**WPA Encryption:** Enable WPA Encryption to encrypt data.

**WPA Pre-Shared Key:** This field requires a password of 8 to 63 characters to start the encryption process. If you leave this field blank, the default [00000000] will be assigned as your password.

**WEP Encryption:** Enable WEP Encryption to encrypt data.

**Key Index:** Set the WEP key to transmit data on your wireless.

**WEP Key 1~4:** Only valid when using WEP encryption algorithm. The key must match with the AP's Key.

**ASUS Passphrase:** Select [WEP-64bits] or [WEP-128bits] in WEP encryption field to

generate four WEP keys automatically.

**Network Key Rotation Interval:** This field specifies the interval (in seconds) after which a WPA group key is changed. Enter [0] (zero) to indicate that a periodic key-change is not required.

## WPS

WPS (Wi-Fi Protected Setup) provides easy and secure establishment of a wireless network. You can configured WPS here via the by PIN code method.



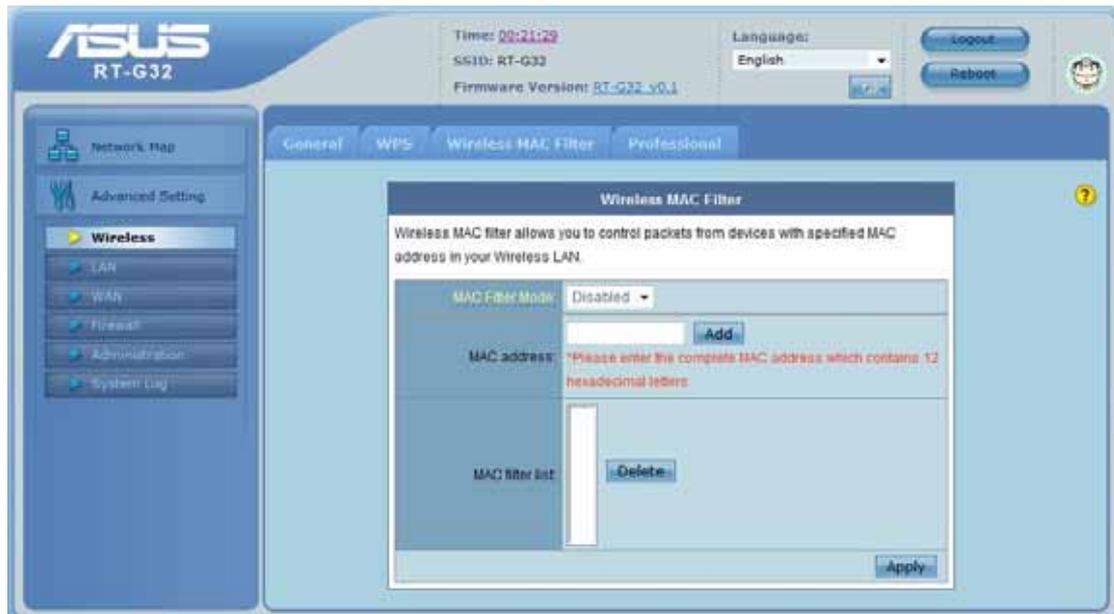
**Enable WPS:** Selecting **Yes** allows Wi-Fi Protected Setup (WPS) to simplify the process of connecting any device to the wireless network. WPS support the authentication of Open system, Share key, WPA-Personal, WPA2-Personal. Not support WPA-Enterprise, WPA2-Enterprise and Radius.

**AP PIN Code:** Remember the PIN code of AP (the same as PIN code in the bottom of RT-G32). Input this PIN code in client's WPS utility and utility will configure the wireless security setting of RT-G32.

**Client PIN Code:** Key in an eight-digit number for the PIN code.

## Wireless MAC Filter

Wireless MAC filter allows you to control packets from devices with specified MAC address in your Wireless LAN.

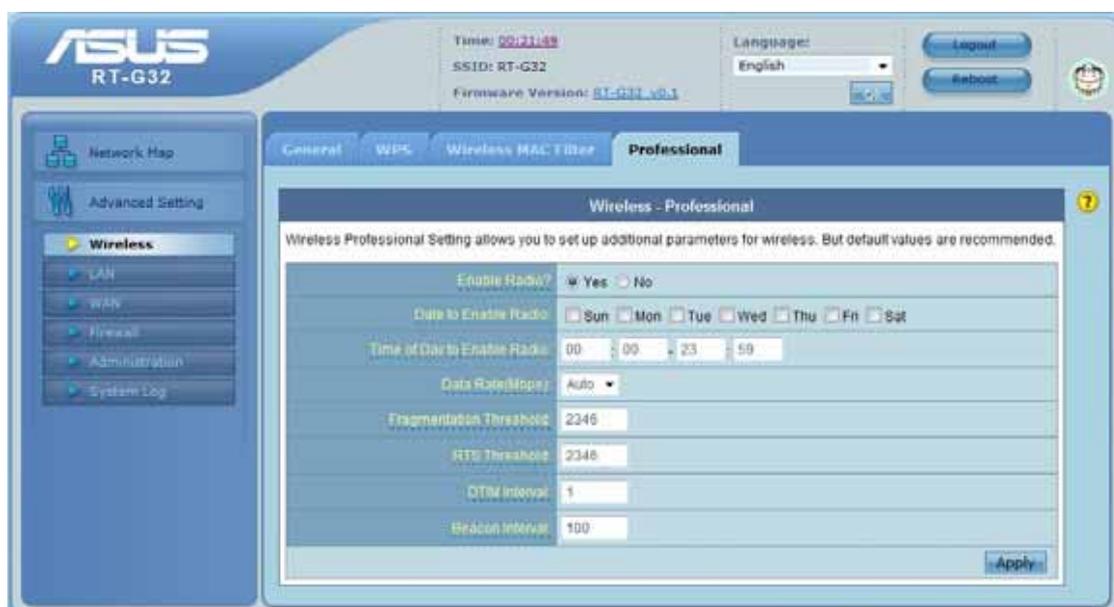


**MAC Filter Mode:** In Accept mode, RT-G32 only accepts clients with MAC address in the list. In Reject mode, RT-G32 will reject clients with MAC address in the list.

**MAC Address:** Enter the complete MAC address which contains 12 hexadecimal letters.

## Professional

Wireless Professional Setting allows you to set up additional parameters for wireless. But default values are recommended.



**Enable Radio?:** Select [Yes] to enable Radio function.

**Date to Enable Radio:** This field defines the dates that wireless function is enabled.

**Time of Day to Enable Radio:** This field defines the time interval that wireless function is enabled.

**Time of Day to Enable Radio:** This field defines the time interval that wireless function is enabled.

**Data Rate (Mbps):** This field allows you to select the transmission rate. [Auto] is recommended to maximize performance.

**Fragmentation Threshold:** Fragmentation Threshold sets the frame size of incoming messages (ranging from 256 to 2346 bytes) used as fragmentation boundary. If the frame size is too big, the heavy interference affects transmission reliability. If the frame size is too small, it decreases transmission efficiency.

**RTS Threshold:** Lower the signal RTS (Request To Send) to promote the transmission efficiency in condition of noisy environment or too many clients.

**DTIM Interval:** DTIM (Delivery Traffic Indication Message) is included in Beacon packet. The DTIM Interval (1-255) means the period of time to wake up wireless clients from Sleep Mode. The default value is 1.

**Beacon Interval:** Beacon Interval means the period of time between one beacon and the next one. The default value is 100 (the unit is millisecond, or 1/1000 second). Lower the Beacon Interval to improve transmission performance in unstable environment or for roaming clients, but it will be power consuming.

## LAN

Configure LAN, DHCP, and Route settings.

### LAN IP

Configure the LAN IP of RT-G32. The DHCP Server dynamically changes the IP pool when you change the LAN IP.



**IP Address:** The LAN IP address of RT-G32. The Default value is 192.168.1.1.

**Subnet Mask:** The LAN subnet mask of RT-G32. The Default value is 255.255.255.0

## DHCP Server

RT-G32 supports up to 253 IP address for your local network. The IP address of a local machine can be is assigned manually by the network administrator or obtained automatically from RT-G32 if the DHCP server is enabled.



**Enable the DHCP Server?:** DHCP server administers and assigns IP addresses for LAN clients automatically.

**RT-G32's Domain Name:** The Domain Name for client who requests IP address from the DHCP server.

**IP Pool Starting Address:** The first address in the pool to be assigned by the DHCP server in LAN.

**IP Pool Ending Address:** This field indicates the last address in the pool to be assigned by the DHCP server in LAN.

**Lease Time:** The amount of connection time with the current dynamic IP address.

**Default Gateway:** This field indicates the IP address of gateway in your LAN.

**DHCP's IP address:** This field indicates the IP address of DNS to provide to clients that request IP address from DHCP server.

**WINS Server:** The Windows Internet Naming Service manages interaction of each PC with the Internet. If you use a WINS server, enter IP address of server here.

**Enable Manual Assignment?:** Enable this function to assign static IP address by manually.

**MAC Address:** Enter the MAC Address of each DHCP client.

**IP Address:** Assign an IP address for each DHCP client. The IP address should comply with the DHCP address pool you specified. The DHCP address pool contains the range of the IP address that will automatically be assigned to the clients on the network.

## Route

This function allows you to add routing rules into RT-G32. It is useful if you connect several routers behind RT-G32 to share the same connection to the Internet.



**Network/Host IP:** It stands for the destination network or host of a route rule. So it could be a host address, such as 「192.168.123.11」 or a network address, such as 「192.168.0.0」.

**Netmask:** It indicates how many bits are for network ID and subnet ID. For example: if the dotted-decimal netmask is 255.255.255.0, then it's netmask bits is 24. If the destination is a host, its netmask bits should be 32.

**Gateway:** It stands for the IP address of gateway where packets are routed to. The specified gateway must be reachable first. It means you have to set up a static route to the gateway beforehand.

**Metric:** Metric is a value of distance for the network

**Interface:** Network interface that the route rule applies to.

## WAN

Configure the internet connection, QoS, and Server settings.

### Internet Connection

RT-G32 supports several connection types to WAN. These types are selected from the dropdown menu beside WAN Connection Type. The setting fields differ depending on the connection type you selected.



**WAN Connection Type:** RT-G32 supports 5 methods of obtaining the WAN IP Address:

- **Automatic IP (DHCP):** Automatic gets IP address from your ISP.
- **PPPoE (ADSL):** PPPoE is a common connection type used for xDSL.
- **PPTP:** PPP Tunneling Protocol can support multi-protocol Virtual Private Network (VPN).
- **L2TP:** Layer 2 Tunneling Protocol can support multi-protocol Virtual Private Networks (VPN)
- **Static IP (fixed IP):** Use static IP address to access Network.

**Get the WAN IP automatically?:** This field allows you to get the WAN IP address automatically.

**IP Address:** This is the IP address of RT-G32 as seen on the remote network. If you set it to 0.0.0.0, RT-G32 will get IP address from DHCP Server automatically.

**Subnet Mask:** This is the Subnet Mask of RT-G32 as seen on the remote network.

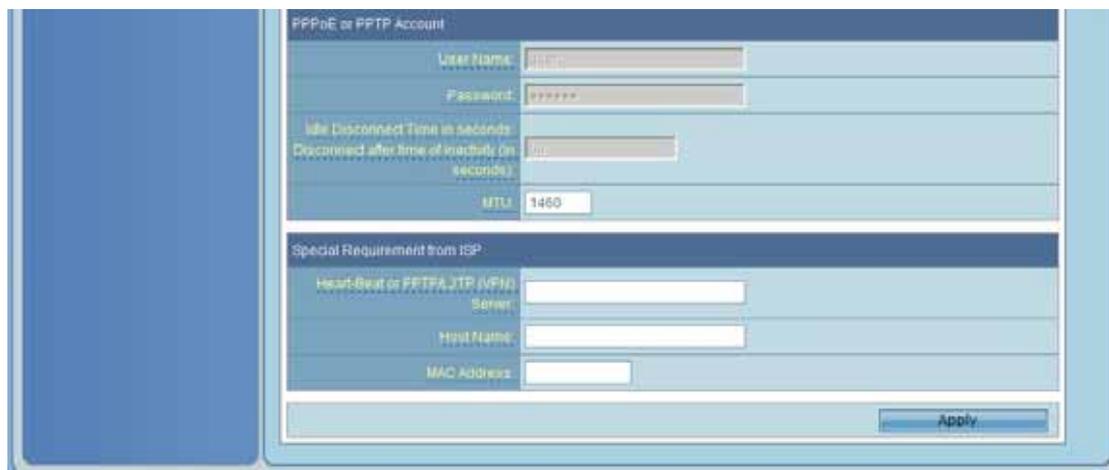
**Default Gateway:** This is the IP address of the default gateway that allows for contact between RT-G32 and the remote network or host.

**Connect to DNS Server automatically:** This field allows you to get the DNS IP address from

the remote network automatically

**DNS Server 1:** This field indicates the IP address of DNS that RT-G32 contacts to.

**DNS Server 2:** This field indicates the IP address of DNS that RT-G32 contacts to.



**User Name:** This field is only available when you set WAN Connection Type as PPPoE or PPTP.

**Password:** This field is only available when you set WAN Connection Type as PPPoE.

**Idle Disconnect Time in seconds: Disconnect After time of inactivity (in seconds):** This field is optional and allows you to configure to terminate your ISP connection after a specified period of time. This field is optional and allows you to end your ISP connection after the specified time of inactivity. A value of zero allows infinite idle time. If Tx Only is checked, the data from Internet will be skipped for counting idle time. If Tx Only is checked, Internet activity such as downloading data, is not counted as idle time.

**MTU:** It means Maximum Transmission Unit (MTU) of PPPoE packet.

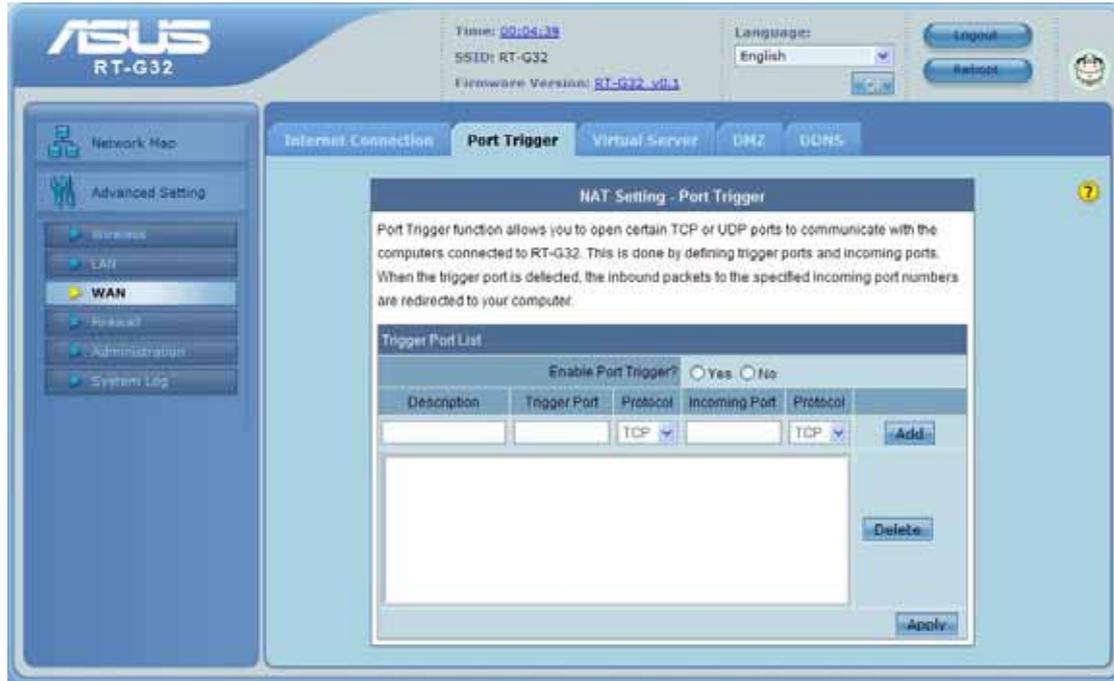
**Heart-Beat or PPTP/L2TP (VPN) Server:** Please enter the server name or server IP of the authentication server of BigPond server.

**Host Name:** This field allows you to provide a host name for RT-G32. It is usually requested by your ISP.

**MAC address:** This field allows you to provide a unique MAC address for RT-G32 to connect Internet. It is usually requested by your ISP.

## Port Trigger

Port Trigger function allows you to open certain TCP or UDP ports to communicate with the computers connected to RT-G32. This is done by defining trigger ports and incoming ports. When the trigger port is detected, the inbound packets to the specified incoming port numbers are redirected to your computer.



**Enable Port Trigger:** Enable/Disable the port trigger.

**Description:** Enter the name of port trigger.

**Trigger Port:** This is the port used to trigger the application. It can be either a single port or a range of ports.

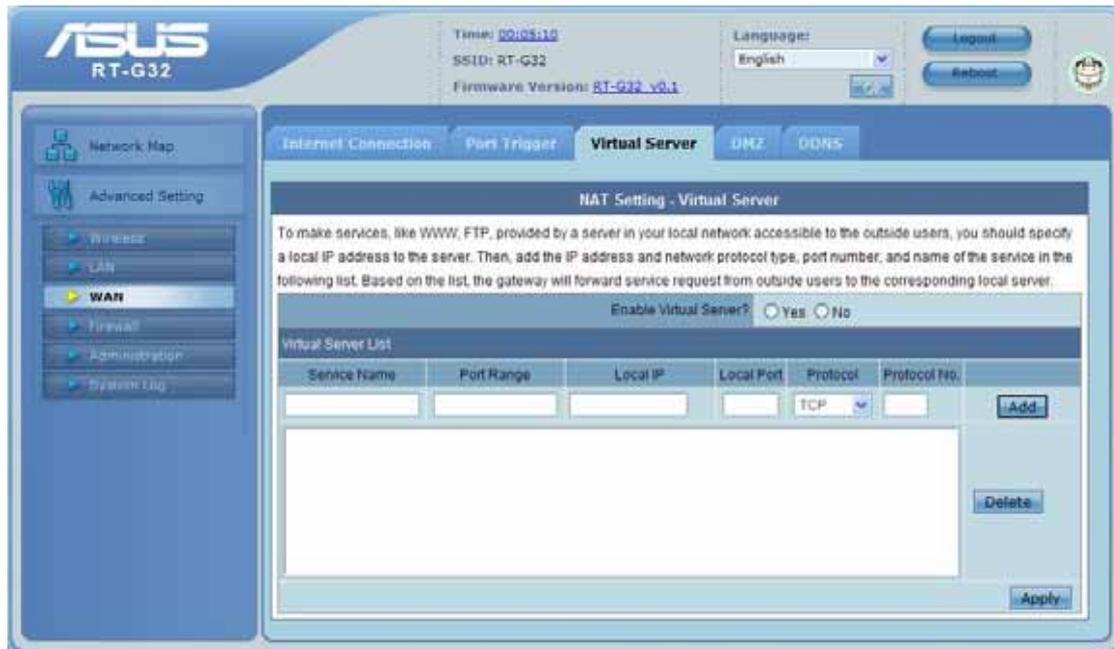
**(Trigger) Protocol:** This is the protocol used to trigger the special application.

**Incoming Port:** This is the port number on the WAN side that will be used to access the application. You may define a single port or a range of ports. You can use a comma to add multiple ports or port ranges.

**(Incoming) protocol:** This is the protocol used for the special application.

## Virtual Server

To make services, like WWW, FTP, provided by a server in your local network accessible to the outside users, you should specify a local IP address to the server. Then, add the IP address and network protocol type, port number, and name of the service in the following list. Based on the list, the gateway will forward service request from outside users to the corresponding local server.



**Port Range:** Enter the Port range for WAN side.

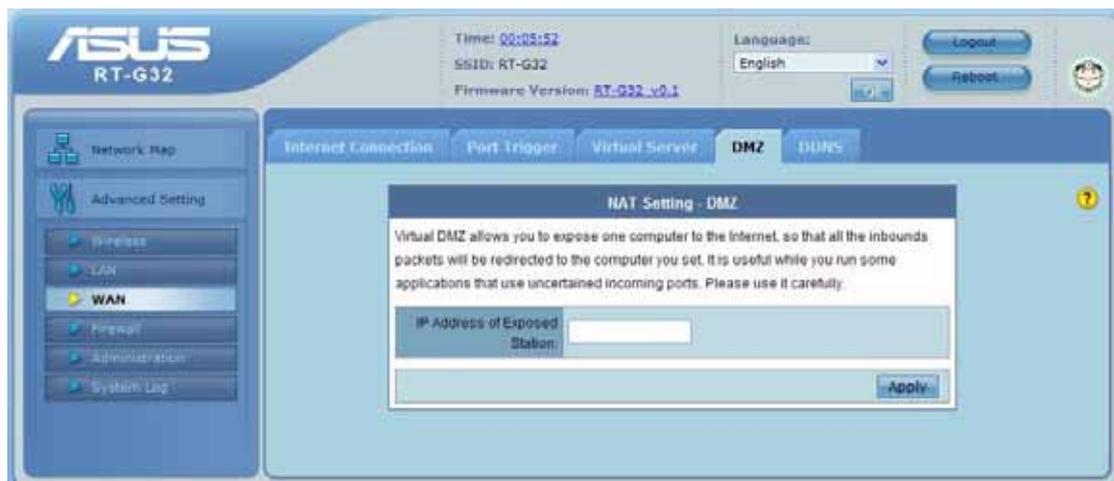
**Local IP:** Enter the IP Address for the Virtual Server in LAN side.

**Local Port:** Enter the specific Local Port number you want to forward

**Protocol:** This is the protocol used to Virtual server.

## DMZ

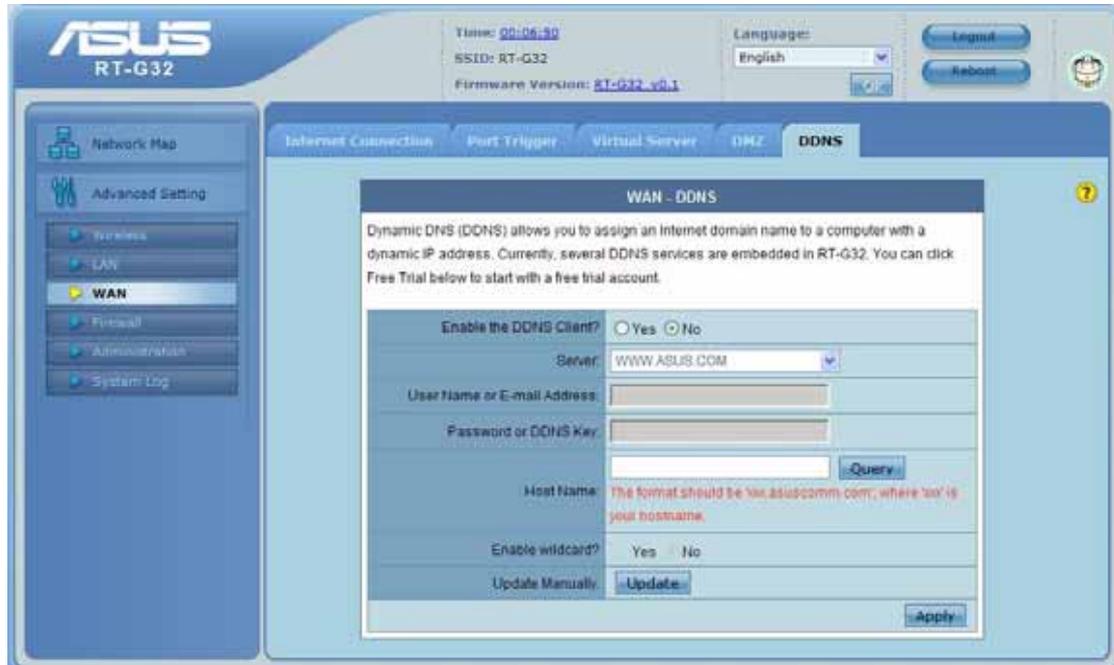
DMZ (De-Militarized Zone) allows you to expose one computer to the Internet, so that all the inbounds packets will be redirected to the computer you set. It is useful while you run some applications that use uncertain incoming ports.



**IP Address of Exposed Station:** Enter the IP address of a particular host in your LAN that will receive all the packets originally going to the WAN port/Public IP address above. **Note:** You need to give your LAN PC clients a fixed/static IP address for DMZ to work properly

## DDNS

Dynamic DNS (DDNS) allows you to assign an Internet domain name to a computer with a dynamic IP address. Currently, several DDNS services are embedded in RT-G32. You can click Free Trial below to start with a free trial account.



**Enable the DDNS Client:** Enable/Disable the DDNS server. Default setting is **Disable**.

**Server:** AP Router supports type: [WWW.ASUS.COM](http://WWW.ASUS.COM).

**User Name or E-mail address:** Enter the user name or e-mail address that you register in [WWW.ASUS.COM](http://WWW.ASUS.COM) website

**Password or DDNS Key:** Enter the password or DDNS Key that you register in [WWW.ASUS.COM](http://WWW.ASUS.COM) website

**Hostname:** Enter the hostname that you register in [WWW.ASUS.COM](http://WWW.ASUS.COM) website

**Enable wildcard:** Enabling the wildcard feature for your host causes [WWW.ASUS.COM](http://WWW.ASUS.COM) to be aliased to the same IP address as yourhost.dyndns.org. This feature is useful if you want to be able to use, for example, [WWW.ASUS.COM](http://WWW.ASUS.COM) and still reach your hostname.

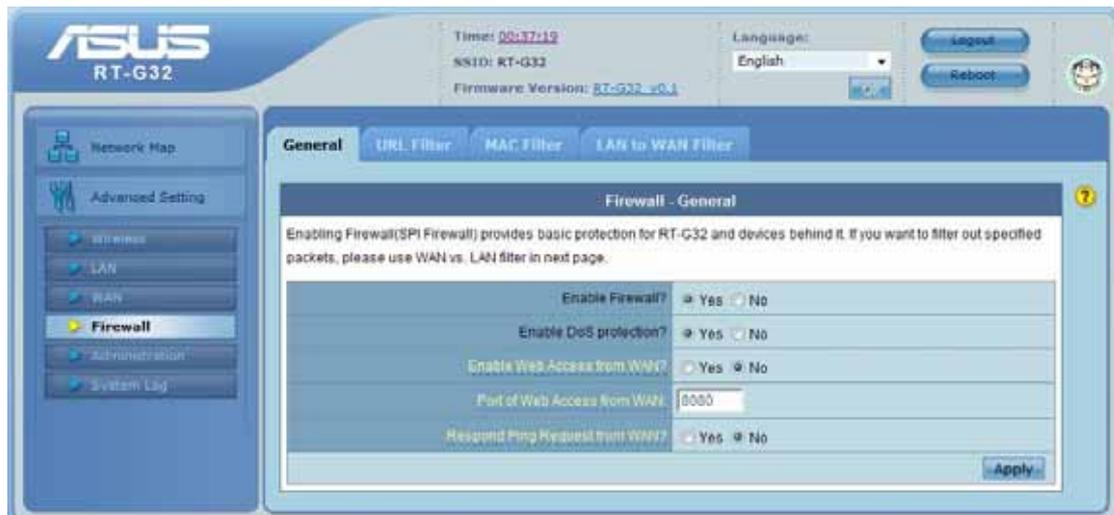
**Update Manual:** Click "Update" button to update the DDNS manually.

## Firewall

Configure the firewall and filter mechanisms to protect your network.

### General

Enabling Firewall (SPI Firewall) provides basic protection for RT-G32 and devices behind it. If you want to filter out specified packets, please use WAN vs. LAN filter in next page.



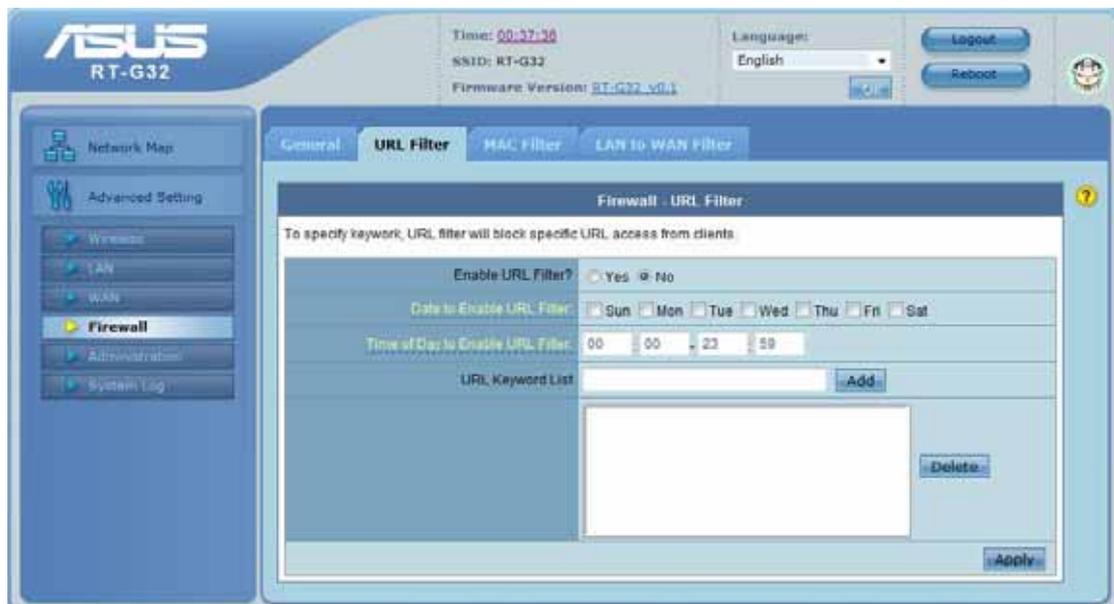
**Enable Web Access from WAN?:** This feature allows you to configure RT-G32 from the Internet. If you are under Home Gateway mode, please access RT-G32 with 8080 port (i.e. http://Your WAN IP: 8080).

**Port of Web Access from WAN:** To specify the port used to configure RT-G32 from the Internet. The default port is 8080.

**Respond Ping Request from WAN?:** This feature allows you to respond to ping request from WAN.

## URL Filter

To specify keyword, URL filter will block specific URL access from clients.

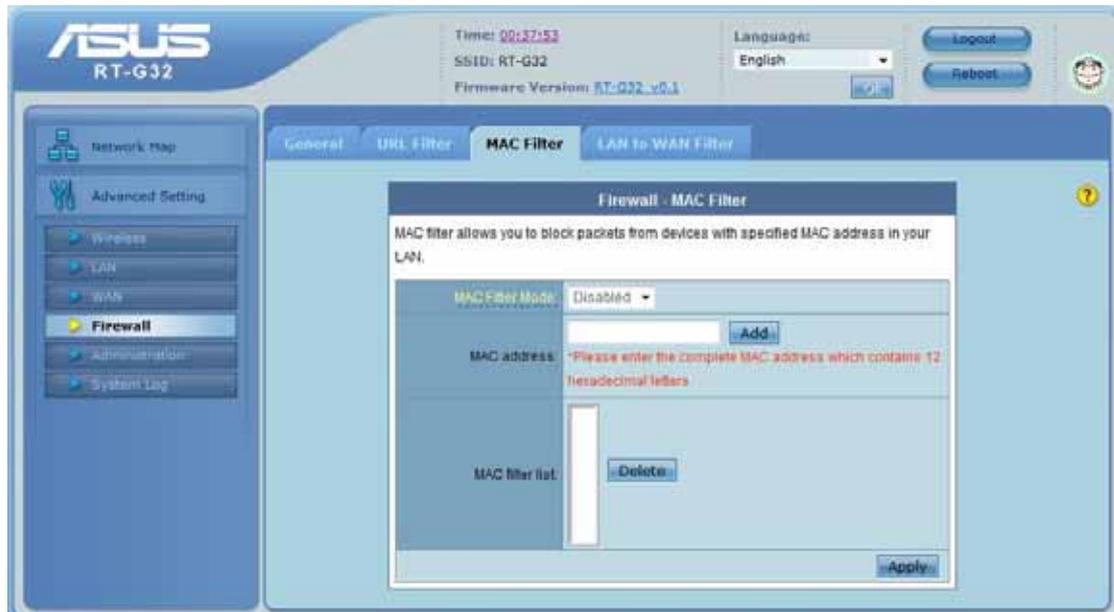


**Date to Enable URL Filter:** This field defines the dates that URL filter will be enabled.

**Time of Day to Enable URL Filter:** This field defines the time interval that URL filter will be enabled.

## MAC Filter

MAC filter allows you to block packets from devices with specified MAC address in your LAN.

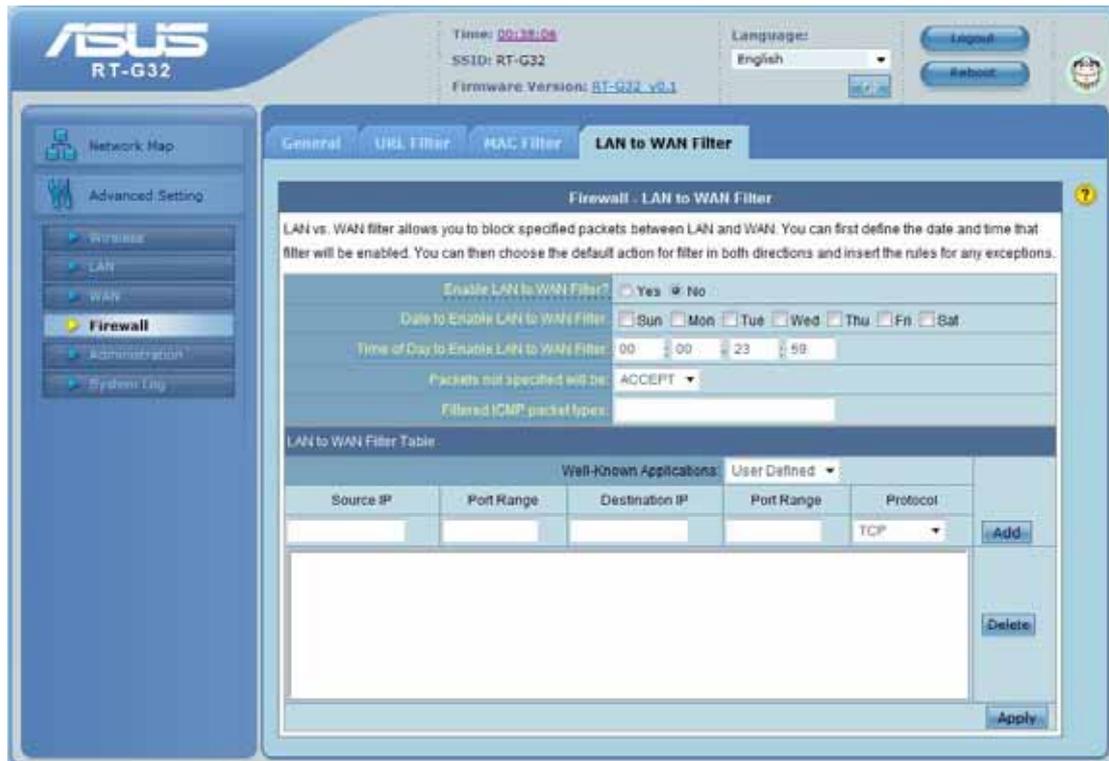


**MAC Filter Mode:** In Accept mode, RT-G32 only accepts clients with MAC address in the list. In Reject mode, RT-G32 will reject clients with MAC address in the list.

**MAC Address:** Please enter the complete MAC address which contains 12 hexadecimal letters.

## LAN to WAN Filter

LAN vs. WAN filter allows you to block specified packets between LAN and WAN. You can first define the date and time that filter will be enabled. You can then choose the default action for filter in both directions and insert the rules for any exceptions



**Enable LAN to WAN Filter?:** Select [Yes] to enable filter that specify IP or port for control incoming and outgoing packets.

**Date to Enable LAN to WAN Filter:** This field defines the dates that LAN to WAN filter will be enabled.

**Time of Day to Enable LAN to WAN Filter:** This field defines the time interval that LAN to WAN filter will be enabled.

**Packets not specified will be:** This field defines those LAN to WAN packets which are not specified in IP Filter Table will be accepted or dropped.

**Filtered ICMP packet types:** This field defines a list of LAN to WAN ICMP packets type that will be filtered. For example, if you would like to filter Echo (type 8) and Echo Reply (type 0) ICMP packets, you need to enter a string with numbers separated by blank, such as, 0 5.

**Well-Known Applications:** User Defined, WWW, Telnet, FTP

## Administration

Configure the system and upgrade the firmware of RT-G32.

## System

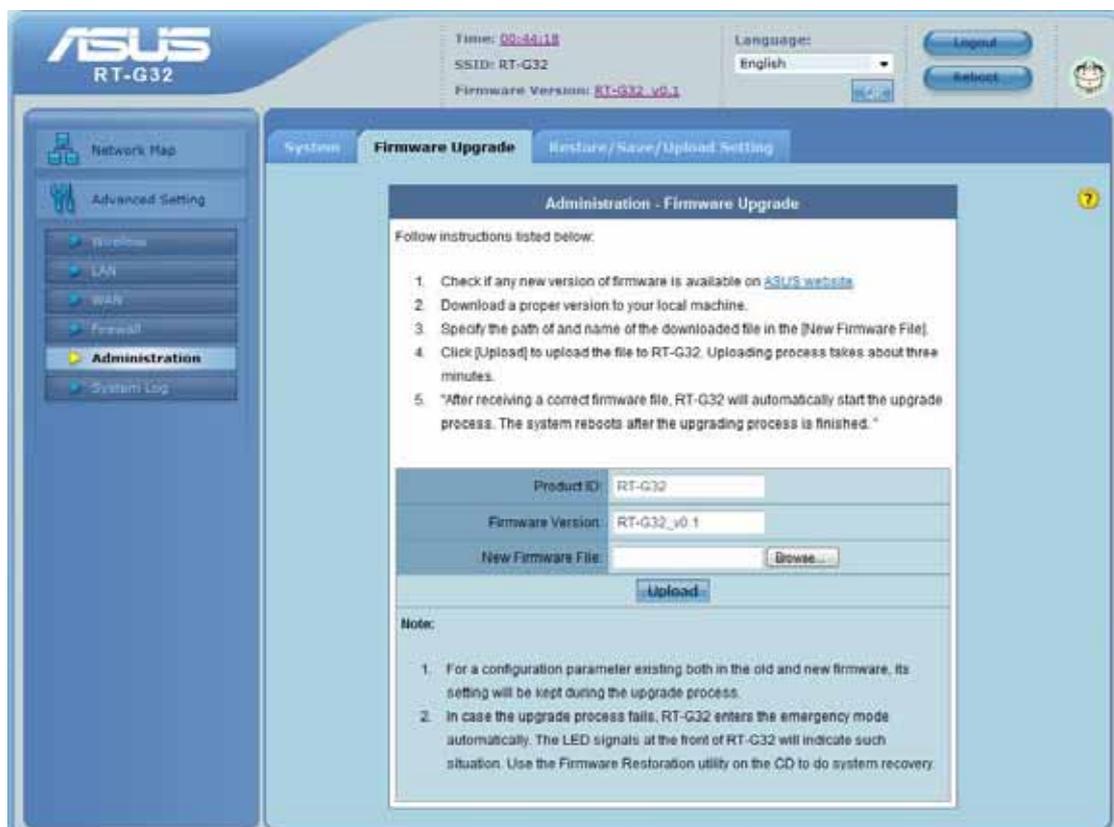


**Remote Log Server:** This field allows assigning a remote server to record log messages of RT-G32. If you leave it blank, the system will record up to 1024 messages on RT-G32.

**Time Zone:** The standard time in your area or locality.

**NTP Server:** To synchronize your system time with NTP Server.

## Firmware Upgrade



**Follow instructions listed below:**

1. Check if any new version of firmware is available on ASUS website.
2. Download a proper version to your local machine.
3. Specify the path of and name of the downloaded file in the [New Firmware File].
4. Click [Upload] to upload the file to RT-G32. Uploading process takes about three minutes.
5. "After receiving a correct firmware file, RT-G32 will automatically start the upgrade process. The system reboots after the upgrading process is finished.

**Note:**

1. For a configuration parameter existing both in the old and new firmware, its setting will be kept during the upgrade process.
2. In case the upgrade process fails, RT-G32 enters the emergency mode automatically. The LED signals at the front of RT-G32 will indicate such situation. Use the Firmware Restoration utility on the CD to do system recovery

### Restore/Save/Upload Setting

This function allows you to save current settings of RT-G32 to a file, or load settings from a file.



**Factory default:** Click [Factory default] to restore the router to its factory default settings and delete all the current settings. Wait for a while until the router reboots.

**Save settings:** Click the [Save] button to save current setting of RT-G32 into a file. (Note: While you save current settings to a file, it will be saved to flash as well.)

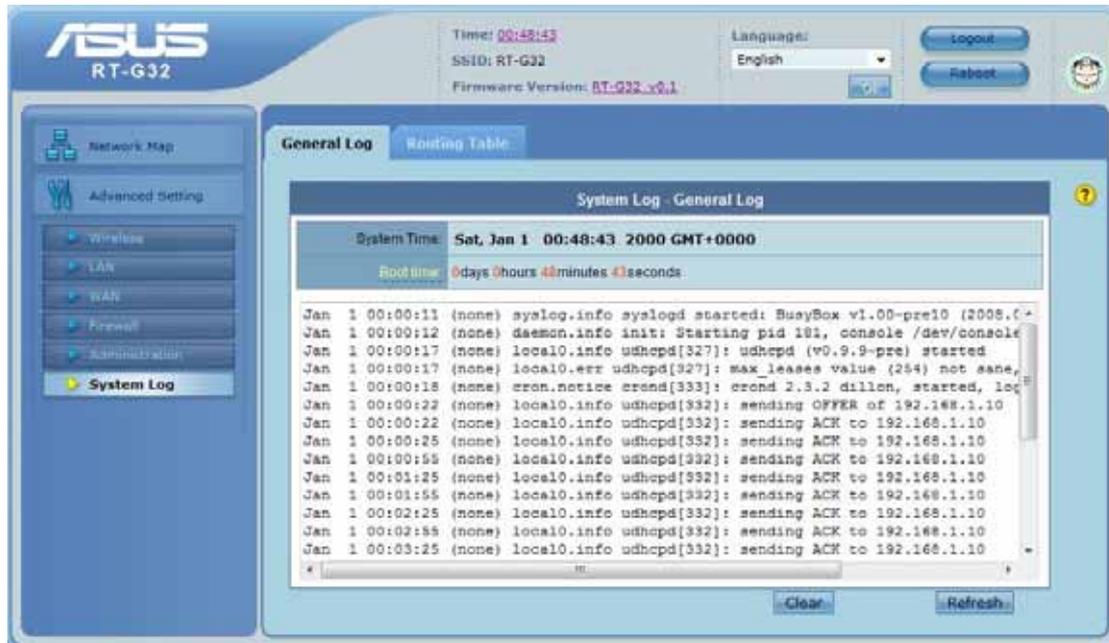
**Restore settings:** Specify the path and name of setting file. Then click [Upload] to write the file to RT-G32. Please wait 30 seconds until RT-G32 reboots.

## System Log

Monitor the status and various system logs.

## General Log

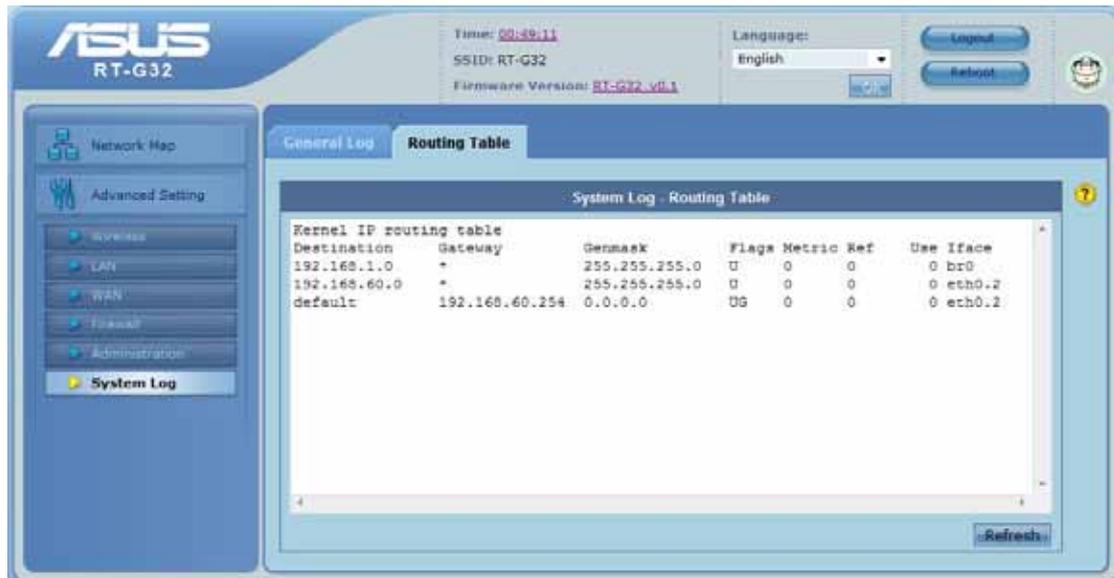
The log file keeps a running log of events and activities occurring on the device. The log always displays recent logs. When the device is rebooted, the log would not be cleared.



**Boot time:** Elapsed time since system boot

## Routing Table

A routing table contains the information necessary to forward a packet along the best path toward its destination. Each packet contains information about its origin and destination. When a packet is received, a network device examines the packet and matches it to the routing table entry providing the best match for its destination. The table then provides the device with instructions for sending the packet to the next hop on its route across the network.



**Destination:** The IP address of the packet's final destination. The destination can be an IP address or a class-based, sub-netted, or super-netted network ID.

**Gateway:** The IP address to which the packet is forward.

**Netmask:** Includes directly-attached subnets, indirect subnets that are not attached to the device but can be accessed through one or more hops, and default routes to use for certain types of traffic or when information is lacking.

**Flags:** Possible flags include → **U:** Route is up. **H:** Target is a host. **G:** Use Gateway  
**C:** Cache entry **!**:Reject route

**Metric:** A number used to indicate the cost of the route so that the best route, among potentially multiple routes to the same destination, can be selected.

**Ref:** Number of reference to this route.

**Use:** Count of lookups for the route.

**Iface:** Interface to which packets for this route will be sent.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation

## DGT Warning Statement

### Article 12

Without permission, any company, firm or user shall not alter the frequency, increase the power, or change the characteristics and functions of the original design of the certified lower power frequency electric machinery.

### Article 14

The application of low power frequency electric machineries shall not affect the navigation safety nor interfere a legal communication, if an interference is found, the service will be suspended until improvement is made and the interference no longer exists.