MT-Link

54M Wireless Router

User Guide

Chapter 1. About this Guide

Thank you for choosing MT-LINK 54M Wireless Broadband Router. As a cost-effective product, this Wireless Router provides dedicated solution for small office, home and dormitory. It integrates a variety of wireless applications, such as wireless bridge model, AP model etc. It provides a wide range of data security protection, support WEP, WPA Encryption method. It is the best option of surfing on the wireless Internet and enjoying the fun of the wireless. Internet

The MT-LINK 54M Wireless router is easy to configure, even if you are not so familiar with the router. In order to better use all functions of this product, please read this guide carefully before you install the router,

1.1 Purpose

This guide tells you how to use the 54M wireless Router.

1.2 Conventions

The router mentioned in this guide stands for 54M wireless Router if without especial indication.

Chapter 2 Introduction

2.1 Features and specification

2.1.1 Features

- Complies with IEEE 802.11g, IEEE 802.11b, IEEE 802.3, IEEE 802.3u standards.
- 1 10/100M Auto-Negotiation RJ45 WAN port, 4 10/100M Auto-Negotiation RJ45 LAN ports, supporting Auto MDI/MDIX.
- Supports 54/48/36/24/18/12/9/6Mbps or 11/5.5/3/2/1Mbps data transfer rates.
- Provides WEP WPA encryption security.
- Shares data and Internet access for users, supporting PPPoE, Dynamic IP, Static IP,
- Supports Virtual Server, Special Application and DMZ host.
- Supports UPnP, Dynamic DNS, Static Routing, VPN Pass-through.
- Connecting Internet on demand and disconnecting from the Internet when idle for PPPoE.
- Built-in NAT and DHCP server supporting static IP address distributing.
- Built-in firewall supporting IP address filtering, Domain Name filtering, and MAC address filtering.
- Supports connecting/disconnecting from the Internet on a specified time of day.
- Supports access control, parents and network administrators can establish restricted access policies based on time of day for children or staff.
- Supports Flow Statistics.
- Supports ICMP-FLOOD, UDP-FLOOD, and TCP-SYN-FLOOD filter.
- Ignores Ping packets from WAN or LAN ports.
- Supports firmware upgrade.

Chapter 3 Hardware Installation

3.1 Description Panel Indicators：

LED Indicators：

Name		Description
POWER		Power indicator
WLAN	Off	There is no wireless device linked to the router.
	Flashing	The Wireless function is enabled.
WAN	On	There is a device linked to the corresponding port.
	Flashing	There is an active device linked to the corresponding port.
LAN(1/2/3/4)	On	There is a device linked to the corresponding port.
	Flashing	The is an active device linked to the corresponding port.

The Rear Panel:

1)ANT：Not removable external omni-directional antenna gain.

2)WAN：Wide Area Network Interface (RJ-45). Connect xDSL Modem/Cable Modem or Ethernet.

3)LAN1-LAN4：Four RJ-45 ports, Computer and hubs / switches through these interfaces connected to LAN.

4)POWER：Please use the power adapter which is supplied with the 54M Wireless router only.

5)RESET：Press and hold the reset button for 5 seconds under the working state, the system will restore the factory default setting.

3.2 System requirement

- Broadband internet Access Service(DSL/Cable/Ethernet)
- One DSL/Cable Modem that has an RJ45 connector (you do not need it if you connect the router to the Ethernet)
- Each PC in the LAN needs a working Ethernet Adapter and an Ethernet cable with RJ45 connectors
- TCP/IP protocol must be installed on each PC

- Web browser, such as Microsoft Internet Explorer 5.0 or later, Netscape Navigator 6.0 or later

3.3 Installation Environment Requirements

- Place the Router horizontal
- Antenna will be adjusted to fit the angle of the direction
- Place the router as far as possible away from the heat device
- Do not place the router on too dirty or too damp places

3.4 Hardware Installation Steps

1. Power on the 54M Wireless Router.
2. Connect the Router's WAN port to the Xdsl Modem/Cable Modem.
3. Connect the PC(s) in your LAN to the LAN port on your Router. (If you have the wireless NIC and want to use wireless function, you can skip this step.)

Chapter 4 Quick Installation Guide

You should configure the Router correctly to ensure the normal use of the Router. This chapter describes how to configure the basic functions of the 54M Wireless Router. we will show the detailed configuration in the next chapter.

4.1 Configuring The PC

To Windows XP as a example:

1. Configure the IP address
   Click the start menu, select “network connect”,
   Show in figure 4-1.

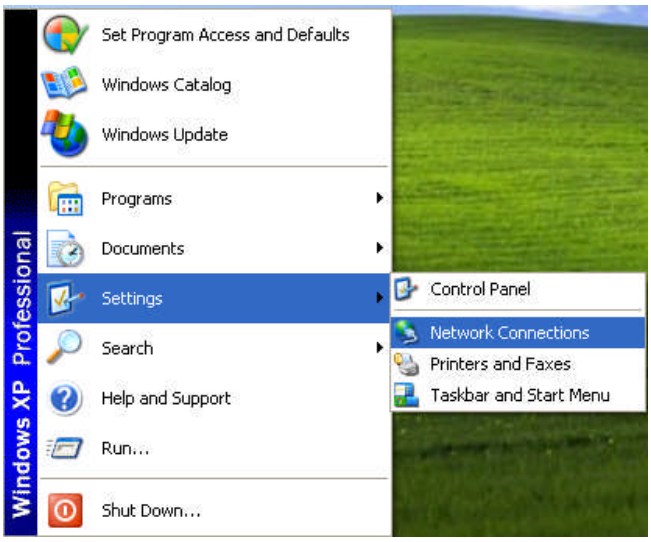


Figure 4- 1

Right-click the “local connection” as shown in figure 4-2.then select “Properties” will pop up figure 4-3 shown in the Network connection properties dialog box.

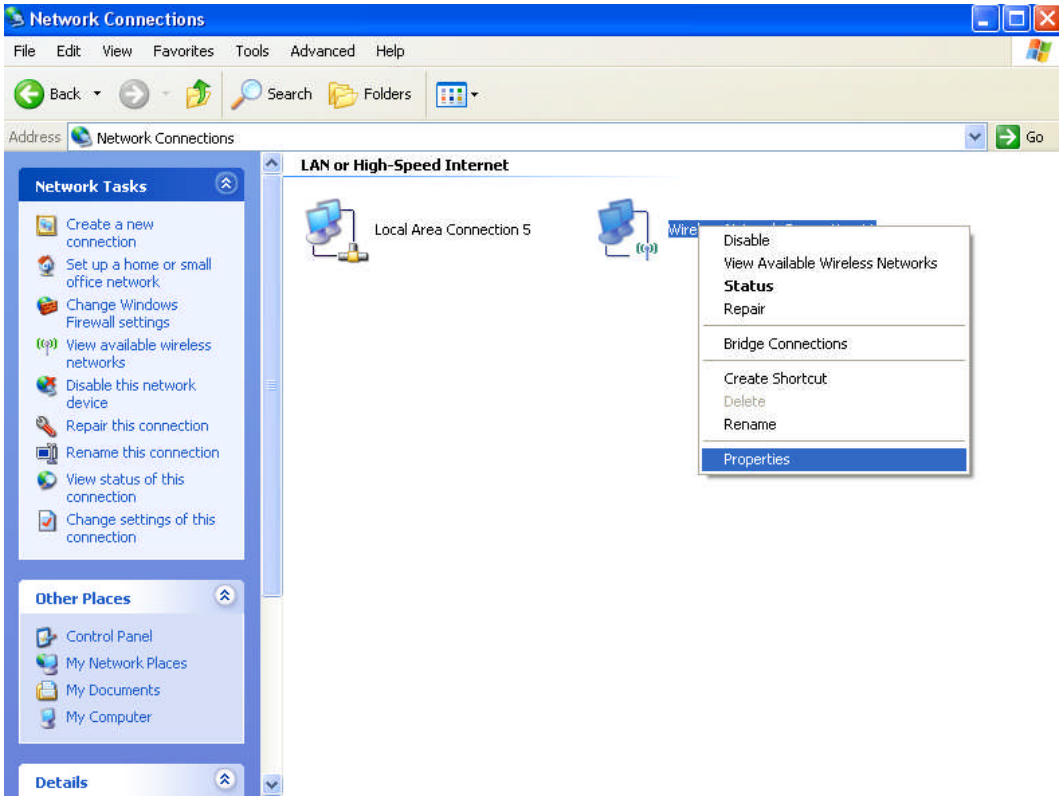


Figure 4- 2

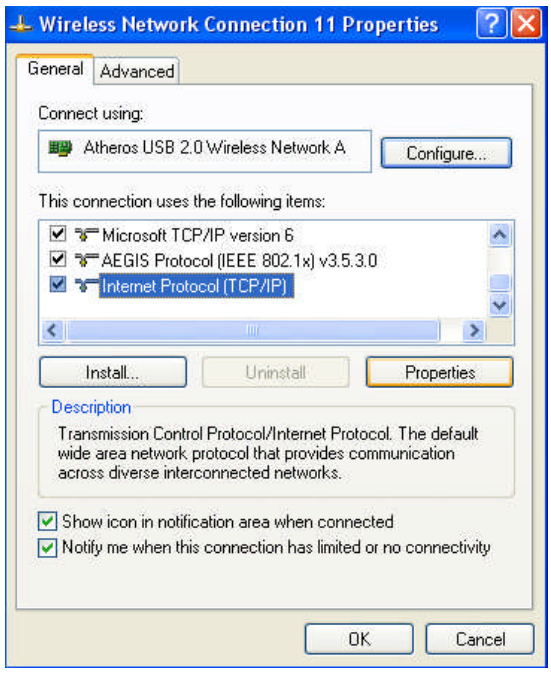


Figure 4- 3

Double-click “Internet Protocol (TCP/IP)”will appear IP address page. If you choose to automatically receive the IP address and the DNS server address, the computer will be gain the IP address from the router (Show in figure 4-4).Of course, you can also choose manual-setting as shown in figure 4-5.

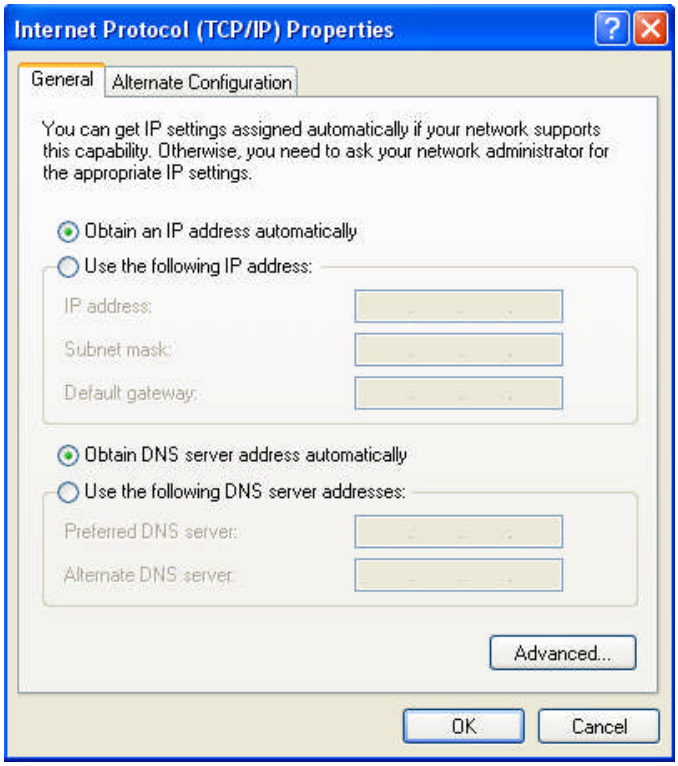


Figure 4- 4

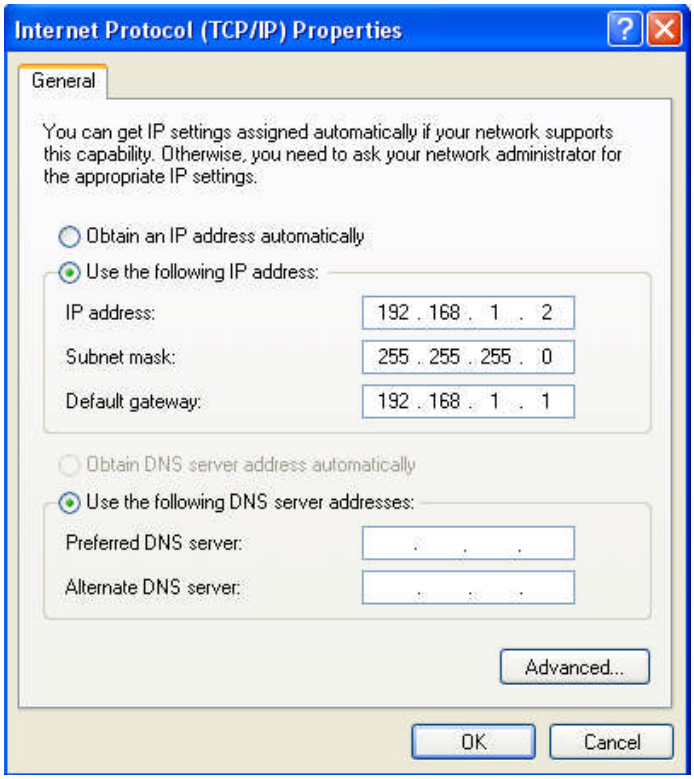


Figure 4- 5

2. Connect wireless network

The wireless network will be connected after finished configuring the network parameter. Select “View available wireless connection” as show in figure 4-2, your wireless network card will be in search of available network connection in current environment. Then the wireless network will be linked successfully by click link button.

If the network is encrypted, password dialog box will pop up prompting you to enter key.54M Wireless Router default network name(SSID) is MT-LINK, select this network to connect the wireless router(show in figure 4-6).

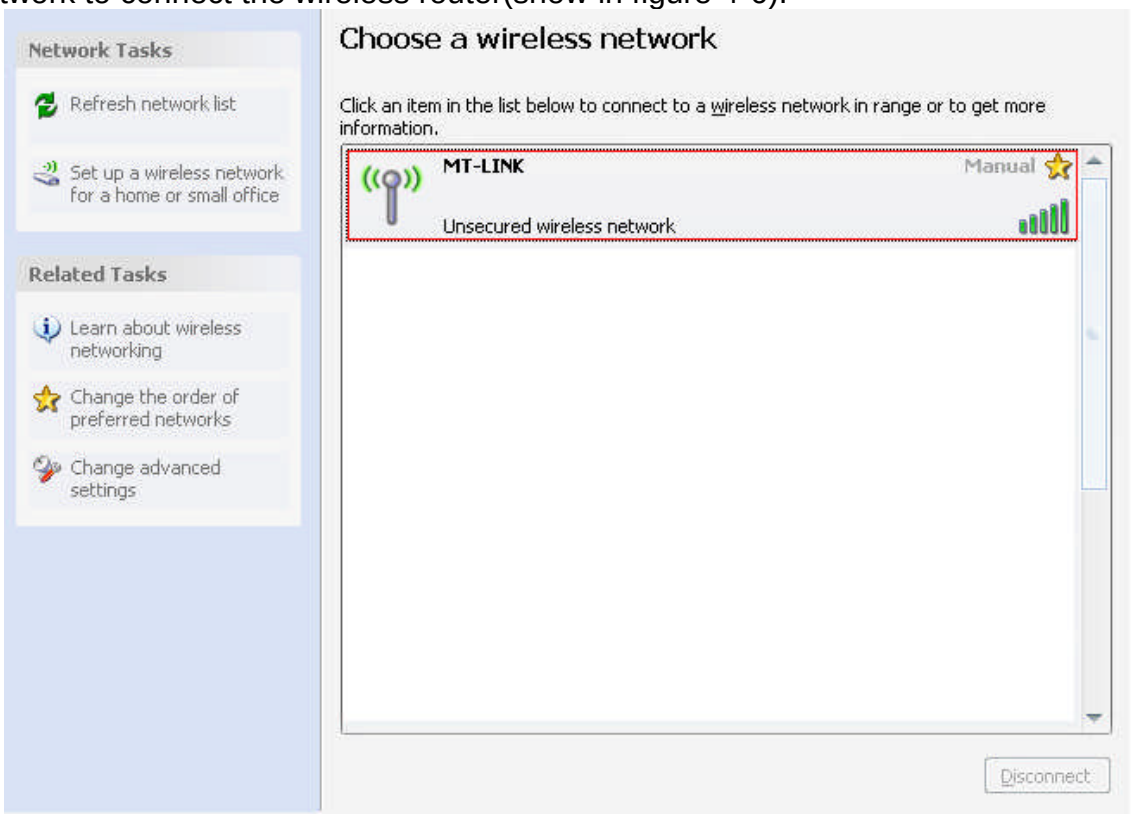


Figure 4- 6

Now, you can run the Ping command in the command prompt to verify the network connection between your PC and the router. If the result is similar to that show in figure 4-7, the connection between your PC and your router has been established.

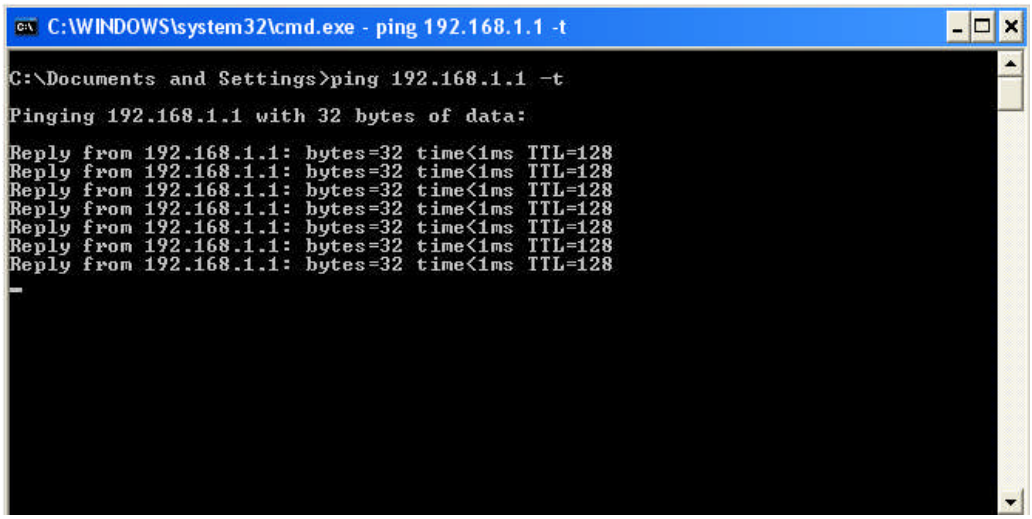


Figure 4- 7

If the link can not be established, please check the hardware connection between your PC and the router is normal, IP address is correct.

4.2 Quick Installation Guide

Launch a Web browser (Internet Explorer 5.0 or higher) when the computer and the 54M Wireless Router are correctly connected, close the proxy browser. Then input http://192.168.1.1 into the browser address bar, press the Enter key, there will appear a login window as figure 4-8. Enter admin for the User Name and Password, both in lower case letters. Also you can modify the user name and the password to ensure the network security.

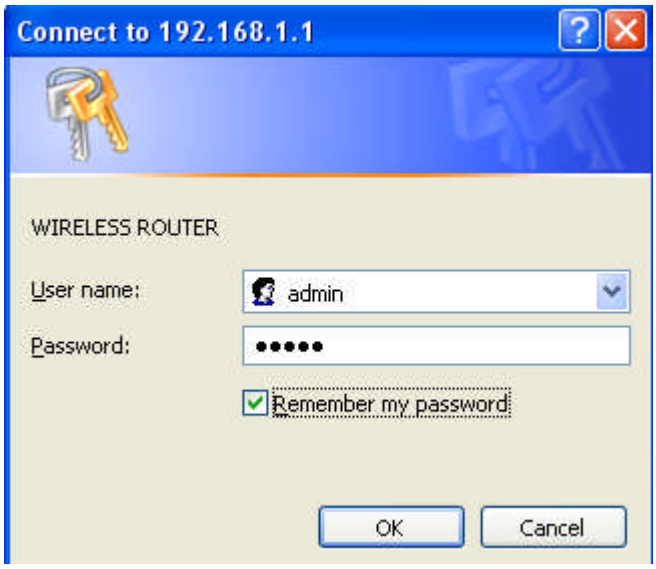


Figure 4- 8

If no login window, follow the below steps to solve the problem.

- Close the software agent such as WinGate,SyGate
- Launch the Web browser, go to Tools menu→Internet Option→Connections, select “Never dial a connection”, and go to the “LAN settings”, on the screen that appears, cancel all choices, and click Ok to finish it.
- Confirm the IP address 192.168.1.1 has not been assigned to other PC 。
- Change the IP address of the computer to 192.168.1.2～254,subnet mask to 255.255.255.0,gateway to 192.168.1.1 or set up as automatically obtain IP address.

If the User Name and Password are correct, Router Management screen will appear, show in figure 4-9:

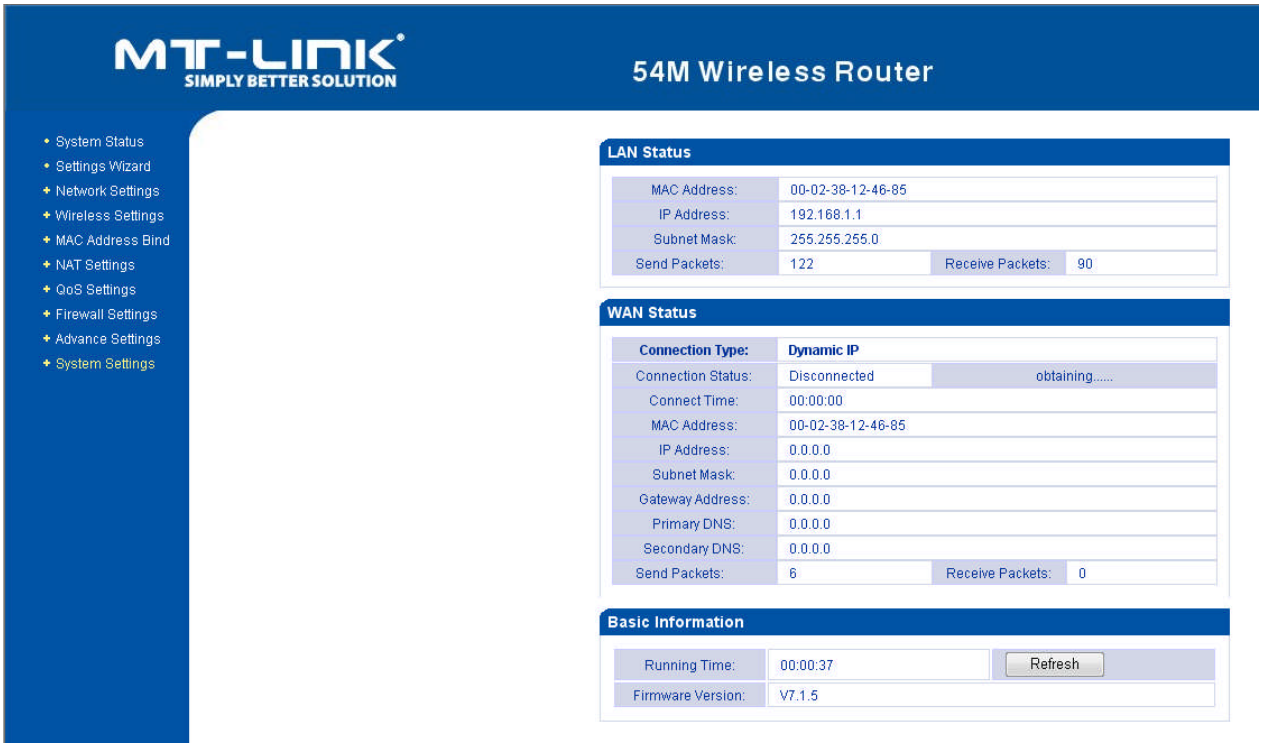
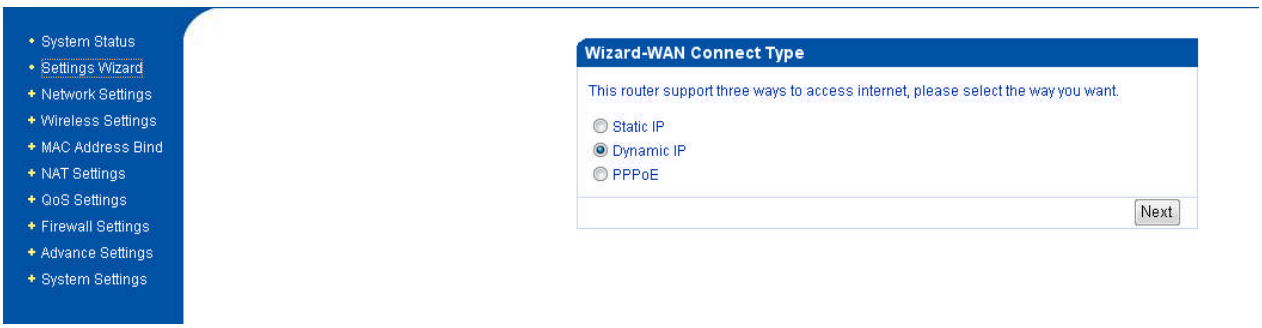


Figure 4- 9

The router supports three popular ways to connect to Internet. You can select one compatible with your ISP.



1) If you choose the “Dynamic IP”, the router will automatically receive the IP parameters from your ISP without needing to enter any parameter, show in figure 4-10.

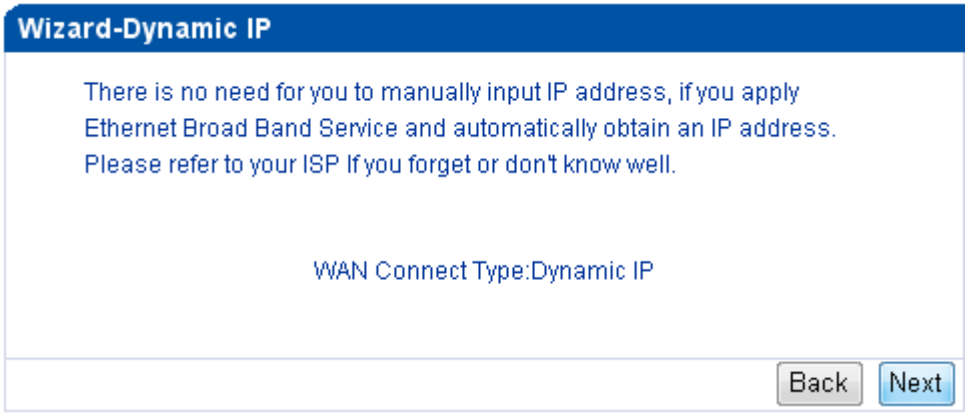


Figure 4- 10

2) If you choose the PPPOE, figure 4-11 will appear, please enter the user name and the password provided by your ISP.

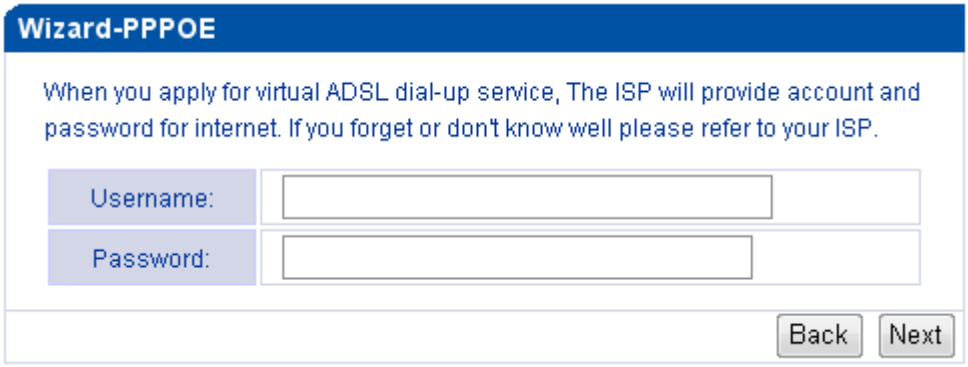


Figure 4- 11

2) If you choose the Static IP, the Static IP settings page will appear, show in figure 4-12,enter the Static IP address, Subnet Mask ,Default Gateway and DNS.

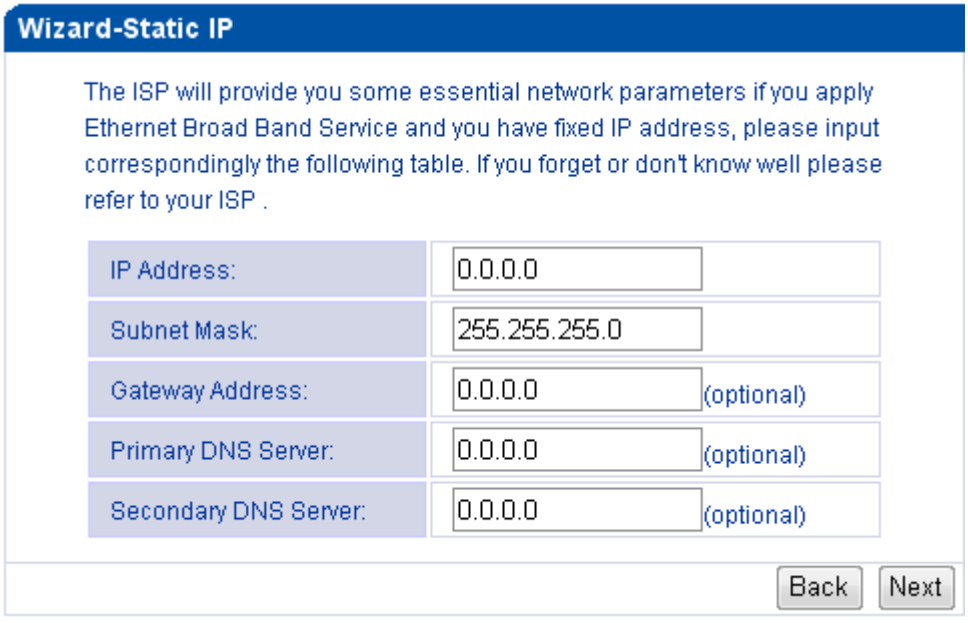


Figure 4- 12

Chapter 5 Configuring Guide

In this chapter we will introduce some detail router settings, such as wireless advanced configuration, wireless access control, network security configuration, system maintenance, upgrades etc.

5.1 System Status

Click on the “System Status” in the menu bar, you can see the current system status and configuration。All information is read-only (show in the figure 5-1)

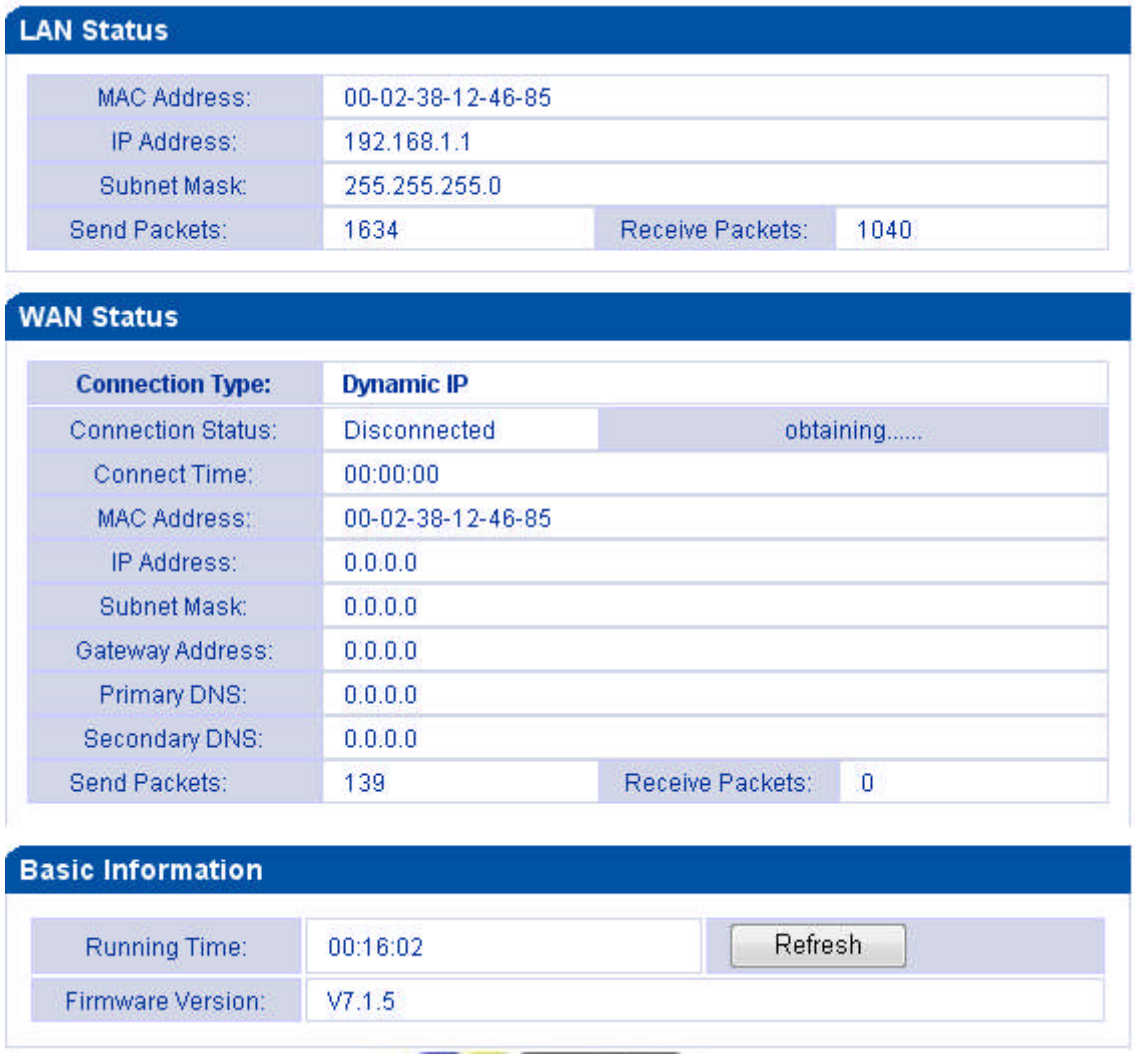


Figure 5-1

System Status including three submenus: LAN Status, WAN Status, and Basic Information.

1. LAN Status

   This field displays the current settings or information for the LAN, including the MAC address, IP address and the Subnet Mask, Send Packets quantity through the LAN port.

2. WAN Status

   This column show the parameters apply to the WAN port of the router, including WAN

connection type, WAN connection time, MAC address, IP address, Subnet Mask, Default Gateway ,DNS server and the data packets quantity through the WAN port.

3. Basic Information

   This field displays the total up time of the router from when it was switched on or reset and the software version.

5.2 Network Settings

There are several submenus under the Network Menu. You can configure the corresponding function by clicking any of them. The detailed introductions for each submenu are provided below.

5.2.1 WAN

WAN port parameters vary with the type of the WAN port , you should choose the WAN Connection Type for Internet at first.

1. When WAN port is PPPOE, you can see the page as follows (Figure 5-2)

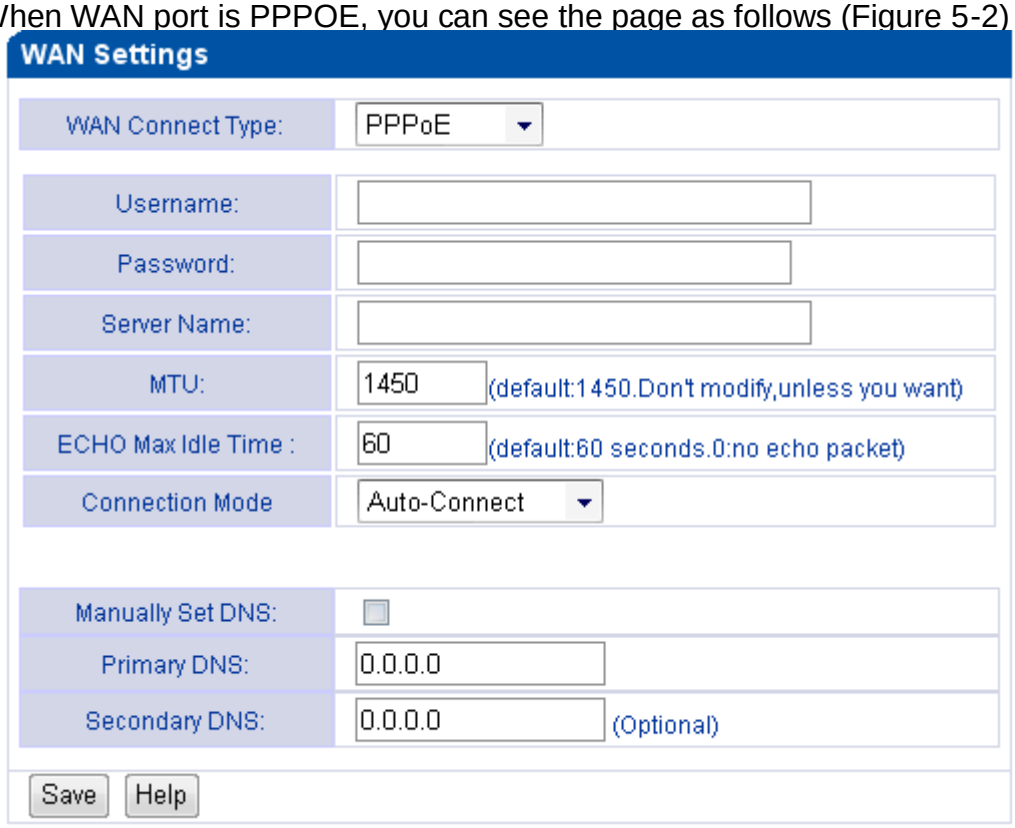


Figure 5-2

User Name/Password: Enter the User Name and Password provided by your ISP.

Server Name: This should not be configured unless you are sure it is necessary for your ISP.

Data Packets MTU: maximum transmission unit size, do not change if necessary.

Link Model: There are three model" Connect on Demand" and "Connect Automatically". Connect Manually". If you select the "Connect

Automatically", the router will not dial unless the Internet received a request, and the router will disconnect the PPPOE connection if the no data transmission time exceed the set time. If you select the" Connect Automatically", the router will dial-up automatically when the router is connected. And if you select" Connect Manually", you need login the management page to dial-up or disconnection.

2. If you choose Dynamic IP, the Router will automatically get IP parameters from your ISP. You can see the page as following (figure 5-3)

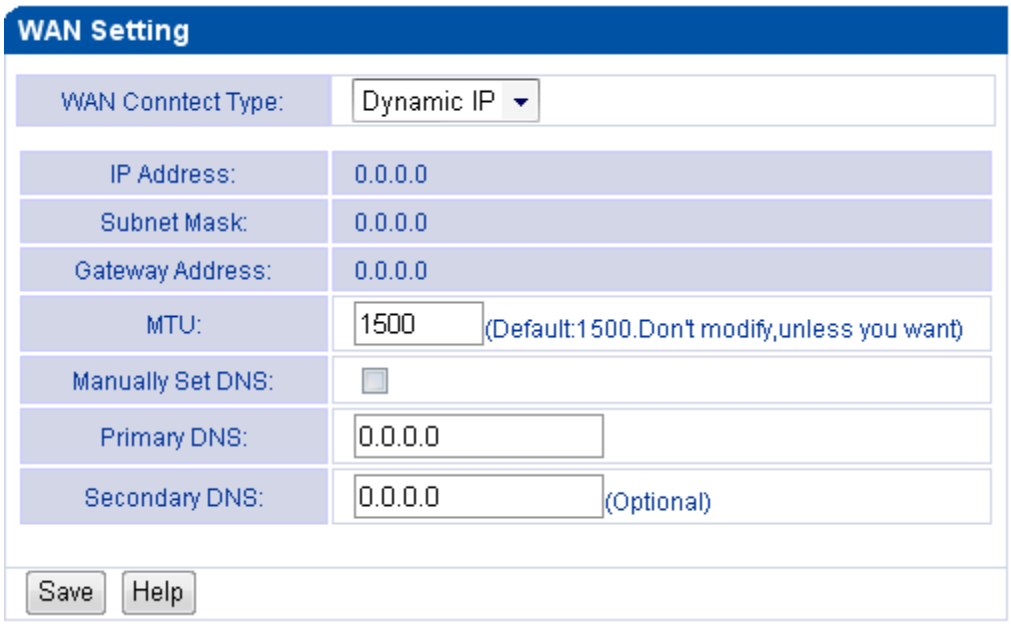


Figure 5-3

WAN Connect Type: This router support three ways to access internet, please select the way you want. If you want to apply dynamic IP mode, then automatically obtain an IP address from ISP, Please select Dynamic IP from pull-down list. If you want to apply Static IP mode, then ISP assign you a Fixed IP Address , Please select Static IP from pull-down list. If you want to apply virtual ADSL dial-up mode, then ISP provide account and password for internet, Please select ADSL dial-up from pull-down list.

MTU: The range is in 576 ~ 1500,Default: 1500.

Manually Set DNS: Select the item, then DNS of WAN will not obtain DHCP but Manually setting.

Primary DNS: It is optional. Enter DNS Server that ISP provided. If you don't know well please refer to your ISP.

Secondary DNS: It is optional. Enter additional DNS Server if ISP provided two DNS Servers.

3. If you choose Static IP, you should have fixed IP Parameters specified by your

ISP/The Static IP settings page will appear, show in figure 5-4.

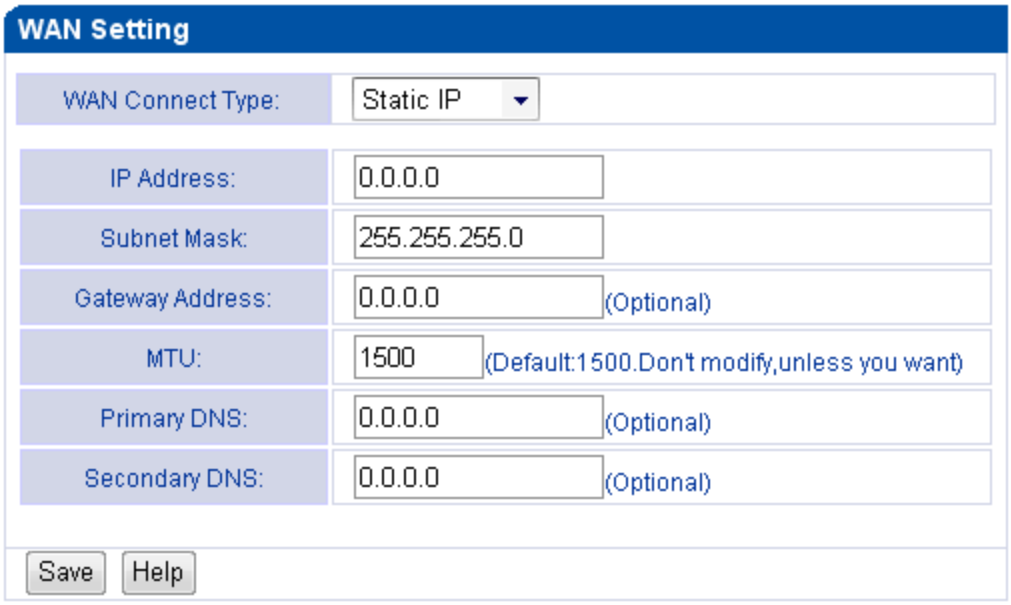


Figure 5-4

IP Address: Enter the IP address in dotted-decimal notation provided by your ISP.

Sub Mask: Enter the subnet Mask in dotted-decimal notation provided by your ISP, usually is 255.255.255.0.

Default Gateway: (Optional)Enter the gateway IP address in dotted-decimal notation provided by your ISP.

MTU Size: The normal MTU(Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. For some ISPs you need to reduce the MTU. But this is rarely required, and should not be done unless you are sure it is necessary for your ISP connection.

Primary DNS: (Optional)Enter the DNS address in dotted-decimal notation provided by your ISP.

Secondary DNS: (Optional) another DNS address in dotted-decimal notation provided by your ISP if provided.

5.2.2 LAN

Configure the LAN port, show in figure 5-5.

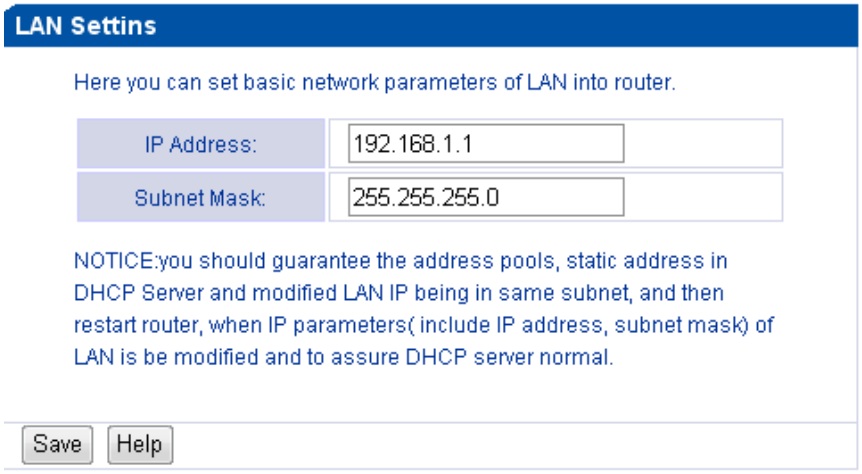


Figure 5-5

IP Address：Enter the IP address of your router in dotted-decimal notation (factory default is 192.168.1.1)

Subnet Mask：An address code what determine the size of the network. Normally use 255.255.255.0 as the subnet mask.

5.2.3 DHCP SERVER

DHCP can manage the LAN IP address resources effectively, as shown in figure 5-6

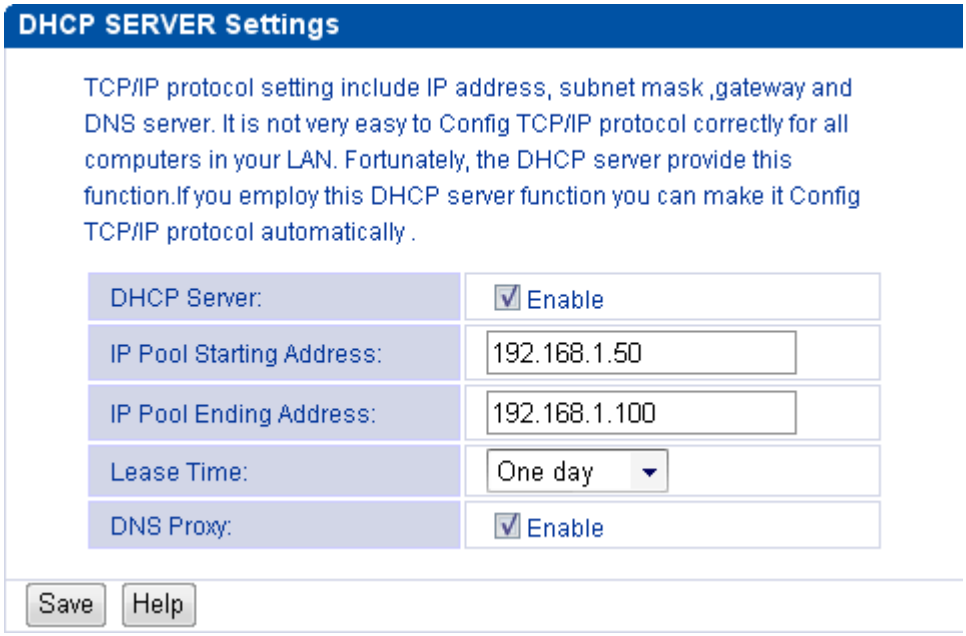


Figure 5-6

DHCP Server： Enable or Disable the DHCP server. If you disable the Server, you must have another DHCP server within your network or else you must manually configure the computer.

Start IP Address：This field specifies the first of the address in the IP address pool。

End IP Address： This field specifies the last of the addresses in the IP address pool。

Lease Time： Host access router to re-address the time interval。

DHCP Proxy： Whether the router Acting DNS requests, and if so, LAN host DNS routers can be set to the LAN address 。

5.2.4 Static Address Assign

Static Address Assign could make you effectively manage the IP address, through this feature, IP address can be reserved for certain MAC address. After open this feature, the router will be allocate the reserved IP address to the appointed MAC if the Host request for DHCP. Show in figure 5-7.

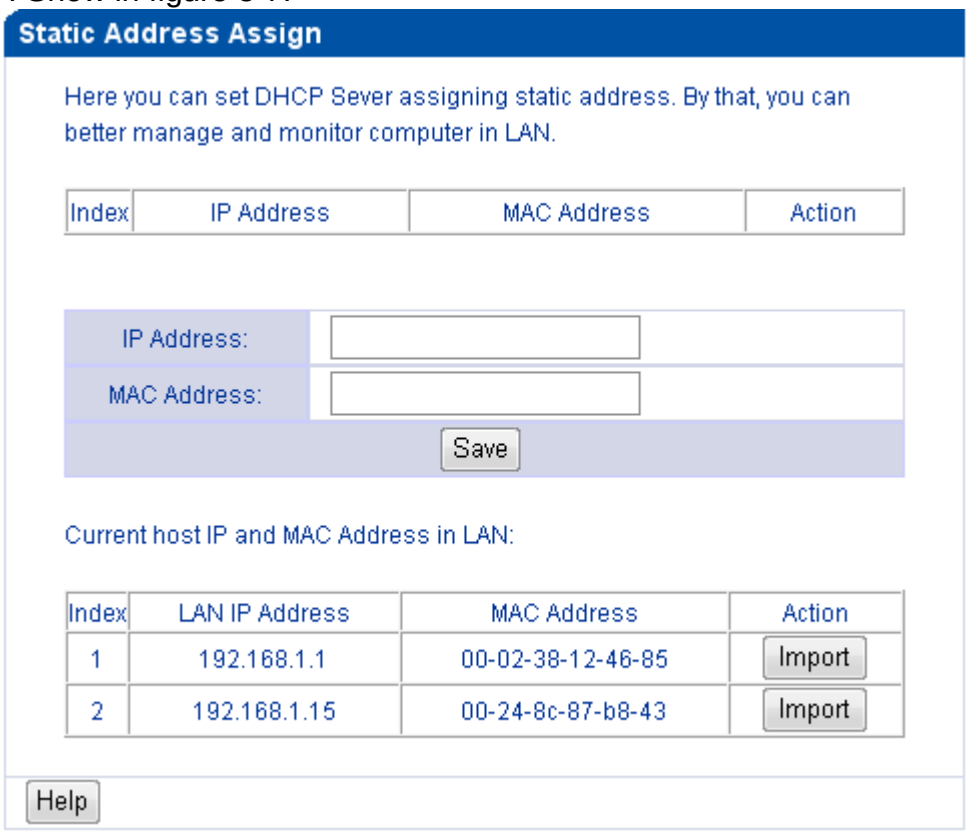


Figure 5-7

The page has shown the existing reservation. Please click the “delete” to delete an option.

IP address: Input the final one of the IP address you want to reserve.

MAC address: Input the MAC address of the Host which you have reserved its IP address.

Click the “save” to preserve the input item.

5.2.5 DHCP Clients List

This page list the clients has been assigned to facilitate the LAN administrator master IP address resources. Show in figure 5-8.

Figure 5-8

Index: The index of the DHCP Client

Client Name: The name of the DHCP client.

Assigned IP: The IP address that the router has allocated to the DHCP client。

MAC address: The MAC address of the DHCP client。

Remain Lease: It record the time from now to expire time. The Host must re-access request IP address after expire. If the lease time is Forever, it shows that is a reserve IP but not allocated.

Static: show if it is static IP.

Click on the Refresh to update the page.

5.2.6 MAC Address Clone

Some ISP will ask you to connect by MAC address, you can enter the MAC address numbers, Please enter the correct MAC address into the field. The format for the MAC Address is xx-xx-xx-xx-xx-xx(x is any hexadecimal digit), show in figure 5-9.

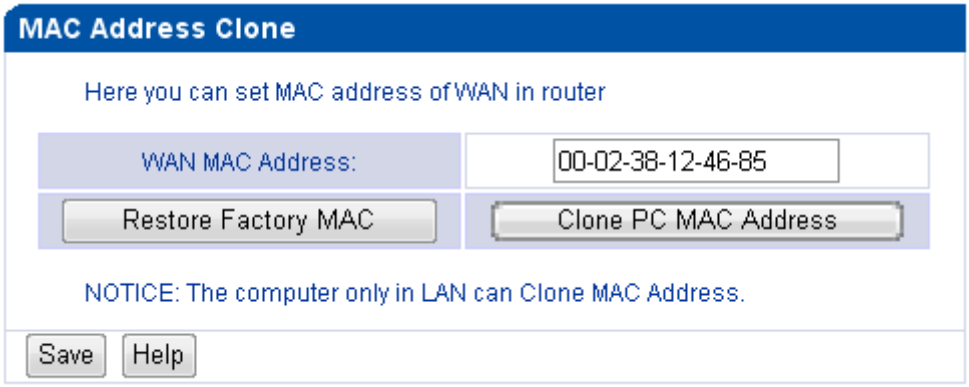


Figure 5-9

Restore Factory MAC: Restore the MAC address of WAN port to the factory default value. Click the Save button to save your

settings.

Clone PC MAC Address: Click on the button, will show the MAC address of the PC which has connected to the router, then click the Save button To save your settings.

5.3 Wireless Settings

There are six submenus under the Wireless settings menu:Connect Status ,Basic settings, Secure Settings, Advanced Settings, MAC Filtering.

5.3.1 Connect Status

Show the current wireless network user. You can see the data traffic status of current wireless network users.

5.3.2 Basic Settings

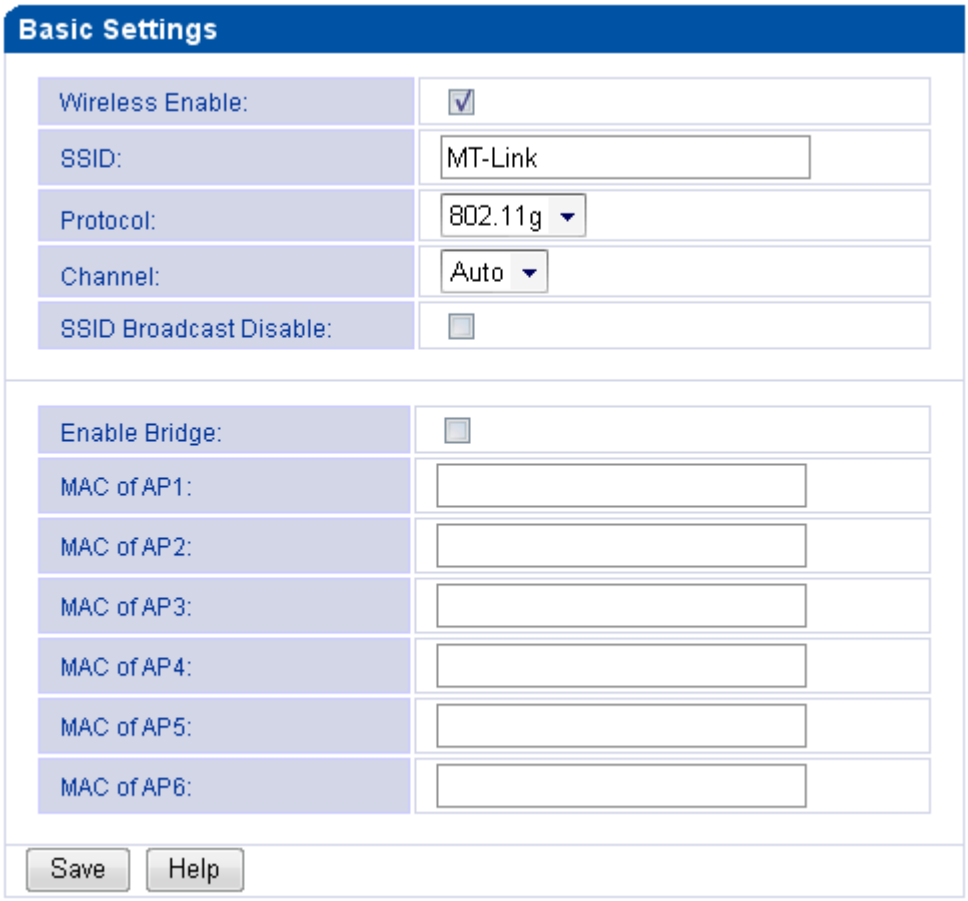


Figure 5-10

The basic settings for the wireless network are set on this page, Figure 5-10.

Wireless Enable: If do not select this option, the wireless module of the router will be closed and does not provide any Wireless connection.

SSID: It is a logo in the wireless network equipment.

Protocol: IEEE802.11b protocol,IEEE802.11g protocol

Channel: This field determines which operating frequency will be used. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.

SSID Broadcast Disable: If you select the Enable SSID Broadcast checkbox, the Wireless Router SSID will broadcast its name (SSID) on the air.

Enable Bridge: Bundling multiple routers. This function can make several local area networks on different network segments to form a new local area network. For example, there are two different local area networks, respectively, using wireless routers A / B. Please enable bridge of the two routers and interactively fill and save their wireless router MAC addresses .By this way, the two different local area network can visit each other now.

5.3.3 Security Settings

This page is used to configure the security of the wireless network to prevent unauthorized users of wireless network access.(show in figure 5-11).

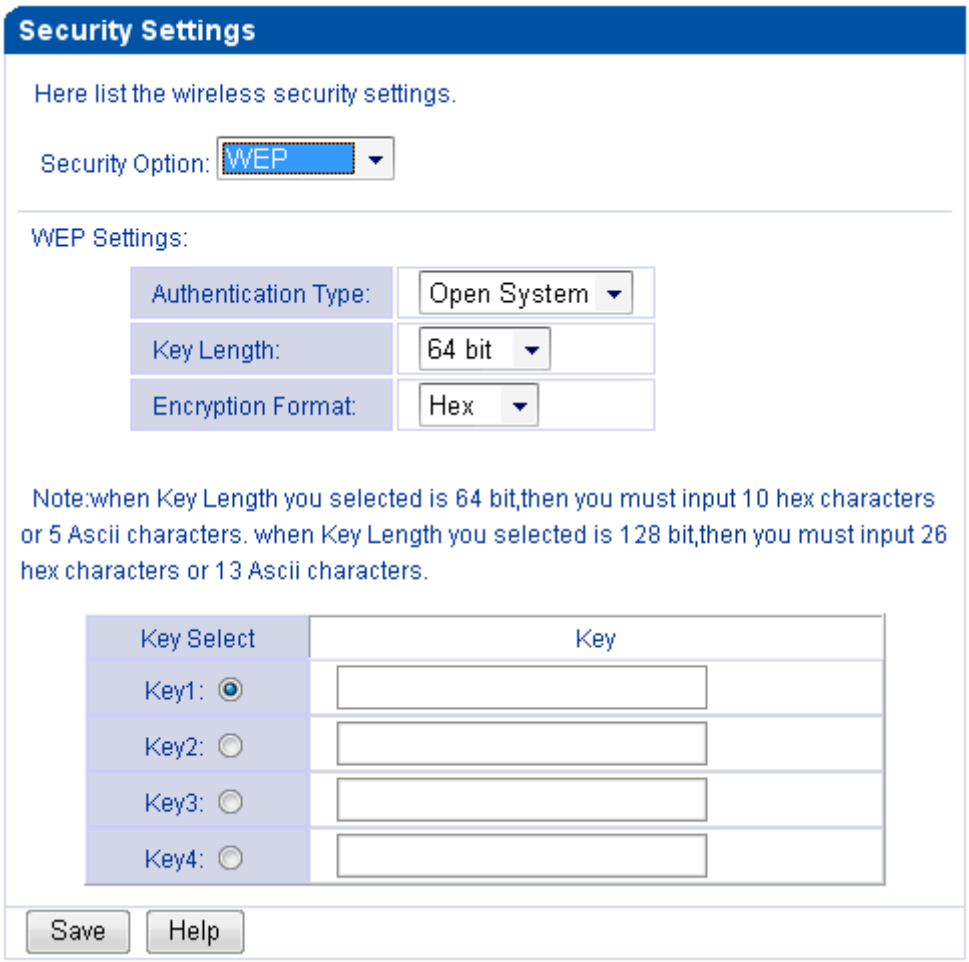


Figure 5-11

Security Option contains WEP and WPA.

WEP(Wired Equivalent Privacy):Select WEP authentication type based on 802.11 authentications.

WPA（Wi-Fi Protected Access）:It is based on the principle of WEP and improve many shortcomings of WEP encryption algorithm A,WPA standard include such security features as below: WPA authentication , WPA encryption key management, temporary key integrity protocol(TKIP),AES support and so on. mainly for the company's infrastructure wireless network.

Here you can set up the WPA authentication type as PSK, the need for PSK key 8-64 at the hexadecimal (0-9 a-f).

5.3.4 Advanced Settings

This page show how to set up the advanced settings.(show in figure 5-12)。

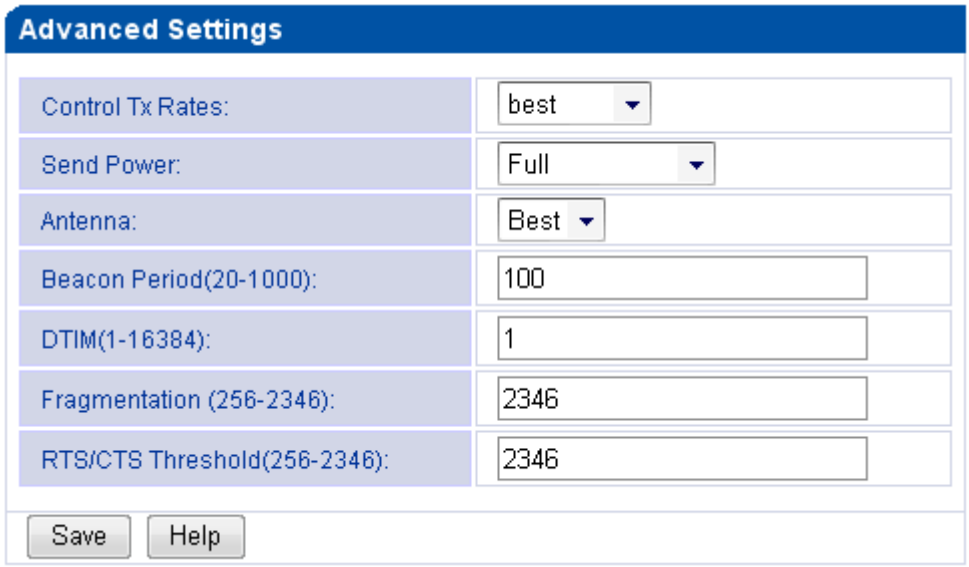


Figure 5-12

Control Tx Rates: It shows the wireless transmission speed, the max transmission speed of this router is 54MB, Default speed is AUTO, namely auto-negotiation. The system will determine the transmission speed according to the data transmit demand.

Send Power: You can control the wireless cover scope by set up the wireless sent power.

Antenna: select antenna 1 or antenna 2 or select best to automatically configure it.

Beacon Period: It shows the time interval when sent the synchronization signals to the wireless network.

RTS/CTS Threshold(256-2346): the RTS will be sent when the data packet increased to the critical number.

Fragmentation(256-2346): the data packet transmission at one time - and one of the largest size (in bytes units). Available scope is from 256 to 2,346. The default is 2346.

5.3.5 MAC Filtering

This page shows how to control the wireless access, it can be set to allow access the MAC address list or deny access the MAC address list. When you saw any non-authorized Host is accessing your network, you can add his MAC address into the deny access list, so that the Host can not visit your network any more. (show in figure 5-13)

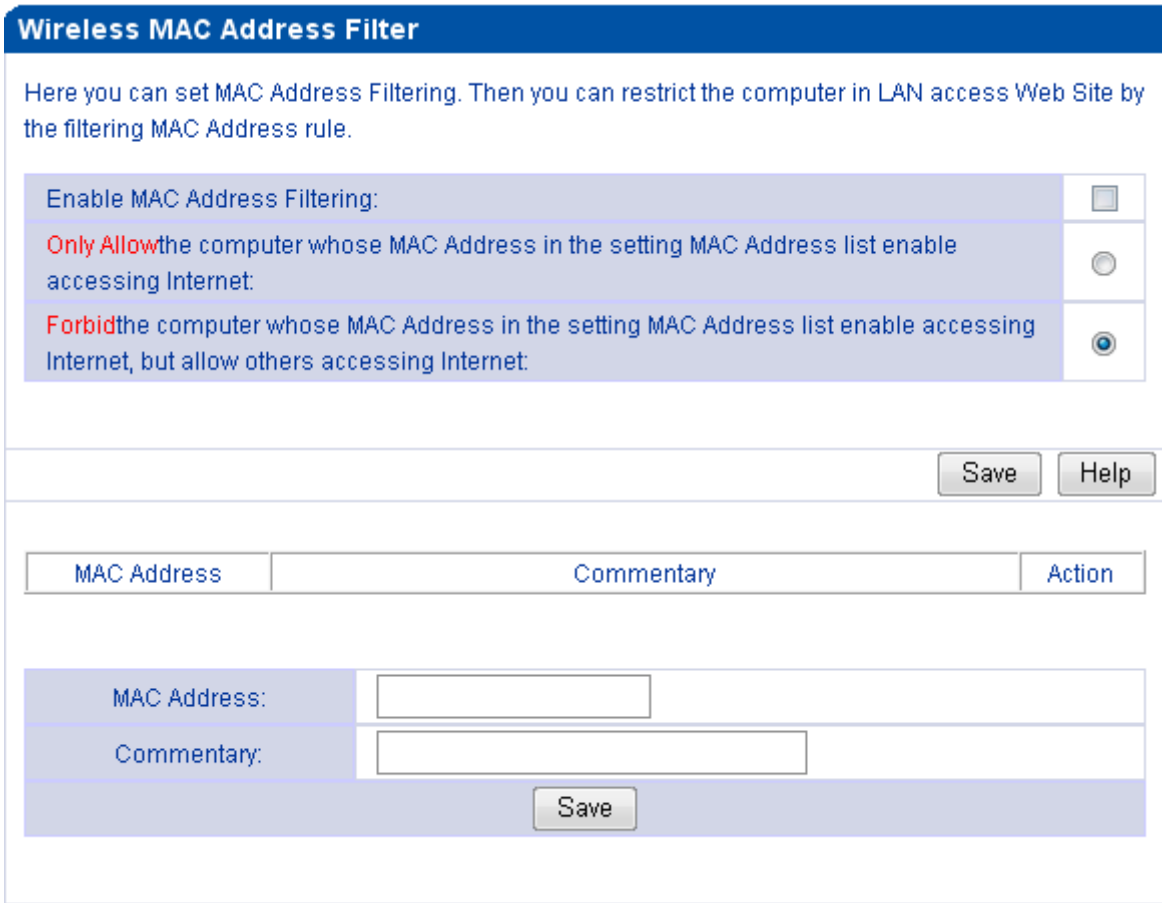


Figure 5-13

5.4 MAC Address Bind

5.4.1 ARP Bind

Here you can set this funciton statically bind ARP table, then it will defend ARP befooling and attacking. So far, the software with ARP befooling(eg: QQ, P2P Terminator, Judgment Day ,and so on.) some will destroy networks by manually manipulation, and other appear as form of virus or Trojan horse, then users at all may not know it exist. so it more enlarge ability of ARP attacking. ARP Spoofing has two forms, one is spoofing Routing table and the other is spooling computer. So we can defend the two spoolings. First, we can set router in case the routing table is viciously sophisticated by ARP packets, Second, In order to protecting computer ARP table from vicious tamper, we also set our computer, both settings is necessary, Otherwise, if you only set routing table defending spoofing, when the computer is spoofed and it don't send packets to router, but to mistake place, certainly we don't access router and Internet

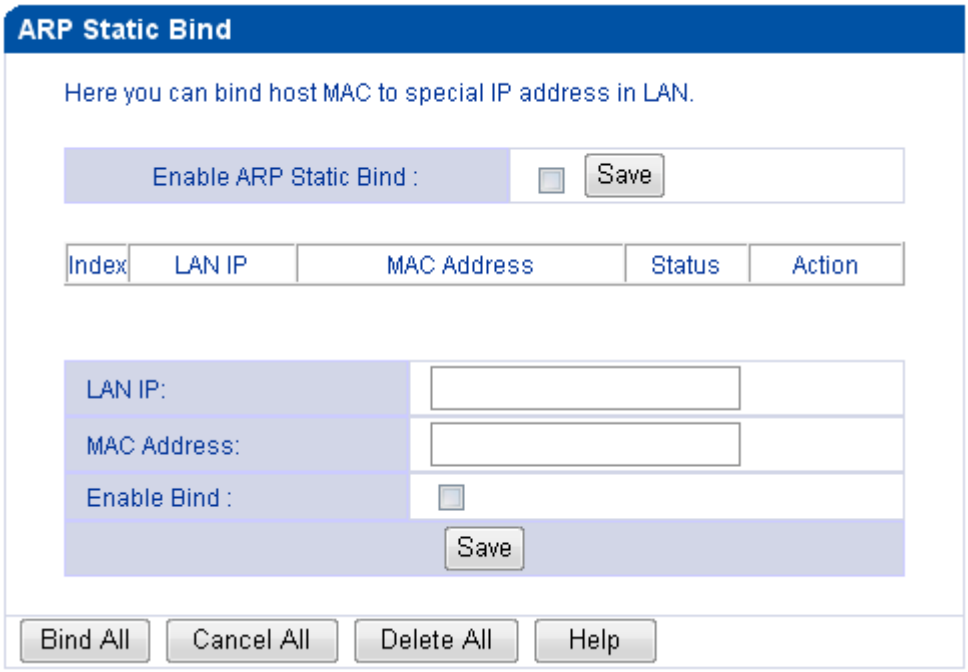


Figure 5-14

Enable ARP Bind: Sign this option, then you can Enable or Disable ARP Bind function in router.

LAN IP Address: It is host IP Address of controlled computer's MAC in LAN.

MAC Address: It is MAC Address of controlled computer in LAN.

Status: Current Status is Bind or Unbind in ARP table.(NOTICE: The ARP can bind in deed only if you enable ARP Bind.)

Modify: Click "modify" or "delete" of it, you can modify or delete this item.(Notice: deletion will remove item from ARP table.)

Bind All : Click this botton, you will bind all items into ARP table.

Cancel All: Click this botton, you will cancel binding all items into ARP table.

Delete ALL: Remove all item from Arp table.

If you add or modify item, Please enter parameters, then click "Save" button. If you want

delete it, Please Click "delete" of item.

After enabling ARP Bind function, you had better not employ dynamic IP, Because IP address that computer obtain and item MAC binded are not identical, it will lead to not access internet. So you should close DHCP SERVER function in router.

5.4.2 ARP Bind

You can look over ARP Mapping Table, bind ARP table, and save corresponding ARP information into router at this page.

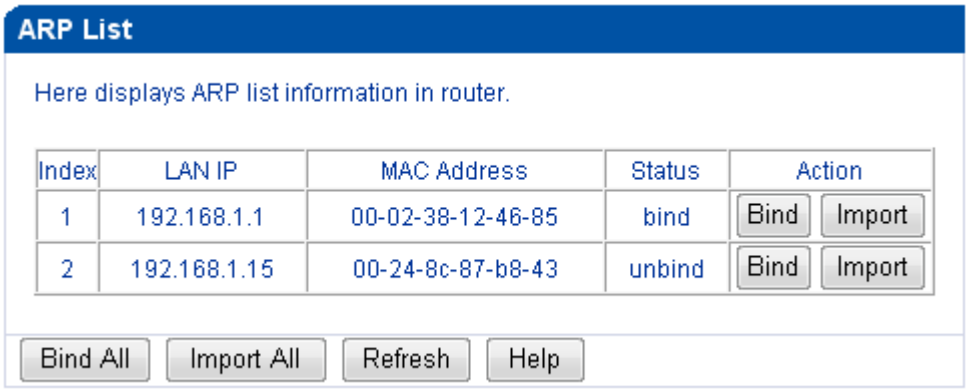


Figure 5-15

LAN IP Address: The IP Address of controlled MAC address host.

MAC Address: The Controlled computer MAC Address in LAN.

Status: Display current Status is Binded or not.

Action: Bind:It will bind special item to ARP. Import:it will import special item in ARP table to binded ARP item.

Bind All: Click this botton, then you will bind all items into ARP table. NOTICE:Binding can become effective only if you enable ARP Bind.

Import All: Click this botton, then you will import current All items in APR Mapping table to ARP Bind item.

NOTICE:When you import, you will not add or append it, if imported item and existent item in ARP Bind are identical.

when you import all, you will not add or append conflictive item, and it is ignored, but other items will import ARP Bind.

5.5 NAT Settings

It will show how to set up the NAT Settings

.

5.5.1 Virtual Server

Virtual Server define a service port, all service request to the port will be reorientation to network sever of LAN appointed by IP address. (show in figure 5-16)

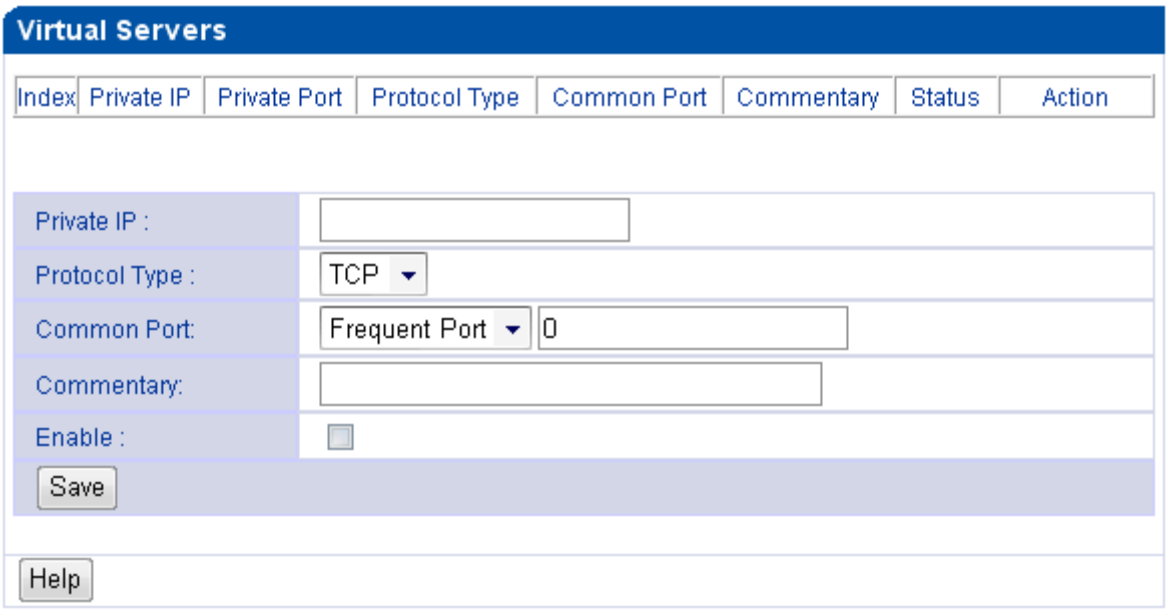


Figure 5-16

Private IP: The IP address of the computer on LAN as a server.
Private port: The port number of the computer which is as a LAN server
Protocol Type: The server's protocol
Common Port: WAN service port, namely the service port the router provide the service to WAN
Commentary: Can add the entry information
Status: Show whether the item is open
Action: Only after this entry selected by the set of rules to come into force.

For example:

If a LAN computer 192.168.18.100 opened HTTP service, used 80 as the default port .you Can set up it like this :entry the "192.168.18.100" as the private IP,"80" as the Private port, "http" as the commentary, and select the "enable", then the HTTP service in the private network can be visited by Common network.

5.5.2 Port Mapping

The Host ports on LAN can be mapped to the router. Show in figure 5-17

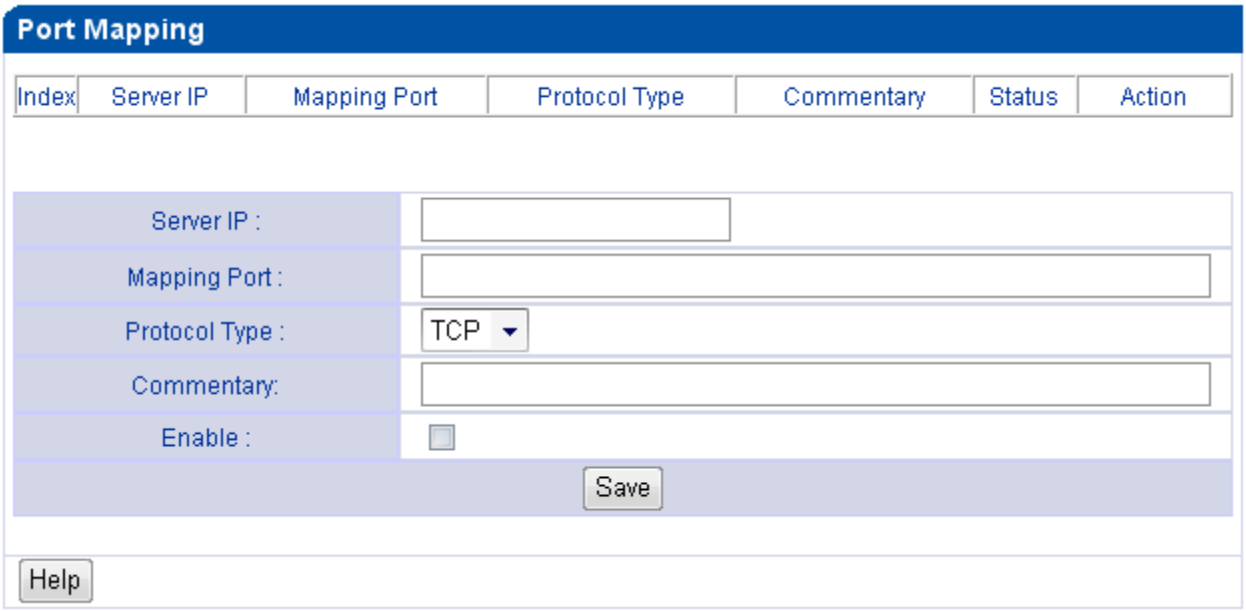


Figure 5-17

Server IP: The IP address of the LAN server.

Mapping Port: The LAN server's opening port NO. .You can enter a port NO.

Protocol Type: The protocol the server used.

Commentary: You can add the commentary of certain item.

Status: This column shows whether the item has been opened.

Action: Click on Modify or Delete, you can modify or delete the item.

Enter the added item or modify item, then click Save to finish the configuration.

Operation Example:

If you need map the 6000 port of the LAN computer 192.168.1.100 as a same port in WAN, you can set up this: enter "192.168.1.100" as server IP, "6000" as mapping port, "TCP" as protocol type. Select "enable". After finish this ,the WAN computer can access LAN computer 192.168.1.100 6000 port through access the router's 6000 port.

Note:

Different with the Virtual Server, the mapping port must is same as the LAN port.

5.5.3 Special Application

The function of the Special Application is when private host require connecting to public Trigger Port corresponding Port will be opened, and the private host allows the port and public host Trigger Port establish connection request. But when private host require releasing connecting to public Trigger Port corresponding open Port will be closed, and each rules can be employed by only a host simultaneously, and the request that other

host connected will reject. All open port simultaneously are not identic. Show in figure 5-18.

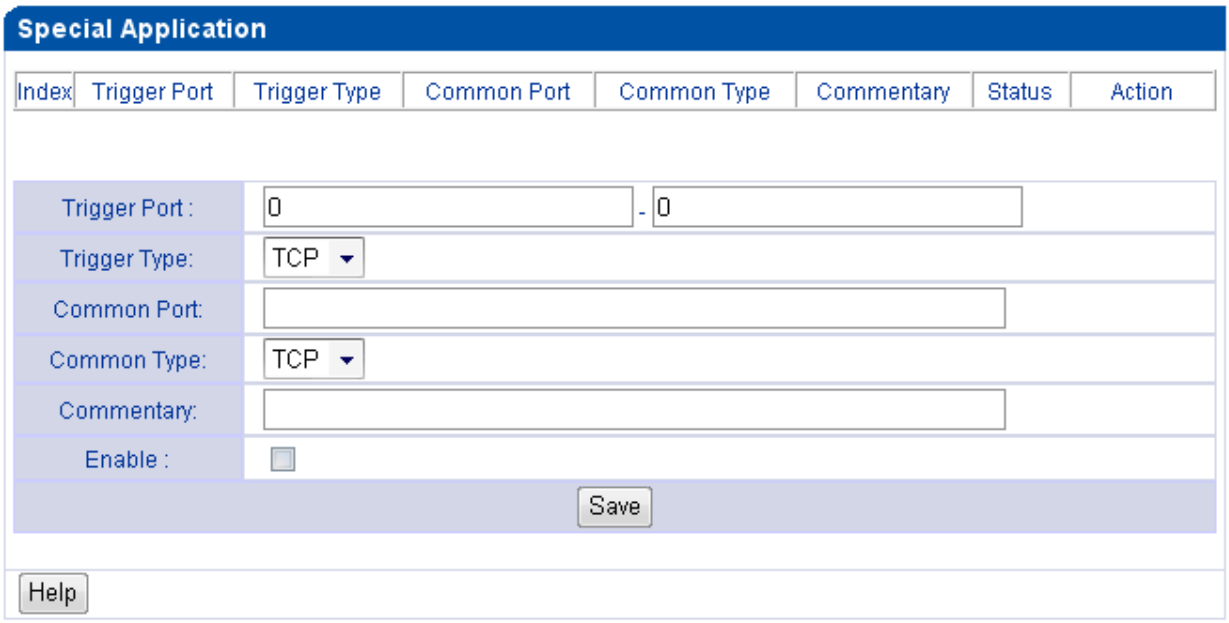


Figure 5-18

Trigger Port: Port that trigger application program.

Trigger Type: Protocol Type that trigger application program.

Common Port: When Trigger Port is scouted, the data packets passing through the port And gaining entrance to private network will penetrate through firewall, in order to corresponding special application can normally run under NAT router control. You can input group amount of port(or segment port) is not more than 5.and each group is separted by ","(eg:1000-2000,2500,2500-2600,3000-4000).

Common Type: The Protocol type that Common Port has employed.

Commentary: The information that interpret item.

Enable: The rule can become effective only if you enable it.

Status: Display whether the item is enable or not.

Action: You can modify or delete the item by clicking "modify" or "delete" button.

If you add or modify item, Please enter parameters, then click "Save" button.

Operation Example:

Set up 8000 as the trigger port , TCP trigger as type, 8000 as common port, TCP as common type. The private Host will trigger a link request to public network, and the WAN 8000 port will be opened and through the firewall when the trigger port is 8000.

5.5.4 ALG Settings

ALG(Application Layer Gateway).Some application need penetrate through router by Application Layer Gateway, show in figure 5-19.

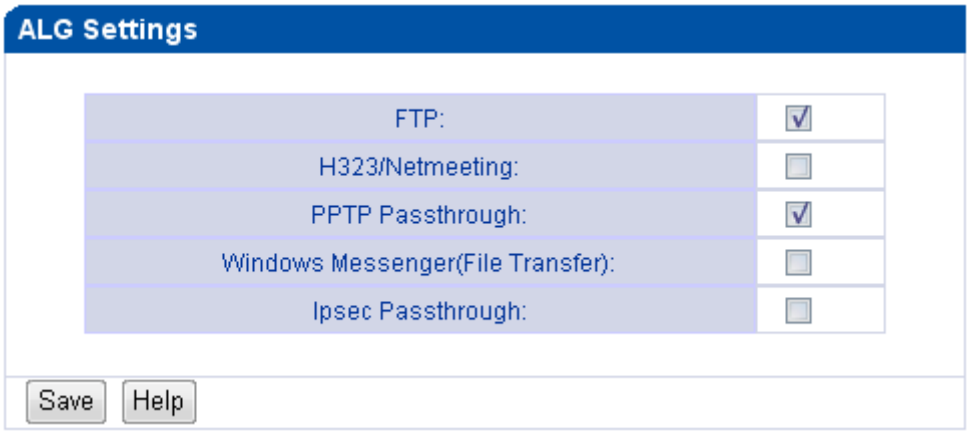


Figure 5-19

Select the ALG function you need, then click “Save” to finish the configuration.

5.6 QoS Settings

5.6.1 Base settings

Set QoS function in router, and then it will restrict and guarantee host in LAN accessing Internet bandwidth pass through router.

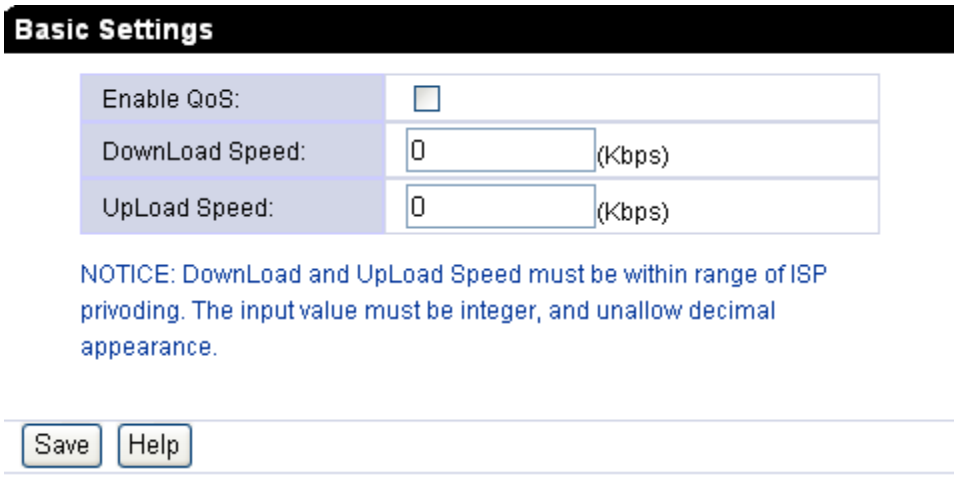


Figure 5-21

Enable QoS: Sign the item, then you can enable or disable QoS function in router.

DownLoad Speed: Here DownLoad Speed connected WAN is defined.

UpLoad Speed: Here UpLoad Speed connected WAN is defined.

5.6.2 IP QoS settings

You can set QoS function in router at this page. Set IP QoS function in router, and then DownLoad and UpLoad Speed of the setting IP Address PC is restricted within special Max speed.

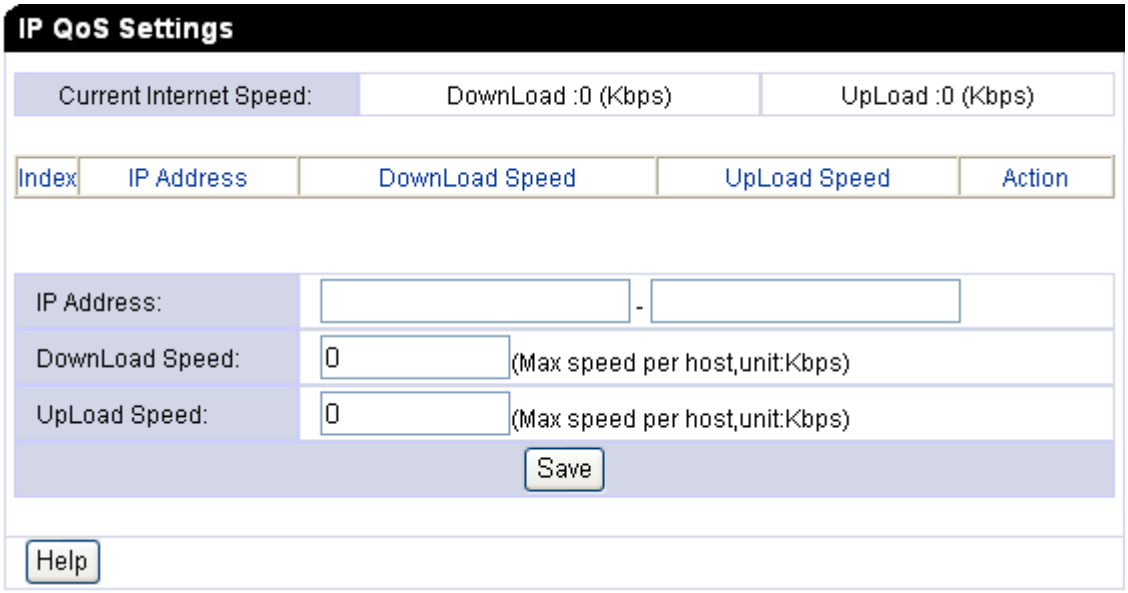


Figure 5-22

IP Address: Here enter QoS IP address segment you want to set.
DownLoad Speed: Here enter allowable Max DownLoad Speed.
UpLoad Speed: Here enter allowable Max UpLoad Speed.
NOTICE:The input DownLoad or UpLoad Speed exceed current most them that Internet allow.

5.6.3 Flus statistics

Here displays total flux statistics and current flux statistics of the router.

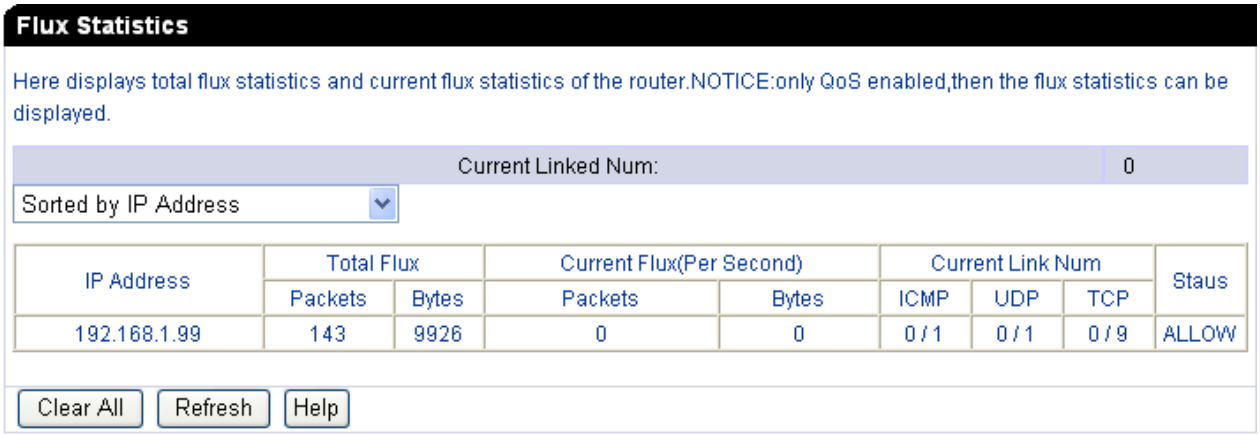


Figure 5-23

IP Address: display statistic host IP address.
Total Flux: Packets The total amount of packets received and transmitted by the router.
Bytes The total amount of bytes received and transmitted by the router.

Current Flux: Packets The total amount of packets received and transmitted in one second.

Bytes The total amount of bytes received and transmitted in one second.

ICMP: The total amount of the ICMP packets transmitted to WAN in one second.

UDP: The total amount of the UDP packets transmitted to WAN in one second.

TCP: The total amount of the TCP SYN packets transmitted to WAN in one second.

Status: display host status in local network:online/forbidden.

Clear All: Clear all statistics information.

5.7 Firewall Settings

Using the Firewall Settings, you can turn the firewall switch on or off.

5.7.1 Firewall Options

You can see the firewall setting page in figure 5-24.

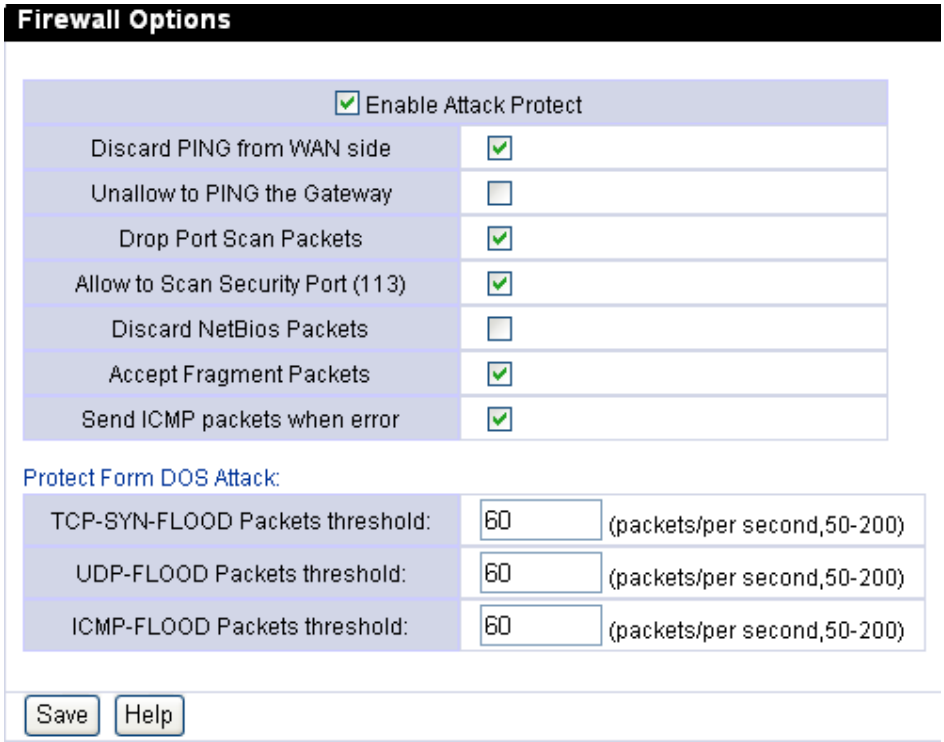


Figure 5-24

Select the firewall options you need and click “Save” to finish the settings.

5.7.2 IP Filtering

In order to facilitate your further management to the LAN computers, you can control the access from LAN computers to Websites by data packet filtering function. Show in figure 5-25.

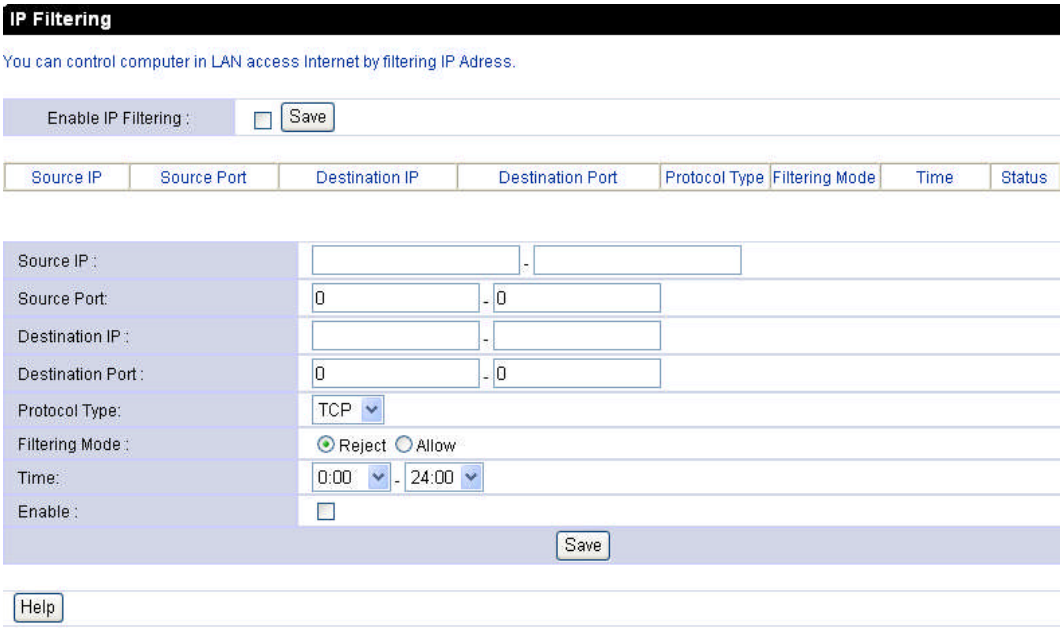


Figure 5-25

Enable IP Filtering: The setting rules can become effective only if you sign the item, otherwise not.

Source IP Address: It is Controlled host in LAN holds IP address.

Source Port: It is controlled host in LAN holds port if it empty, all server ports will be controlled. And you also can input a segment port(eg:1000-2000).

Destination IP Address: It is Controlled web Server in WAN holds IP address. If it empty, all servers in WAN will be controlled. And you also can input a segment IP Address(eg:210.83.249.220-210.82.249.230).

Destination Port: It is controlled web Server in WAN holds port. If it empty, all server ports will be controlled. And you also can input a segment port(eg:1000-2000).

Protocol Type: The protocol that controlled packets employed.

Filtering Mode: When you select “Allow” option, the packets fit the rule will pass through router, otherwise do not pass.

Time: The rule will become effective between starting and Ending time.

Enable: The rule can become effective only if you enable it.

Status: Display whether the item is enabled or not.

Action: You can modify or delete the item by clicking “modify” or “delete” button.

If you add or modify the item, please enter parameters, then click “Save”.

Operation Example:

Assumed the LAN host 192.168.18.100 is opening the HTTP service which port is 80, Now we do not want the Host of “210.56.78.9-210.56.78.100” which in WAN could login. We can set up as following: enter “192.168.18.100” as source IP address, “80” as source port, keep destination port empty, select TCP as the protocol type, the filtering mode is reject. Enter the time “0:00-24:00” and select the enable, then click “Save” to end the configuration.

5.7.3 Domain Filtering

For the sake of your advance managing computers in LAN access web, you can control computer in LAN access web you want in Internet by setting domain filtering. Show in figure 5-26.

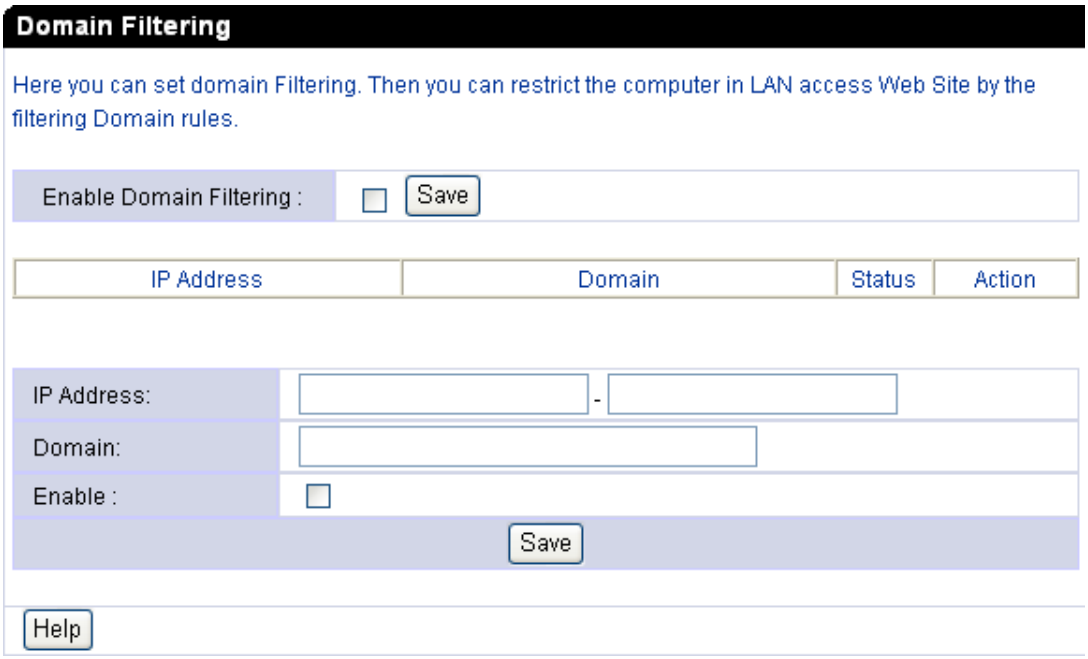


Figure 5-26

Enable Domain Filtering: The setting rules can become effective only if you sign the item, otherwise not.

IP Address: It is controlled host in LAN holds IP Address.

Domain: It is entire or part of filtered domain. If you input a certain string here(not sensitive).the computers in LAN can not access web in Internet whose domain contains the string.

Enable: The rule can become effective only if you enable it.

Status: Display whether the item is enabled or not.

Action: You can modify or delete the item by clicking “modify” or “delete” button. If you add or modify the item.,please enter parameters, then click “Save” button.

And if you want to delete the item, click “delete”.

Operation Example:

If you want prohibit your LAN computers from “192.168.1.20” to “192.168.1.80” to access http://www.163.com/, you can set as following: enter “192.168.1.20-80” in IP address column. “163.com” in domain column, select “enable” ,then the configuration will go into effect.

5.7.4 Content Filtering

To facilitate you controlling the access website contents , you can filter the contents you want to filter by content filtering function. Show in figure 5-27.

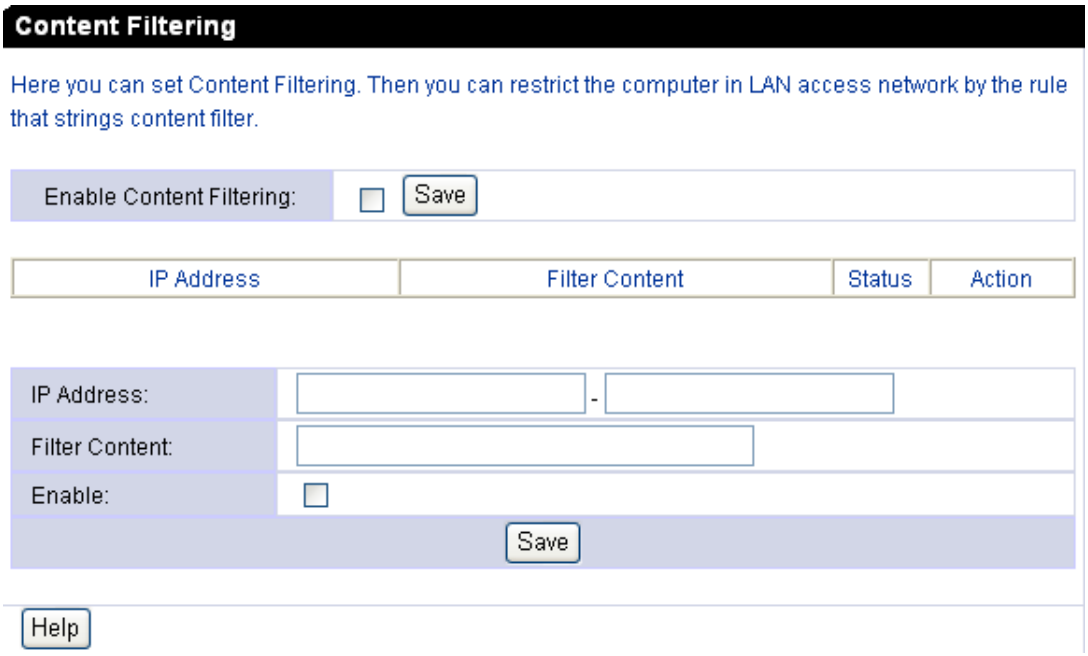


Figure 5-27

Enable Content Filtering: The setting rules can become effective only if you sign the item, otherwise not.

IP Address: It is controlled host in LAN holds IP Address.

Filtering Content: The string will be filtered.

Enable: The rule can become effective only if you enable it.

Status: Display whether the item is enabled or not.

Action: You can modify or delete the item by clicking “modify” or “delete” .

If you add or modify the item, please enter parameters, then click “Save” button.

5.7.5 MAC Filtering

The MAC Filtering page allows you to control access to the Internet by users on your local network based on their MAC Address. Show in figure 5-28.

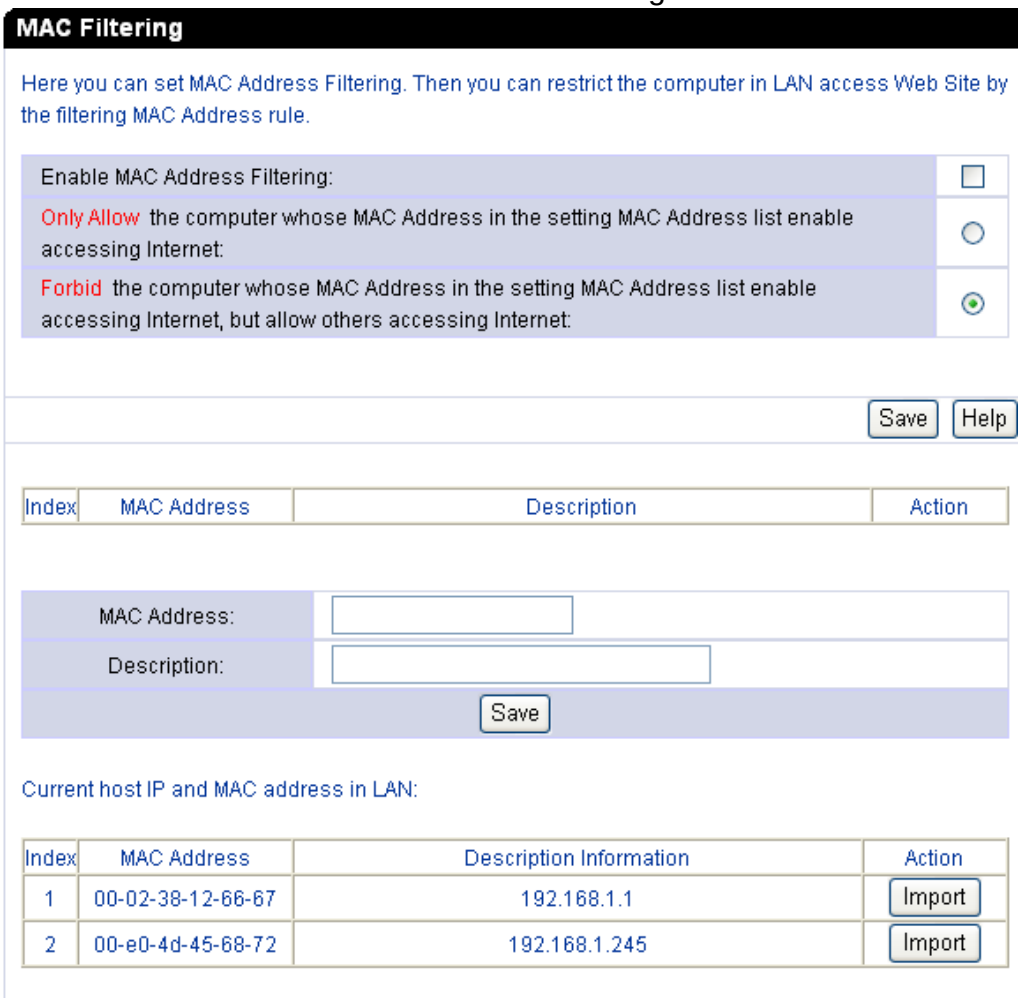


Figure 5-28

Enable MAC Address Filtering: The setting rules can become effective only if you sign the item, otherwise not.

Default Filtering Rute: Only Allow the MAC Address below MAC List accessing Internet, and only forbid the MAC Address below MAC List accessing Internet.

MAC Address: The MAC Address of computer that is controlled in LAN.

Description: The single description of controlled computer.

Action: You can modify or delete the item by clicking “modify” or “delete” button.

Import: The MAC Lists display current host MAC Address in LAN and default information is IP Address which corresponds with MAC Address. Click “Import”, and then the item will save to firewall MAC Address Filtering table.

If you add or modify the item. Please enter parameters, then click “Save”.

Chapter 6 Advance Settings

6.1 DDNS Settings

DDNS function can make your dynamic IP Address required by others, and it is important for you to build FTP or Web Server. But please notice that you must apply a user name and password from www.88ip.com or www.oray.net. Show in figure 6-1.

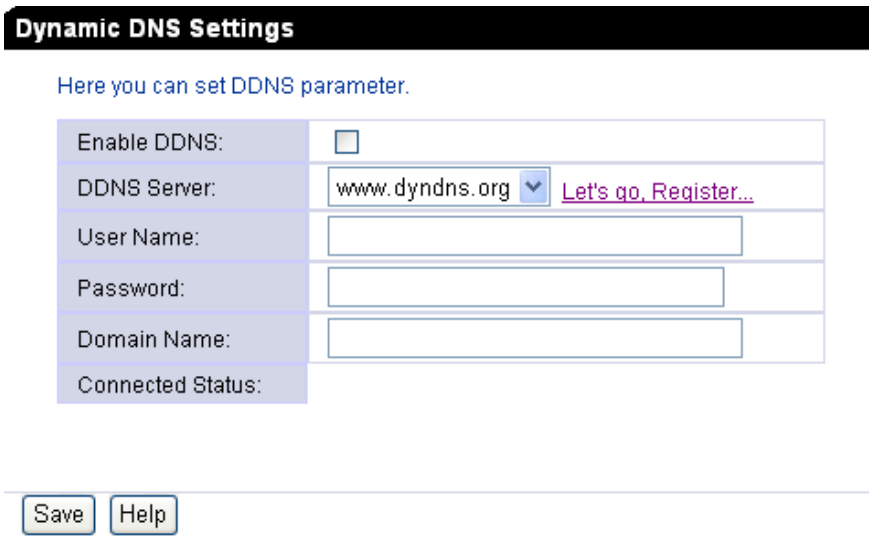


Figure 6-1

DDNS Server: Select DDNS Server by pull-down list, then Click “Let us go, Register”, your information will be registered into DDNS Server in corresponding DDNS Website.

Enable DDNS: Sign the item, then DDNS will enable, otherwise disable.

Username: The username that is registered in DDNS Server

Password: The Password that is registered in DDNS Server

Connected Status: Display DDNS connected status information.

First input above information, click “Save” button to save settings if DDNS function enables then start to update IP Address of DDNS domain.

6.2 UPnP Settings

If you enable UPnP, host in LAN can requires connecting router to transform special port, and then outer host can access inner resource when it want. Show in figure 6-2

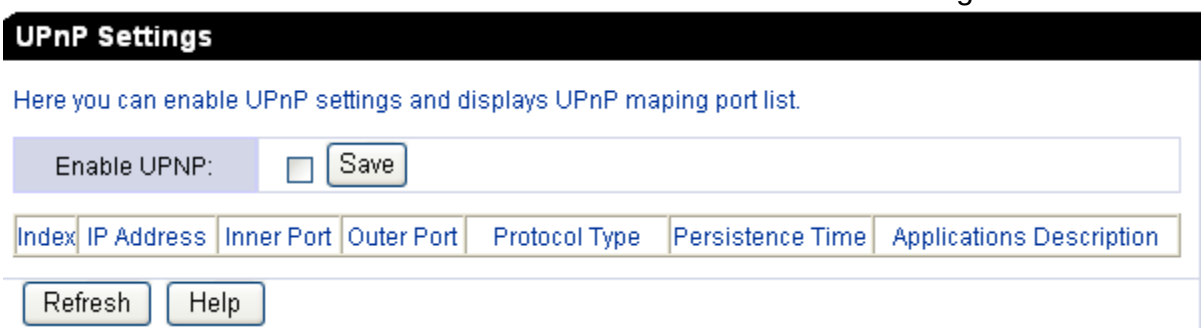


Figure 6-2

Enable UPnP: sign the “Enable UPnP” option, and then the UPnP feature will activate. It Is closed by default because it will aroused a certain adventure.

IP Address: The IP Address of host in LAN that want to port transform.

Inner Port: The IP port of host in LAN that want to port transform.

Outer Port The router port that is utilized when transforming port.

Protocol Type: The Protocol Type that is utilized when transforming port.

Applications Description: The description is given when application program requires Router connect and transform port.

Click “Save” and then you will finish setting.

6.3 Static Router

You can manage your internet’s router rule by setting static router, show in figure 6-3.

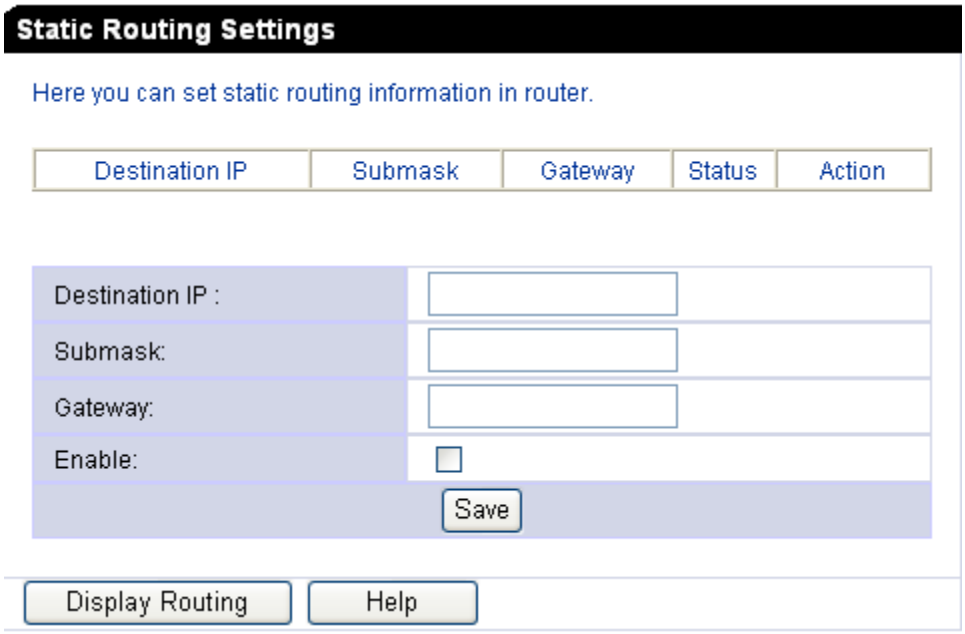


Figure 6-3

Destination IP Address: The IP Address of host wanted to access.

Subnet mask: Generally it is 255.255.255.0

Gateway: The IP address of host or router which packets will be sent to.

Status: Display whether the item is enabled or not.

Action: You can modify or delete the item by clicking “modify” or “delete” .

If you add or modify the item, please enter parameters, then click “Save”.

Chapter 7 System Settings

7.1 Time Settings

You can set system time-zone of router and obtain standard GMT time from internet. show in figure 7-1.

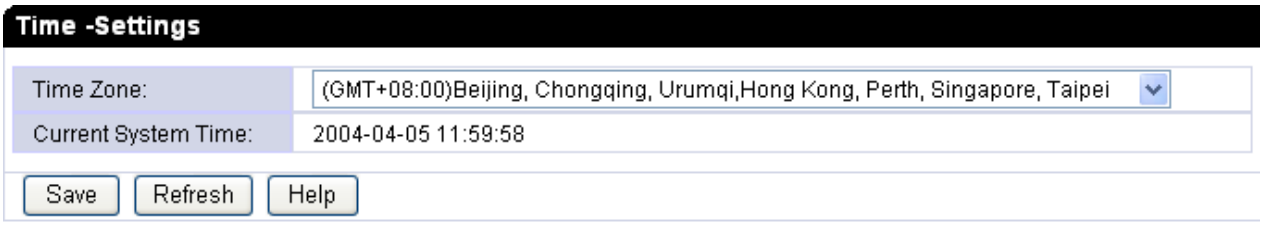


Figure 7-1

Notice: when shut the router power, the time information will lost and router will obtain MT time automatically. You must connect internet to obtain GMT time or set time in this page so the time restriction of other function(eg: firewall) can go into effect.

7.2 Admin Settings

This page allows you to set the user name and the password, show in 7-2.

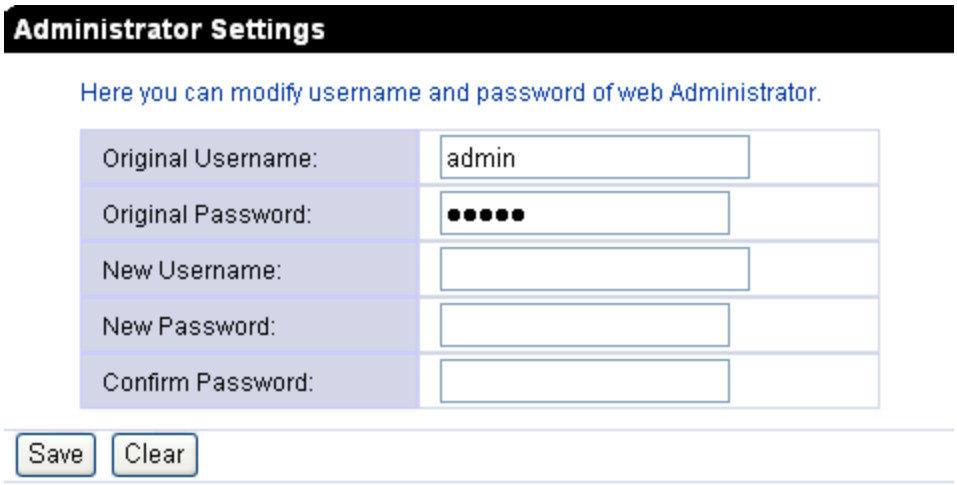


Figure 7-2

Please click “save” when finished , click “clear” will clear your setting

.

7.3 Remote Management

You can configure the remote management function on this page shown in Figure 7-3.This feature allows you to manage your router from a remote location, via internet.

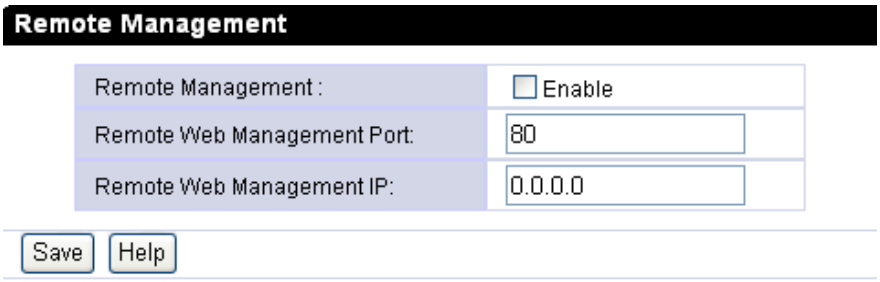


Figure 7-3

Note:

Web Management Port - Web browser access normally uses the standard HTTP service port 80. This router's default remote management Web port number is 80. For greater security, you can change the remote management Web interface to a custom port by entering that number in this box provided. Choose a number between 1024 and 65534, but do not use the number of any common service port.

Remote Management IP Address - This is the current address you will use when accessing your router from the Internet. The default IP Address is 0.0.0.0. It means this function is disabled. To enable this function, change the default IP Address to another IP Address as desired

7.4 Firmware Upgrade

The page (show in Figure 7-4) allows you to upgrade the latest version firmware to keep your router up-to-date.

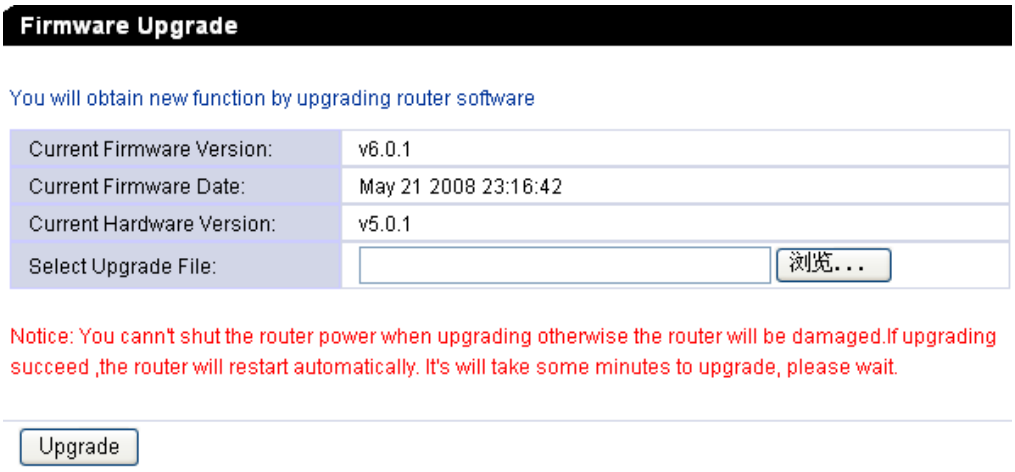


Figure 7-4

Click the browse, select the update. Click upgrade, then upload the files to the router and cover the existing system.

7.5 Configuration Tools

This page allows you to configure the router with configuration tools. Show in figure 7-5.

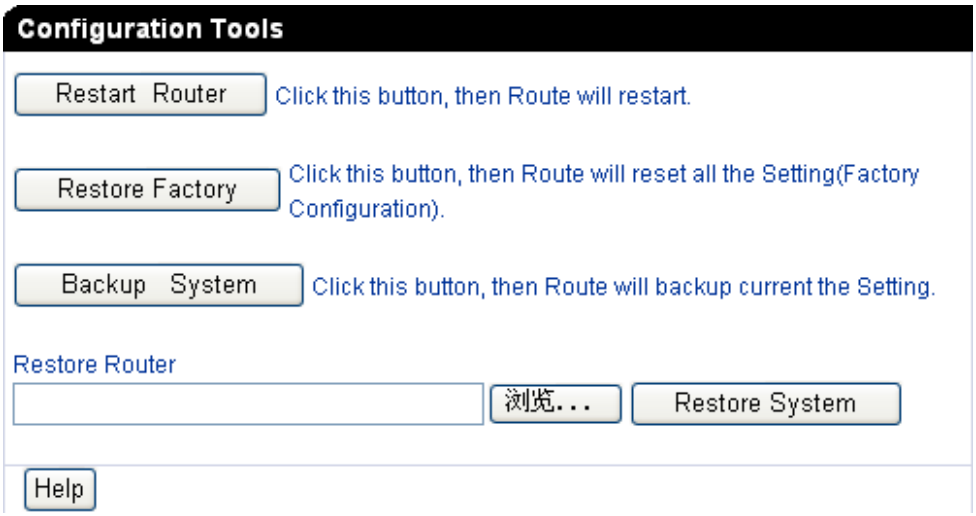


Figure 7-5

Restart Router: Click this button, then router will restart.

Restore Factory Settings: Click this button, then router will reset all factory configuration .

Backup System Settings: Click this button, then router will backup current setting to your computer. Once you have the router working property, you should backup the information to have it available if something goes wrong. When you backup the settings,they are saved as a file in your computer.You can restore the router's settings from this file.

Restore System Settings: Restore the router's configuration.

7.6 System Log

Note:

System log only keep the last 128 log, the latest log will cover the top of the log if the total amount of the log is more than 128.