Z431R

3G Wireless Router

User Guide

VEC:1.0.1

Contents

Chapter 1 Introduction

1.1 The Introduction

Thanks for purchase Z431R router. Z431R is the first true wireless access router, supports WIFI and Ethernet gateway in one device. It offers wireless broadband WAN HSUPA connection with data rate up to 7.2Mbps. On Local area Network (LAN), it supports both the wireless WIFI 802.11b/g and wire Ethernet 10/100Mbps interfaces. It is designed with Easy-to-use compact. You can connect the Internet by WAN port, or insert the service provider SIM card by built-in the HSUPA wireless module.

1.2 Features

- Built-in the HSUPA wireless module, just insert the service provider SIM card.
- High-speed data connections with rate up to 7.2Mbps
- NAT & NAPT with VPN pass-through Virtual Server
- Automatic receipt of IP address with DHCP server
- 5 LED Indicator x 5(PWR,3G,WIFI,WAN & LAN)
- Browser-based configuration
- Access Control to manage users
- User-friendly configuration and diagnostic utilities
- Industry-leading firewall security
- Supports 802.11b/g,Frequency from 2.4GHz to 2.483GHz, Access Points, Routers and Gateway Server Applications

Chapter 2 Product Overview

2.1 The Front Panel

The Router's LEDs are located on the front panel(View from left to right).

LED Explanation:

Name	Description
PWR	• Lights Red when the power is ready. • Lights off means power off.
3G	• Lights when 3G service is ready.
WIFI	• Lights blue when the wireless connection is established.
WAN(LAN)	• Lights off means there is no device linked to the corresponding port • Lights blue when connected to a device through to the corresponding port. • Flashes when sending/receiving data.

2.2 The Back Panel

The following parts are located on the rear panel(view from left to right).

● **WIFI:**   Used for WIFI 's wireless operation and data transmit(The antenna length is 196MM)
● **LAN:**   Through this port, you can connect the Router to your PCs and the other Ethernet network device.
● **WAN:**   RJ45 WAN port for connecting the router to a cable/DSL Modem, or Ethernet.
● **DC:**   The Power plug is where you will connect the power adapter
● **RESET:**   After the router is powered on, press this reset button using the
   end of paper clip or other small pointed object to reset the router and to restore it to factory default settings.

● **3G:**   Used for 3G wireless network signal reception(The antenna length is 157MM).

2.3 Connecting the Device

Before installing the Router, please make sure your broadband service provided   by your ISP is available. If there is any problem, please contact with your ISP. After that, please install the Router according to the following steps. Don't forget to pull out the power plug and keep your hands dry.

1. Locate an optimum location for the Router. The best place is usually near the center of the area in which your PC will be wirelessly connected. The place had better accord with the Installation Environment Requirements.
2. Adjust the direction of the antenna. Normally, upright is the best direction.
3. Connect the PC(s) and each Switch/Hub in your LAN to the LAN Ports on the router (If you have the wireless NIC and want to use wireless function, you can skip this step.)
4. If you access internet over 3G wireless network, insert SIM Card into USIM CARD port when the Router is cut-off ; or Connect the DSL/Cable Modem to the WAN port on the router.
5. Connect the AC power adapter to the AC power socket on the router, and the other end into an electrical outlet. The router will start to work automatically.
6. Power on your PC and Cable/DSL Modem.

2.4 System Requirements

- 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

2.5 Installation Environment Requirements

- The Product should not be located where it will be exposed to moisture or excessive heat.
- Place the Router in a location where it can be connected to the various devices as well as to a power source.
- Make sure the cables and power cord are placed safely out of the way so they do not create a tripping hazard.
- Designed to go up to 100 meters indoors and up to 300 meters outdoors for wireless connection.
- The Router can be placed on a shelf or desktop.

Chapter 3 Software configuration

3.1 Login

Open your web browser, enter the IP address of you router, which by default is 192.168.0.1, and press "enter", a user name and password window prompt appears. The default username and password are "admin" and "admin".

After your successful login, you can configure and manage the device. There are main menus on the left of the web-based utility. Submenus will be available after you click one of the main menus. On the right of the web-based utility, there are the detailed explanations and instructions for the corresponding page. To apply any settings you have altered on the page, please click the save button.

3.2 System Status

The Status page displays the router's current status and configuration. All information is read-only.

LAN

The field displays the current settings or information for the **LAN**, including the **MAC address, IP address and Subnet Mask.**

Wireless

The field displays the current settings or information for the **wirless,** including the **Wireless Radio, SSID, Channel, Mode, Wireless MAC address, and IP address.**

WAN

These parameters apply to the **WAN** port of the router, including **WAN Type, MAC Address, IPAddress, Subnet Mask, DefaultGateway, Keep Online Time, Primary DNS, Secondary DNS.**

System Up Time

The total up time of the router from when it was switched on or reset.

LAN

MAC Address:	00:1c:02:00:0a:10
IP Address:	192.168.0.1
Subnet Mask:	255.255.255.0

Wireless

Wireless Radio:	Enable
Name (SSID):	431R
Channel:	6
Mode:	54Mbps(802.11b/g)
MAC Address:	00:0E:E8:EE:CF:EB
IP Address:	192.168.0.1

WAN

WAN Type:	Dynamic(DHCP) [Renew] [Release]
MAC Address:	00:1c:02:00:0a:11
IP Address:	0.0.0.0
Subnet Mask:	0.0.0.0
Default Gateway:	0.0.0.0

3.3 WAN Setting

A WAN(Wide Area Network) is an outside connection to another network or the Internet. There are two items within the **WAN** section: **Basic Setting and MAC Clone.**

3.3.1 Basic Setting

You can configure the WAN port parameters on this page.

Firstly, please choose the WAN Connection Type(Static IP Address, Dynamic IP Address, PPP over Ethernet, 3G)for internet. The default type is Dynamic IP. If you aren't given any login parameters (fixed IP address, logging ID, etc), please select Dynamic IP. If you are given a fixed IP(static IP), please select Static IP. If you are given a user name and a password, please select the type of your ISP provided(PPP over

Ethernet). If you are a mobile connect user, please select 3G. If you are not sure which connection type you use currently, please contact your ISP to obtain the correct information.

1. If you choose Dynamic IP, the router will automatically get IP parameters from your ISP. You can see the page as follows:

WAN Setting

WAN

○ Static IP Address(ISP assigns you a static IP address)

◉ Dynamic IP Address(Obtain an IP address from ISP automatically)

○ PPP over Ethernet(Some ISPs require the use of PPPoE to connect to their services)

○ 3G

MTU	1500	(576~1500)
Host Name		
Primary DNS	192.168.1.1	
Secondary DNS	192.168.1.1	

[Save Settings]   [Cancel Settings]

MTU-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 you ISP connection.

If your ISP gives you one or two DNS addresses, select these DNS servers and enter the primary and secondary addresses into the correct fields. Otherwise, the DNS servers will be assigned dynamically from your ISP.

Click the Save Settings button to save your settings.

2. If you choose Static IP, you should have fixed IP Parameters specified by your ISP. You can see the page as follows:

You should type the following parameters into the spaces provided:

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

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

WAN Gateway-Enter the gateway IP address in dotted-decimal notation provided by your ISP.

MTU-The normal MTU(maximum Transmission Unit)value for most Ethernet networks is 1500 Bytes. For some ISPs you may need to modify 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-Enter the DNS address in dotted-decimal notation provided by you ISP

Secondary DNS-Type another DNS address in dotted-decimal notation provided by your ISP provided.

Click the Save Settings button to save your settings.

3. If you choose PPP over Ethernet,you should enter the following parameter

WAN Setting

WAN

○   Static IP Address(ISP assigns you a static IP address)

○   Dynamic IP Address(Obtain an IP address from ISP automatically)

◉   PPP over Ethernet(Some ISPs require the use of PPPoE to connect to their services)

○   3G

PPPoE Username	PPPoE	
PPPoE Password	••••••••	
MTU	1492	(546~1492)
PPPoE Service Name		
Primary DNS	192.168.1.1	
Secondary DNS	192.168.1.1	

[Save Settings]   [Cancel Settings]

PPPoE Username/Password-Enter the User Name and Password provided by your ISP. These fields are case-sensitive.

Packet MTU-The default MTU size is 1492 bytes, which value is usually fine. For some ISPs, you need modify the MTU. This should not be done unless you are sure it is necessary for your ISP.

PPPoE Service Name-The service name, these should not be configured unless you are sure it is necessary for you ISP.

DNS IP address- If you know your ISP does not automatically transmit DNS address to the router during login, enter the IP address in dotted-decimal notation of your ISP's primary DNS server. If a secondary DNS server address is available, enter it as well.

Click the Save Settings button to save your settings.

4. If you choose 3G , you should enter the following parameter

WAN Setting

WAN

○ Static IP Address(ISP assigns you a static IP address)

○ Dynamic IP Address(Obtain an IP address from ISP automatically)

○ PPP over Ethernet(Some ISPs require the use of PPPoE to connect to their services)

◉ 3G

APN	
Pin Code	
Dialed Number	
Username	
Password	••••••••
Primary DNS	192.168.1.1
Secondary DNS	192.168.1.1

[Save Settings] [Cancel Settings]

APN-An APN is similar to a URL on the WWW, it is what the unit makes a GPRS/UMTS call. The service provider is able to attach anything to an APN to create a data connection, requirements for APNs varies between different service provides. Most service Providers have an internet portal which they to connect to a DHCP Server, thus giving you access to the internet i.e.Some 3G operators use the APN "internet" for their portal.Your operator may have provided an alternative APN to connect to, if so, define it here.

Pin Code-Pin stands for personal identification number. A Pin code is a numeric value used in certain systems as a password to gain access, and authenticate. In mobile phones a Pin code locks the SIM card until you enter the correct code. If required, please enter your SIM card's PIN code. The code will be stored here for future reference by the router and you will not have re-enter this unless you change SIM cards.

Dial Number- Enter your Dial Number provided by your ISP.

Username-Enter the username provided by your service provider. The Username associated with the previously entered APN.

Password-Enter the Password provided by your service provider. The password corresponding to the previously entered username.

DNS IP address- If you know your ISP does not automatically transmit DNS address the router login, enter the IP address in dotted-decimal notation of your ISP's primary DNS server. If a secondary DNS server address is available, enter it as well.

Click the Save Settings button to save your settings.

3.3.2 MAC Clone

You can configure the WAN MAC Clone on this page.

WAN MAC CLONE

MAC CLONE

- ⦿ Use the device's MAC Address(00:1c:02:00:0a:11)
- ○ Use this PC's MAC Address(00:1F:D0:64:B9:9D)
- ○ Use the following MAC Address

  [____]:[____]:[____]:[____]:[____]:[____]

[Save Settings] [Cancel Settings]

Some ISP will require you to register your MAC address. If you do not wish to re-register your MAC address, you can have the router clone the MAC address that is registered with your ISP.

Use the device's MAC Address - Don't clone the MAC Address of the route.

Use this PC's MAC Address - Clone the MAC Address of the PC, which is connecting the router.

Use the following MAC Address - Enter the MAC Address provided by your ISP.

Click the Save Settings button to save your settings.

3.3.3 DDNS

The router offers a Dynamic Domain Name System (DDNS) feature. DDNS lets you assign a fixed host and domain name to a dynamic Internet IP Address. It is useful when you are hosting your own website, FTP server, or other server behind the router. Before using this feature, you need to sign up for DDNS service providers such as www.dyndns.org, www.TZO.com or www.3322.org. The Dynamic DNS client service provider will give you a password or key.

You can configure the WAN MAC Clone on this page.

DDNS Settings

DDNS

DDNS Service: 3322.org
User Name: xnuliqi
Password: ●●●●●●●●
Host Name: xnuliqi.3322.org
Internet IP Address: 218.18.39.229
Status: Connected

Save Settings   Cancel Settings

To set up for DDNS, follow these instructions:

1. select the dynamic DNS Service Provider.

2. Type the User Name for your DDNS account.

3. Type the Password for your DDNS account.

4. Type the Host Names your dynamic DNS service provider gave.

5. Click the Save Settings button to save your settings.

Status -The status of the DDNS service connection is displayed here.

3.4 LAN Setting

A Local Area Network(LAN) is a shared communication system to which many computers are attached and is limited to the immediate area, usually the same building or floor of a building

There are three items within the LAN section:**Basic Setting, DHCP Setting, and DHCP Client Status**

3.4.1 Basic Setting

You can configure the IP parameters of LAN on this page.

IP Address-Enter the IP address of your router in dotted-decimal notation(factory default 192.168.0.1)

Subnet Mask-An address code that determines the size of the network. Normally use 255.255.255.0 as the subnet mask.

Click the Save Settings button to save your settings.

3.4.2 DHCP Setting

The router is set up by default as a DHCP(Dynamic Host Configuration Protocol)server, which provides the TCP/IP configuration for all the PC(s) that are connected to the router on the LAN.

The DHCP Server can be configured on the page

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.192.168.0.2 is the default start address.

End IP Address-This field specifies the last of the addresses in the IP address pool.192.168.0.254 is the default end address.

Address Lease Time-The address Lease Time is the amount of time in which a network user will be allowed connection to the router with their current dynamic IP Address. Enter the amount of time, in minutes. The user will be "leased"this dynamic IP Address. The range of the time is 1~2880 minutes. The default value is 120 minutes.

Default Domain-(Optional) Input the domain name of your network.

Primary DNS-(Optional) Input the DNS IP address provided by your ISP or consult your ISP.

Secondary DNS-(Optional)Input the IP address of another DNS server if your ISP provides two DNS servers.

Click the Save Settings button to save your settings.

3.4.3 DHCP Client Status

The page shows **IP Address, Host, MAC Address** for each DHCP Client attached to the router

IP Address-The IP Address that the router has allocated to the DHCP client host.

MAC Address- The MAC Address of the DHCP client host.

Host - The host name of the DHCP client host.

3.5 WLAN Setting

There are three submenus ender the Wireless menu:**Basic Setting, Security and Advanced Setting**. Click any of them, and you will be able to configure the corresponding function. The detailed explanations for each submenu are provided below.

3.5.1 Basic Setting

The basic Setting for the wireless network are set on this page

WLAN Basic Settings

WLAN

Wireless Mode	802.11b/g
Wireless SSID	431R
Wireless Channel	6
Hide SSID	☐

Save Settings   Cancel Settings

Wireless Mode-Select the desired wireless mode. The options are:

802.11b-Only 802.11b wireless stations can connect to the router.

802.11g-Only 802.11g wireless stations can connect to the router.

802.11b/g- Both 802.11b and 802.11g wireless stations can connect to the route

Wireless SSID-Enter a value of up to 32 characters.The same name(SSID) must be assigned to all wireless devices in your network. The default SSID is 431R, but it is recommended strongly that you change your networks name to a different value. The value is case-sensitive.For example, 431R is NOT the same as 431r.

Channel-This field determines which operating frequency will be used. It is unnecessary to change the wireless channel unless you notice interference problems with another nearby access point.

Click the Save Settings button to save your settings.

3.5.2 Security

The wireless security function can be enabled or disabled. If disabled, the wireless stations will be able to connect the router without encryption. It is strongly recommended that you choose this option to encrypt your wireless network.

The security for the wireless network are set on this page

WLAN Security

WLAN Security

Authentication Mode	Open System ▼

WEP Security

Encryption	None ▼
WEP Encryption	⦿ 64 bit ○ 128 bit
Default KEY ID	1 ▼
WEP KEY 1	HEX ▼ [ ]
WEP KEY 2	HEX ▼ [ ]
WEP KEY 3	HEX ▼ [ ]
WEP KEY 4	HEX ▼ [ ]

WPA-PSK Security

Encryption Type	⦿ TKIP ○ AES
Passphrase	[ ]

Authentication Mode – You can select desired Authentication Mode: Open System, Shared , WEP Auto, WPA-PSK and WPA2-PSK. When you select Open system or Shared or WEP Auto, you can set the WEP encryption. When you select WPA-PSK or WPA2-PSK, you can set the WPA-PSK Security.

Encryption- you can select None or WEP encryption.

WEP Encryption - You can select the WEP key length (64-bit, or 128-bit) for encryption. "None" means this WEP key entry is invalid.

Default KEY ID-Select which of the four keys will be used then can enter the matching WEP key information for your network in the selected WEP KEY. These values must be identical on all wireless stations in your network.

WEP Key Format-You can select ASCLL or Hexadecimal Format.ASCLL Code Format stands for any combination of keyboard characters in the specified length.Hexadecimal format stands for any combination of hexadecimal digits(0-9,a-f,A-F) in the specified length.

Key Type-You can select the WEP key length(64-bit, or 128-bit, or 152-bit) for encryption. "Disabled" means the WEP key entry is invalid.

- For 64-bit encryption-You can enter 10 hexadecimal digits(any combination of 0-9,a-f,A-F,zero key is not permitted)or 5 ASCLL characters
- For 128-bit encryption-You can enter 26 hexadecimal digits(any combination of 0-9, a-f, A-F, zero key is not permitted)or 13 ASCLL characters
- For 152-bit encryption-You can enter 32 hexadecimal digits(any combination of 0-9, a-f, A-F, zero key is not permitted)or 16 ASCLL characters

- WEP Key settings – When you have selected which of the four keys will be used, then you can enter the matching WEP key information for your network in the selected key. These values must be identical on all wireless stations in your network.

WPA-PSK Security- Select WPA or WPA2 security type based on pre-shared passphrase

Encryption Type – You can select the TKIP or AES encryption.

Passphrase - You can enter a WPA passphrase between 8 and 63 characters .

3.5.3 WLAN Advanced Settings

The **WLAN** page show how to set the advanced settings of the WLAN

Fragment Threshold - This value should remain at its default setting of 2346. The range is 256-2346 bytes. It specifies the maximum size for a packet before data is fragmented into multiple packets. If you experience a high packet error rate, you may slightly increase the Fragmentation Threshold. Setting the Fragmentation Threshold too low may result in poor network performance. Only minor modifications of this value are recommended.

RTS Threshold - This value should remain at its default setting of 2347. The range is 1-2347 bytes. Should you encounter inconsistent data flow, only minor modifications are recommended. If a network packet is smaller than the preset RTS threshold size, the RTS/CTS mechanism will not be enabled. The Router sends Request to Send (RTS) frames to a particular receiving station and negotiates the sending of a data frame. After receiving an RTS, the wireless station responds with a Clear to Send (CTS) frame to acknowledge the right to begin transmission.

Beacon Period - The default value is 100. Enter a value between 20 and 999 milliseconds. The Beacon Interval value indicates the frequency interval of the beacon. A beacon is a packet broadcast by the Router to synchronize the wireless network.

Dtim Period - The default value is 1. This value, between 1 and 255 milliseconds, indicates the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the Router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. Its clients hear the beacons and awaken to receive the broadcast and multicast messages.

Click the Save Settings button to save your settings.

3.6 Security

There are four submenus under the Security menu: **Firewall, URL Filter, MAC Filter, ACL Setting**. Click any of them, and you will be able to configure the corresponding function. The detailed explanations for each submenu are provided below..

3.6.1 Firewall

Using the Firewall page, you can turn the general firewall switch on or off.The default setting for the switch is on. If the general firewall switch is off, even if URL Filtering, MAC-Filtering and ACL Setting are enabled, their setting are ineffective.

Firewall – the general SPI firewall switch is on or off.

Block the ICMP Packet from WAN - By enabling the Block WAN Request feature, you can prevent your network from being "pinged," or detected, by other Internet users.

Block DDoS – Set Block DDoS is enabled or disabled.

VPN Passthrough - Enable or disable the VPN passthrough. You can select IPSec、PPTP、L2TP three VPN mode.

Click the Save Settings button to save your settings.

3.6.2 URL Filter

The URL Filter feature allows you to control Internet Access by specific URL. The URL Filter is set on this page:

URL Filter Setting

URL Filter

URL Filter	○ Enable ⊙ Disable
Filter Mode	⊙ Only Deny ○ Only Allow
URL	[ ]

Add to Table

Delete Selected   Delete All

Save Settings   Cancel Settings

URL Filter- Enable or disable the URL filter.

Filter Mode - You can just only allow URLs of the List to be accessed or deny them.

URL - Enter your URL allow or deny.

Click the Save Settings button to save your settings.

3.6.3 MAC Filter

The MAC Filter page allows you to control access to the Internet by users on your local network based on their MAC Address.

MAC Filter Setting

MAC Filter

MAC Filter	○ Enable ⊙ Disable
MAC Address	[ ] : [ ] : [ ] : [ ] : [ ] : [ ]
Username	[ ]

[Add to Table]

[   ]

[Delete Selected] [Delete All]

[Save Settings] [Cancel Settings]

MAC Filter- Enable or disable the MAC filter.

MAC Address-Enter the appropriate MAC Address into the MAC Address field.The format of the MAC Address is XX-XX-XX-XX-XX-XX(X is any hexadecimal digit).For example:00-0E-BE-B0-00-0B.

Username - Enter the username of the MAC Address.

Click the **Add to Table** button to add a MAC Address to the Table of MAC Filter.

Click the **Delete All** button will delete all MAC Address in the Table of MAC Fliter.

Click the **Save Settings** button to save your settings.

3.6.4 ACL Setting

Access Control List (ACL) is an instruction list applied to Router Interface. These instruction lists are used for telling router which data packets are acceptable while which ones are refused. As regards the data packets accepted or refused, it's determined by special indication terms which are similar to source address, destination address, port number, etc.The **ACL** page show how to set up the configuration of the ACL.

ACL Setting

ACL

Source IP Address	192.168.0. [ ] ~ [ ]
Dest IP Address	[ ] [/24 ▼]
Protocol	[TCP ▼]
Dest Port Range	[ ] ~ [ ] [Please select... ▼]
Day	⦿ Everyday ◯ Work Day
Time	[00 ▼] : [00 ▼] to [23 ▼] : [55 ▼]
Action	[DROP ▼]

[Add to Table]

[   ]

[Delete Selected] [Delete All]

[Save Settings] [Cancel Settings]

Source IP Address: Enter the appropriate PCs by source IP range.

Dest IP Address - Enter the appropriate External IP Address, if empty, means all

IP Address.

Protocol – Select   the protocol of the packet.

Dest Port Range – Select the range of the dest port.

Day – Select the ACL working time.

Time –Set up the ACL working Start Time and Stop Time.

Action – Accept this packet or Drop it.

Click the **Save Settings** button to save your settings.

3.7 Forwarding

There are three submenus under the Forwarding menu**: NAT/NAPT, Port Forwarding, DMZ.** Click any of them, and you will be able to configure the corresponding function. the detailed explanations for each submenu are provided below.

3.7.1 NAT/NAPT

The NAT/NAPT is Set on this page:
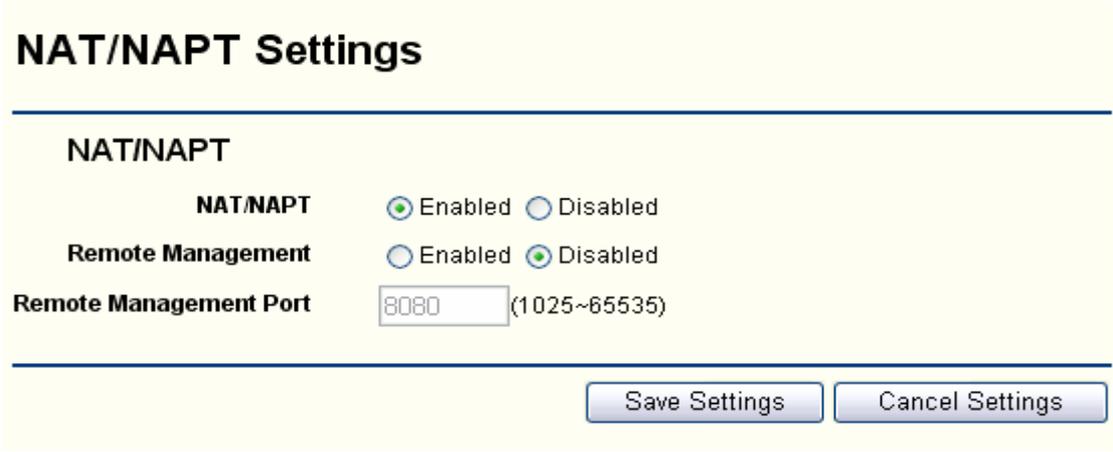
NAT/NAPT Settings

NAT/NAPT

NAT/NAPT	⊙ Enabled ○ Disabled
Remote Management	○ Enabled ⊙ Disabled
Remote Management Port	8080 (1025~65535)

Save Settings   Cancel Settings

NAT/NAPT - Enable or disable the NAT/NAPT.

Remote Management –Enable or disable the Remote Management.

Remote Management Port - The port of the remote managemnet, and range is 1025 to 65535, The default value is 8080.

Click the **Save Settings** button to save your settings.

3.7.2 Port Forwarding

This page used to set Virtual server. Virtual servers can be used for setting up public services on your LAN, such as DNS, Email and FTP. A virtual server is defined as a service port, and all requests from the Internet to this service port will be redirected to the computer specified by the server IP. Any PC that is used for a virtual server must have a static or reserved IP Address because its IP Address may change when using the DHCP function. You can set up virtual servers on this page,

Services- you can select the types of Services.

Service Name- Enter the name of the Service.

Service Port- The numbers of External Ports. You can type a service port or a range of service ports (the format is XXX – YYY, XXX is the start port, YYY is the end port).

IP Address - The IP Address of the PC providing the service application.

Click the **Add to Table** button to add these information to the Virtual server list.

Click the **Save Settings** button to save your settings.

3.7.3 DMZ

The DMZ host feature allows one local host to be exposed to the internet for a special-purpose service such as Internet gaming or video conferencing. DMZ host forwards all the ports at the same time. Any PC whose port is being forwarded must have its DHCP client function disabled and should have a new static IP Address assigned to its IP Address may change when using the DHCP function. You can set up DMZ host on this page :

To assign a computer or server to be a DMZ server:

1. Click the Enable radio button
2. Enter the local host IP Address in the DMZ Host IP Address field

Click the **Save Settings** button to save your settings.

3.8 Routing Setting

3.8.1 Routing table

The Static Route page displays the router's current static route and configuration. All information is read-only.

3.8.2 Static Routing

A static route is a pre-determined path that network information must travel to reach a specific host or network. You can set up the Static Routing On this page:

Static Routing Settings

Static Routing

Select	1--- ▾ [DELETE...]
Routing Name	[ ]
Dest Address	0.0.0.0
Dest Netmask	0.0.0.0
Next Hop Address	0.0.0.0

[Save Settings] [Cancel Settings]

To set up for Static Routing, follow these instructions:

1.Sellect the ID for this Static Routing.

2. Type the Dest Address for this Static Routing (IP address or IP segment which would be accessed)

3. Type the Subnet Mask for this Static Routing. Usually, it is 255.255.255.0.

4. Type the Next Hop Address for this Static Routing.

5. Click the Save Settings button to save this settings.

3.9 System Tools

There are six submenus under the System tools menu**: System Time, Backup Setting, Firmware Upgrade , Reboot, Reset to Default, Password.** Click any of them, and you will be able to configure the corresponding function. The Detailed explanations for each submenu are provided below.

3.9.1 System Time

The **NTP** Choose the time zone you are in. The router can also adjust automatically for daylight savings time. You can set up the System Time on this page:

System Time

Get Date and Time by NTP Protocol

Time Server	time.windows.com ▾
Time Zone	(GMT +08:00) Beijing ▾

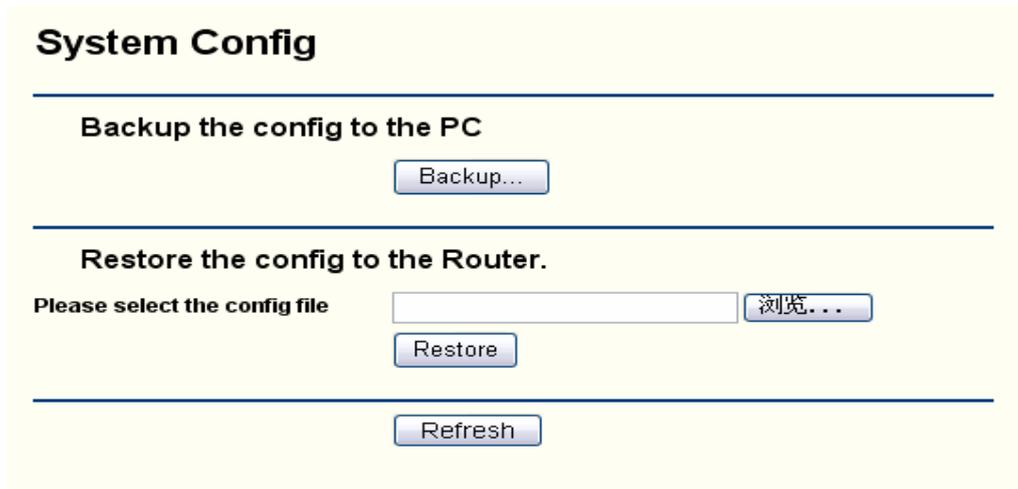[Save Settings] [Cancel Settings]

Time Server –Select   NTP Server Address.

Time Zone – Select the time Zone you are in.

Click the **Save Settings** button to save your settings.

3.9.2 Backup Setting

This page allows you to save current configuration of router as backup or restore the configuration file you saved before.

Click the Backup button to save all configuration settings as a backup file in your local computer.

To restore the router's configuration, follow these instructions:

1   Click the Browse button to select the backup file which you want to restore.
2   Click the Restore button.

3.9.3 Firmware Upgrade

The page allows you to upgrade the latest version firmware to keep your router up-to-date.

Firmware Upgrade

You can upgrade the latest firmware to run more steady and more functions.

Current Firmware Version: 3GWiFiRouter V2.05

When upgrading the firmware, please don't shutdown the router and don't do

anything, just waiting.

[_____] [Browse...]

[Upgrade]

Note: Please select the correct firmware to upgrade.

If there is no fault when using the router, it will be unnecessary to upgrade firmware, unless the new firmware supports a new feature you need.

To upgrade the router's fireware, follow these instruction:

1. Download the latest firmware upgrade file from the ***** website
2. Click Browse to view the folders and select the downloaded file.
3. Click the Upgrade button.

3.9.4 Reboot

This page allows you to reboot the router.

Reboot the System

Reboot the System

Reboot the System   ○ Yes ● No

[Save Settings]   [Cancel Settings]
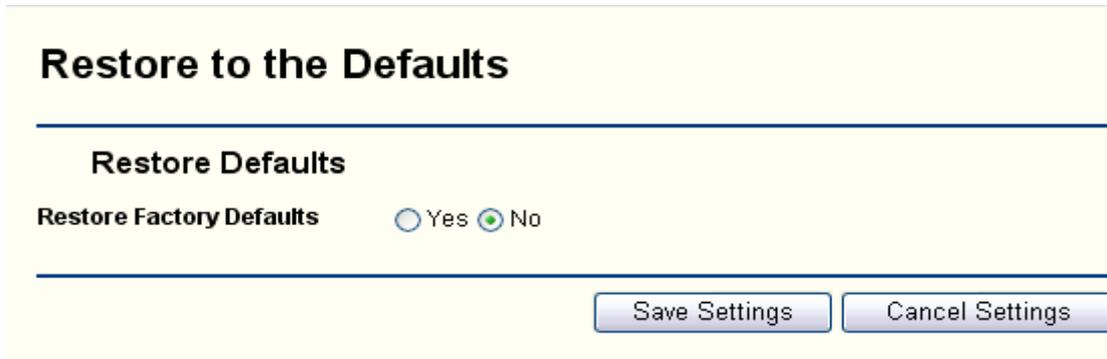
Click the Reboot button to reboot   the router.

Some setting of the router will take effect only after rebooting, which includes:

- Change LAN IP Address.(System will reboot automatically)
- MAC Clone(System will reboot automatically)
- DHCP service function.
- Static address assignment of DHCP server.
- Web Service Port of the router.
- Upgrade the firmware of the router(System will reboot automatically).
- Restore the router's settings to factory defaul t(System will reboot automatically).

Click the **Save Settings** button to save your settings.

3.9.5 Reset to Default

This page allows you to restore the factory default setting for the router.


Select the Yes radio button and click the Save Setting button to reset all configuration settings to their default values.

- The default User Name:admin
- The default Password: admin
- The default IP Address:192.168.0.1
- The default Subnet Mask:255.255.255.0

Click the **Save Settings** button to save your settings.

3.9.6 Password

This page allows you to change the factory default user name and password of the router.
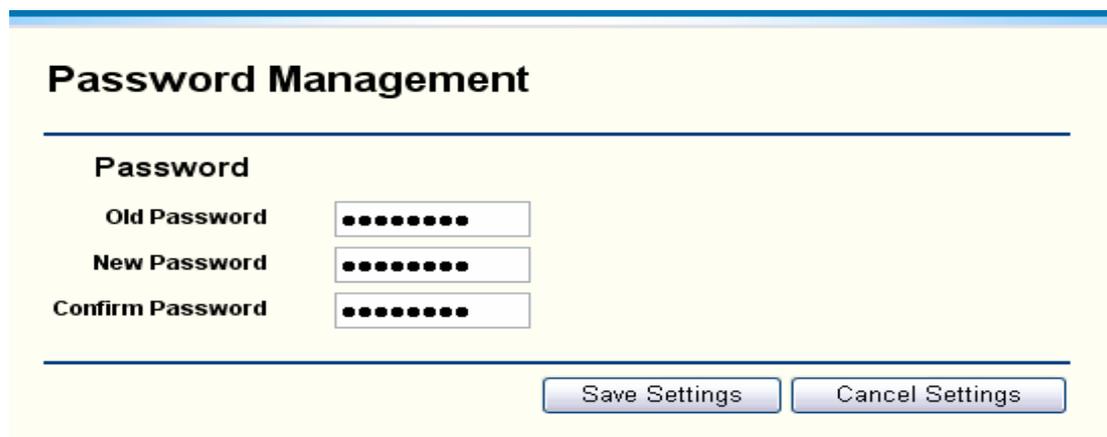
It is recommended strongly that change the factory default user name and password of the router. All users who try to access the router's Web-based utility or Quick Setup will be prompted.

Click the Save Settings button when finished.