ZTE IX380
WiMAX MODEM
User Manual

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Contents

1. General 6

1.1 Welcome 6
1.2 Safety Precautions 6
1.3 Cleaning and Maintaining 8
1.4 Limited Warranty 8
1.5 Limitation of Liability 9

2. Getting Started 10

2.1 Appearance 10
2.2 LED Indicator 10
2.3 Working Condition 12
2.4 Technical Parameters 12
2.5 Ports 13

3. Connecting MODEM 14

3.1 Application Structure 14
3.2 Hardware Installation 14
3.2.1 Connect to LAN 14
3.2.2 Connect to Phone 15
3.2.3 Connect Power Adapter 15
3.2.4 Power on MODEM 15

4. Preparation for Configuring MODEM 16

4.1 TCP/IP Installation and Configuration 16

4.2 Checking 19

4.2.1 Check LAN Connection 19

4.2.2 Cancel Proxy Server in Browser 19

4.2.3 Others 20

5. Ordinary Operation 21

5.1 Login 21

5.2 Status 24

5.2.1 Connection Status 24

5.2.2 WiMAX Information 26

5.2.3 About My Modem 28

5.3 Setup 29

5.3.1 IP Configuration 29

5.3.2 DHCP Clients 30

5.3.3 DHCP Binding 31

5.3.4 WAN Connection 32

5.4 WLAN 33

5.4.1 Basic Settings 33

5.4.2 Security 35

5.4.3 MAC Filter 38

5.4.4 Advanced Settings 40

5.5 Advanced 41
5.5.1 Routing Setup 41
5.5.2 SNTP Client Configuration 42
5.5.3 DDNS Setup 43
5.5.4 DNS Configuration 44
5.6 Security 46
5.6.1 Port Forwarding 46
5.6.2 Port Trigger 49
5.6.3 DMZ 52
5.7 Tools 54
5.7.1 System Commands 54
5.7.2 Ping 55
5.7.3 User Management 56
5.7.4 Update MODEM 57
5.7.5 System Log 58
5.8 WIMAX Settings 59
5.8.1 Channel Settings 59
5.8.2 WiMAX Authentication 60
6. Troubleshooting 64
Appendix Glossary 67

1. General

1.1 Welcome

Thanks for choosing the ZTE IX380 WiMAX MODEM (hereinafter referred to as “MODEM”). To get the most from your MODEM and to keep it in the best condition please read this manual carefully.

The pictures, symbols and contents in this manual are for reference only. They might not be completely identical with your MODEM. ZTE operates a policy of continuous development. We reserve the right to update the technical specifications in this document at any time without prior notice.

1.2 Safety Precautions

Some electronic devices may be susceptible to electromagnetic interference. Locate the MODEM away from TV set, radio and other electronic equipment to avoid electromagnetic interference.

The MODEM may interfere with medical devices like hearing aides and pacemakers. Consult with a physician or the manufacturer of the medical device before using the MODEM.

Do not use your MODEM in dangerous environments such as oil or chemical factories where there are explosive gases or explosive products being processed.

Please use original accessories or accessories that are authorized by your Equipment Provider. Unauthorized accessories may affect the MODEM performance, damage the MODEM or cause danger to you.

Do not attempt to dismantle the MODEM. There are no user serviceable parts.

Do not immerse the MODEM in any liquid.

Do not place objects on top of the MODEM. This may lead to overheating of the device.

The device must be placed in ventilation environment for use.

Do not expose the MODEM to direct sunlight or store it in hot areas. High temperature can shorten the life of electronic devices.

Do not touch the antenna while calling.

Do not allow children to play with the MODEM or charger.

Keep the length of the cable between the MODEM and the phone less than 33 feet.

The MODEM is for indoor use only. Do not use the MODEM outside. Do not connect telephone extensions which run outside of the building. These can result in lightning damage to your unit.

This device has been tested for compliance with FCC RF Exposure (SAR) limits in the typical laptop computer configuration. This device cannot be Use with handheld PDAs (personal digital assistants). This device and its antenna must not be co-located or operated in conjunction with any other antenna or transmitter.

1.3 Cleaning and Maintaining

Use an antistatic cloth to clean the MODEM. Do not use chemical or abrasive cleanser as these could damage the plastic case. Turn off your MODEM before you clean it.

Do not use your MODEM during a thunderstorm. Remove the mains power pack from the wall socket.

Please do not touch the antenna with your hand during conversation. Covering the antenna may affects call quality, may cause the MODEM to operate at higher power level than needed.

1.4 Limited Warranty

This warranty does not apply to defects or errors in the Product caused by:

(a) Reasonable MODEM Appearance Disfiguration.

(b) End User's failure to follow ZTE's installation, operation or maintenance instructions or procedures.

(c) End User's mishandling, misuse, negligence, or improper installation, disassemble, storage, servicing or operation of the Product.

(d) Modifications or repairs not made by ZTE or a ZTE-certified individual.

(e) Power failures, surges, fire, flood, accident, actions of third parties or other events outside ZTE's reasonable control.

(f) Usage of products of third Parties, or usage in conjunction with third party products provided that such defects is due to the combined usage.

(g) Any other cause beyond the range of normal usage for Products. End User shall have no right to reject, return, or receive a refund for any Product from ZTE under the above-mentioned situations.

This warranty is end user's sole remedy and ZTE's sole liability for defective or nonconforming items, and is in lieu of all other warranties, expressed, implied or statutory, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, unless otherwise required under the mandatory provisions of the law.

1.5 Limitation of Liability

ZTE shall not be liable for any loss of profits or indirect, special, incidental or consequential damages resulting from or arising out of or in connection with using of this product, whether or not ZTE had been advised, knew or should have known of the possibility of such damages, including, but not limited to lost profits, interruption of business, cost of capital, cost of substitute facilities or product, or any downtime cost.

2. Getting Started

2.1 Appearance

Front Panel

2.2 LED Indicator

There are total nine LEDs for the MODEM, detailed description as following table.

LED	Marker		Status	Description
WiMAX CINR			Flashing Red	Network searching
			Solid Blue	Signal is strong
			Solid Green	Signal is medium
			Solid Red	Signal is weak
			Off	No signal
WiFi Status			Green	WiFi On
			Off	WiFi Off
Phone1/ Phone2			Off	Hook on/Out of Service
			Solid Green	Hook off
Power			Solid Green	Power Supply
			Solid Red	Power Supply Failure
LAN1/ LAN2		Top left corner LED	Off	Out of Connection
			Solid Green	Connection
			Flashing Green	Data Service Process
		Top right corner LED	Off	10M Interface
			Solid Yellow	100M Interface

2.3 Working Condition

Working Condition for Host

Working temperature: 0°C ~ +55°C [32 °F ~ 131 °F]

Working humidity: 10% ~ 85%

Storage temperature: -40°C ~ +70°C [-40 °F ~ 158 °F]

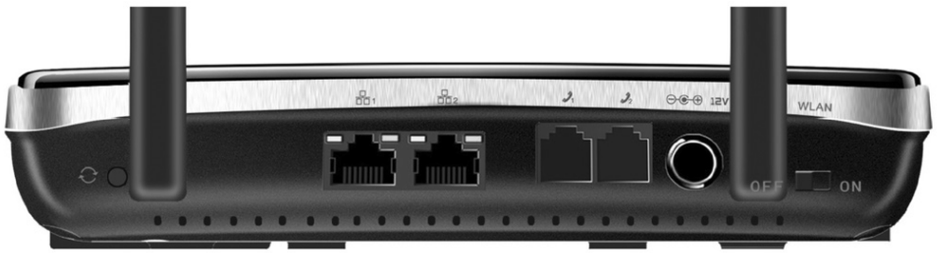
Storage humidity: 5% ~ 95%

2.4 Technical Parameters

Mode of Access	WiMAX (Worldwide Interoperability for Micro-wave Access)
WiMAX Protocol	802.16e(IEEE 802.16-2005)
WiFi protocol	IEEE 802.11b & 802.11g
WiMAX Frequency Range	3400MHz~3600MHz
WiFi Frequency Range	2400MHz~2483.5MHz
Dimensions (W×H×D)	175 mm×122 mm×35 mm (Excluding the height of antenna)
Weight	About 420 g (Including antenna)

Please refer to the real objects for the related parameters about the charger.

2.5 Ports



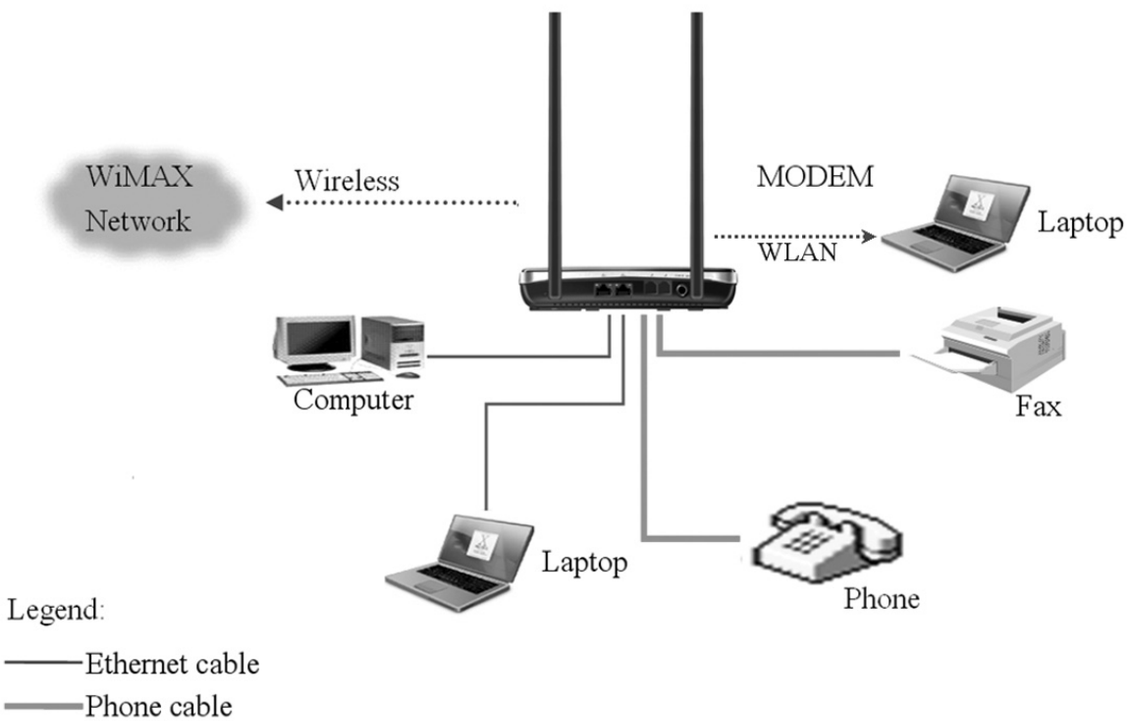
All seven ports are in back panel.

Port Indicator	Description
DC 12V	External power socket
1 2	LAN port
1 2	Phone port
	Reset button
	WLAN button

3. Connecting MODEM

3.1 Application Structure

Network connection is shown as follows:



3.2 Hardware Installation

Make sure that your MODEM is powered off.

You can turn on/off modem by connecting/disconnecting power cable.

3.2.1 Connect to LAN

1. Connect to LAN via Network Cable

Plug one end of an Ethernet network cable into LAN ports on the back of the MODEM, and plug the other end into an Ethernet port on a network device,

for example, PCs or other network devices. The Ethernet cable can be cross-over or straight.

2. Connect to LAN via WiFi

Enable the WiFi function and make sure that your PC has been installed wireless network card, and then use your PC to search for the SSID of MODEM to connect with it.

Note:

Don’t insert phone cable into LAN ports.

3.2.2 Connect to Phone

Connect phone cable to or port of MODEM.

3.2.3 Connect Power Adapter

Connect the included power adapter to the MODEM power port, and then plug the power adapter into an electrical outlet. The Power LED on the front panel will light up when the adapter is connected properly.

Note:

Make sure you use the power adapter that is supplied with the MODEM. Use of a different power adapter could damage the MODEM.

3.2.4 Power on MODEM

You can turn on modem by connecting power cable.

4. Preparation for Configuring MODEM

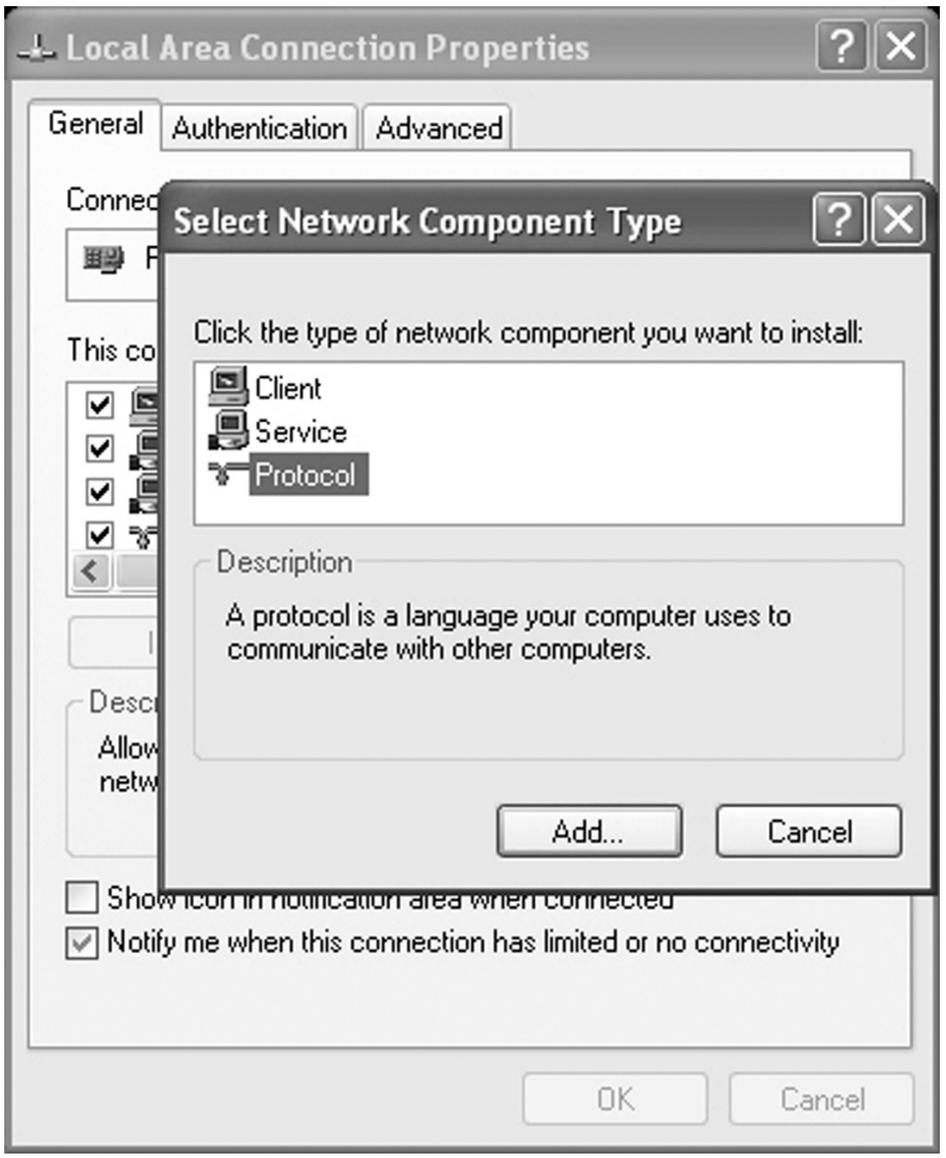
Usually, MODEM has been configured by service provider and you can use it directly. But in some instance, you need configure MODEM by yourself.

4.1 TCP/IP Installation and Configuration

Installation

If TCP/IP protocol is not installed, please install it first. Please refer to installation steps in Windows XP as follows (For classic start menu):

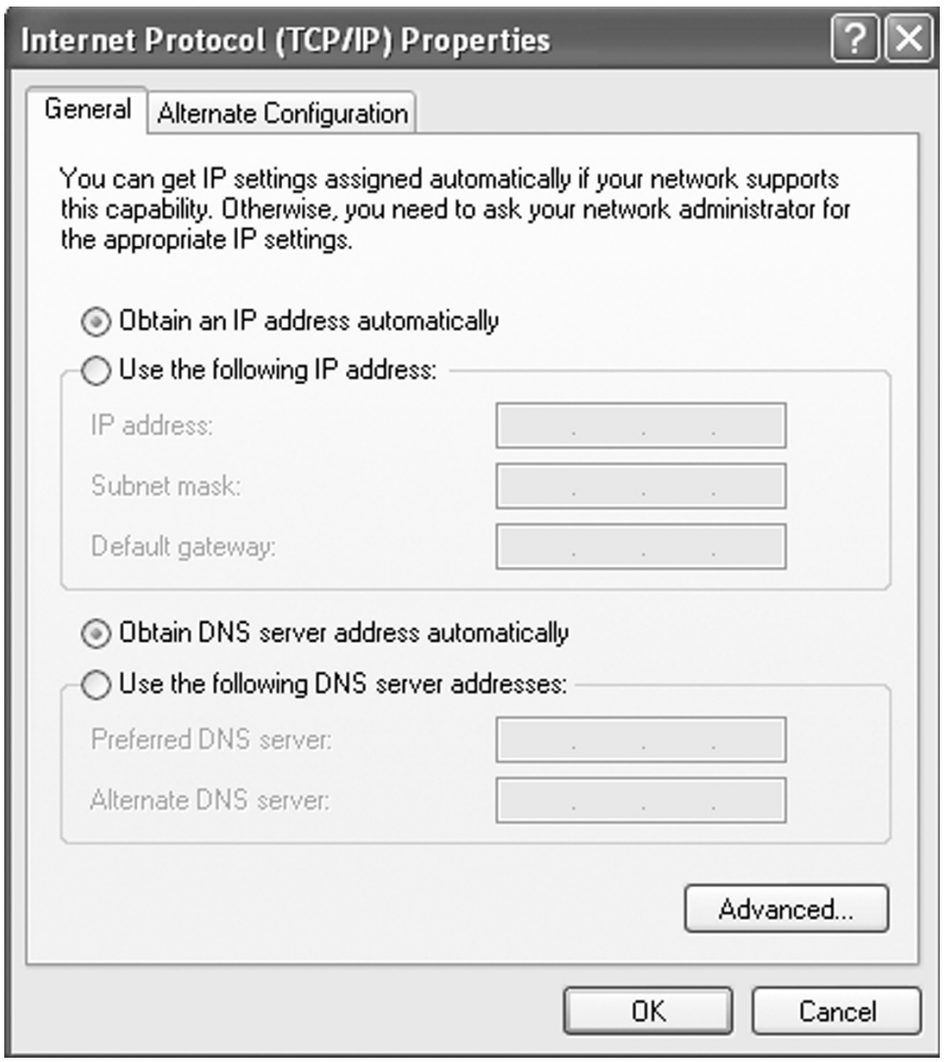
1. Select **Start**→ **Settings**→ **Control Panel**→ **Network Connections**.
2. Double-click <**Local Area Connection**> and click <**Properties**>.
3. Click <**Install...**> and double-click <**Protocol**>.



4. Select <**Internet Protocol (TCP/IP)**> and click <**OK**>.

Configuration (For classic start menu)

1. Click <**Start**> and select [**Settings**], then click <**Network Connections**>.
2. Double-click <**Local Area Connection**> and click <**Properties**>.
3. Double-click <**Internet Protocol (TCP/IP)**> and select <**Obtain an IP address automatically**>, <**Obtain DNS server address automatically**>.



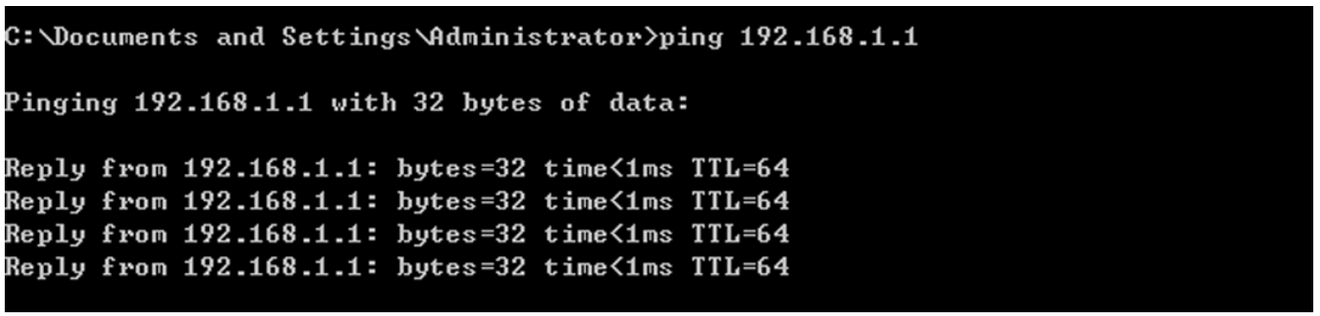
Note:

If the service provider provides DNS IP address, please select <**Use the following DNS server addresses**> and enter the specified IP address.

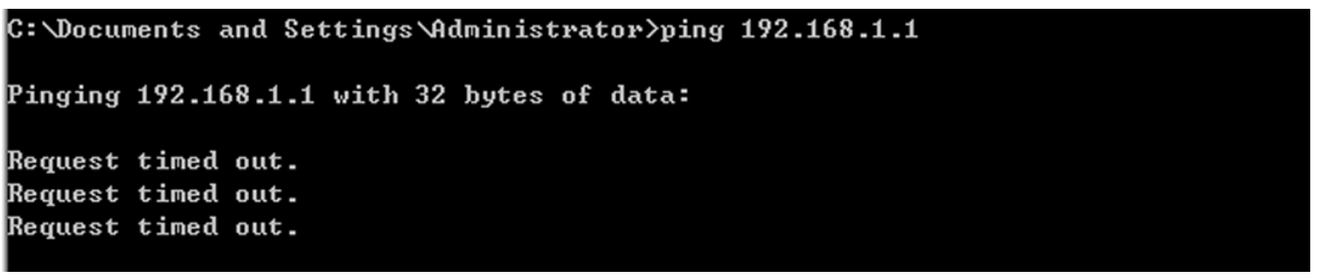
4.2 Checking

4.2.1 Check LAN Connection

1. Click <**Start**> and <**Run**>. In the Open field, enter **command**. Press the **Enter** key or click the <**OK**> button. In the command prompt, type **ping 192.168.1.1** and press the **Enter** key.
2. If you get a reply as follows, the LAN connection is ok.



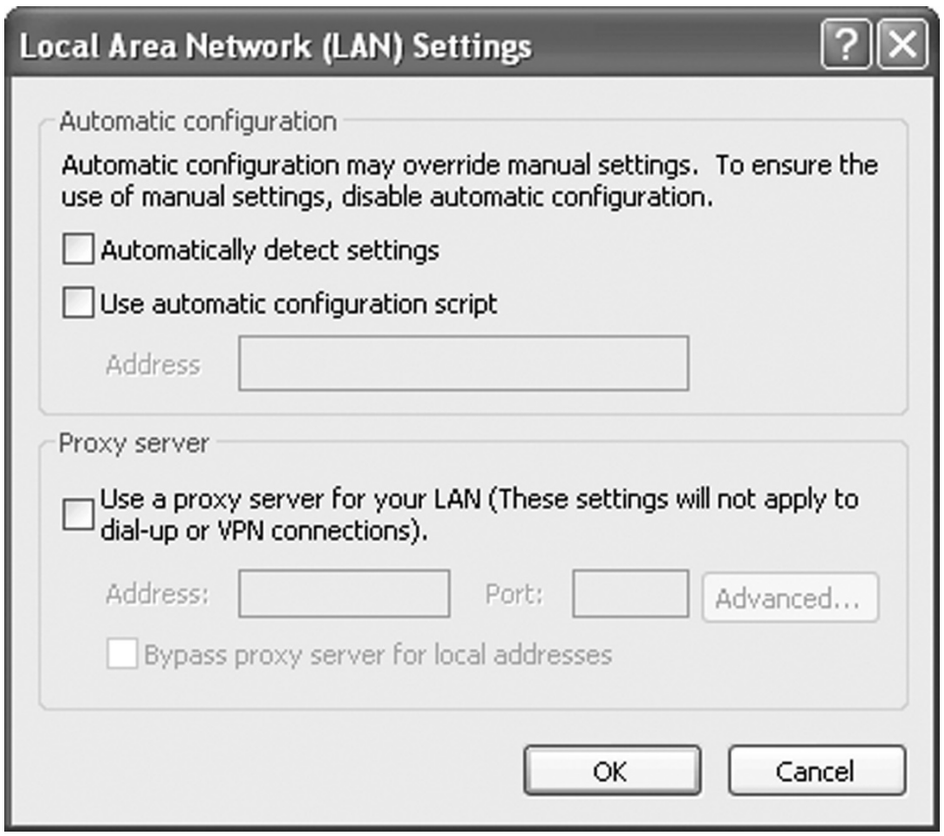
3. If you get a reply as follows, please check the LAN and TCP/IP configuration Refer to chapter 3.2 and chapter 4.1 in detail.



4.2.2 Cancel Proxy Server in Browser

For classic start menu:

1. Select Start→ Settings→ Control Panel→ Internet Options.
2. Select <**Connections**>.
3. Click the <**LAN Settings**> button and remove anything that is checked.



4. Click the <**Cancel**> button to go back to the previous screen.
5. Click the <**OK**> button to confirm canceling proxy server in browser.

4.2.3 Others

Sometimes you also need several parameters, please ask your service provider in detail.

5. Ordinary Operation

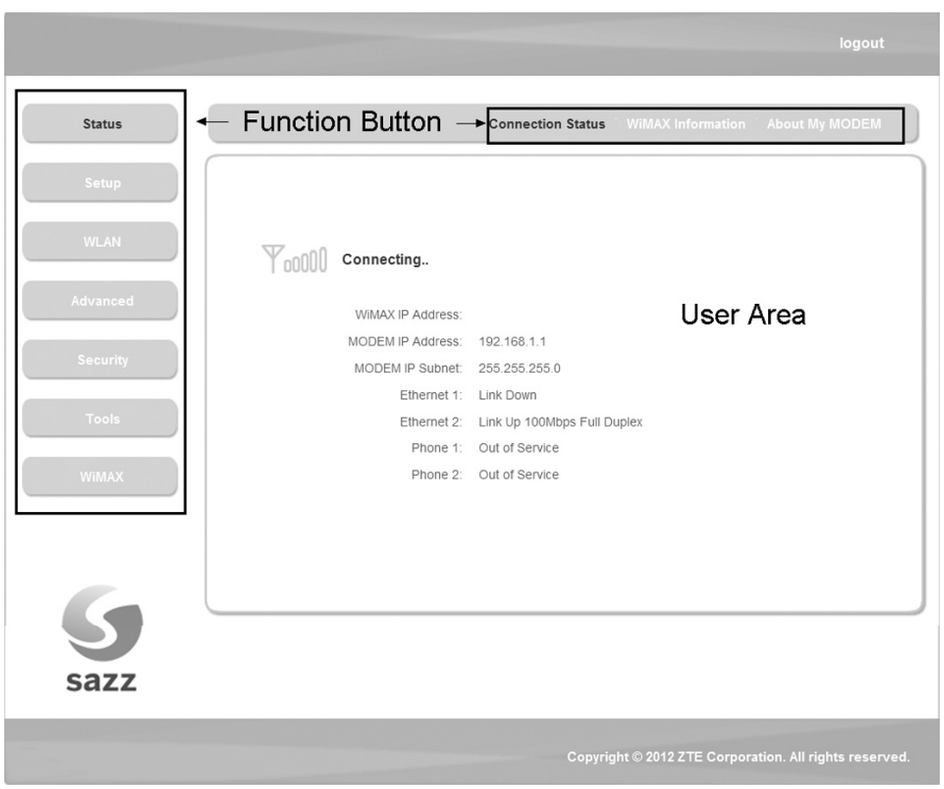
5.1 Login

To access the Web-based Utility of the MODEM, launch Internet Explorer and enter the MODEM's default IP address (192.168.1.1) in the address field, then press the Enter key. A screen will appear asking you for your User name and Password (detail as following picture). Enter **admin** in the User-name field and **admin** in the Password field. Select the proper language. Then click the <**login**> button.

Note:

-If you click <**exit**> button, you will see the following prompt message.

When you access the MODEM setup page, the first screen you see as following:



The whole interface is divided into two parts, and related functions can be executed by operation in the related areas.

1. Function Button

- Clicking **Status** link displays status and statistical information for all connections and interfaces.
- Clicking **Setup** link allows you to edit existing connections, and configure other basic settings.
- Clicking **WLAN** link allows you to edit WLAN interface.
- Clicking **Advanced** link allows you to configure advanced features like SNTP, DNS etc.
- Clic king **Security** link allows you to configure Port Forwarding, Port Trigger etc.
- Clicking **Tools** link allows you to carry out system commands and perform simple system tests.
- Clicking **WiMAX** link allows you to configure WiMAX settings.
- Clicking **logout** link to exit MODEM setup page manually.

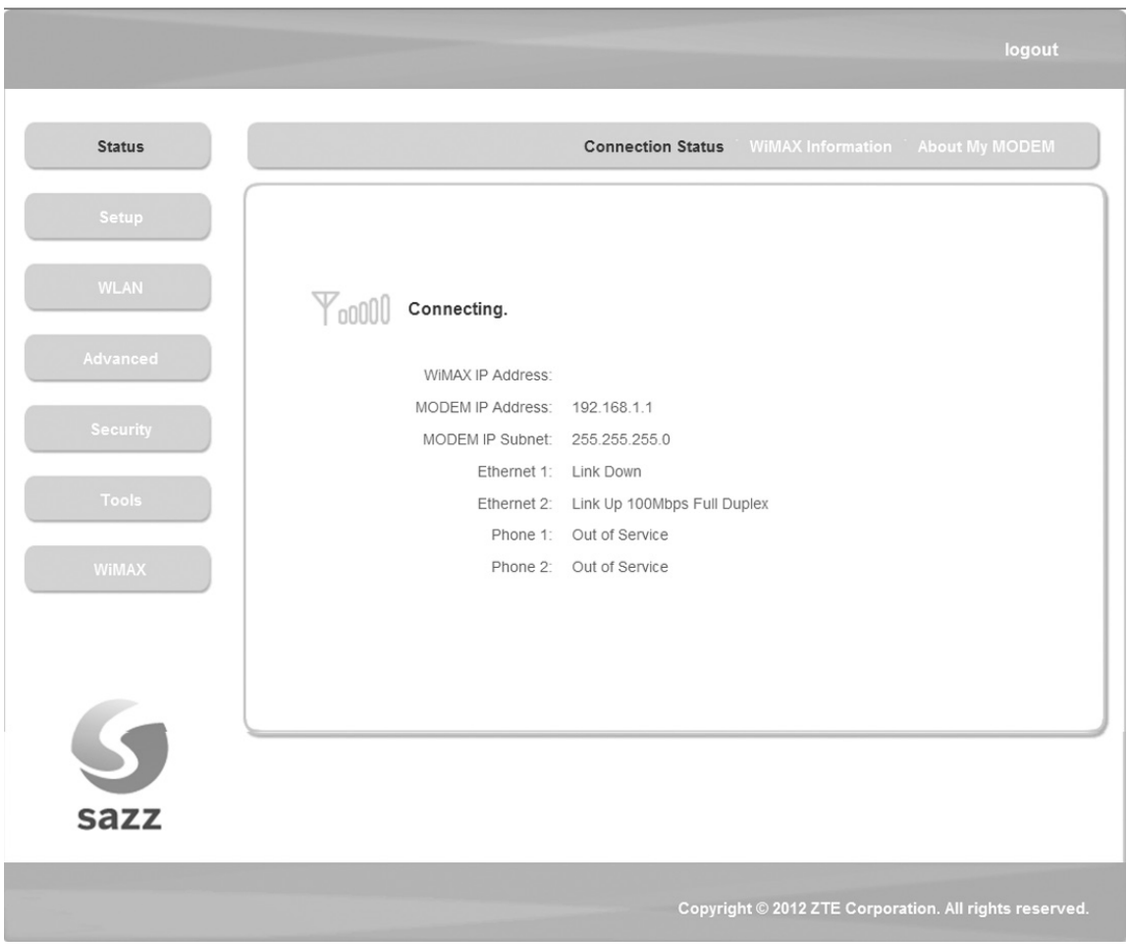
2. User Area

Show the man-computer interaction information under various conditions.

5.2 Status

5.2.1 Connection Status

After you access the MODEM setup page successfully, please click **Status** →**Connection Status** link, you will see the basic information.



- **WiMAX IP Address**

The IP address of the MODEM obtained automatically

- **Modem IP Address**

The IP Address of the MODEM

- **Modem IP Subnet**

The IP Subnet of the MODEM

- **Ethernet 1**

LAN port 1 property and current status

- **Ethernet 2**

LAN port 2 property and current status

- **Phone 1**

Phone 1 current status

- **Phone 2**

Phone 2 current status

- Connecting.

Show the current network signal strength and connection status. Detail as follows:

Name	Icon	Description
Signal strength		More real lines show stronger signal
		No signal
Connection status	Connected	MODEM accesses network successfully
	Disconnected	Disconnected with WiMAX network
	Connecting	MODEM is connecting or searching for WiMAX network

5.2.2 WiMAX Information

After access MODEM setup page successfully, please click **Status** → **WiMAX Information** link to access the following screen:

■ WiMAX Information

Use to view WiMAX network information.

- **WAN IP**: IP address for WAN connection. It is the same IP address as the **WiMAX IP Address**
- **BSID**: Base Station ID of the MODEM connected
- **Cell ID**: Cell ID of the MODEM connected
- **Frequency**: Frequency information
- **Tx Bytes**: Transmission flow statistic
- **Rx Bytes**: Receiver flow statistic
- **Connection Duration**: Duration of time for connection
- **RSSI**: Receive signal strength indicator
- **Tx Power**: Transmission power
- **PER**: Packet error ratio
- **CINR**: Carrier to interference and noise ratio
- **UL Modulation**: Adjustment encoding mode of uplink
- **DL Modulation**: Adjustment encoding mode of downlink

5.2.3 About My Modem

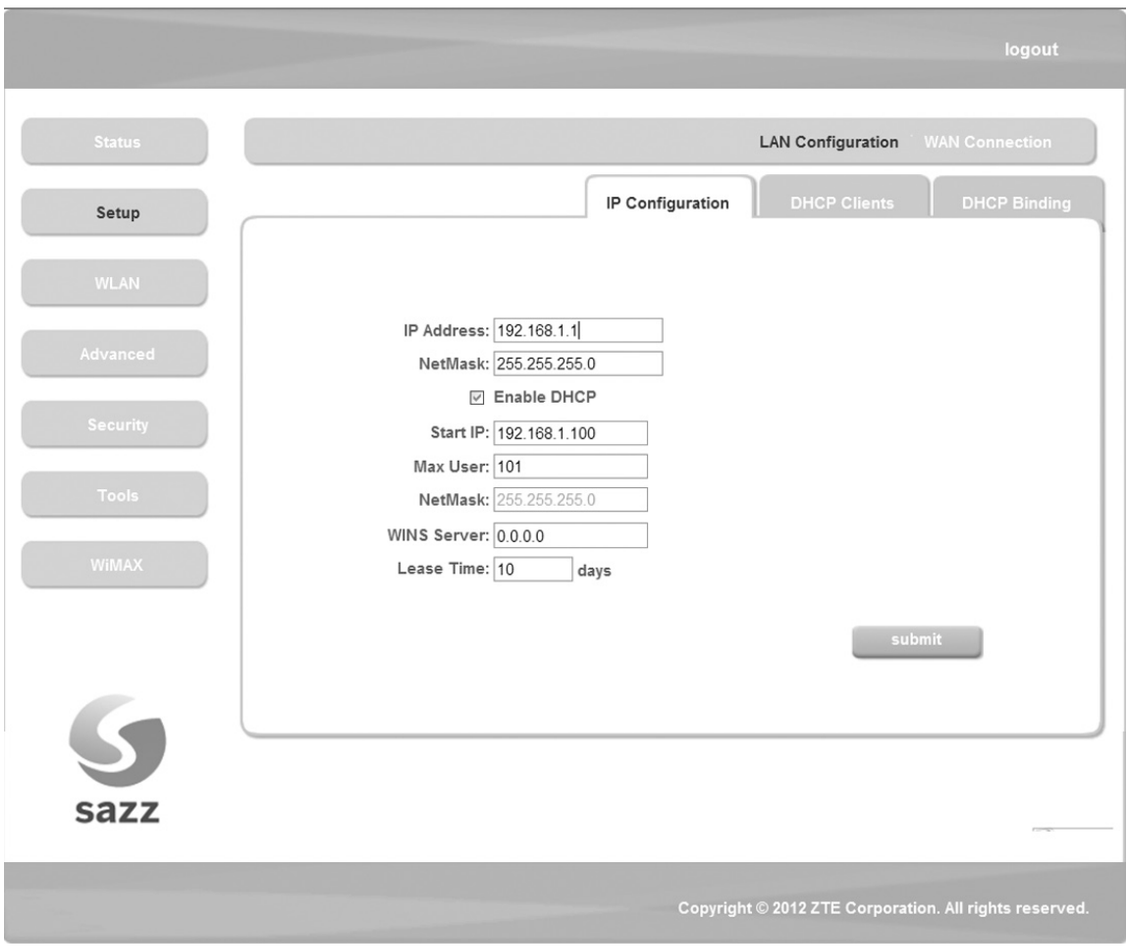
After access MODEM setup page successfully, please click **Status → About My Modem** link to access the following screen:

- **Model Name**: The model name of this MODEM
- **Software Version**: Current software version of this MODEM
- **Hardware Version**: Current hardware version of this MODEM
- **Uptime**: The running elapsed of the MODEM
- **MAC Address**: The MAC address of the MODEM.

5.3 Setup

5.3.1 IP Configuration

After access MODEM setup page successfully, please click **Setup → LAN Configuration → IP Configuration** link to access the following screen:

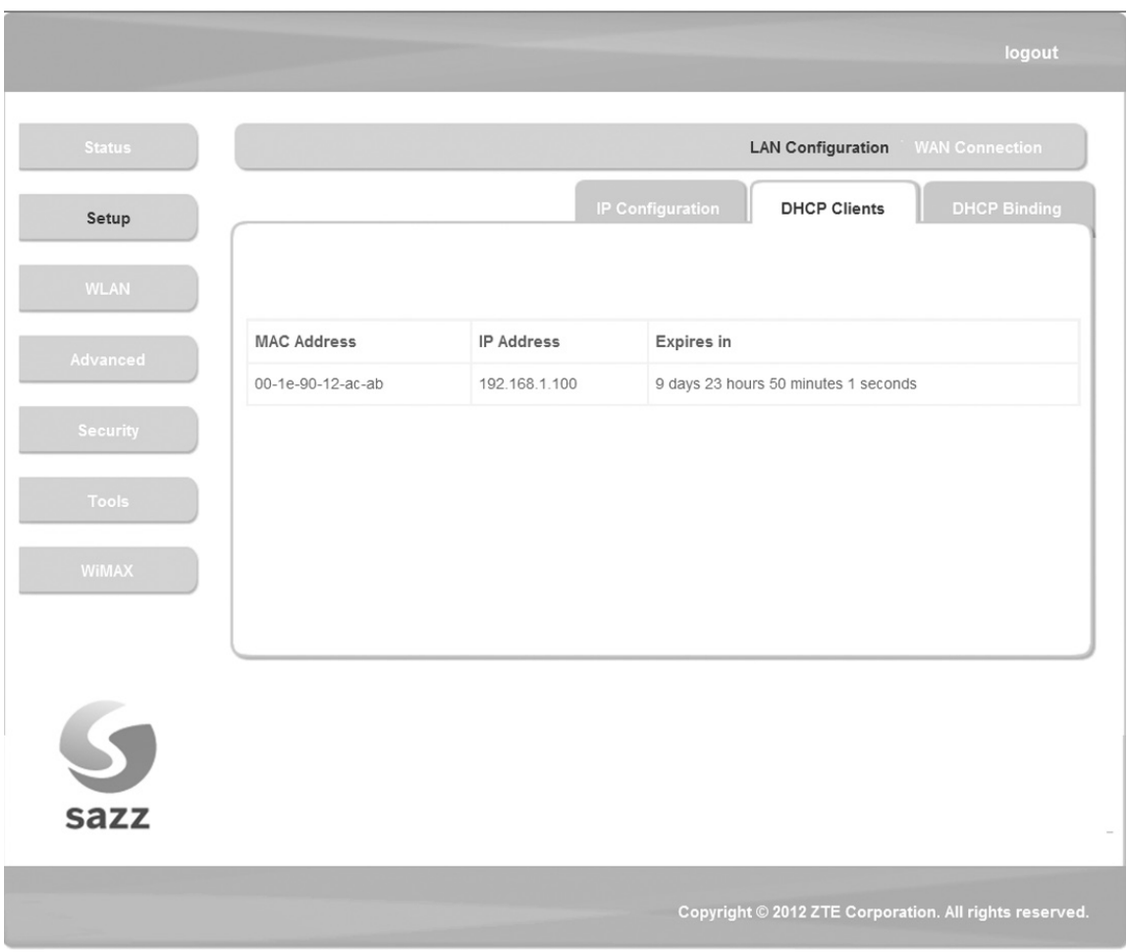


- **IP Address**: IP address for LAN
- **NetMask**: Net mask for LAN
- **Enable DHCP**: Enable or disable the DHCP service, when this item is checked, you should set DHCP server information as follows

- **Start IP**: First IP assigned by DHCP server
- **Max User**: The max number assigned by DHCP server
- **NetMask**: Net mask assigned by DHCP server
- **WINS Server**: IP for WINS server
- **Lease Time**: Time that DHCP server rents the IP address (Unit: day)

5.3.2 DHCP Clients

After access MODEM setup page successfully, please click **Setup → LAN Configuration → DHCP Clients** link to access the following screen:



- **MAC Address**: MAC address of DHCP client
- **IP Address**: IP address for DHCP clients
- **Expires in**: The left time for lease, if this IP address is static bound, then demonstrated: Infinity

5.3.3 DHCP Binding

After access MODEM setup page successfully, please click **Setup → LAN Configuration → DHCP Binding** link to access the following screen:

You can set MAC address and IP address binding, create a DHCP binding table to mapping MAC address and IP address of clients. When DHCP

server assigns address, IP address will be assigned according to the binding relations of MAC and IP, and never expired.

For example: MAC address is 00-0a-e2-c6-48-ba; and IP address is 192.168.1.133, it means that the IP address DHCP Server assigns to the MAC address corresponding host is 192.168.1.133.

5.3.4 WAN Connection

After access MODEM setup page successfully, please click **Setup → WAN Connection** link to access the following screen:

- **Type**: WAN connection type
- **NAT**: NAT enable/disable
- **IP address**: WAN IP address
- **Mask**: Netmask address
- **Gateway**: Gateway IP address
- **DNS**: Main DNS address
- **Standby DNS**: Standby DNS address
- **Lease Time**: The time that WAN rent IP address from DHCP server

---- <**connect**>/<**disconnect**> button Use to WAN connect/disconnect.

5.4 WLAN

5.4.1 Basic Settings

After access MODEM setup page successfully, please click **WLAN → Basic Settings** link to access the following screen:

- **Enable Wireless RF**: Display the WLAN function status based on the WLAN button status On or Off.
- **Mode**: Use to select default wireless mode
- **Channel**: Use to configure default wireless channel
- **SSID**: Use to configure SSID, not more than 32 characters

---- <**submit**> button use to active the basic wireless configuration

5.4.2 Security

After access MODEM setup page successfully, please click **WLAN → Security** link to access the following screen:

- **Hide SSID**: Select the option to hide SSID of WLAN
- **Security Mode**: Use to select the security mode of WLAN

  ---- <**submit**> button use to active the wireless security configuration

WEP

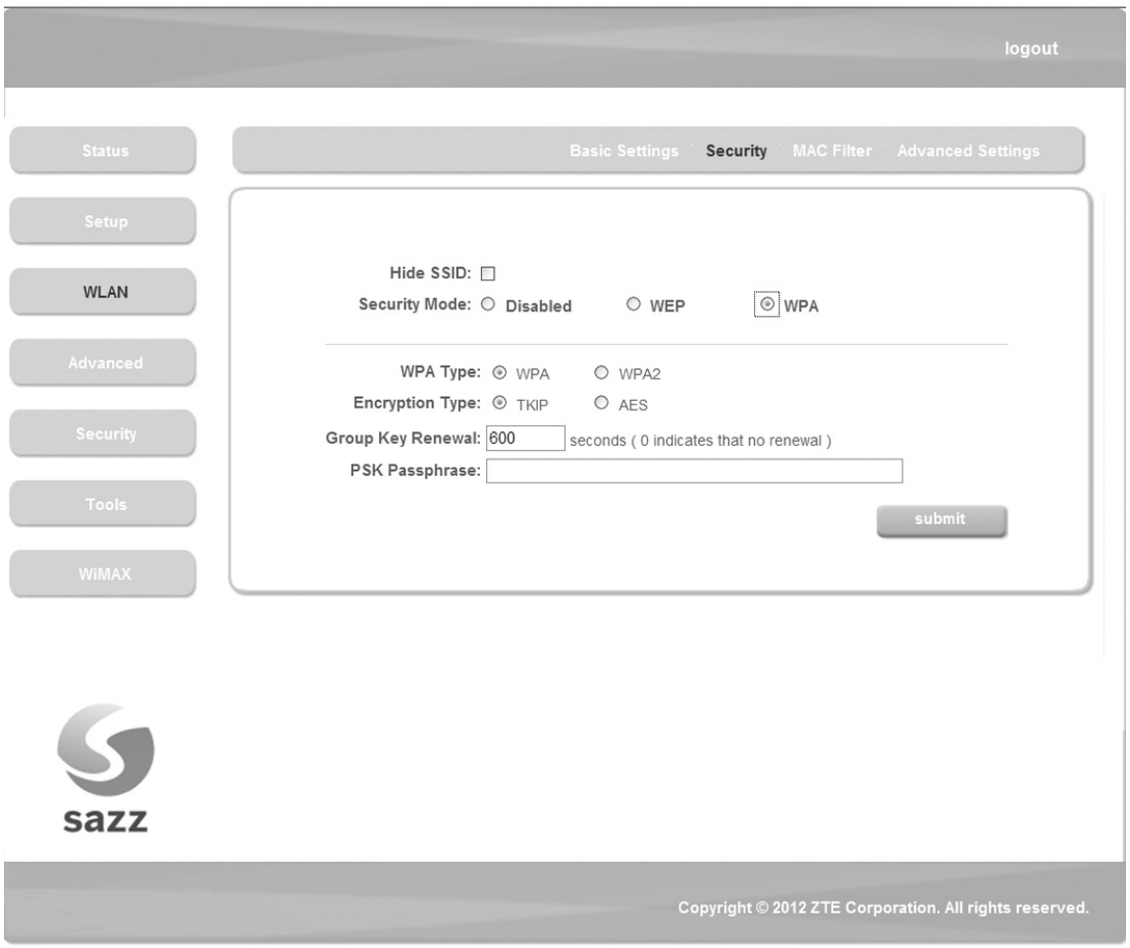
WEP is a basic type of wireless encryption protocol.

- **WEP Type**: You can select the 64-bit or 128-bit, the 128-bit can provide much better security than 64-bit.
- **WEP Key Type**: You can select Alphanumeric or Hexadecimal.
- **Use WEP Type**: You can select 1~4 to use the Key1~Key4.
- **Key1~Key4**: You can set the WEP key.

  ---- <**submit**> button use to active the wireless security configuration

WPA

WPA is an advanced type of wireless encryption protocol.

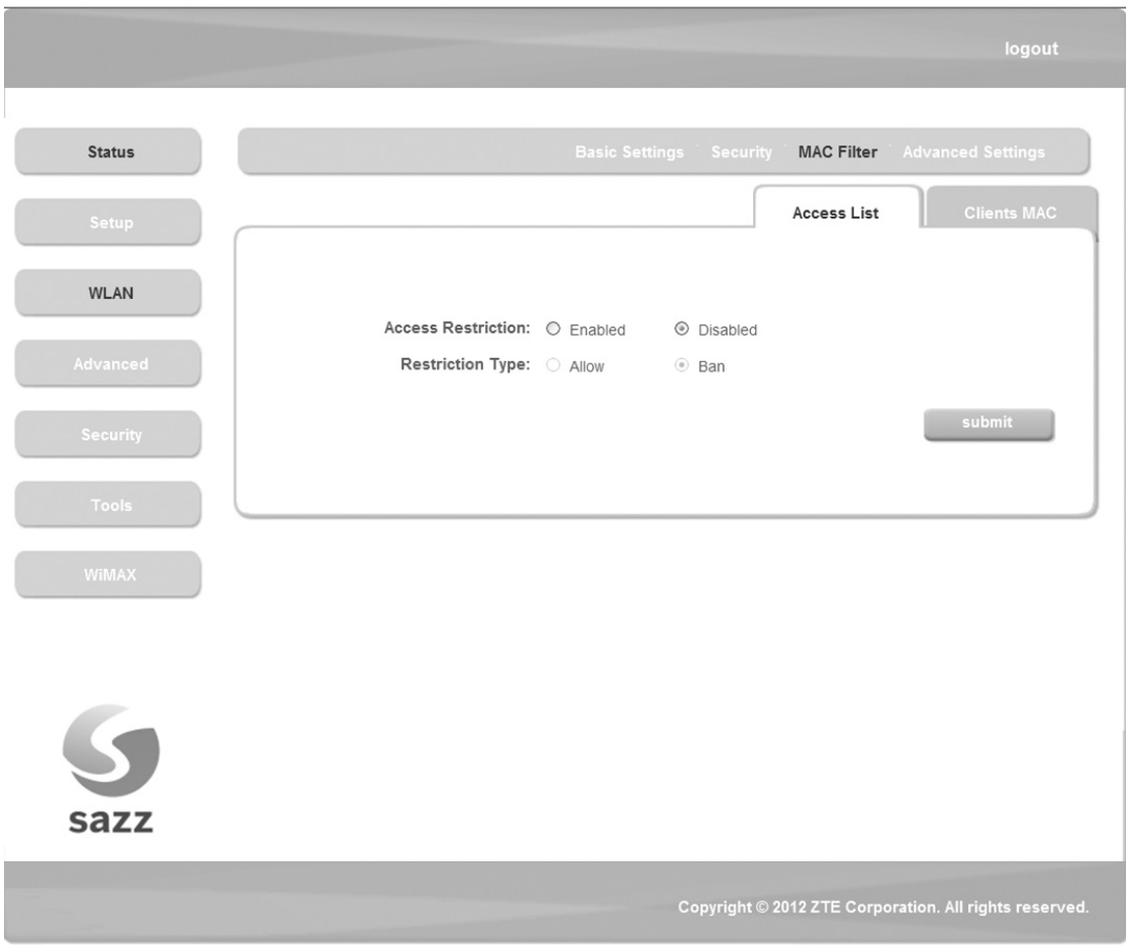


- **WPA Type**: You can select WPA or WPA2.
- **Encryption Type**: You can select TKIP or AES.
- **Group Key Renewal**: You can input 0~3600 seconds as the interval of change the key.
- **PSK Passphrase**: You can input 8~32 bytes digit as the WPA key.

  ---- <**submit**> button use to active the wireless security configuration

5.4.3 MAC Filter

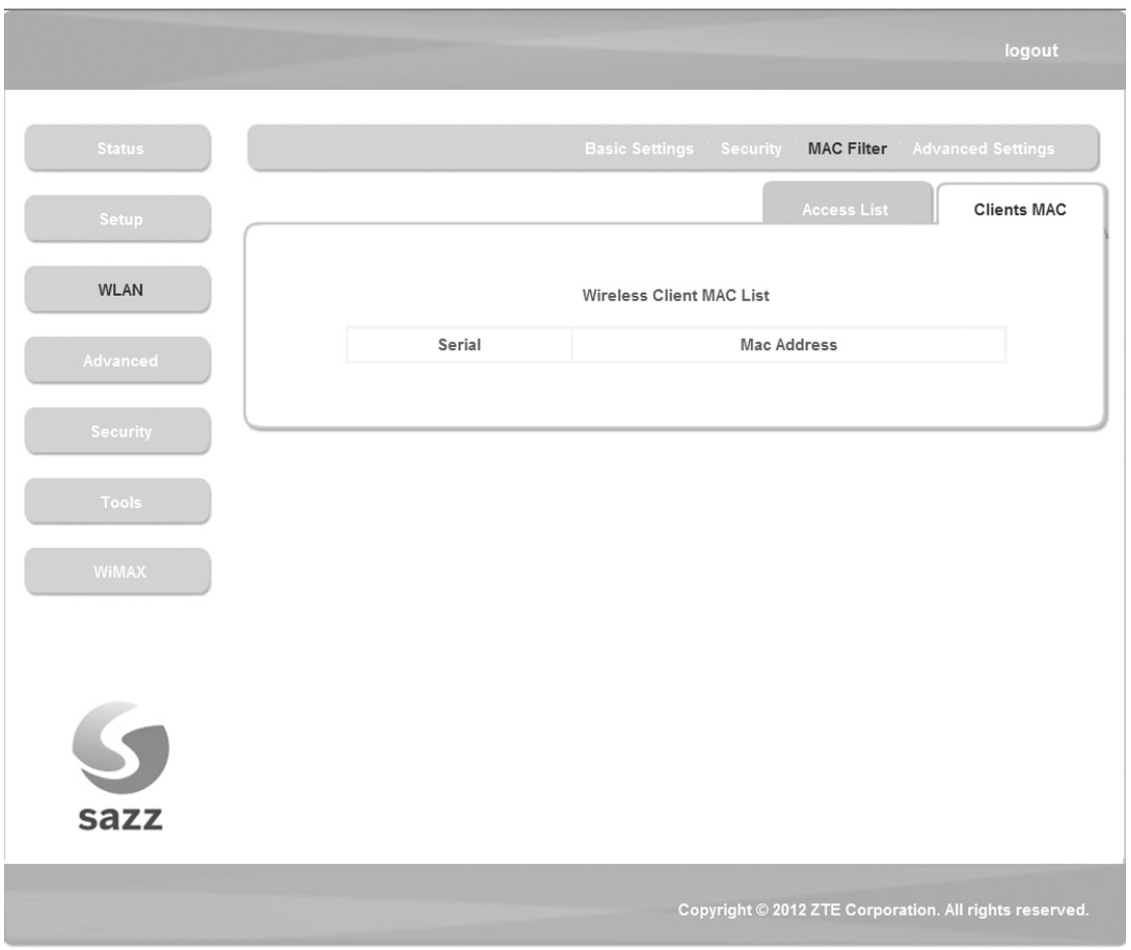
After access MODEM setup page successfully, please click **WLAN → MAC Filter** link to access the following screen:



Access List

- **Access Restriction**: To enable or disable the access restriction function
- **Restriction Type**: If Access Restriction enabled, you need select the restriction type

  ---- <**submit**> button use to active the configuration

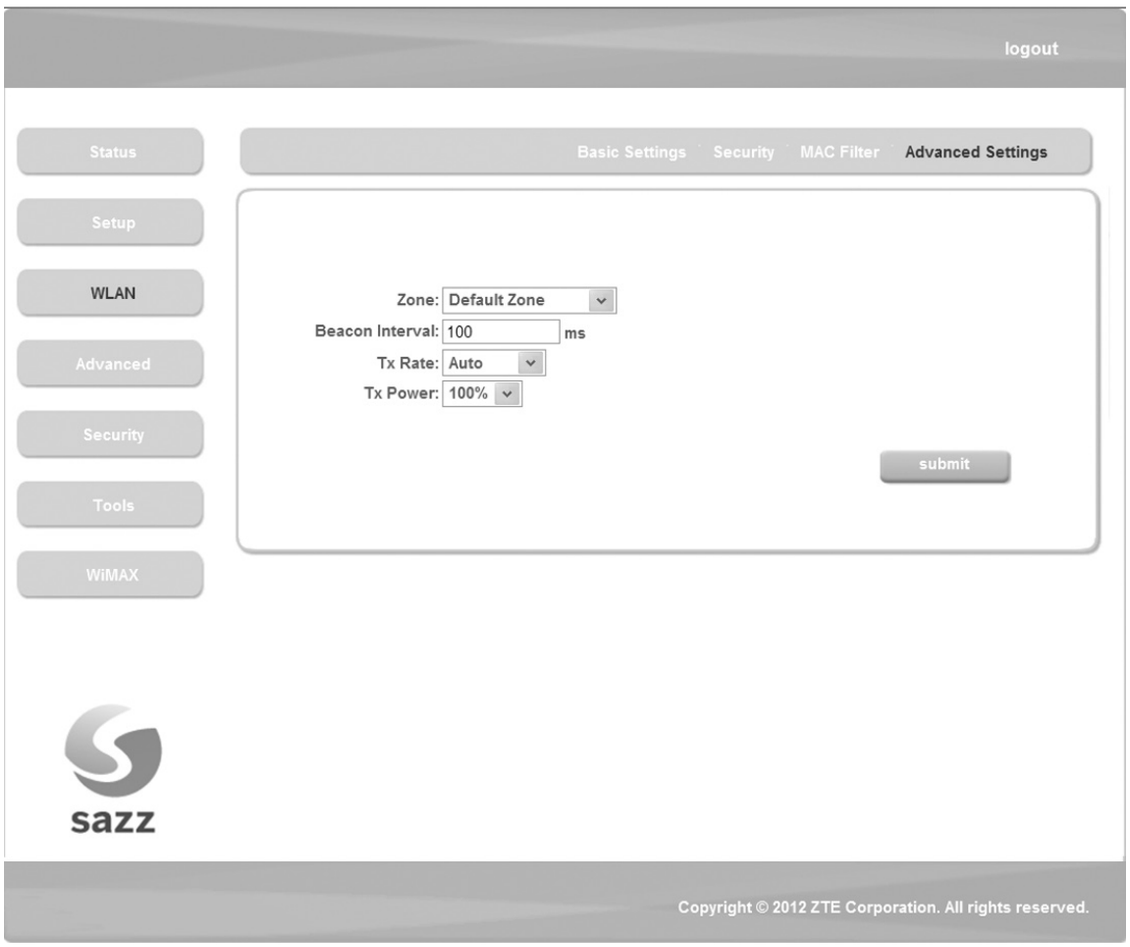


Clients MAC

- **Wireless Clients MAC List**: The wireless clients MAC address list.

5.4.4 Advanced Settings

After access MODEM setup page successfully, please click **WLAN → Advanced Settings** link to access the following screen:



- **Zone**: Use to select Zone
- **Beacon Interval**: Use to configure beacon interval
- **Tx Rate**: Use to configure transmit rate
- **Tx Power**: Use to configure transmit power

---- <**submit**> button used to active the advanced configuration.

5.5 Advanced

5.5.1 Routing Setup

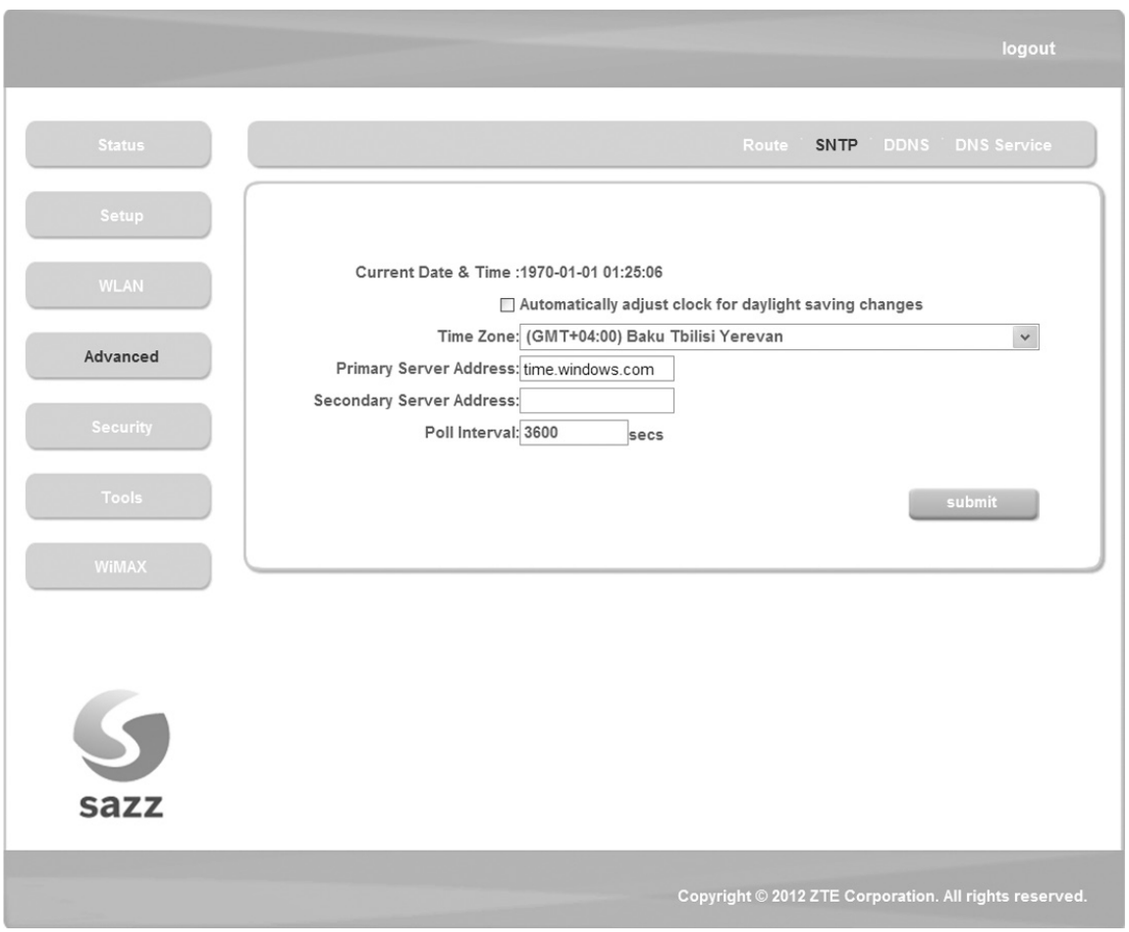
After access MODEM setup page successfully, please click **Advanced** → **Route** link to access the following screen:

- **Default Gateway Interface**: Use to configure default gateway interface
- **Destination Network Address**: Use to configure destination network address
- **Destination Mask**: Use to configure destination network mask address

- **Next Hop IP**: Use to configure next hop IP address
  - ---- <**submit**> button Use to active the default gateway configuration
  - ---- <**add**> button Use to save the route item
  - ---- <**modify**> button Use to modify the selected route item
  - ---- <**delete**> button Use to delete the selected route item

5.5.2 SNTP Client Configuration

After access MODEM setup page successfully, please click **Advanced** → **SNTP** link to access the following screen:



- **Automatically adjust clock for daylight saving changes**: Enable/

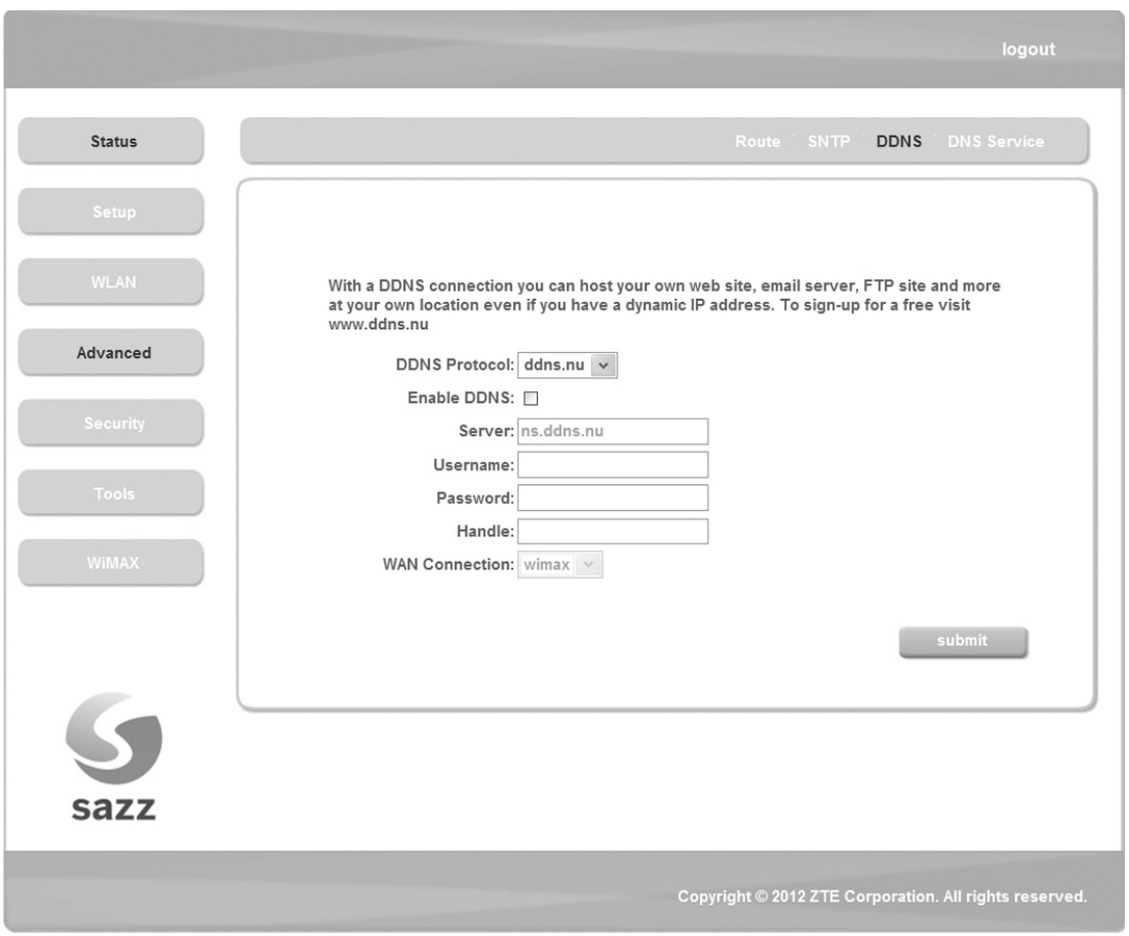
Disable automatically adjust clock for daylight saving changes function

- **Time Zone**: Select time zone
- **Primary Server Address**: Main SNTP server address
- **Secondary Server Address**: Standby SNTP server address
- **Poll Interval**: Poll interval time, and the unit is second

---- <**submit**> button Use to active the SNTP client configuration

5.5.3 DDNS Setup

After access MODEM setup page successfully, please click **Advanced** → **DDNS** link to access the following screen:



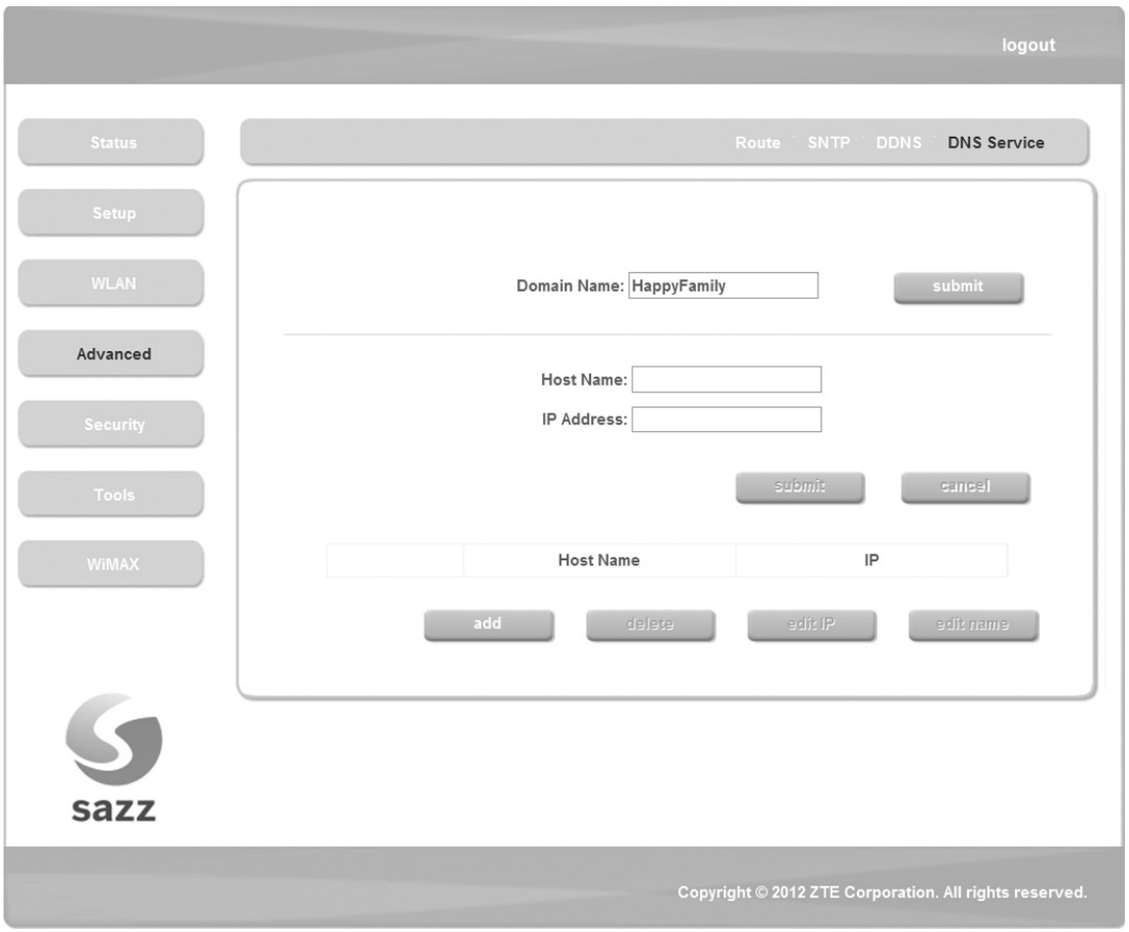
DDNS is a dynamic domain analysis system. After applying DDNS, a dynamic IP address to the mainframe also can provide domain name services. For example, the mainframe through dial-up or XDSL DHCP server gets IP address and domain names dynamically. Enable and configure DDNS so the host's IP address changes will not affect the users who visit through the domain name.

- **DDNS Protocol**: Dynamic Domain Name Service
- **Enable DDNS**: Active/Inactive DDNS function
- **Server**: Available server address. The modem uses ddns.nu protocol, the server has a domain name, and the default name is ns.ddns.nu.
- **Username**: Username which has registered successfully in DDNS
- **Password**: Password which has registered successfully in DDNS
- **Handle**: Bind character string and the corresponding IP address. Only available in the ddns.nu protocol
- **WAN Connection**: Use to select the WAN side connection port

  ---- <**submit**> button Use to active the DDNS Setup

5.5.4 DNS Configuration

After access MODEM setup page successfully, please click **Advanced** → **DNS Service** link to access the following screen:

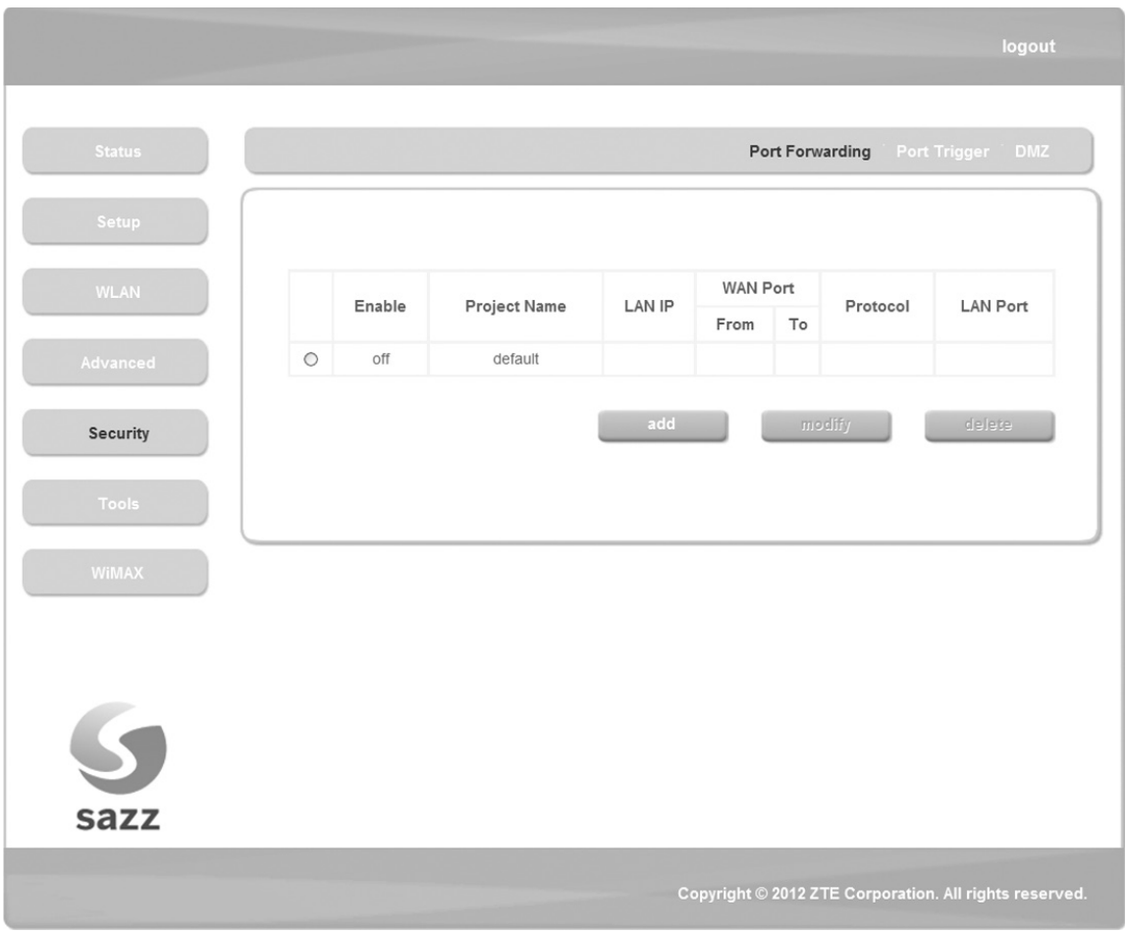


- **Domain Name**: Main domain name, and the default is HappyFamily
  ---- <**submit**> button Use to active the Domain Name configuration
- **Host Name**: Host name
- **IP Address**: Host IP address
  ---- <**submit**> button Use to active the Host configuration
  ---- <**cancel**> button Use to cancel the Domain/Host configuration
  ---- <**add**> button Use to add DNS Configuration
  ---- <**delete**> button Use to delete DNS Configuration
  ---- <**edit IP**> button Use to edit IP Address
  ---- <**edit name**> button Use to edit Host Name

5.6 Security

5.6.1 Port Forwarding

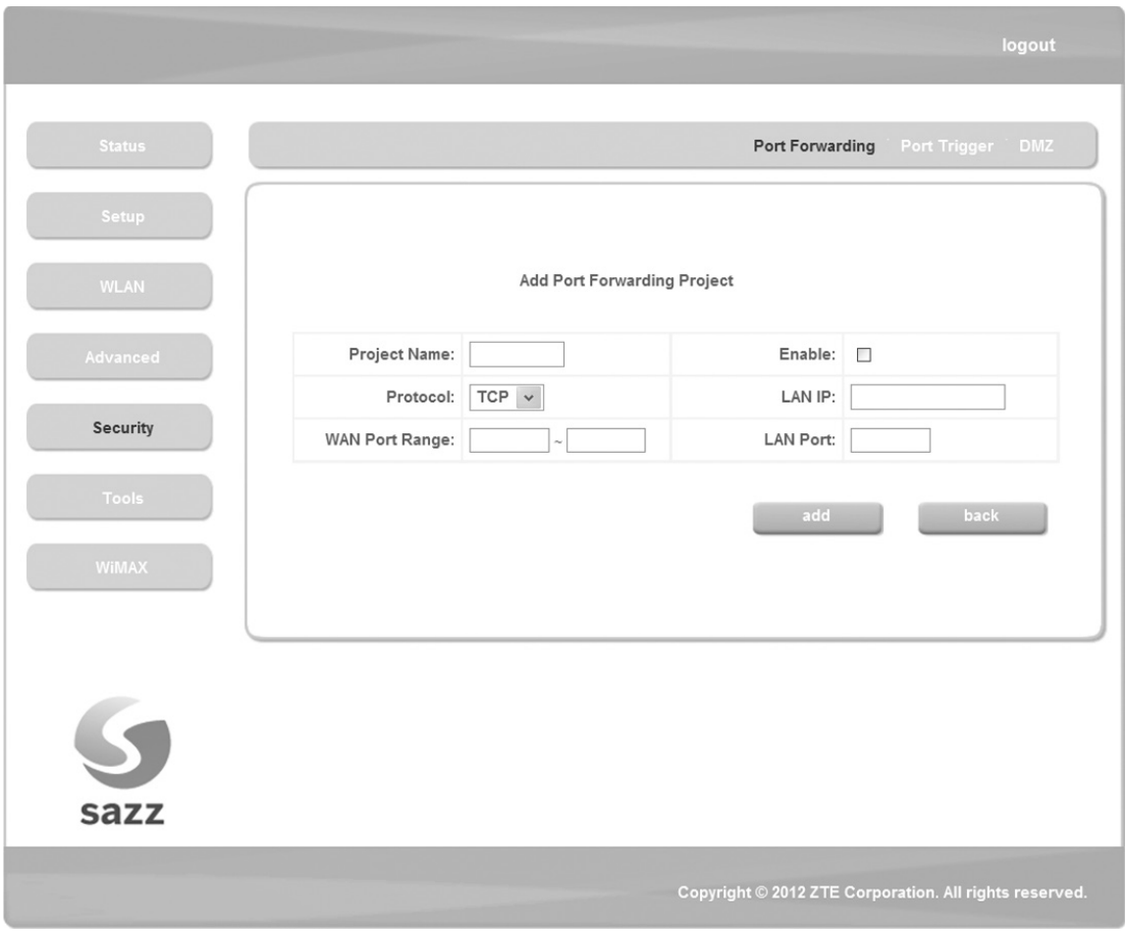
After access MODEM setup page successfully, please click **Security → Port Forwarding** link to access the following screen:



In this page you can configure one rule which permit the port visiting redirected policy, for the rule that WAN IP is the source, and LAN IP is the destination. The mainly application example is that WAN side client visits the LAN side server.

5.6.1.1 Add Port Forwarding Project

Click <**add**> button to access following screen:



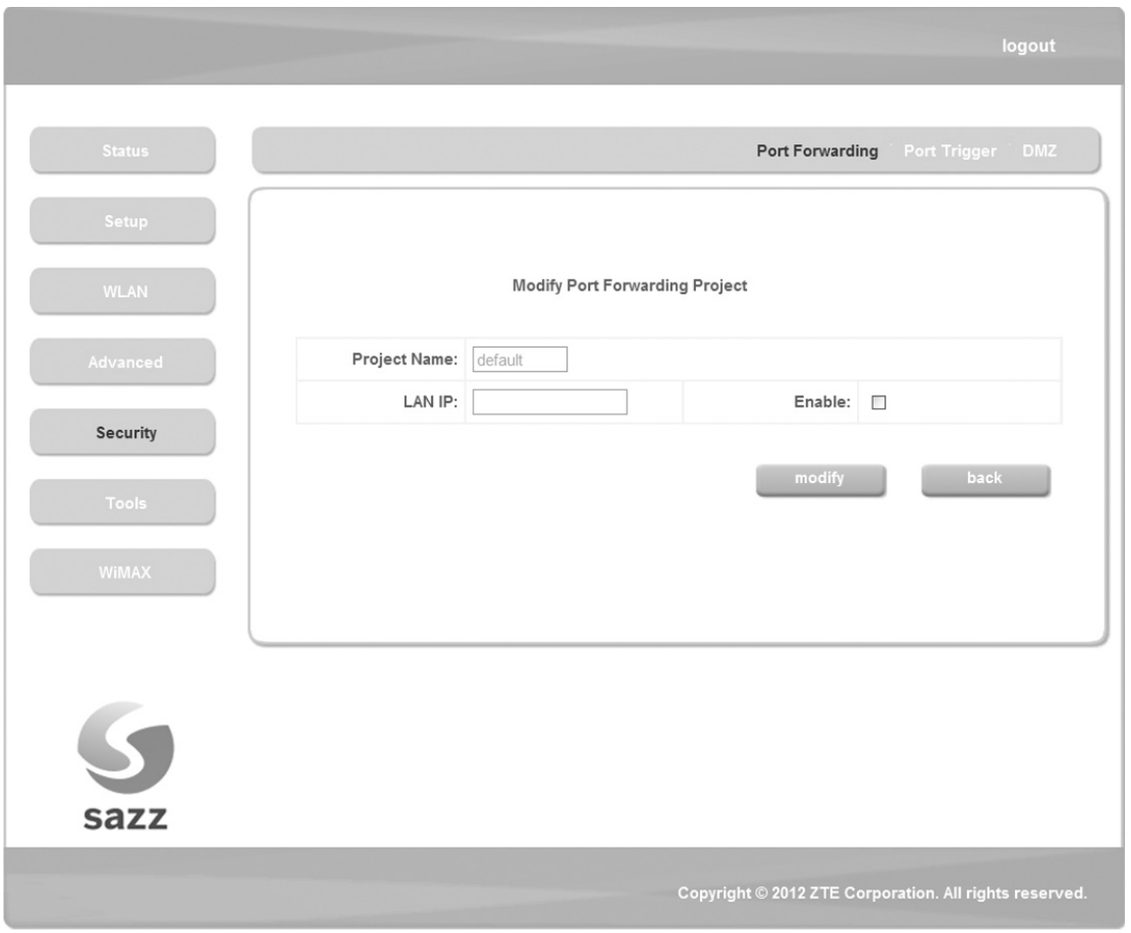
- **Project Name**: The project name of port forwarding
- **Enable**: Enable the port forwarding function
- **Protocol**: Select the protocol type TCP or UDP
- **LAN IP**: IP address in local area network
- **WAN Port Range**: Port range for WAN connection
- **LAN Port**: Port number in Local area network

---- Click <**add**> button to save the configured rule

---- Click <**back**> button to return to the port forwarding page

5.6.1.2 Modify Port Forwarding Project

Select the project that you want to modify and click <**modify**> button to access following screen:

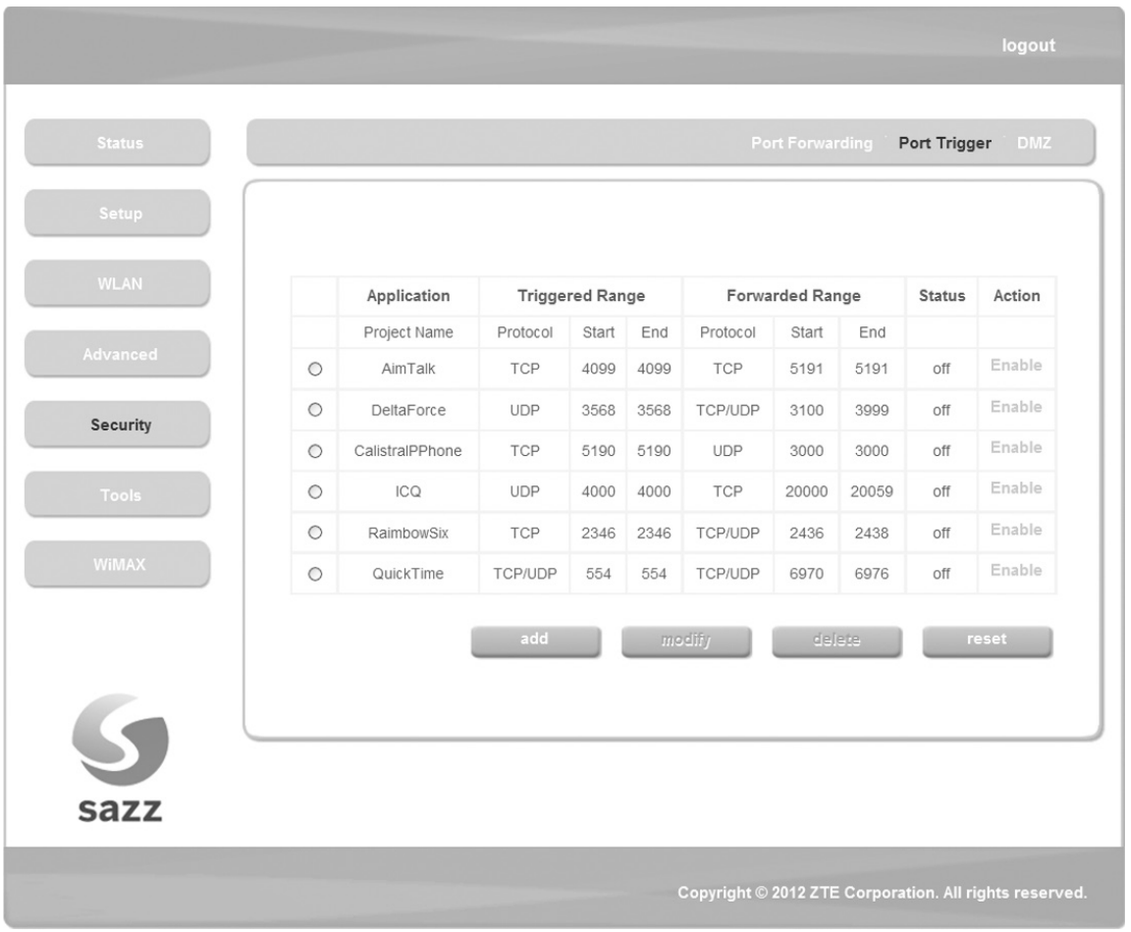


Click <**back**> button to cancel the change and return to the port forwarding page

Click <**modify**> button to submit the change and return to the port forwarding page

5.6.2 Port Trigger

After access MODEM setup page successfully, please click **Security → Port Trigger** link to access the following screen:



- **Application**

  Project Name: Application name for port trigger function

- **Triggered Range**

  Protocol: Display protocol of trigger connection

  Start: Display start port of trigger connection

  End: Display end port of trigger connection
- **Forwarded Range**

  Protocol: Display protocol of transfer connection

  Start: Display start port of transfer connection

  End: Display end port of transfer connection
- **Status**: Display current status of trigger application
- **Action**: Active or inactive current configuration, there are two type buttons: <**Enable**> and <**Disable**>, when you click current button, the action changed to another

  ---- Click <**add**> to add a port trigger rule

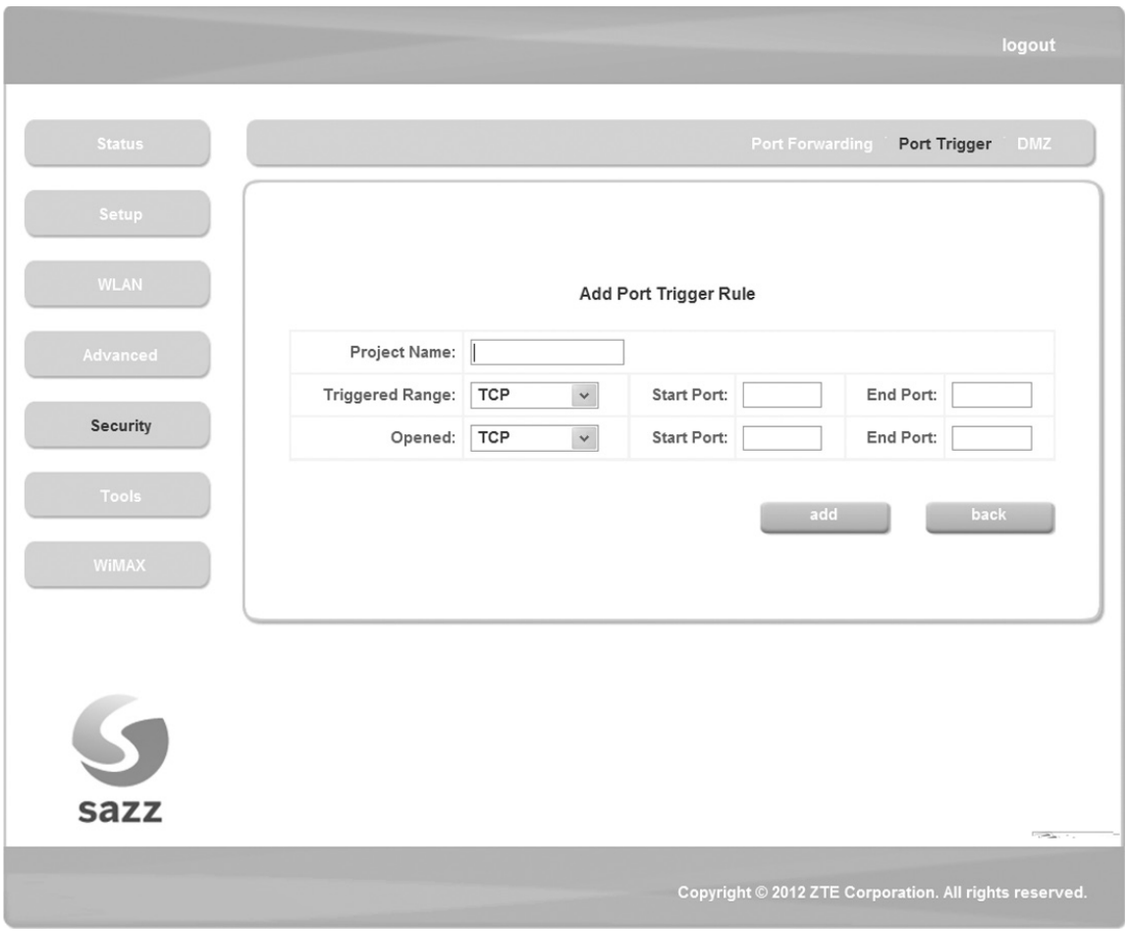
  ---- Click <**reset**> to load default configuration from system

  ---- Choose the project then click <**modify**> to change items

  ---- Choose the project then click <**delete**> to delete items

5.6.2.1 Add Port Trigger Rule

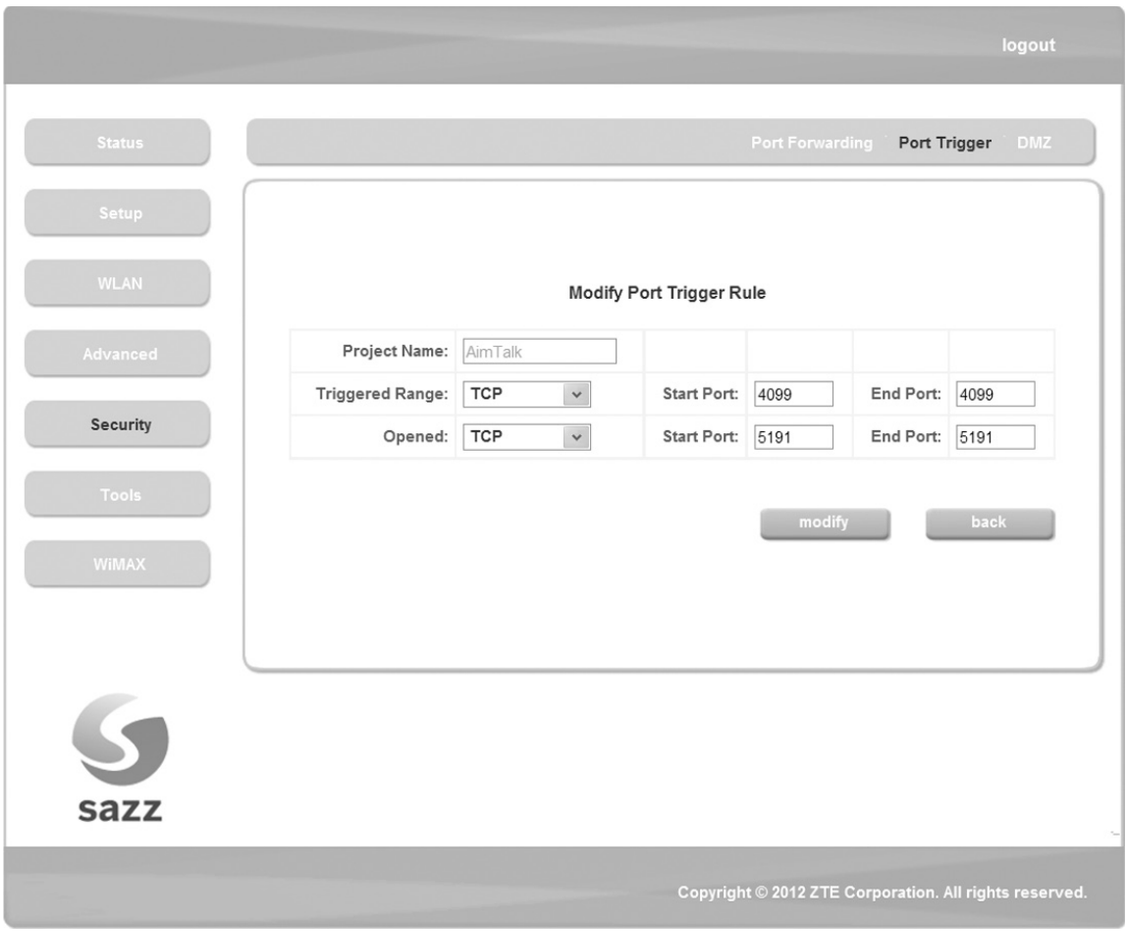
Click <**add**> button to access following screen.



Click <**back**> button to return to the port trigger page, and click <**add**> button to save the port trigger configuration.

5.6.2.2 Modify Port Trigger Rule

Click <**modify**> button to access following screen.



Click <**back**> button to return to the port trigger page, and click <**modify**> button to save the port trigger configuration.

5.6.3 DMZ

After access MODEM setup page successfully, please click **Security → DMZ** link to access the following screen:

- **Enable**: Enable/Disable DMZ host
- **IP**: DMZ host IP address

---- <**submit**> button Use to active the DMZ related configuration.

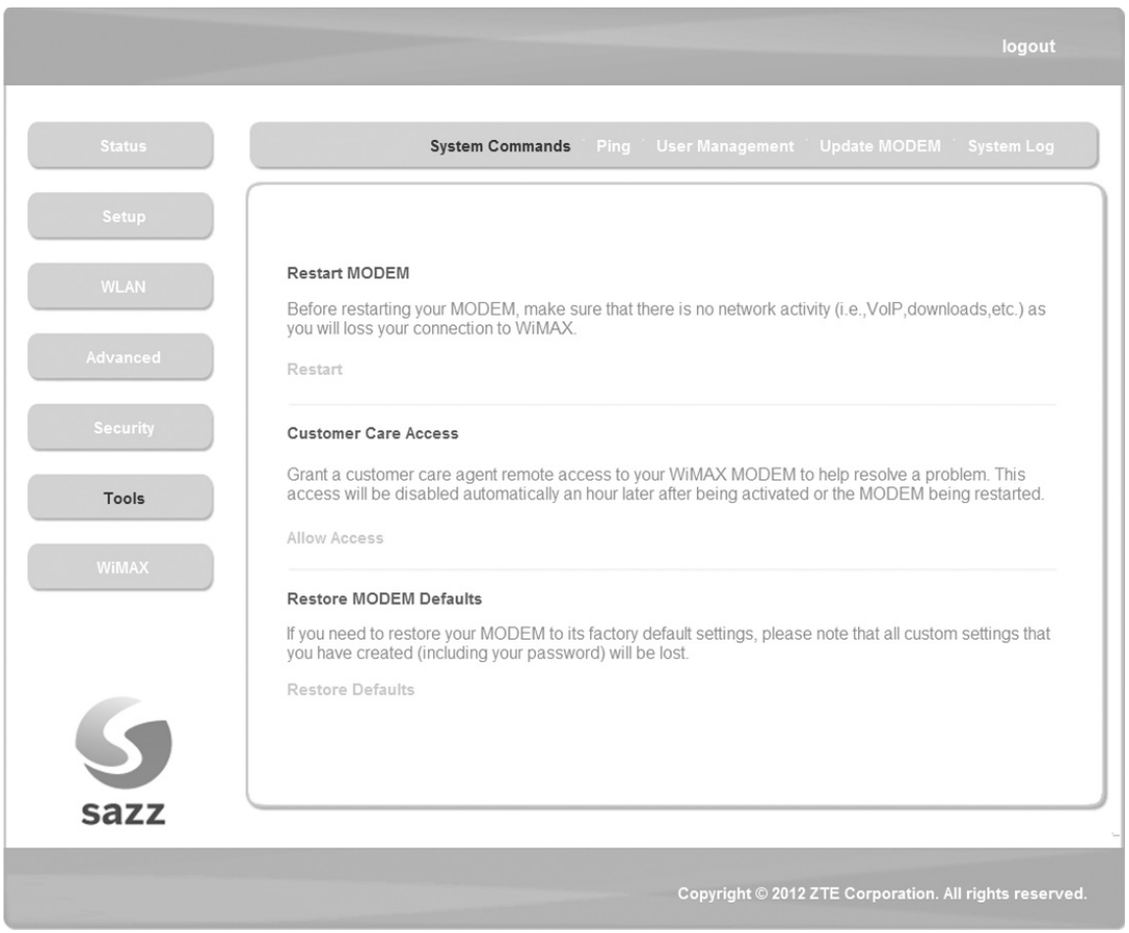
DMZ configuration means that you can configure one specified host or an IP address as DMZ zone, the host within DMZ zone can provide the server function for the outside.

To ensure the security of LAN side non-DMZ zone host, it's recommended that set the DMZ zone host as FTP or WEB server, thus the ftp or WEB visit request from WAN side host can be redirected to the FTP or WEB server within DMZ zone.

5.7 Tools

5.7.1 System Commands

After access MODEM setup page successfully, please click **Tools → System Commands** link to access the following screen:



---- Once click **Restart** link, the Web page will no response within several minutes, because restarting MODEM needs some delayed time, you must wait until MODEM finish restarting.

---- Click **Allow Access** link, Customer care will remote access your MODEM and help you solve some problem.

---- Click **Restore MODEM Defaults** link, system will use default configuration instead of current configuration.

5.7.2 Ping

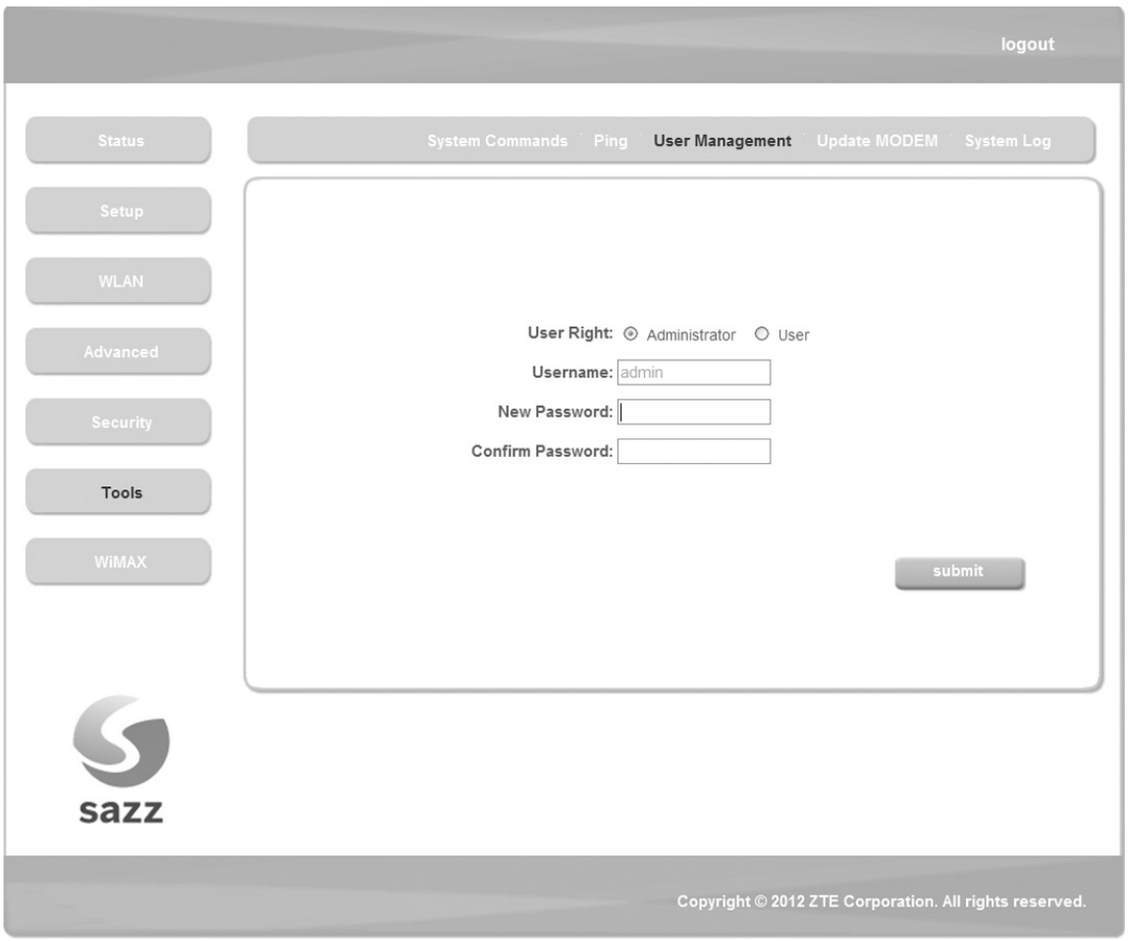
After access MODEM setup page successfully, please click **Tools → Ping** link to access the following screen:

■ **Destination**: IP address or network address

After input the destination address, please click <**ping**> button, the test result will be displayed in the text box.

5.7.3 User Management

After access MODEM setup page successfully, please click **Tools → User Management** link to access the following screen:

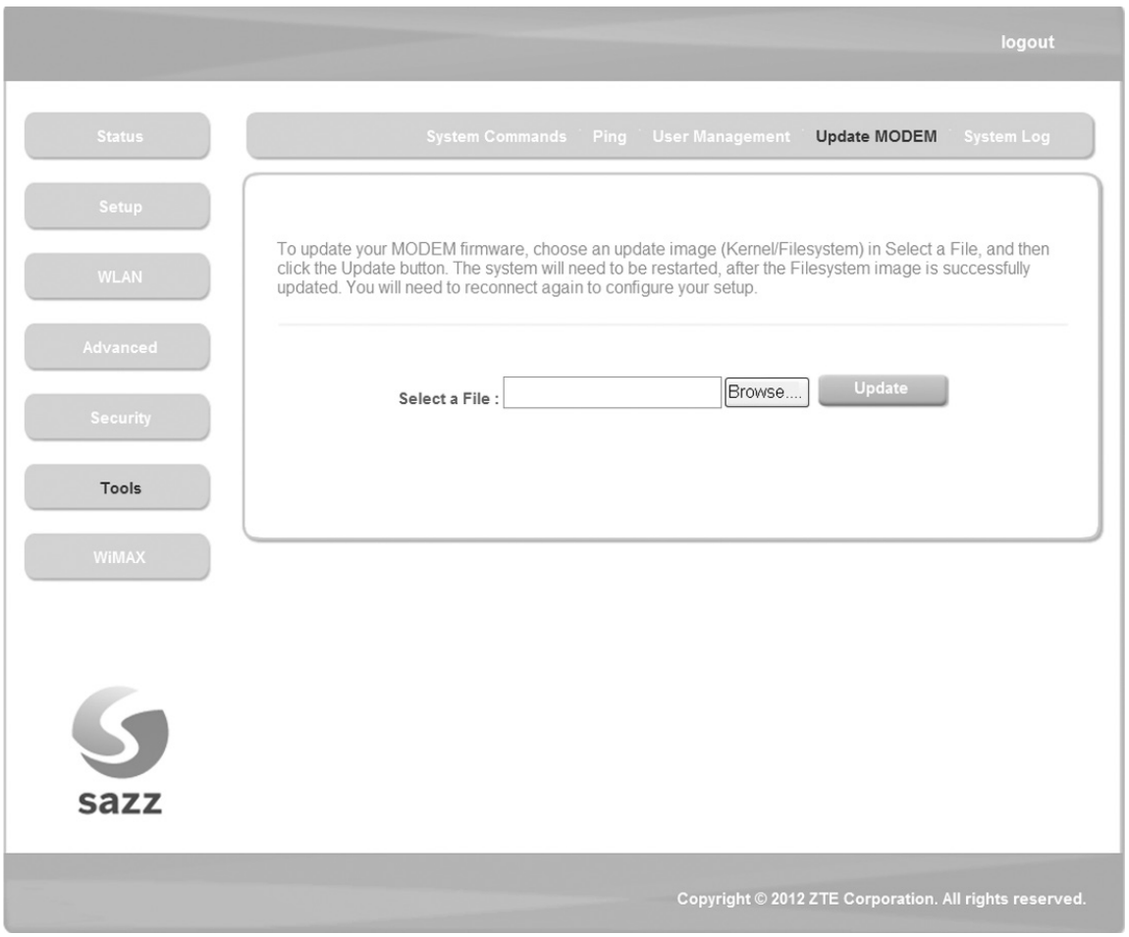


- **New Password**: New password
- **Confirm Password**: Repeat password

  ---- Click <**submit**> button to active the password configuration.

5.7.4 Update MODEM

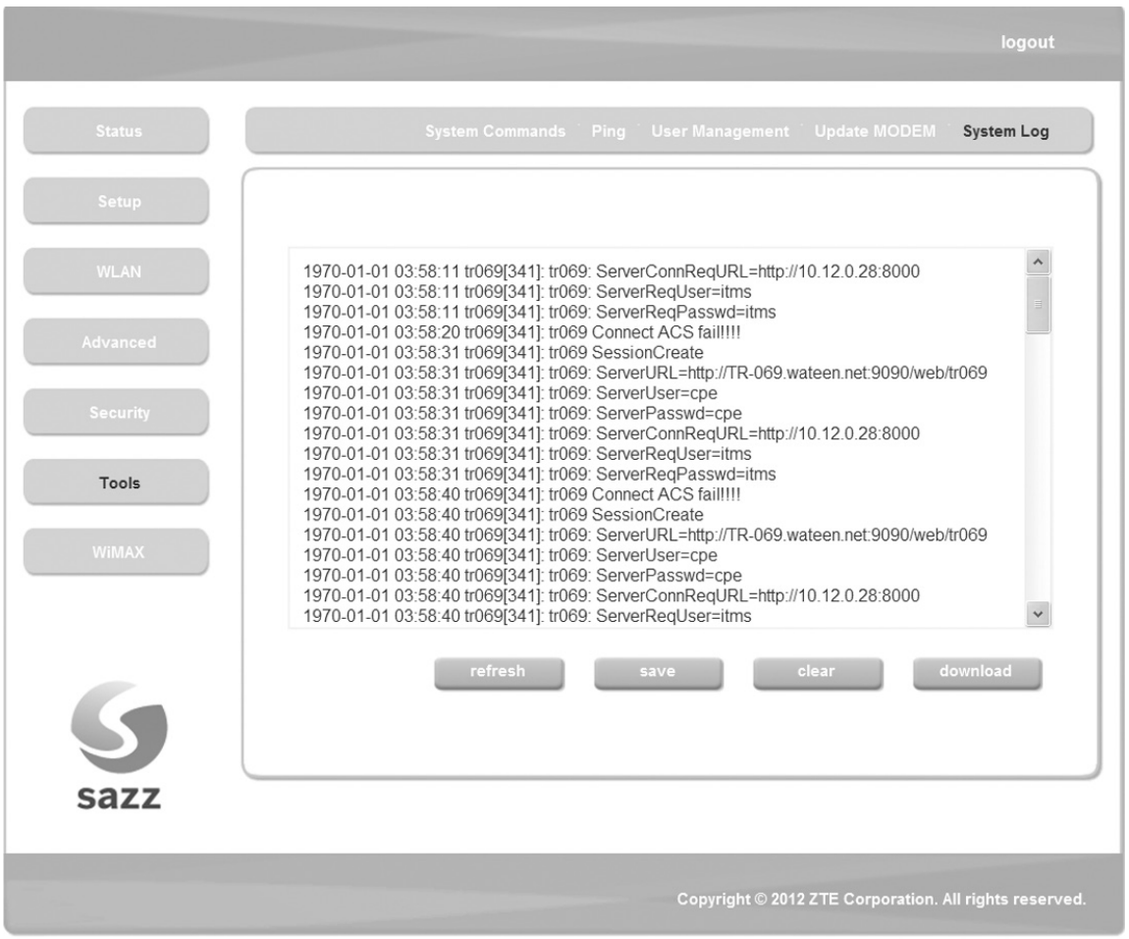
After access MODEM setup page successfully, please click **Tools → Update MODEM** link to access the following screen:



Click <**Browse…**> button to select the version and configuration files, click <**Update**> button to upload the version and configuration files.

5.7.5 System Log

After access MODEM setup page successfully, please click **Tools → System Log** link to access the following screen:



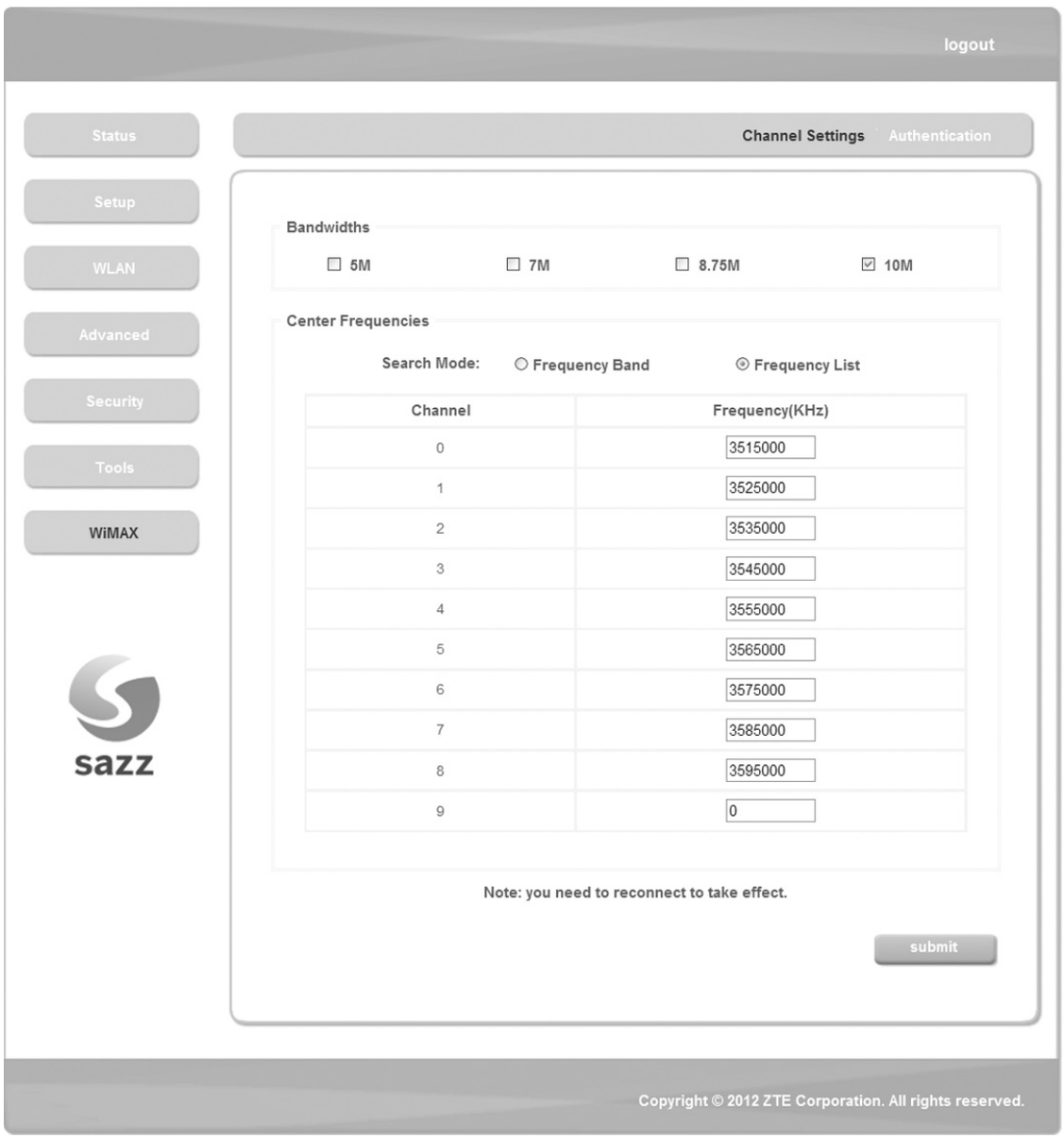
This page includes four buttons.

- **refresh**: Display the latest 20 log items.
- **save**: Save current log to flash.
- **clear**: Clear current log item.
- **download**: Download the current log to the local specified directory.

5.8 WIMAX Settings

5.8.1 Channel Settings

After access MODEM setup page successfully, please click **WiMAX** → **Channel Settings** link to access the following screen:



- **Bandwidths**: Bandwidth lists can be selected.

- **Search Mode**: Select Frequency List or Frequency Band.
- **Channel**: Channel ID.
- **Frequency**: Frequency of the channel.

After finish the configuration, click <**Submit**> button to take effect.

5.8.2 WiMAX Authentication

After access MODEM setup page successfully, please click **WiMAX → WiMAX Authentication** link to access the following screen:

1. EAP-TTLS/MSCHAPv2

- **Default Identity**: default identity for EAP-TTLS/MSCHAPv2
- **Default Password**: default password for EAP-TTLS/MSCHAPv2
- **Re-enter to Confirm**: Enter user authentication password once again
- **Anonymous Identity**: anonymous identity for EAP-TTLS/MSCHAPv2

After finishing the above configuration, click <**Submit**> button to take effect.

CA Certificate File: Click <**Browse…**> button to select CA certificate file in local disk, then click <**Update**> button to upload

2. EAP-MD5

- **Default Identity**: Default Identity for EAP-MD5
- **Default Password**: Default Password for EAP-MD5
- **Re-enter To Confirm**: Enter user authentication password once again.
- **Anonymous Identity**: Anonymous identity for EAP-MD5

After finishing the related configuration, click <**Submit**> button to take effect.

3. EAP-TLS

- **Default Identity**: Default Identity for EAP-TLS
- **Device Private Key Password**: Device Private Key Password for EAP-TLS
- **Re-enter to Confirm**: Enter user authentication password once again.

After finishing the above configuration, click <**Submit**> button to take effect.

- **Device Private Key File** : Click <Browse…> button to select device private key file in local disk, then click <Update> button to upload
- **Device Certificate File**: Click <Browse…> button to select device certificate file in local disk, then click <Update> button to upload
- **CA Certificate File**: Click <Browse…> button to select CA certificate file in local disk, then click <Update> button to upload

6. Troubleshooting

This chapter lists some problems that you might encounter while installing or using MODEM, please read following relative information at first. If the problem still can not be solved, please contact with distributor or service provider.

Problem	Check Point
Indicator light	
After power on the MODEM, power LED is off.	1. Make sure power adapter is original accessories. 2. Power adapter correctly connect with MODEM and wall socket/power.
After insert Ethernet cable, the LAN indicator light is off.	1. Make sure Ethernet cable correctly connect with computer/HUB and MODEM. 2. Confirm computer/HUB is power on.

Problem	Check Point
Access network failure	
Can not access the setup page of the MODEM	1. Verify the LAN connection successful. 2. Checking your TCP/IP settings. Refer to Windows Help for details. Make sure Obtain IP address automatically is selected in the settings. 3. Using Ping command to make sure that your computer is properly connected to the MODEM. Please refer to chapter 4.2. If it still does not work, please contact your service provider.
Can not access Internet	1. Please check your PC's settings and connection according to the above advices, make sure that your PC can access MODEM setup page. 2. If PC is configured correctly and only can access MODEM setup page, please check your MODEM. Detailed refer to chapter 5. If MODEM configured correctly, but still not work, please contact your service provider.

Problem	Check Point
Others	
Call failure	1. Please Confirm the connectivity of telephone. 2. Make sure the telephones perfectly connect with MODEM. If the call still fails, please contact with your service provider.
Web page configuration lost after restart the MO-DEM	1. Make sure you have clicked <**submit**> button after modify the configuration every time. 2. If you click <**submit**> button, but the problem still exist, please contact with your service provider.

Appendix Glossary

- **DNS**

  Domain Name Server: it can provide the service that network node name can be translated to network IP address in the internet.

- **DDNS**

  Dynamic Domain Name Server.

- **DHCP**

  Dynamic Host Configuration Protocol.

- **DMZ**

  Demilitarized Zone.

- **Internet**

  Global network, Use to exchange data, news and viewpoints within millions of computer.

- **IP Address**

  32 bit address, Use to identify one computer in TCP/IP.

- **LAN**

  Use to connect some communication equipment (computer, MODEM and printer) within one room, school or other limited region.

- **MAC Address**

  The Media Access Control (MAC) address is a unique number assigned by the manufacturer to any Ethernet networking device, such as a network adapter, that allows the network to identify it at the hardware level. For all practical purposes, this number is usually permanent.

Unlike IP address, which can change every time a computer log in the network, the MAC address of a device stays the same, making it a valuable identifier for the network.

- **NAT**

  Network Address Translation.

- **Protocol**

  Communication protocol: it is a rule that network equipment must follow for mutual communicating to transfer, transmit and receive data.

- **SNTP**

  Simple Network Time Protocol.

- **TCP/IP**

  Transmission Control Protocol/Internet Protocol: basic communication protocol of network communication, but TCP/IP defines one group of protocol, not only include TCP and IP.

- **UDP**

  User Data Protocol: packet exchanging communication protocol in internet, its default under layer protocol is IP, provide simple protocol mechanism when transfer information to another user.

- **WAN**

  Wide Area Network.

- **WiMAX**

  Worldwide Interoperability for Microwave Access.