

# ZTE中兴



**1600**  
WiMAX MODEM

# ZTE中兴

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## User Manual

**ZTE I600**  
**WiMAX MODEM**  
**User Manual**

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## Contents

<b>1. General</b> .....	<b>6</b>
1.1 Welcome .....	6
1.2 Safety Precautions .....	6
1.3 Cleaning and Maintaining .....	7
1.4 Limited Warranty .....	8
1.5 Limitation of Liability .....	9
<b>2. Getting Started</b> .....	<b>10</b>
2.1 Appearance .....	10
2.2 Parts Supplied .....	10
2.3 LED Indicator .....	11
2.4 Working Condition .....	12
2.5 Technical Parameters .....	12
2.6 Ports .....	13
<b>3. Connecting MODEM</b> .....	<b>14</b>
3.1 Application Structure .....	14
3.2 Hardware Installation .....	15
3.2.1 Connect to LAN .....	15
3.2.2 Connect to Phone .....	15
3.2.3 Connect Power Adapter .....	15
3.2.4 Power on MODEM .....	15
<b>4. Preparation for Configuring MODEM</b> .....	<b>16</b>
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
<b>5. Ordinary User Operation .....</b>	<b>21</b>
5.1 Login .....	21
5.2 Status .....	23
5.2.1 WiMAX Status .....	23
5.2.2 Network Information .....	25
5.2.3 About My MODEM .....	26
5.3 Setup .....	28
5.3.1 IP Configuration .....	28
5.3.2 DHCP Clients .....	29
5.3.3 DHCP Binding .....	30
5.3.4 WAN Connection .....	31
5.4 Advanced .....	32
5.4.1 Routing Setup .....	32
5.4.2 SNTP Client Configuration .....	34
5.4.3 DDNS Setup .....	35
5.4.4 DNS Configuration .....	36
5.5 Security .....	38
5.5.1 Port Forwarding .....	38
5.5.2 Port Trigger .....	40

5.5.3 Service Control .....	44
5.5.4 DMZ .....	45
5.6 VoIP .....	46
5.6.1 General .....	46
5.6.2 SIP Protocol .....	48
5.7 Tools .....	50
5.7.1 System Commands .....	50
5.7.2 Ping .....	51
5.7.3 User Management .....	52
5.7.4 Update MODEM .....	53
5.7.5 System Log .....	54
<b>6. Troubleshooting .....</b>	<b>55</b>
<b>Appendix Glossary .....</b>	<b>57</b>
<b>Index .....</b>	<b>59</b>

# 1. General

## 1.1 Welcome

Thanks for choosing the ZTE I600 WiMAX MODEM (herein after 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 MODEM 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 cannot be used 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.
- Use the MODEM within the temperature range of 0°C ~55°C[32°F ~ 131°F] and the humidity range of 10%~85%.
- 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 an-



tenna may affect 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 Parts Supplied



Parts	Quantity
MODEM	1
Power adapter	1
RJ-45 10/100BaseT Ethernet cable	2
User Manual	1

Please contact with your provider as soon as possible if the parts have any damage or lost. If replacing product, please preserve the packing box and parts of the product.

### 2.3 LED Indicator

There are some LED lights in the MODEM, detailed description as following table.

LED	Marker	Status	Description
WiMAX RSSI		Solid Green or Off	Use 3 Leds to indicate signal strength.  : No signal  : Signal is weak  : Signal is medium  : Signal is strong
WiMAX Status		Solid Green	Register Success
		Slow Flashing	Register Process/Device Startup
Phone1/ Phone2		Off	Hook on/Out of Service
		Solid Green	Hook off
		Flashing Green	Message waiting Indicator
Power		Solid Green	Power Supply
		Solid Red	Power Supply Failure

LED	Marker	Status	Description
LAN1/LAN2	 1	Off	Out of Connection
		Solid Green	Connection
	 2	Flashing Green	Data Service Process
		Off	10M Interface
		Solid Yellow	100M Interface

## 2.4 Working Condition

Working Condition for Host

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

Working humidity: 10% ~ 85%

Storage temperature: -30°C ~ +70°C [-22°F ~ 158°F]

Storage humidity: 5% ~ 90%

## 2.5 Technical Parameters






Mode of Access	WiMAX (Worldwide Interoperability for Microwave Access)
WiMAX Protocol	802.16e(IEEE 802.16-2005)
Frequency Range	2.496GHz-2.690GHz
Dimensions (W×H×D)	150mm×180mm×120mm
Weight	About 359g

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

## 2.6 Ports



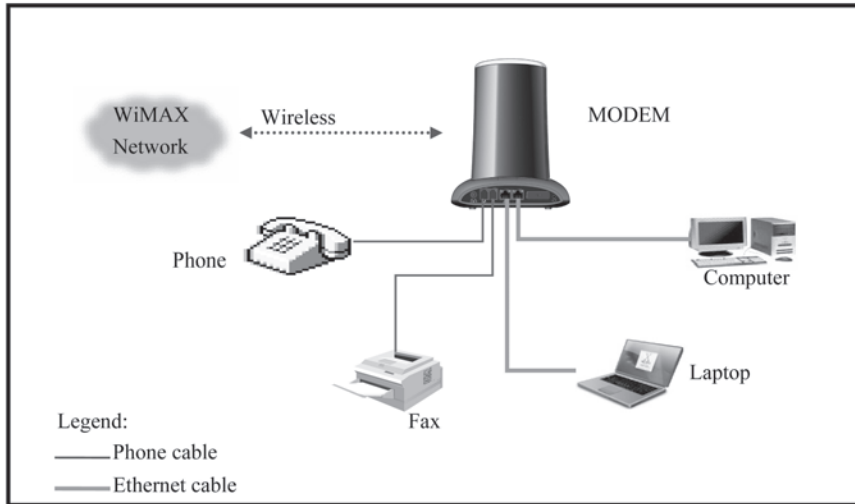
All six ports are in back panel.

Port Indicator	Description
<b>DC 12V</b> 	External power socket
	Phone port
	LAN port
	Remote antenna interface
	Reset 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.

### 3.2.1 Connect to LAN

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 crossover or straight.

**Note:**

Don't insert phone cable into LAN ports.

### 3.2.2 Connect to Phone

Connect phone cable to <sub>1</sub> or <sub>2</sub> 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

Turn on the MODEM.



## 4. Preparation for Configuring MODEM

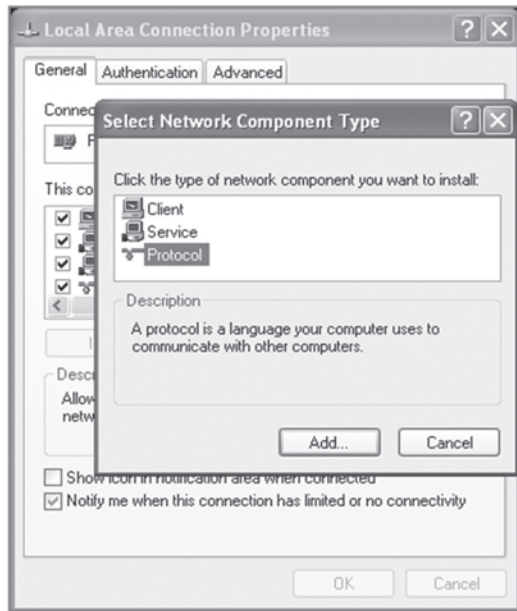
Usually, MODEM has been configured by service provider and you can use it directly. But in some instance, you need configure MODEM by yourself.

### 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**>.

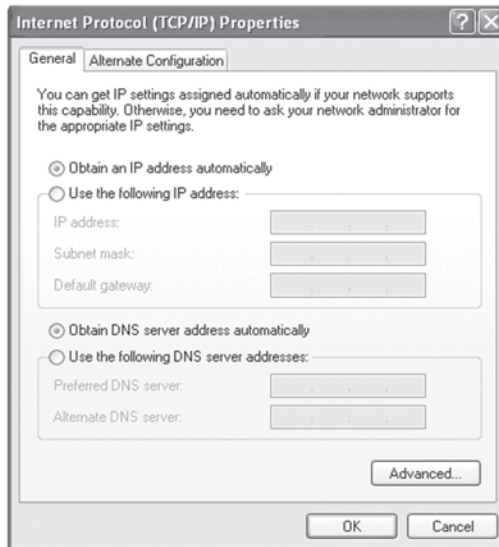


4. Select **<Internet Protocol (TCP/IP)>** and click **<OK>**.

**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 192.168.100.1** and press the **Enter** key.
2. If you get a reply as follows, the LAN connection is ok.

```
C:\Documents and Settings\Administrator>ping 192.168.100.1  
  
Pinging 192.168.100.1 with 32 bytes of data:  
  
Reply from 192.168.100.1: bytes=32 time=23ms TTL=64  
Reply from 192.168.100.1: bytes=32 time=5ms TTL=64  
Reply from 192.168.100.1: bytes=32 time=4ms TTL=64
```

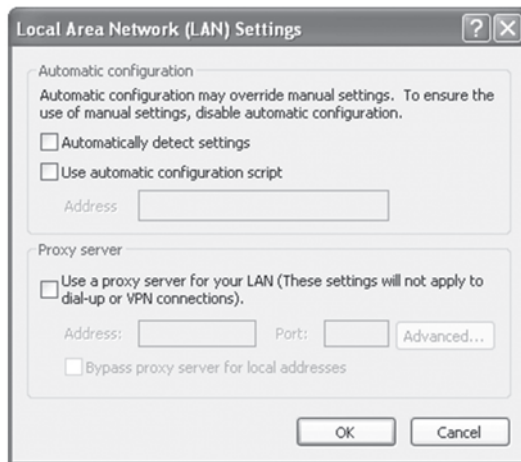
3. If you get a reply as follows, please check the LAN and TCP/IP configuration. Refer to chapter 3.2 and chapter 4.1 in detail.

```
C:\Documents and Settings\Administrator>ping 192.168.100.1  
  
Pinging 192.168.100.1 with 32 bytes of data:  
  
Request timed out.  
Request timed out.
```

### 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 <OK> 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 User Operation

### 5.1 Login

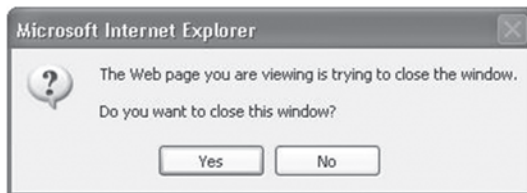
To access the Web-based Utility of the MODEM, launch Internet Explorer and enter the MODEM's default IP address (192.168.100.1) in the address field, then press the Enter key. A screen will appear asking you for your User name and Password (detail as following picture). Enter **user** in the *Username* field and **1234** in the *Password* field. Select the proper language. Then click the **<login>** button.



The screenshot shows the ZTE Modem Login web interface. At the top left, the ZTE logo (ZTE中兴) is displayed. The main content area is titled "ZTE Modem Login" and contains three input fields: "Username:" with an empty text box, "Password:" with an empty text box, and "Language:" with a dropdown menu showing "English". Below these fields are two buttons: "exit" and "login". At the bottom of the page, there is a copyright notice: "Copyright © 2008 ZTE Corporation. All rights reserved."

**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.

### **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 **Advanced** link allows you to configure advanced features like SNTP, DNS etc.
- Clicking **Security** link allows you to configure Port Forwarding, Port Trigger etc.
- Clicking **VoIP** link allows you to configure VoIP related features.
- Clicking **Tools** link allows you to carry out system commands and perform simple system tests.
- Clicking **logout** link to exit MODEM setup page manually. In addition, if no any operation within 5 minutes, the screen will return to log in page when you process again in the old MODEM setup page.

### **User Area**

Show the man-computer interaction information under various conditions.

## **5.2 Status**

### **5.2.1 WiMAX Status**

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





- **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

-  **Connected**

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

### 5.2.2 Network Information

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

The screenshot shows the ZTE WiMAX Network Information page. The page has a dark header with the ZTE logo and a 'logout' link. Below the header is a navigation menu with buttons for 'Status', 'Setup', 'Advanced', 'Security', 'VoIP', and 'Tools'. The 'Status' button is selected, and the 'Network Information' link is active. The main content area displays the following information:

**WIMAX Information**

WAN IP:	192.168.52.53
BSSID:	00:04:57:01:55:a1
Cell ID:	57005
Frequency:	2510000KHz
Tx Bytes:	30125
Rx Bytes:	40535
Connection Duration:	0:04:12 hours 5 minutes
RSSI:	-67dBm
TX Power:	15dBm
FER:	0.000015
CRC:	32

**LAN Information**

IP Address:	192.168.100.1
IP Subnet:	255.255.255.0

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- **WiMAX Information**

Used to view WiMAX network information.

**WAN IP:** IP address for WAN connection

**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:** Package error ratio

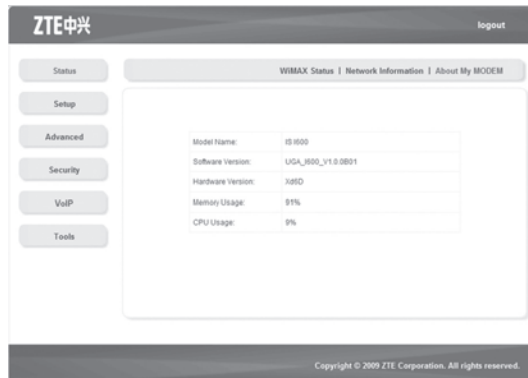
**CINR:** Carrier to interference and noise ratio

- **LAN Information**

Used to view LAN IP address and subnet.

### **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
- **Memory Usage:** Current Memory usage percent
- **CPU Usage:** Current CPU usage percent

## 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:

The screenshot shows the ZTE modem web interface. The top header displays the ZTE logo and a 'logout' link. Below the header is a navigation bar with 'LAN Configuration | WAN Connection' and three tabs: 'IP Configuration', 'DHCP Clients', and 'DHCP Binding'. The 'IP Configuration' tab is active. The main content area contains the following fields:

- IP Address: 192.168.100.1
- NetMask: 255.255.255.0
- Enable DHCP:
- Start IP: 192.168.100.100
- Max User: 101
- Netmask: 255.255.255.0
- WINS Server: 0.0.0.0
- Lease Time: 10 days

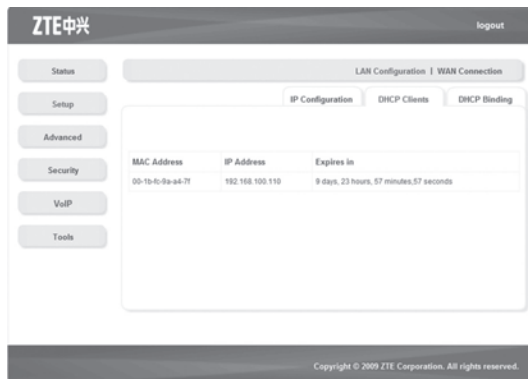
An 'Apply' button is located at the bottom right of the form. The footer of the page contains the text: 'Copyright © 2009 ZTE Corporation. All rights reserved.'

- **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

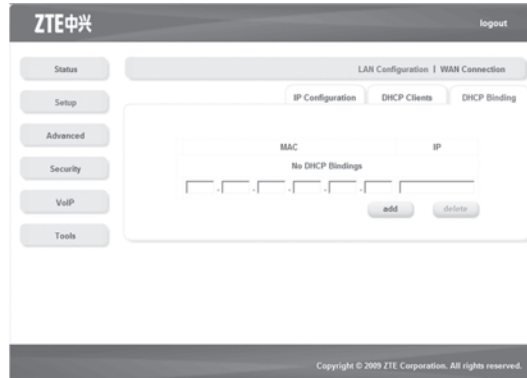
After access MODEM setup page successfully, please click **Setup** → **LAN Configuration** → **DHCP Clients** link to access the following screen:



- **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 192.168.100.133, it means that the IP address DHCP Server assigns to the MAC address corresponding host is 192.168.100.133.

### 5.3.4 WAN Connection

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



ZTE中兴 logout

Status LAN Configuration | WAN Connection

Setup

Advanced

Security

VoIP

Tools

#### Account Settings

Authentication:

User Name:

Password:

Re-enter To Confirm:

Note: you should click disconnect before input User Name and Password, and then click connect.

#### WAN Information

Type:   NAT

IP Address:

Mask:

Gateway:

DNS:

Standby DNS:

Lease Time:

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#### ■ Account Settings

**Authentication:** User authentication type



**User Name:** User authentication name

**Password:** User authentication password

■ **WAN Information**

**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 used to WAN connect/disconnect.

## **5.4 Advanced**

### **5.4.1 Routing Setup**

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

The screenshot shows the ZTE web management interface. At the top left is the ZTE logo and '中兴'. At the top right is a 'logout' link. Below the logo is a navigation menu with buttons for 'Status', 'Setup', 'Advanced', 'Security', 'VoIP', and 'Tools'. The main content area is titled 'Route | SNMP | DDNS | DNS Service'. It contains a configuration section with the following fields:

- Default Gateway Interface:
- Destination Network Address:
- Destination Mask:
- Next Hop IP:

Below these fields is a 'Routes Listing' table:

Select	Network Address	Mask	Next Hop IP	Using Interface
<input type="checkbox"/>	192.168.100.0	255.255.255.0	0.0.0.0	br0
<input type="checkbox"/>	127.0.0.0	255.0.0.0	0.0.0.0	lo
<input type="checkbox"/>	0.0.0.0	0.0.0.0	192.168.0.253	wan0

At the bottom of the table are buttons for 'add', 'modify', and 'delete'. The footer of the page reads 'Copyright © 2009 ZTE Corporation. All rights reserved.'

- **Default Gateway Interface:** Used to configure default gateway interface
  - **Destination Network Address:** Used to configure destination network address
  - **Destination Mask:** Used to configure destination network mask address
  - **Next Hop IP:** Used to configure next hop IP address
- <submit> button used to active the default gateway configuration.
  - <add> button used to save the route configuration.
  - <modify> button used to modify the selected route configuration.
  - <delete> button used to delete the selected route configuration.

## 5.4.2 SNTP Client Configuration

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

The screenshot shows the ZTE SNTP Client Configuration web interface. The page has a dark header with the ZTE logo and a 'logout' link. A navigation menu on the left includes buttons for Status, Setup, Advanced, Security, VoIP, and Tools. The main content area is titled 'Route | SNTP | DDNS | DNS Service'. It displays the current date and time as '1970-01-01 00:38:10' and a checkbox for 'Automatically adjust clock for daylight saving changes'. The 'Time Zone' is set to '(GMT) Greenwich Mean Time: Dublin Edinburgh Lisbon London'. The 'Primary Server Address' is 'time.windows.com', and the 'Secondary Server Address' is empty. The 'Poll Interval' is set to '5600' seconds. A 'submit' button is located at the bottom right of the form. The footer contains the copyright notice: 'Copyright © 2009 ZTE Corporation. All rights reserved.'

- **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 used to active the SNTP client configuration.

——<cancel> button used to inactive the SNTP client configuration.

### 5.4.3 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 Server
- **Enable DDNS:** Active/Inactive DDNS protocol function
- **Server:** Available server address. If use 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:** Used to select the WAN side connection port
  - <submit> button used to active the DDNS Setup.
  - <cancel> button used to inactive the DDNS Setup.

#### 5.4.4 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
- **Host Name:** Host name
- **IP address:** Host IP address
  - <submit> button used to active the Domain/Host configuration.
  - <cancel> button used to inactive the Domain/Host configuration.
  - <add> button used to add DNS Configuration.
  - <delete> button used to delete DNS Configuration.
  - <edit IP> button used to edit IP Address.
  - <edit name> button used to edit Host Name.

## 5.5 Security

### 5.5.1 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.

## Add Port Forwarding Project

Click <add> button to access following screen:

The screenshot shows the ZTE web interface for adding a port forwarding project. The interface has a dark header with the ZTE logo and a 'logout' link. Below the header is a navigation bar with buttons for 'Status', 'Port Forwarding', 'Port Trigger', 'Service Control', and 'DMZ'. A sidebar on the left contains buttons for 'Setup', 'Advanced', 'Security', 'VoIP', and 'Tools'. The main content area is titled 'Add Port Forwarding Project' and contains a form with the following fields: 'Project Name' (text input), 'Enable' (checkbox), 'Protocol' (dropdown menu with 'TCP' selected), 'LAN IP' (text input), 'WAN Port Range' (text input with a range separator), and 'LAN Port' (text input). At the bottom of the form are 'add' and 'back' buttons. The footer of the page contains the copyright notice: 'Copyright © 2009 ZTE Corporation. All rights reserved.'

- **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.



## Modify Port Forwarding Project

Click <modify> button to access following screen:

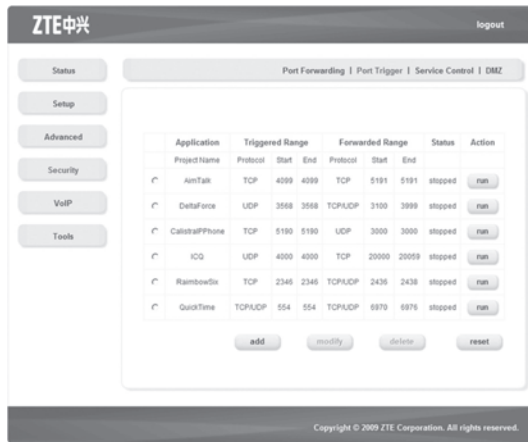


The screenshot shows the ZTE web interface for modifying a port forwarding project. The page has a dark header with the ZTE logo and a 'logout' link. A navigation bar contains links for 'Port Forwarding', 'Port Trigger', 'Service Control', and 'DMZ'. A left sidebar lists menu items: 'Status', 'Setup', 'Advanced', 'Security', 'VoIP', and 'Tools'. The main content area is titled 'Modify Port Forwarding Project' and contains a form with the following fields: 'Project Name' (with a dropdown menu showing 'default'), 'LAN IP' (with a text input field), and 'Enable' (with a checkbox). At the bottom of the form are two buttons: 'modify' and 'back'. The footer of the page contains the copyright notice: 'Copyright © 2009 ZTE Corporation. All rights reserved.'

After complete changing the project, click <modify> button to save the project, or else click <back> button to cancel the change and return to the port forwarding page.

### 5.5.2 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 starting port of trigger connection  
**End:**Display end port of trigger connection
- **Forwarded Range**  
**Protocol:**Display protocol of transfer connection  
**Start:**Display starting 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: **<run>** and **<stop>**, when you click current button, the action changed to another
  - Click **<delete>** to delete the chosen item.
  - Click **<reset>** to load default configuration from default DB.

### Add Port Trigger Rule

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



The screenshot shows the ZTE web interface for adding a port trigger rule. The page title is "Add Port Trigger Rule". The interface includes a sidebar with navigation buttons: Status, Setup, Advanced, Security, VoIP, and Tools. The main content area contains the following fields and controls:

- Project Name:
- Triggered Range:  (dropdown)
- Start Port:
- End Port:
- Opened:  (dropdown)
- Start Port:
- End Port:
- Buttons:  and

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

## Modify Port Trigger Rule

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

The screenshot shows the ZTE web interface for modifying a port trigger rule. The interface includes a navigation menu on the left with options: Status, Setup, Advanced, Security, VoIP, and Tools. The main content area is titled "Modify Port Trigger Rule" and contains the following fields:

Modify Port Trigger Rule			
Project Name:	<input type="text" value="FunTalk"/>		
Triggered Range:	TCP	Start Port:	6099
		End Port:	6099
Opened:	TCP	Start Port:	5191
		End Port:	5191

At the bottom right of the form, there are two buttons: "modify" and "back".

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

### 5.5.3 Service Control

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



- **Mode:** Select “black list” or “white list”
- **IP:** Set the host IP address
  - <add> button used to add the Service Control related configuration.
  - <submit> button used to activate the Service Control related configuration.

“Mode” will be available only for the configured IP address, when the mode is “white list”, it means that only permit the configured IP address to access the service; when the mode is “black list”, it means that deny the configured IP address to access the service.

## 5.5.4 DMZ

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

' and 'IP: '. A 'submit' button is located at the bottom right of the main area. The footer contains 'Copyright © 2009 ZTE Corporation. All rights reserved.'" data-bbox="283 272 705 619"/>

- **Enable:** Enable/Disable DMZ hosts
  - **IP:** DMZ hosts IP address
- <submit> button used to active the DMZ related configuration.

DMZ configuration means that you can configure one network segment or specified hosts as DMZ zone, the hosts within DMZ zone can not access the hosts without LAN side DMZ zone and WAN side network. But the hosts within DMZ zone can provide the server function for the outside.

To ensure the security of LAN side non-DMZ zone hosts, It's recommended that set the DMZ zone hosts as FTP or WEB server, then add the specified item configuration in the port forwarding, thus the ftp or WEB visit request from WAN side hosts can be redirected to the FTP or WEB server within DMZ zone.

## **5.6 VoIP**

### **5.6.1 General**

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



ZTE中兴 logout

Status General | SIP Protocol

Setup

Advanced

Security

VoIP

Tools

**Signalling**

# SIP

**Port Status**

SIP VoIP1: Out of Service    SIP VoIP2: Out of Service

**Ext. Number Setup**

Length:

Prefix:

**Two-stage Dialing Setup**

Two-stage Dialing Flag:

**TOS**

TOS:

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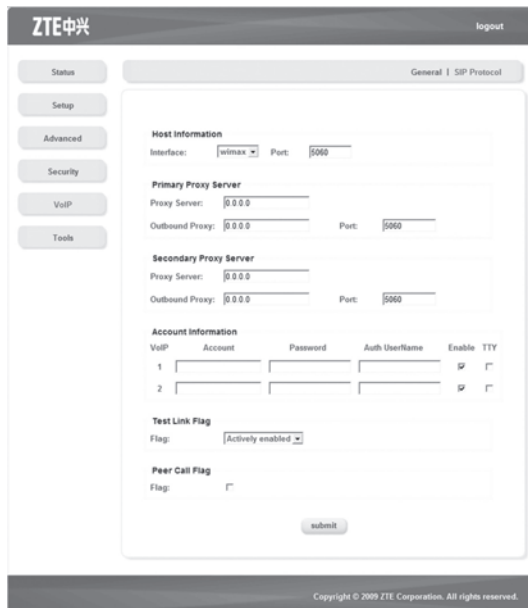
- **Signalling:** Display the signalling protocol for VoIP
- **Port Status:** Display online user's status
- **Ext. number setup:** Length and prefix of the internal telephone number
- **Two-stage Dialing Setup:** Indicate the second dial tone
- **TOS:** Type of Service

After finishing the related configuration, click <submit> button to submit.



## 5.6.2 SIP Protocol

After access MODEM setup page successfully, please click **VoIP** → **SIP Protocol** link to access the following screen:



ZTE中兴 logout

General | SIP Protocol

Status  
Setup  
Advanced  
Security  
VoIP  
Tools

**Host Information**  
Interface:  Port:

**Primary Proxy Server**  
Proxy Server:   
Outbound Proxy:  Port:

**Secondary Proxy Server**  
Proxy Server:   
Outbound Proxy:  Port:

**Account Information**

VoIP	Account	Password	Auth Username	Enable	TTY
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Test Link Flag**  
Flag:

**Peer Call Flag**  
Flag:

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- **Host Information:**

**Interface:** Local interface for VoIP protocol

**Port:** Local port for VoIP protocol

- **Primary Proxy Server**

**Proxy Server:** IP address or domain name of primary proxy server

**Outbound Proxy:** IP address or domain name of primary outbound proxy server

**Port:** Port of primary proxy server

- **Secondary Proxy Server**

**Proxy Server:** IP address or domain name of backup proxy server

**Outbound Proxy:** IP address or domain name of backup outbound proxy server

**Port:**Port of backup proxy server

- **Account Information**

**Account:** User account

**Password:** User password

**Auth Username:** Authentication username

**Enable:** Enable VoIP Account. If the option is selected, the account is started

**TTY:** Enable Text Phone. For people who are deaf, hard of hearing or speech disabled

- **Test Link Flag:** Enable/Disable test link

- **Peer Call Flag:** Peer to Peer call flag

After finish the configuration, click **<submit>** button to submit.

## 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 **Restore Defaults** link, system will use default configuration instead of current configuration.

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

### 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:



The screenshot shows a web interface for ZTE user management. At the top left is the ZTE logo (ZTE中兴) and at the top right is a 'Logout' link. Below the logo is a navigation bar with links: 'System Commands', 'Ping', 'User Management', 'Update MODEM', and 'System Log'. On the left side, there is a vertical menu with buttons for 'Status', 'Setup', 'Advanced', 'Security', 'VoIP', and 'Tools'. The 'Tools' button is highlighted. The main content area contains a form with three input fields: 'Username' (with 'user' entered), 'New Password', and 'Confirm Password'. A 'submit' button is located at the bottom right of the form. At the bottom of the page, there is a copyright notice: 'Copyright © 2009 ZTE Corporation. All rights reserved.'

- **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:

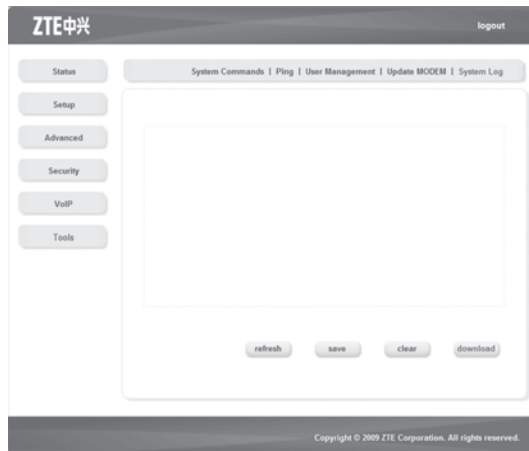


The screenshot shows the ZTE modem web interface. At the top left is the ZTE logo (ZTE中兴) and at the top right is a 'logout' link. Below the logo is a navigation menu with buttons for 'Status', 'Setup', 'Advanced', 'Security', 'VoIP', and 'Tools'. The 'Tools' button is highlighted. The main content area has a breadcrumb trail: 'System Commands | Ping | User Management | Update MODEM | System Log'. Below this is a text box with instructions: 'To update your MODEM firmware, choose an update image (Kernel/Firmware) in Select a File, and then click the Update button. The system will need to be restarted, after the Firmware image is successfully updated. You will need to reconnect again to configure your setup.' Below the text is a 'Select a File' label followed by a file input field, a 'Browse...' button, and an 'Update' button. At the bottom of the page is a copyright notice: 'Copyright © 2009 ZTE Corporation. All rights reserved.'

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

## 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
<b>Indicator light</b>	
After power on the MODEM, power LED is off.	<ol style="list-style-type: none"><li>1. Make sure power adapter is original accessories.</li><li>2. Power adapter correctly connect with MODEM and wall socket/power.</li></ol>
After insert Ethernet cable, the LAN indicator light is off.	<ol style="list-style-type: none"><li>1. Make sure Ethernet cable correctly connect with computer/HUB and MODEM.</li><li>2. Confirm computer/HUB is power on.</li></ol>
<b>Access network failure</b>	
Can not access the setup page of the MODEM	<ol style="list-style-type: none"><li>1. Verify the LAN connection successful.</li><li>2. Checking your TCP/IP settings. Refer to Windows Help for details. Make sure Obtain IP address automatically is selected in the settings.</li><li>3. Using Ping command to make sure that your computer is properly connected to the MODEM. Please refer to chapter 4.2.</li></ol> If still not work, please contact your service provider.



<b>Problem</b>	<b>Check Point</b>
Can not access Internet	<ol style="list-style-type: none"> <li>1. Please check your PC's settings and connection according to the above advices, ensure that your PC can access MODEM setup page.</li> <li>2. If PC is configured correctly and only can access MODEM setup page, please check your MODEM. Detailed refer to chapter 5.</li> </ol> <p>If MODEM configured correctly, but still not work, please contact your service provider.</p>
<b>Others</b>	
Call failure	<ol style="list-style-type: none"> <li>1. Please Confirm the connectivity of telephone.</li> <li>2. Make sure the telephones perfectly connect with MODEM.</li> </ol> <p>If the call still is failure, please contact with your service provider.</p>
Web page configuration lost after restart the MODEM	<ol style="list-style-type: none"> <li>1. Make sure you have clicked <b>&lt;submit&gt;</b> button after modify the configuration every time.</li> <li>2. If you click <b>&lt;submit&gt;</b> button, but the problem still exist, please contact with your service provider.</li> </ol>

## 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.

- **Internet**

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

- **IP Address**

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

- **LAN**

Used 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.

- **Protocol**

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

- **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.

## Index

### A

About My Modem .....	26
Add Port Forwarding Project .....	39
Add Port Trigger Rule .....	42
Advanced .....	32, 34, 35, 36
Appearance .....	10
Appendix Glossary .....	57
Application Structure .....	14

### C

Cancel Proxy Server in Browser .....	19
Check LAN Connection .....	19
Checking .....	19
Cleaning and Maintaining .....	7
Connect Power Adapter .....	15
Connect to LAN .....	15
Connect to Phone .....	15
Connecting MODEM .....	14

### D

DDNS Setup .....	35
DHCP Binding .....	30
DHCP Clients .....	29

DMZ .....	45
DNS Configuration .....	36

### G

General .....	46
Getting Started .....	10

### H

Hardware Installation .....	15
-----------------------------	----

### I

IP Configuration .....	28
------------------------	----

### L

LED Indicator .....	11
Limitation of Liability .....	9
Limited Warranty .....	8
Login .....	21

### M

Modify Port Forwarding Project .....	40
Modify Port Trigger Rule .....	43

### N

Network Information .....	25
---------------------------	----

### O

Others .....	20, 56
--------------	--------

**P**

Parts Supplied .....	10
Ping .....	51
Port Forwarding .....	38
Port trigger .....	40
Ports .....	13
Power on Modem .....	15
Preparation for configuring Modem ...	16

**R**

Routing Setup .....	32
---------------------	----

**S**

Safety Precautions .....	6
Security .....	38, 40, 44, 45
Service Control .....	44
Setup .....	28, 29, 30, 31
SIP Protocol .....	48
SNTP Client Configuration .....	34
System Commands .....	50
System Log .....	54

**T**

TCP/IP Installation and Configuration ..	16
Technical Parameters .....	12
Tools .....	50, 51, 52, 53, 54
Troubleshooting .....	55

**U**

Update Modem .....	53
User Management .....	52

**V**

VoIP .....	46, 48
------------	--------

**W**

WAN connection .....	31
Welcome .....	6
Working Condition .....	12