ZTE MF30

Global Mobile Hotspot

User Manual

WELCOME

Thank you for choosing the ZTE MF30 Global Mobile Hotspot (hereinafter referred to as "Wireless Router"). To get the most from your router 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 router. 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.

Glossary

AC: Alternating Current

APN: Access Point Name

DC: Direct Current

DHCP: Dynamic Host Control Protocol

DNS: Domain Name System (or Service or Server)

EDGE: Enhanced Data GSM Evolution

Ethernet: A frame-based computer networking technology for local area networks (LANs)

GSM: Global System for Mobile Communications

GPRS: General Packet Radio Service

HSDPA: High Speed Downlink Packet Access

HSUPA: High Speed Uplink Packet Access

IP: Internet Protocol

LAN: Local Area Network

LED: Light - emitting Diode

MHz: Megahertz

MTU: Maximum Transmission Unit

PDP: Packet Data Protocol

PIN: Personal Identification Number

PPP: Point to Point Protocol

PSTN: Public Switched Telephony Network

PUK: PIN Unlocking Key

RSSI: Radio Signal Strength Indicator

RF: Radio Frequency

(U)SIM: Subscriber Identification Module

WCDMA: Wideband CDMA (Code-Division Multiple Access)

WEP: Wired Equivalent Privacy

WLAN: Wireless LAN

WPA-PSK: Wi-Fi Protected Access–PreShared Key

CM Software: Connection management software

UI: User interface

Content

1 General Information

1.1 Safety Precautions

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

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

Please keep yourself at least 20 centimeters away from router.

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

Please use original accessories or accessories that are authorized by ZTE. Unauthorized accessories may affect the router performance, damage the router or cause danger to you.

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

Do not allow the router or accessories to come into contact with liquid or moisture at any time. Do not immerse the router in any liquid.

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

The device must be placed in ventilation environment for use.

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

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

Keep the length of the cable between the router and the phone less than 10 meters.

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

1.2 Declaration

We, ZTE Corporation, declared that:

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

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

—Reorient or relocate the receiving antenna.

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—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/ TV technician for help.

Caution: Changes or modifications not expressly approved by the

manufacturer could void the user's authority to operate the equipment.

1.3 Cleaning and Maintaining

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

Use the router within the temperature range of $-10\,^{\circ}\text{C} \sim +45\,^{\circ}\text{C}$, and the storage temperature range is $-20\,^{\circ}\text{C} \sim +70\,^{\circ}\text{C}$. The humidity range is 5%~95%.

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

Do not take out your (U)SIM card unnecessarily. The (U)SIM card may be easily lost or it can be damaged by static electricity.

1.4 Limited Warranty

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

(a) Reasonable Router 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.
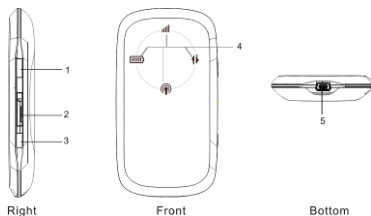
2 Getting started

The router operates on the WCDMA/GSM/GPRS/EDGE network.

2.1 Parts Supplied

Parts	Quantity
Wireless Router	1
USB data cable	1
Quick User Guide	1
User manual	1
Certificate of quality	1

2.2 Router Appearance

Right   Front   Bottom

ɸ Power Key

Press and hold the **Power key** for five seconds to switch the product on or off.

2 Memory card slot (microSD card 𝗆𝗂𝖼𝗋𝗈𝗌𝗗)

It is where you insert memory card (microSD card).

Note: 𝗆𝗂𝖼𝗋𝗈𝗌𝗗 is a trademark.

3 WPS

This button used to start Wi-Fi Protected Setup authentication process.

4 Indicator

It indicates your product status.

Indicator	Status	Description

Battery indication ▥	Red glittering	Please charge
	Red bright	Voltage of battery is low
	Green glittering	Charging
	Green bright	Voltage of battery is high
Signal strength indication ▥	Red bright	ERROR or NO signal
	Green glittering	Signal is ok
	Green bright	Signal is good
WIFI indication ⇕	Blue glittering	WIFI is active
	Blue bright	WPS is active
Network indication ⑨	RED glittering	2G Modem data transferring
	RED bright	Register on 2G network
	GREEN glittering	3G Modem data transferring,
	GREEN bright	Register on 3G network

5 Charger/USB port

2.3 Work mode

There are two working modes for this product:

- **AP mode**: Power on directly. And following picture is the application example.
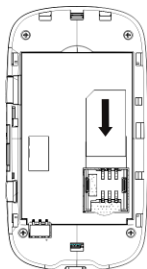

- **Modem Mode**: Firstly connect with computer using USB data cable, then power on. And following picture is the application example.

2.4 Installation

1. Insert the (U)SIM card

This contains your phone number and acts as a store for your contacts. Insert this face down into the carrier inside the back panel of the phone. Make sure it is pushed all the way down as shown below:

Warning: Please power off the product and remove the external power adapter before removing or inserting the (U)SIM card, if not, the product or (U)SIM card may be damaged.

2. Insert the battery

① Use the thumb catch at the bottom of the product to open the battery cover.

② Insert the battery as shown with the contacts located against the gold springs.

③ Press the battery down flush into the case

④ Line the battery cover up correctly and press gently to close the case.
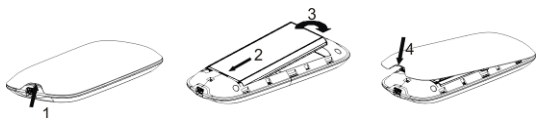
3. Charge Your Router

① Insert the charger lead carefully with the plug arrow facing the bottom of the product.

② The plug only fits one way. Do not use excessive force to insert the plug.

③ Check the plug is the right way round and lined up correctly and insert it gently.

4. Insert the microSD card into the product.

Insert microSD card into the product, if you want to use it.

①Open the door of the memory card slot.

Note: Do not pull the door rudely for it is connected with the modem.

②Insert the microSD card into the microSD slot. The following picture indicates the correct inserting direction. When the microSD card locks in place you will hear a click.
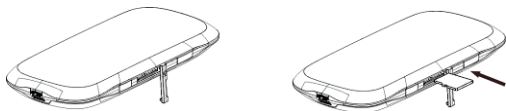
3Close the door of memory card slot and then you can use the microSD card freely.

Note: The microSD card will installed automatically when the modem driver is installed.

5. Connect this product to your PC (Only available for Modem Mode)

Connect the product and the computer with the provided USB data cable. Plug the smaller end of the cable into the connection jack at the rear of the product, and the bigger end into the USB port of the computer.

Note: Do not put anything on the top of router. Do not lay routers to overlap each other

2.5 About the (U)SIM Card

Avoid handling the (U)SIM card unnecessarily. Hold the card by the edges to prevent static damage. Keep the (U)SIM card away from electrical and magnetic appliances.

If you cannot get service, make sure that：

- You are in an area which has network coverage.
- You are using the correct (U)SIM card.

3 Modem mode

3.1 Software Installation

The system will automatically detect and recognize the new hardware and display the new icon in the desktop status bar, indicating that the computer and the USB Modem have been connected properly. After a few seconds, there will show the following installation interface if the laptop and desktop PC supports automatic installation.

If the system does not launch installation automatically, you can run the installation program in path of **My Computer → ZTEMODEM → Install.exe**. The following installation interface will show how to start installation. And the first screen you see as followng:
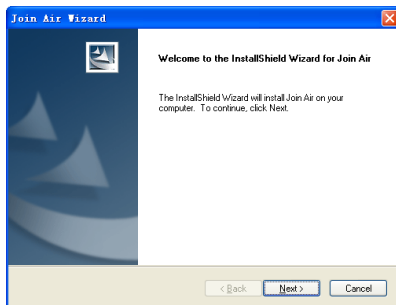
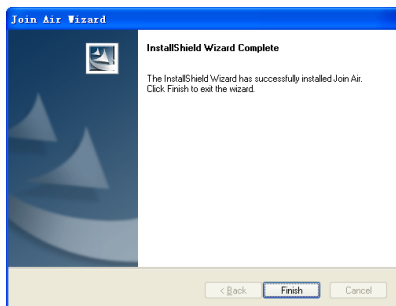Strongly recommend you to exit "Windows" programs, and click "**Next**";
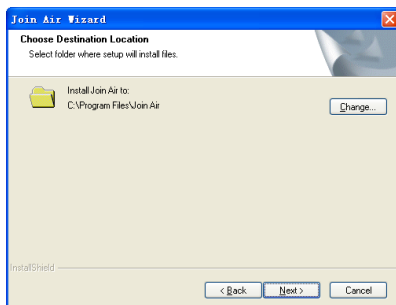
Select the folder that you want to install the software, and you can select a different path by pressing "**Change**", then click "**Next**".

The system show the installation progress, wait a minute and the following screen will show up:

Click "**Finish**" to complete the installation.

Note: After software installation, please pull out the modem before restart the computer to avoid the damage to the modem. If you have problems with installation after the upper operation, please contact the shop or the ZTE.

After the installation, select the "**Start → Programs**" and there will be a "**Join Air**" program group，which includes "**Join Air**" and "**Uninstall**". There will

be a Shortcut icon on the desktop.

3.2 Run the Application Software

After the modem is correctly connected, click the "**Start → Programs →Join Air → Join Air**" menu on the laptop or desktop PC to run the application

software. Or double click the shortcut icon to run the application software.
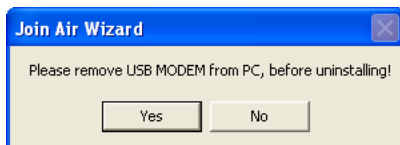
After modem initialized, the standby icon appears in the taskbar, the modem can work properly. Double click it to popup the main interface.

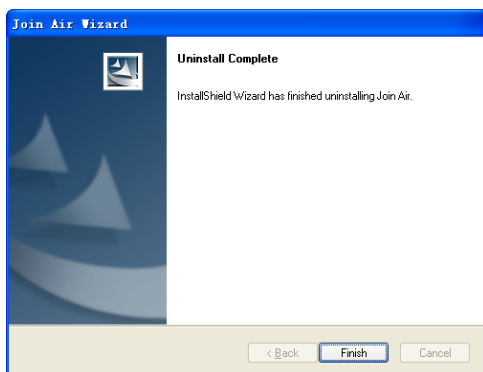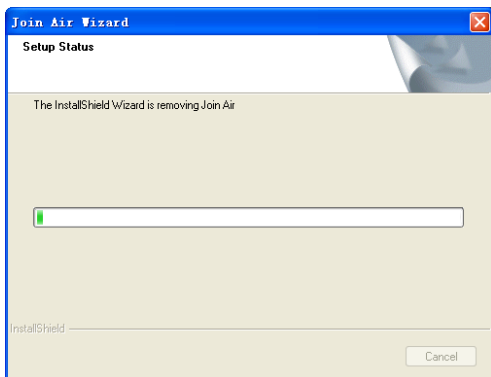**3.3 Software Uninstall**

Firstly close the application program before the software uninstalls, then click "**Start → Programs →Join Air → Uninstall**" menu on the laptop or desktop PC.
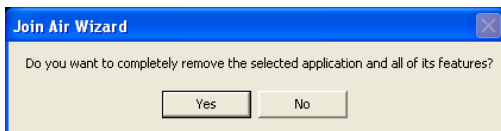
Click "**Yes**" to confirm uninstall of the software.

Click "**Yes**" according to the indication, then the system begins to uninstall programs, and this interface will indicates the progress of uninstall.

When uninstall finish, the '**Uninstall Complete**" interface will popup. Click

"**Finish**" to restart your computer to complete the application software

uninstall.

3.4 Functions & Operation

3.4.1 Interface introduction

1. Main Interface

The whole interface is divided into four parts. Related functions can be

executed by operation in the related areas.

(1). System information area:

Show the system status and different kinds of tips.

Icon	Explanations
T.ıll	The icon indicates the network signal intensity. There are 6 stages from none to the strongest.
P C	The letter "P" means it supports packet-switch (P) service, while letter "C" means it supports circuit switch (C) service. "P" is necessary for Internet connection.
EDGE	The icon indicates the current network type, i.e. EDGE or GPRS, HSPA service.

(2). Internet information area:

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There are the names of the current service providers, device condition and connection information in this area.

(3). Functional button area:

There will show various function button icons. Select different function button and it will carry out corresponding operation.

 SMS: Send SMS or read SMS.

 Phonebook: Save and view the different information of the contacts.

 Settings: Set normal relative information for the modem.

 Data Record: Show connection information.

 Connect: Connect to the Internet.

(4). Main menu button area:

Click the icon to popup the operation menu:

Diagnostics: Show the hardware information, operational information and network information.

Help: Show the USB modem software help information. Under the help topic, you can get the useful information about functions of the software, etc.

Exit: Close the software.

2.   Description of Mini Icons

When click the mini button, the software will minimize as an icon on the system taskbar. If connected to the Internet, the minimized software won't

influence the download of data or receiving SMS. When the application
window is minimized, the system icons will display on the taskbar. Double
click the icon to resize the display.

(1). Taskbar Icons Description：

The USB Modem is ready to connect to Internet.

The Internet is already connected.

(2). Using Tray Icons：

Right Click the tray icon to popup the operation menu:

- **Diagnostics:** View the hardware information, operational information
  and network information.

- **Help:** Enter the USB modem software help.

- **Exit:** Close the software.

3.4.2 Internet

1.   Connecting Internet

You can browse web pages after you have accessed to Internet with the help of
modem, you can also receive SMS when surfing the Internet.

Click the "**Connect**" button . Then the system will research available
network automatically.

When connected, the internet information area will show **data amount** and **connected time**. When active **IE browser,** you can access internet and receive email etc through network.

2.   Disconnecting to Internet

You can click "**Disconnect**" button to stop the connection when the "**Connect**" 'button becomes "**Disconnect**" button.

3.4.3 SMS

Note: To ensure that the SMS can be used properly, at first, you should setup the correct SMS center number. Refer to section "**SMS Settings**".
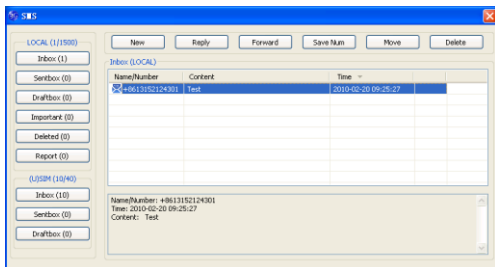
Click the "**SMS**" icon to switch to the SMS interface.

It will show the number of messages in the inbox, sentbox and draftbox of PC and SIM/USIM card. The user can click icons of "**InBox**", "**SentBox**", "**DraftBox**" to enter relative interface.

- **InBox:** Save the received messages.
- **SentBox:** Save the successfully sent messages.
- **Draftbox:** Save the editing SMS which haven't been sent. The drafts can only be saved in computer, not SIM/USIM.
- **Important:** Save the important messages**.**
- **Deleted:** Save the deleted messages.
- **Report:** Save the messages report information**.**

1.   Read SMS

Click the "**Inbox**" button on the main interface, and click the selected message to read the SMS saved in the box.

You can use the buttons under the menu to execute replying, forwarding, saving numbers, move, deleting functions and so on.

When receiving the new SMS, the system will pop-up prompt dialog box in the taskbar, and then click "**OK**" to enter SMS interface.

2.   Create new message

Click "**New**" button to input the recipient's number and content.

The recipient's number can be input directly or by entering the phonebook to select one/more/group records.

The recipient's amount can be one or more. Please use "**;**" to separate recipients.

The SMS content can include 160 individual English characters (including English symbols). On the interface, there will show total characters and the number of sending message.

Click "**Send**", the prompt screen will appear on the interface.

Select "**OK**", and then the edited short messages will be sent.

After sent successfully, the SMS will be saved into sentbox automatically. If send fails, it will be saved to the draftbox automatically.

Send SMS while browse the web:

When surfing the Internet, if your network supports, you can send short messages at same time. Click "**SMS**" button icon, enter the short message interface to send short messages normally.

3.   The SMS box Operating Guide

Enter any of the **InBox / SentBox / DraftBox** to execute the following functions:

Read: Read all the information of short messages. (The content of short messages, sender's phone number, delivered date and time)

Reply: Reply short message to the sender (which is only available in the Inbox).

Forward: Send the short message to other recipients (which is only available in the Inbox).

Save Num: Save the sender number obtained from the message to phonebook.

Move: Change the current location (at computer side or SIM/USIM card) where the short messages are saved to the other location. When the modem receives new short messages, by default messages settings it will receive the messages by the SIM/USIM card and save them at the computer side.

Delete: Delete the selected short messages.

If you want to select several messages, you can use the "**Ctrl**" or "**Shift**" key to execute multi-choice, and left click an item to add to selection.

New message can not be received when the SIM/USIM card is full of short messages (Different SIM/USIM cards have different capacities), the system will indicate the inbox is full and ask users to clear the inbox at USIM/SIM card side, while new message can not be saved.

3.4.4 Phonebook

Click "**Phonebook**" icon to access to the phonebook window.
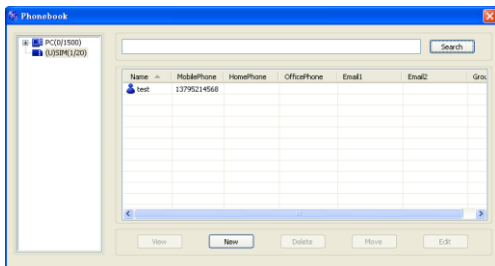
The phonebook information can be saved in the PC or SIM/USIM card, and you can choose the saved position. Each record includes name, mobile phone number, home phone number, office phone number, email and the group name which it belongs to.

1. Creating a new contact

1) Click "**New"** to add new contact.
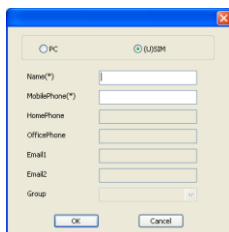
2) Select **save position** to decide where you want to save your contact, **PC** or **SIM/USIM**.

3) Enter the name, telephone number, Email address. Then click "**OK**".

2. Modifying contacts

1) Select a contact and then click **Edit** to modify.

2) After the modification, click **OK**.

3.   Deleting contacts

Select one or more contacts and then click **Delete**.

4.   Sending SMS to a contact

1) Select one or more contacts, and right-click, then select "**SMS**".

2) You will access in the writing SMS window automatically, the selected

contact mobile phone numbers will be listed in the receiver column.

3) Enter the contents of the message and then click "**Send**".

5.   Searching for a contact
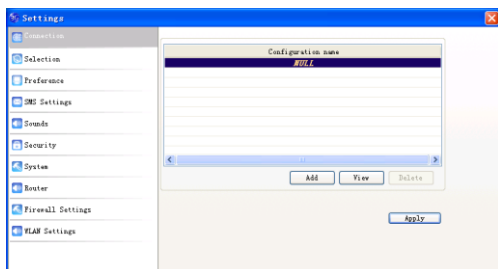
1) Enter the search conditions in the search condition blank.

2) Click "**Search**" to begin searching.

3) The searching results will display in the contacts window.

3.4.5 Settings

Click "**Settings**" icon ⚙ to switch to the settings interface.

It includes: **Connection, Selection, Preference, SMS Settings, Sounds,**

Security, System, Router, Firewall Settings, WLAN Settings.

Note: all the necessary settings have been correctly saved in your USB modem by ZTE. There is no need to change these default settings.

1.   **Connection**

To ensure that the modem can connect the Internet properly, you should configure the connection information first.

(1). Button description

Add: Add new configuration files.

View: View the selected configuration file.

Delete: Delete the selected configuration files.

Apply: Active the selected configuration files.

(2). Config File

Select "**Add**" to add new connection information to the system.
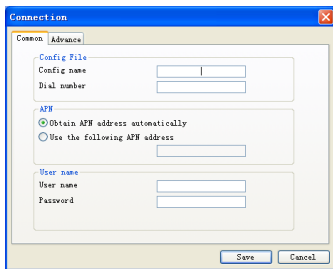
There are two parts of configuration information: **Common** and **Advance**.

The Common information includes: **Config File**, **APN**, **User name**.

The Advance information includes: **DNS**, **PDP server**, **Authentication mode**, **PDP Type**. If network supports "**Obtain server address automatically**", the

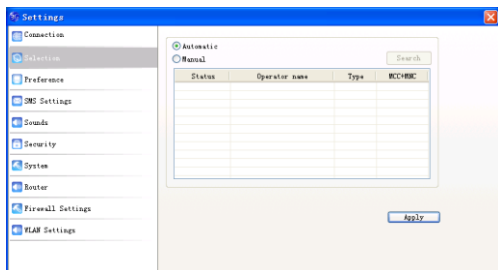modem can obtain the assigned IP information automatically. If network does not support it, you should input the proper address manually. Please consult the network supplier of SIM/USIM card for all above information. The configuration information may be various according to the different network suppliers and network types.

2.   Selection

Automatic: The system selects the network automatically by the user's selected rules and the network status.

Manual: The network is selected by users themselves.

When the "**Manual**" is selected, click the "**Search**" button to search the network. Wait a minute, the supplier list will show in the windows and which with the available status can be selected. Select a proper network to connect. Select the network that the supplier is utilized to serve your USIM/SIM and press "**Apply**" to enter the network.

3.   Preference
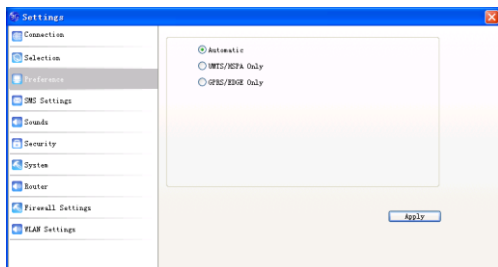
Automatic: The system selects the available network automatically.

UMTS/HSPA Only: The system will only select the UMTS/HSPA network.

GPRS/EDGE Only: The system will only select the GPRS/EDGE network.

4. **SMS Settings**
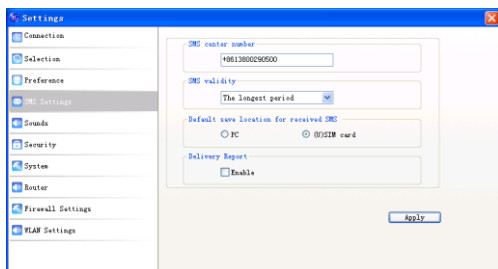
SMS Center Number: Set the corresponding SMS center number the network supplier. You must input the correct SMS center number to use the SMS properly and the number will be provided by the network supplier. Please enter the country code before the number.

SMS Validity: Set the time limit for saving SMS in the network side. (This function needs network supports.)In option：**12 hours/A day/A week/The**

longest period. The default setting is the longest period permitted by the network.

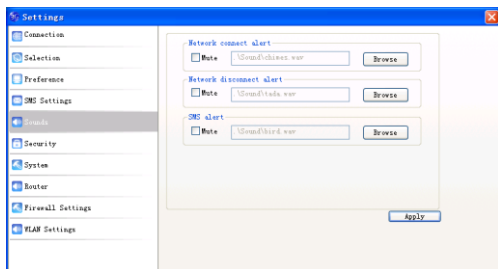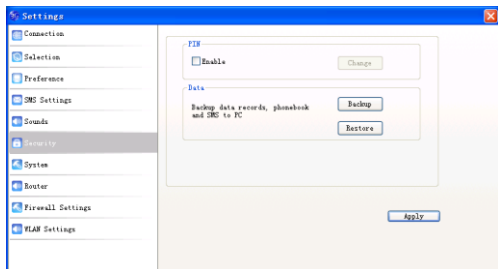**Default Save Location of New SMS:** Select "**PC**" to save in laptop or desktop PC; select "**SIM Card**" to save in SIM card.

5.   **Sounds**

You can set "**Network connect alert, Network disconnect alert** and **SMS alert**" by yourself. These alerts will sound on the PC side. The audio file supports MP3、WAV、WMA and MID format. If you select "**Mute**", you cannot hear corresponding alert.

6.   **Security**

(1). PIN

When "**Enable**" item is selected, please enter PIN code to use the modem and you can click "**Change**" to modify the number.

(2). Data

You can click **Backup** button to backup data records, phonebook and SMS to PC. Or click **Restore** button to restore these date.

7.   System
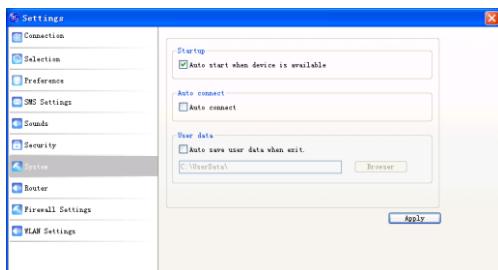
If "**Start when device is available**" item is selected, when user insert device into PC, the software will start running automatically.

If "**Auto connect**" item is selected, when user insert device into PC, the device will register to the available network automatically.

If "**Auto save user data when exit**" item is selected, when user close the main interface, the data will save to the predefined directory automatically.

8.   Router
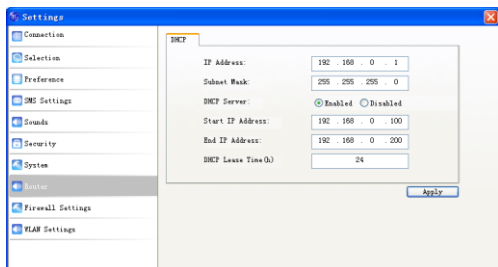
You can set DHCP related information, detailed please consult your service provider.

9. Firewall Settings

(1)IP Filter
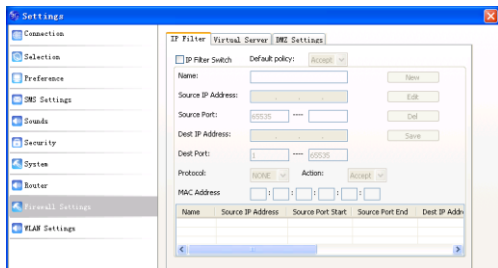
Select **IP Filter Switch** item.
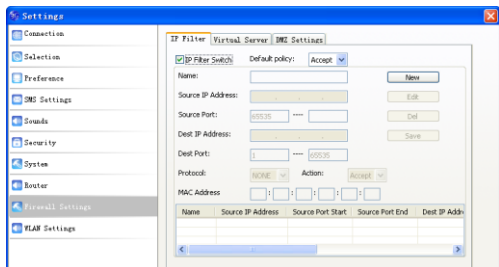
Click **New** button.
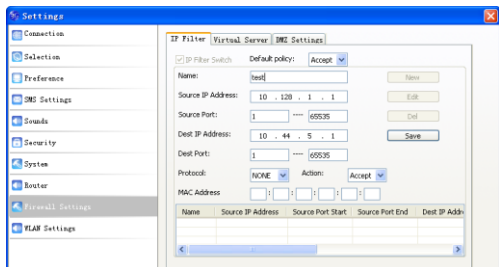
Input the related information and click **Save** button, your **IP Filter** rules will be saved as following picture.
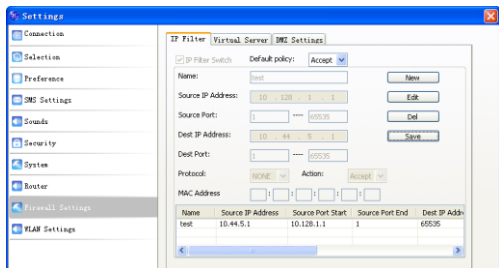
(2) Virtual Server
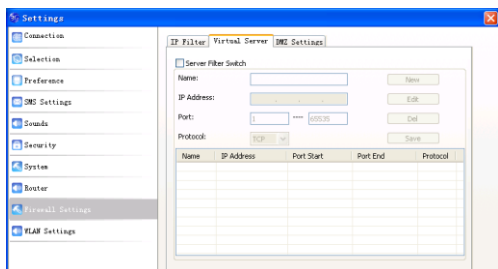
Select "**Server Filter Switch**" item, and click **New** button.
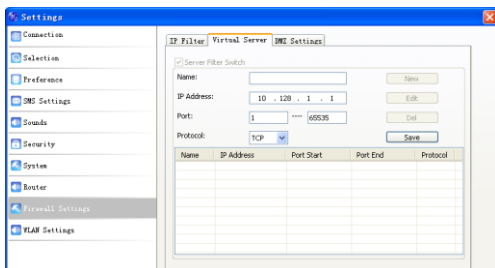
Input the related information and click **Save** button, your **Virtual Sever** rules

will be saved as following picture.
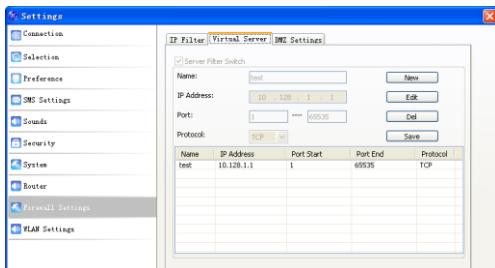
(3). DMZ Settings
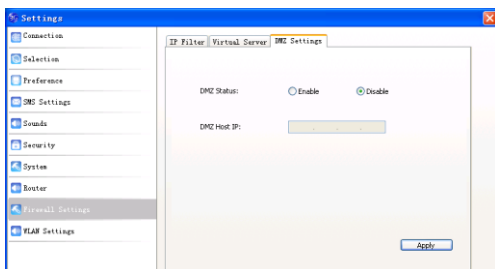
If you select **Enable**, set the **DMZ Host IP** address, and then click **Apply** to confirm your configuration.

10.   WLAN Settings
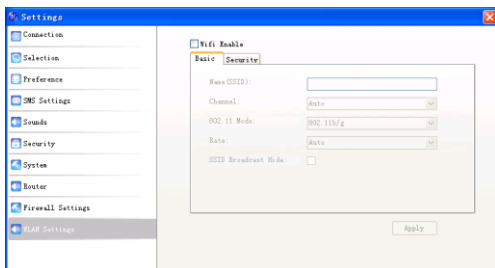
Select **Wifi Enable** item.
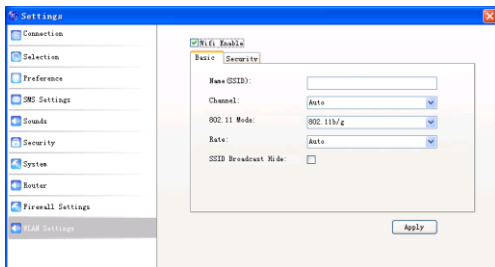
There are two parts for this setting: **Basic** and **Security**. Input related information and click **Apply** to active your configuration.

3.4.6 Data Records

Click "**Data Records**" icon to switch to the **Data records** interface.
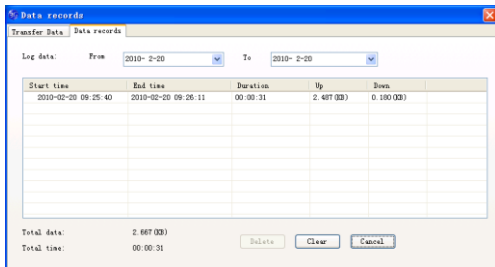
You can view related information for your internet operation, such as Transfer Data, and Data record. The Transfer Data includes transfer time, transfer rate, data stream and statistics information. The Data record includes start time, end time, duration, upload and download. The graph on the right part of the

Transfer Data interface shows you the upload speed and download speed in real time. Click the **Clear** button to reset all of data record; Click the **Cancel** button at the right bottom corner of the interface to turn back to the main interface.

Select start date (in "**From**" item) and end date (in "**To**" item) on the top of the "**Data Record**" dialog box, the records of flux during this period will be listed.

Note: Data usage is approximate only, please go to network operator for actual usage.

3.4.7 microSD card

When you use microSD card in the modem, the system will display the microSD card as a removable disk. You can use it freely. It is convenient for you to check the contents in your microSD card.

4 AP mode

The router does not require any drivers, it supports several operating systems, such as Windows 7, Windows Vista (64bit or 32bit), Windows XP (SP2) etc.

Warning: The description in this chapter is used for the administrator account of the router. If use the account for user to log in, you can not operate all the settings pages.

Note: All the parameter settings in this chapter are just for your reference. Please contact your service provider for detail.

4.1 Preparation

Before using the data service, make sure:

- ● The (U)SIM card is installed.
- ● All LED Indicators are working normal.
- ● Via your computer search the available AP and connect it successfully as following picture:
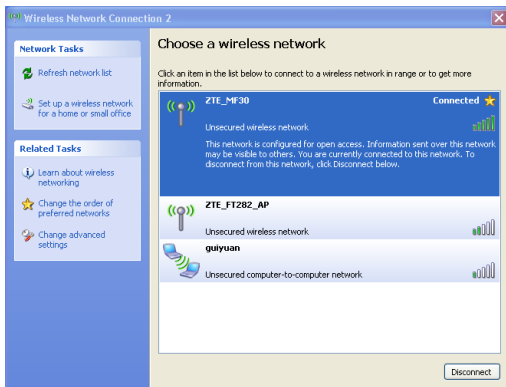
Web browser requirement:

It is suggested that you use IE browser to connect to the internet.

4.2 Settings

Do not change any settings unless instructed by your service provider. To make changes to your settings you need to disconnect the router from the network. After making changes reboot your router by turn off and on again.
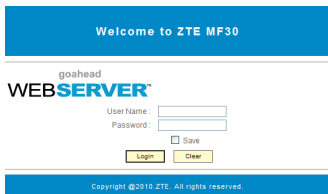
4.2.1 Login

The router can be connected by Wi-Fi.

Firstly you should set to obtain an IP address automatically in the attribution setting of Internet protocol(TCP/IP). After your computer gets the IP address (like 192.168.0.101) from the router, open a web browser and type " http://192.168.0.1" in the address bar, and then input the username and password.

User name: admin

Password: admin

Click **Login** to log in the router.

Note: If you check **Save** after you give user name and password, the router will save them, next time when you want to log in the router with the same user name and password, what you need to do is click **Login**.

When you login, the following interface appears.
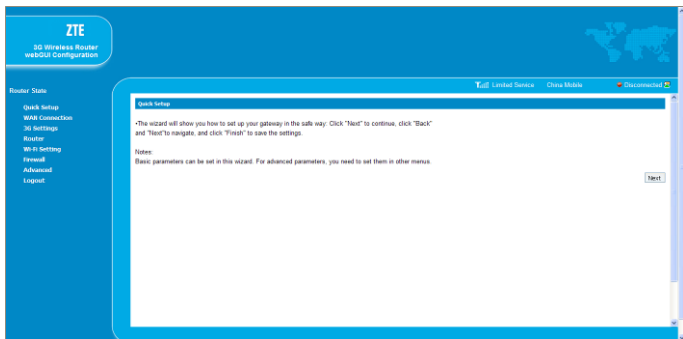
The whole interface is divided into two parts. Related functions can be executed by operation in the related areas.

● **Index area:** Show configuration list for your router.

● **Content area:** Show the detail configuration.

4.2.2 Quick Setup

Step1. Read the guide carefully, and then click **Next**.
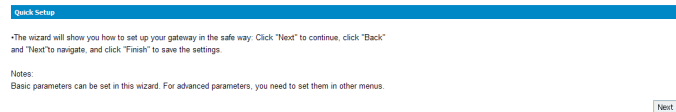
Step2. Set **PPP Profile Configuration** in the following figure:

•Profile Name: The default profile that you used currently.
•APN: If a fixed APN(Access Point Name) is given by your ISP, select "Manual APN"; otherwise, select "Auto APN", the gateway automatically obtains it.
•Dial No .This parameter is provided by your ISP, Dial No. is used for data service connections;

Profile

Profile Name	ZTE

APN

APN Setting	○ Auto APN ⊙ Manual APN
APN	cmwap

Dial Setting

Dial No.	*99#

Back   Next

Set **APN** for PPP profile, if you obtain a fixed APN from your service provider, please select **Manual APN**, otherwise select **Auto APN,** and then type the APN string. **Dial No.** is provided by your service provider.

Step3. Set the **PPP Authentication** in the following figure:

•PPP Authentication
The authentication mode is provided by your Internet Service Provider(ISP).
Password Authentication Protocol(PAP): It provides a simple method without encryption for the peer to establish its identity using a 2-way handshake.
Challenge-Handshake Authentication Protocol(CHAP): It is used to periodically verify the identity of the peer
PPP User Name and PPP Password are provided by your ISP and used to obtain authentication from the ISP when the connection is established.

PPP Authentication

Authentication	PAP ∨
PPP User Name	
PPP Password	

Back   Next

Choose PPP authentication mode CHAP or PAP, and then give PPP user name and password to the corresponding authentication mode.

Step4. Set **SSID Configuration** in the following figure:

•Name SSID(Senice Set Identifier): Enter a character string up to 32 characters as the name for your wireless local area network(WLAN).
•SSID Broadcast
Enabled: The gateway broadcasts the SSID and other devices can detect and connect to it.
Disabled: The gateway disables broadcasting and hides the name of your network.

SSID

Name(SSID)	ZTE_MF30

SSID Broadcast

SSID Broadcast	Enabled

Back Next

Service Set Identifier (SSID) is used to uniquely identify your WLAN. If you

enable **SSID Broadcast**, the gateway will broadcast the SSID, and other

device can detect and connect with it.

Step5. Set **Security Configuration** in the following figure:

•Add encryption to your wireless network to prevent unauthorised traffic monitoring and access.
No Encryption: Your wireless network is open to everyone without authentication and encryption, and this
option is not recommended.
Wireless Equivalent Privacy(WEP): It is a 64-bit or 128-bit encryption method with user configurable fixed
keys.
Wi-Fi Protected Access(WPA): It is a 256-bit encryption method with keys changing automatically.
WPA2: It is the securer version of WPA with implementation of the 802.11i standard.
WPA Encryption Algorithm: TKIP, AES, TKIP+AES.
WPA Pre-Shared Key: Enter the Pre-Shared key as a plain text(ASCII) pass-phrase of at least 8 characters.
Network Key: Enter 5 ASCII characters or 10 hexadecimal digits for a 64-bit key, enter 13 ASCII
characters or 26 hexadecimal digits for a 128-bit key.

Encryption Mode

Encryption Mode	NO ENCRYPTION

Back Next

Encryption will keep your traffic from being unauthorized monitor and access,

select one encryption mode from the list, and then set key and/or algorithm for

it.

Step6. Show the Configuration in the following figure:

Profile Name:	ZTE
Dial No.:	*99#
PPP User Name:	
APN Setting:	manual
APN:	cmwap
PPP Authentication:	pap
Name (SSID):	ZTE_MF30
SSID Broadcast:	Enabled
Encryption Mode:	NO ENCRYPTION

Back   Apply

Make sure that all the parameters shown in the figure are correct, and then click **Apply**.

4.2.3 WAN Connection

Click **WAN Connection**, you can configure how to connect to the Internet in the following figure:

WAN Connection

PPP Connection Mode	
⊙	Auto Connect
○	Manual Connect Connect Internet ▾
PPP Connection Status	Disconnected

Apply

There are two connection modes:

1. **Auto Connect**: The router will automatically connect to WAN when it is powered on.

2. **Manual Connect**: Connect to Internet manually.

Click **Apply** to confirm your configuration, and then the PPP connection status will be shown in the figure.

4.2.4 3G Settings

1. Wireless Info

Select **3G Settings→Wireless Info**, the 3G wireless information is shown in the following figure:

• Wireless Info	• Network Select	• APN Setting

3G Wireless Information

Network Provider	China Mobile
Network Type	Limited Service
Roam	OFF
RSSI	-59 dBm
RSCP	-0 dBm
Ec/Io	-0 dB
Cell ID	
LAC Code	

Refresh

Click **Refresh** to update the wireless information.

2. Network Select

Select **3G Settings→Network Select**, the Band Selection Mode is shown in

the following figure:

3G Settings-->Network Select

• Wireless Info	• Network Select	• APN Setting

Band Selection Mode

⦿	Automatic
○	Only WCDMA
○	Only GSM

Apply

- **Automatic**: Router searches for valid network according to the wireless
  network.
- **Only WCDMA**: Router searches for WCDMA network only.
- **Only GSM**: Router searches for GSM network only.

Click **Apply** to confirm your configuration.

3. APN Setting

Select **3G Settings→APN Setting**, the APN parameters are shown in the

following figure:

- **APN Setting**: APN address mode. If a fixed APN is provided by your service provider, select **Manual APN**. Otherwise select the **Auto APN**, and the router will automatically obtain this parameter.

- **APN**: Access Point Name.

- **Dial No.**: This dial number is used for data service connection.

- **PDP Type**: Packet Data Protocol (PDP) Type IP is recommended unless service provider instructs others.

- **PDP Setting**: PDP address mode. If a fixed IP address is given by your service provider, select **Manual PDP**. Otherwise select the **Auto PDP** and the router will automatically obtain this parameter.

- **DNS**: If a fixed IP address is given by your service provider, then choose **Manual DNS.** Otherwise, choose **Auto DNS**, and router will automatically obtain parameters.

- **Authentication**: Password Authentication Protocol (PAP) provides a simple method without encryption for the peer to establish its identity using a 2-way handshake. Challenge-Handshake Authentication Protocol (CHAP) is used to periodically verify the identity of the peer using a 3-

way handshake.

- **User Name**: User name is used to obtain authentication from the ISP when the connection is established

- **Password**: Password is used to obtain authentication from the ISP when the connection is established.

Click **Add** to define a new APN profile, and then click **Save** to save the profile. Click **Set default** to set this profile as the default profile. Select one profile and click **Delete** to delete it.

Note：You can not edit or delete the current default APN profile.

4.2.5 Router

1. LAN

Select **Router→LAN**, the LAN parameters are shown in the following figure:

- **IP Address**: IP address for LAN interface.

- **Subnet Mask**: Subnet mask for the IP address.

- **MAC Address**: MAC address for the LAN interface.

- **DHCP Type**: Define the DHCP type. By default, router is set as DHCP server.

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- **DHCP IP Pool**: Allocate start and end IP address for IP pool.

- **DHCP Lease Time**: Define how long the leased IP address will be expired, and will relocate new IP address.

Click **Apply** to confirm your configuration.

2. DHCP Clients

Select **Router→DHCP Clients**, the DHCP clients parameters are shown in the following figure:

Router-->DHCP Clients		
• LAN	•DHCP Clients	
DHCP Clients		
Host Name	MAC Address	IP Address
YangRunHu162916	00:FD:07:96:9A:11	192.168.0.200

Refresh

4.2.6 Wi-Fi Setting

1. Station list

Select **Wi-Fi Setting→Station List**, the wireless network stations are shown in the following figure:

Wi-Fi Setting-->Station List			
•Station List	• Basic	•Security	•WPS
Wireless Network			
Station		MAC Address	
1		00:FD:07:96:9A:11	

2. Basic

Select **Wi-Fi Setting→Basic**, the wireless network basic parameters are shown in the following figure:

+Station List	+ Basic	+Security	+WPS

Wireless Network

Network Mode	11b/g Mixed Mode ▾
Network Name(SSID)	ZTE_MF30
Broadcast Network Name (SSID)	⊙ Enable ○ Disable
AP Isolation	○ Enable ⊙ Disable
Country Code	US (United States) ▾
Frequency (Channel)	AutoSelect ▾
Rate	Auto ▾
MAX Staion Number	5 ▾

[Apply]   [Cancel]

- **Network Mode**: If all of the wireless devices connect with this router in the same transmission mode, performance will be improved by choosing the appropriate wireless mode.

- **Network Name(SSID)**: Service Set Identifier(SSID). Enter a string less than 32 characters as the name for your wireless local area network(WLAN).

- **Broadcast Network Name(SSID)**: Disable or Enable(Default) this function. If **Enable** is selected, the router broadcasts the SSID, and other devices can search and connect to it. When you select **Disable**, other devices can not search out the SSID. If you want someone to connect, you need tell them the SSID, and let them to setup manually.

- **AP Isolation**: When **Enabled** is selected, each of your wireless clients will not be able to communicate with each other.

- **Country Code**: Choose the right country code.

- **Frequency(Channel)**: Choose the appropriate channel to optimize the performance and coverage of your wireless network.

- **Rate**: Choose the speed rate.

- **MAX Station Number:** Choose the maximum number of the stations

which connect the AP simultaneously.

Click **Apply** to confirm your configuration.

3. Security

Select **Wi-Fi Setting→Security**, the Security parameters are shown in the following figure:

Unless one of these encryption modes is selected, wireless transmissions to and from your wireless network can be easily intercepted and interpreted by unauthorized users.

The security modes are described below:

- **OPEN**: You can authenticate successfully with a SSID, whether it is valid or empty.

- **SHARED**: The WLAN clients who have the same WEP key with wireless gateway can pass the authentication and access the wireless network.

- **WPA-PSK**: WPA Pre-Shared Key, Enter the Pre-Shared key as a plain text (ASCII) pass-phrase of at least 8 characters.

- **WPA2-PSK**: It is the securer version of WPA with implementation of the 802.11i standard.

- **WPA-PSK/WPA2-PSK**: Apply both the WPA-PSK and WPA2-PSK scheme.
- **WEP Keys**: At most four keys can be set in the blank. Choose the primary key index. The primary key is the only key in use at a given time. Whatever keys you enter for an access point, you must also enter the same keys for the client adapter in the same order. In other words, WEP key 1 on the AP must match WEP key 1 on the client adapter, WEP key 2 on the AP must match WEP key 2 on the client adapter, etc. A WEP is either 10 or 26 hexadecimal digits (0~9,a~f and A~F)based on whether you select 64 bits or 128 bits in the Encryption Strength drop-down list.

If the Authentication type is **OPEN**, **SHARED,** the bottom part of the configuration page displays parameters as shown.

If the Authentication type is **WPA-PSK** , **WPA2-PSK** or **WPA-PSK/WPA2-PSK** , the bottom part of the configuration page displays WPA parameters.

- **WPA Algorithm**: **TKIP**, **AES** or **AUTO**.

- **Pass phrase**: You can input a pass phrase encryption key format(8~64 bytes).

- **Key Renewal Interval**: Define how long the key should be renewed.

Click **Apply** to confirm your configuration.

4. WPS

Select **Wi-Fi Setting→WPS**, the WPS configuration is shown in the following figure:

- **WPS**: Enable or Disable this function.

● **WPS mode**: Choose the desired mode.

Click **Apply** to confirm your configuration.

4.2.7 Firewall

You may setup firewall rules to protect your network from virus, worm and malicious activity on the Internet.

Note: You can set the maximum 10 filtering items for **MAC/IP/Port**

Filtering, URL Filtering and **Port Forwarding**.

1. MAC/IP/Port Filtering

Select **Firewall→Mac/IP/Port Filtering**, the Mac/IP/Port Filtering is shown in the following figure:
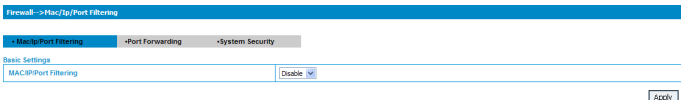
If you select **Enable**, the filter settings will appear:

Firewall-->Mac/Ip/Port Filtering

• Mac/Ip/Port Filtering	•Port Forwarding	•System Security

Basic Settings

MAC/IP/Port Filtering	Enable ∨
Default Policy -- The packet that doesn't match with any rules would be:	Accepted ∨

Apply

MAC/IP/Port Filter Settings

MAC address	(XX:XX:XX:XX:XX:XX, eg:00:1E:90:FF:FF:FF)
Dest IP Address	(XXX.XXX.XXX.XXX, eg:192.168.5.101)
Source IP Address	
Protocol	None ∨
Dest Port Range	- (1~65535)
Source Port Range	- (1~65535)
Action	Drop ∨
Comment	

The maximum rule count is 10.

Apply   Reset

Current MAC/IP/Port filtering rules in system:

No.	MAC address	Dest IP Address	Source IP Address	Protocol	Dest Port Range	Source Port Range	Action	Comment

Others would be accepted

Delete Selected   Reset

● **Default Policy**: Set how to handle the packet if none of the rules matches.

● **MAC address**: Set the MAC address that will be filtered.

● **Dest IP Address**: Set the destination IP address that will be filtered.

● **Source IP Address**: Set the source IP address that will be filtered.

● **Protocol**: Set which protocol will be used for filtering.

● **Dest Port Range**: Set the destination port numbers that will be filtered

● **Source Port Range**: Set the source port numbers that will be filtered.

● **Action**: Set how to handle the packet if it matches with the rule.

● **Comment**: type comment for the filter settings.

Note： Filtering rules are matched one by one, if met this provision, it will not continue to match the rules listed below.

Click **Apply** to confirm your configuration. Click **Delete Selected** to delete
the rule which you selected. Click **Reset** to clear what you select or input.

To add a new rule:

a) Select **Enable** and click **Apply** in the **Basic Settings** area.

b) Input the detail information in the **Mac/Ip/Port Filtering** area.

c) Click **Apply** in the **Mac/Ip/Port Filtering** area.

2. Port Forwarding

You can setup virtual servers to provide services on the Internet. Select
Firewall→Port Forwarding, the virtual server settings is shown in the
following figure:

If you select **Enable**, the Virtual Server Settings will appear:

● **IP Address**: Set IP address for the virtual server.

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- **Port Range**: Set port numbers for the virtual server.

- **Protocol**: Set protocol for the virtual server.

- **Comment**: Type comment for the virtual server settings.

Select **Enable**, and input the detail information in the **Virtual Server Settings** area, and then click **Apply** to add a new rule. Click **Delete Selected** to delete the rule which you selected. Click **Reset** to clear what you select or input.

3. System Security

You can configure system firewall to protect AP or router from being attacked. Select **Firewall→System Security**, the system security setting is shown in the following figure:
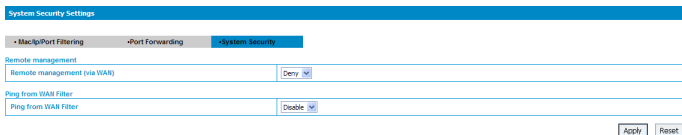
Allow or **Deny** the remote management function and **Enable** or **Disable** ping from WAN filter on requirement, and then click **Apply**. Click **Reset** to restore the default value.

4.2.8 Advanced

1. Status

Select **Advanced→Status**, the system information is shown in the following figure:

Advanced-->Status			
•Status	•Management	•Restore	•PIN Manage
System Info			
IMEI		359995030000127	
Wireless access module software version		BD_MF30V1.0.0B02	
Hardware version		MF30 - 2.0.0	
System Up Time		51 mins, 13 secs	

2. Management

Select **Advanced→Management**, the administrator settings information is

shown in the following figure:

Advanced-->Management			
•Status	•Management	•Restore	•PIN Manage
Administrator Settings			
Account		admin	
Password		•••••	

Apply   Cancel

You can change the account and password. Click **Apply** to confirm your

configuration.

3. Restore

Select **Advanced→Restore**, click **Restore** to set all the settings to their

factory default values, and the device will be turned off.

Advanced-->Restore			
•Status	•Management	•Restore	•PIN Manage
Load Factory Defaults			
Load Default Button		Restore	

4. PIN Manage

Select **Advanced→PIN Manage**, the PIN manage is shown in the following

figure:

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If you select **Modify**, the modification parameters are shown in the following figure:

Type the old PIN code, and then type two times the new PIN code. Click **Apply** to confirm your configuration.

Note: Three times consecutive wrong PIN code entries will block the (U)SIM card.

4.3 Logout

Select **Logout**, a pop-up window will appear as the following figure shown:
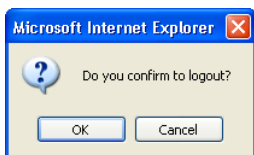
Click **OK** to logout the web page.

4.4 Disconnecting from the Internet

If you want to terminate your Internet connection, you can select **Disconnect**

Internet from **WAN Connection** page, and click **Apply**.

Turn off the router can also terminate Internet connection.

5 Troubleshooting

A) AP Related Problems

Symptoms	Possible Problems/ Solutions
I cannot access the internet at all.	Please check your configuration settings. Please wait 1~ 2 minutes for the router to initialize. Check your service indicator LED's status.
The download or upload speeds are very slow.	The speed is dependent on signal strength. Check your signal strength and network type.
The RSSI signal indicator is always blinking or does not light.	This indicates poor reception. Try moving the router to another location near the window.

B) Modem Mode Related Problems

Problem Description	Possible Causes	Problem Solving
The system can not run the installation program automatically.	The system configuration is having difficulty with the auto-run software.	The device will appear as a virtual CDROM on the PC's start menu. Click on the icon and start the **Install.exe**. If you have previously installed a version of the program, please uninstall it first.
After installation, the system doesn't install the driver program properly.	The system configuration is having difficulty with the auto-run software.	Please install the driver program manually. The driver program can be found in installation folder.
After the device is plugged in, the UI program doesn't run automatically.	The system configuration is incorrect.	Please open the UI program manually. You can find it on the desktop.

Problem Description	Possible Causes	Problem Solving
After restarting the computer, there is no signal indicated.	1. You are in the place where there is no GSM/ GPRS /EDGE /WCDMA /HSDPA(HSUPA) network coverage. Such places include underground parking garages, tunnels, and some remote rural areas.	1. Change location to find a good where having signal.
	2. The device is not properly connected.	2. Close the device safely as usual, pull out the device and reinsert the device again.
	3. The SIM/USIM card isn't inserted properly.	3. Remove and reinsert the SIM/USIM card correctly.
	4. The MODEM device is positioned in such a way as that adversely affects the devices signal reception.	4. Adjust the angle / position of the MODEM device or its proximity to other electronic devices.
When the Device is being installed, the computer cannot find it.	1. The installation programs of the MODEM device have not been installed properly.	1. Run the installation program first then connect the device. Now install the drivers as normal in Windows.
	2. The device is not connected properly.	2. Restart the computer, or reconnect the device.

Problem Description	Possible Causes	Problem Solving
	3. The SIM/USIM card is not inserted properly.	3. Reinsert the SIM/USIM card correctly.
Sent Message failure.	1. The SMS center number is incorrect.	1. Your device is preconfigured so it is unlikely that it will need changing. However if it is missing or incorrect contact your operator.
	2. The network is busy or you are in an area with no signal.	2. Try later or move to an area with a stronger signal.
Date connection failed.	1. You are in the place where there is no GSM/ GPRS/ EDGE/ WCDMA/ HSDPA(HSUPA) network coverage.	1. Move to an area with good signal.
	2. The network is busy.	2. Try later.
	3. The APN in the user configuration file is incorrect.	3. Check the APN in the user configuration file in the "Network settings".
	4. The device data is corrupted.	4. Local network access or the target server maybe experiencing problems. Retry data request.
	5. The network type has been selected manually, but is incorrect.	5. Reselect the network type according to the type of the SIM/USIM card.
Connected to the Internet, but it cannot open any website page.	1. After connection, you are unable to open web pages.	1. Check that the APN in the configuration files is correct.
	2. IE browser is causing problems.	2. Upgrade to the new version or reinstall the IE browser.

Problem Description	Possible Causes	Problem Solving
	3. Your operating system maybe infected by a virus. Worm Blaster for example can affect upload and downloaded data flow, resulting in an inability to access a website.	3. Use the professional anti-virus software to check and remove the virus.
	4. You have connected to an APN which cannot connect to the Internet.	4. This happens when you are changing any preset operator value in the setting section. Check the entry and enter the correct APN from your operator.

6 Technical Parameters

- **Network & Frequency Band**:

    GSM/GPRS/EDGE 850/900/1800/1900MHz

    HSUPA/HSDPA/WCDMA: 2100/1900/850(900)MHz

- **Power Adapter**:

    +5V (DC), 1A Max

- **Data Service**:

    HSPA: DL 7.2Mb/s

        UL 5.76Mb/s

    WCDMA: 384Kbps

- **Dimensions (W×H×D):** 98.5mm*54mm*13.9mm

- **Weight**: 80g

- **microSD card :** Up to 32Gbyte

- **USB Version :** USB 2.0 HIGH SPEED

- **Standby time** : 100hours

- **Working time** : 4hours

- **Operate system** :

    Windows 7, Windows Vista (64bit or 32bit), Windows XP

(SP2)