

ComIoT 24

4G wireless data transmission routing module product specifications



- Plug and play automatic dial-up Internet access
- Support WiFi
- Support 5-12V wide voltage power input
- Highly reliable performance, low cost, low power consumption
- Standard security 38mm * 38mm positioning hole for easy assembly

Product Description

The ComIoT 24 wireless monitoring routing core board is based on the domestic 4G cellular communication and WIFI technology platform, supports wireless communication components of FDD-LTE , TDD-LTE and WLAN multiple network standards, and is specially designed for plug-and-play wireless monitoring applications. At the same time, ComIoT 24 can also be widely used in various IoT front-end data collection and collection, as well as medium and high-speed data transmission units (DTU). The standardized interface can directly connect to the control motherboard for rapid joint debugging to achieve application solutions. ComIoT 24 mainly provides power interface , USB interface , SIM card holder interface , soft reset button , UART interface , sleep wake-up interface , RF interface , and 10M/100M network interface.

Device interface identification description

project	Specification Description	Remark
Power interface	Input: DC5~ 12V	
USB interface	Type interface×1	
USIM interface	1.8V/3.0V Nano (U)SIM card	
Ethernet interface	RJ45, 10/100 M adaptive, LAN/WAN configurable	
UART interface	UART interface×1	
Reset button	Press and hold for more than 3 seconds to restore factory settings	
Start switch	DIP start switch x1	
LED indicator	Power on state	

Hardware specifications

main chip	ASR1803 platform
Flash	16MB

DDR		32MB
Wifi protocol		802.11n/g/b
Ethernet interface		LAN port (built-in)
support network network frequency part	(CN) Asia	TDD LTE: B34/B38/B39/B40/B41
		FDD LTE: B1/B3/B5/B8
		WCDMA: B1/B5/B8
	(EU) Europe and Australia	TDD LTE: B38/B40/B41
		FDD LTE: B1/B3/B5/B7/B8/B20/B28
		WCDMA: B1/B5/B8
	(AN) Americas	TDD LTE: B38/B40/B41
		FDD LTE: B1/B2/B3/B4/B5/B7/B8/B28/B12/B17/B66
		WCDMA: B1/B2/B4/B5/B8
LTE rate		FDD-LTE 150M DL / 50M UL Cat4
		TDD-LTE 130M DL / 35M UL t4
LTE TX Power		23±2dBm
SIM card slot		support Nano SIM card
serial port		support 1 serial port (internal)
Network port		support 1 way RJ45 Network port (internal)
Wifi		2.4G
Wifi speed		286Mbps
WiFi TX Power		12±1dBm
Maximum number of connected devices		8
USB interface		support 1 way USB2.0 (Type C)
RESET		Support factory reset button

5. The WIFI yellow light is always on when in standby and flashes slowly when connected normally.
6. The Ethernet green light lights up when the terminal is connected and flashes when there is data interaction.
7. Please clear your browser's browsing history before using the WEBUI management function.

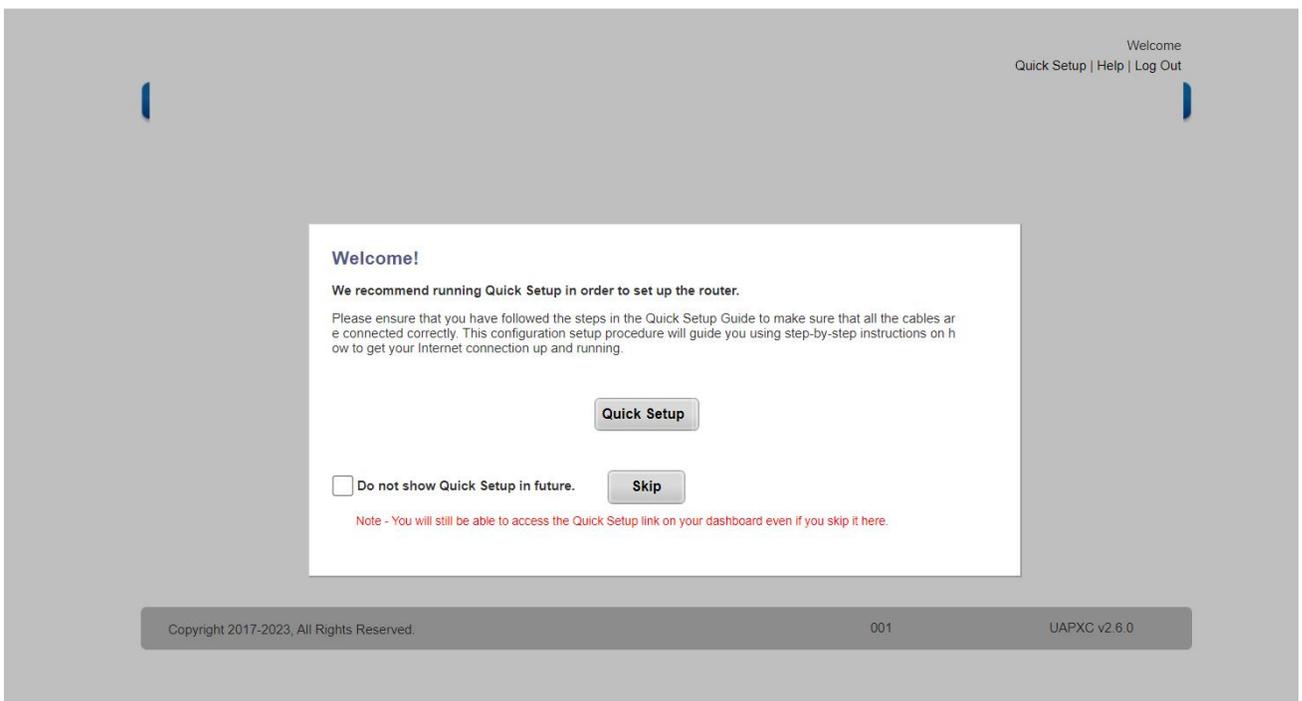
WEBUI management system

The device can work with the default settings, and various default settings can also be modified through the WEBUI management page. The WEBUI management page supports Internet Explorer 11 and higher, Firefox, Chrome, Safari and other mainstream browsers.

Basic function introduction

The interface after the user logs in by entering "192.168.1.1" in the browser

When logging in for the first time, you can select Quick Settings to set up basic routing functions in sequence, or skip and enter the page directly.



Enter the page to view the basic information and status of the device



Internet

Cellular Connection

Signal Strength: 

Cellular Data Connectivity: Enabled Disabled

Internet Connection

Network Operator: 中国电信

Cellular Network Mode: LTE

PDP Information

PDP1

PDP Type: Default Primary PDP

PDP Connection Status: connected

IPv4 Address: 10.11.151.149

IPv4 DNS Server: 202.96.128.86, 202.96.134.133

IPv4 Default Gateway: 10.11.151.108

IPv4 Network Mask: 255.0.0.0

IPv6 Address: fe80:0000:0000:0000:17c7:dd13:fd72:f19d

Global IPv6 Address: 240e:047c:3218:1358:17c7:dd13:fd72:f19d

IPv6 DNS Server: 240e:001f:0001:0000:0000:0000:0000:0001
240e:001f:0001:0000:0000:0000:0000:0003

IPv6 Default Gateway: fe80:0000:0000:0000:0000:0000:0000:0001

IPv6 Network Mask: 0000:0000:0000:0000:0000:0000:0000:0000

Current Connect Time: 0 Day 0 Hour 2 Minutes 31 Seconds

Router

Router Information

Router LAN IP: 192.168.1.1

IMEI: 353899261401754

ICCID: 89880322247553635930

Router Network Mask: 255.255.255.0

Router MAC: e8:49:43:0a:b6:9e

Run Time: 0 Day 0 Hour 2 Minutes 40 Seconds

Software Information

Software Version: 001-V4.9.2

Hardware Version: 001

Auto APN List

MCC: 460

MNC: 11

Operator Name: CTCC

APN: ctnet

LTE APN: ctnet

Network Type: 0

2G3G Auth Type: NONE

2G3G User Name:

2G3G Password:

4G Auth Type: NONE

4G User Name:

4G Password:

Ip Type: IPv4v6

Home Network

Connected Devices

0 ⊘

Wireless

Enabled ⊙

Wireless Settings

Wireless Network: 4G_AP_B69E

Security Mode: WPA2-PSK

Channel Number: Automatic

DHCP Server

Enabled ⊙

Internet

Internet connection

The Internet connection interface mainly refers to LTE dial-up related setting functions. You can choose a priority network mode, for example, you can choose LTE working mode or WCDMA working mode. You can set MTU parameters, configure automatic adaptation to APN, etc.

APN setting function, the device is preset with most operator APN related settings, and the APN can be automatically matched if it is set to automatic selection mode. If the SIM card is special, it may not be automatically matched. In this case, you can set the APN manually . You need to uncheck the Automatically match APN option first, and then set it manually. If you still cannot access the network after setting up the APN according to the SIM card operator's requirements , you can try to change the authentication type. The two authentication types are different, so you can try both.

Welcome
[Quick Setup](#) | [Help](#) | [Log Out](#)

DashboardInternetHome NetworkSMSWirelessRouter

Internet Connection

BAND

PING Configuration

Serial TCP/IP

PIN Management

Manual Network

USSD

Internet Connection ?

My Internet Connection is

Network Mode

Preferred Network Mode

Preferred LTE Type

Connection Mode:
 prohibit automatic dial-up in the roaming status.

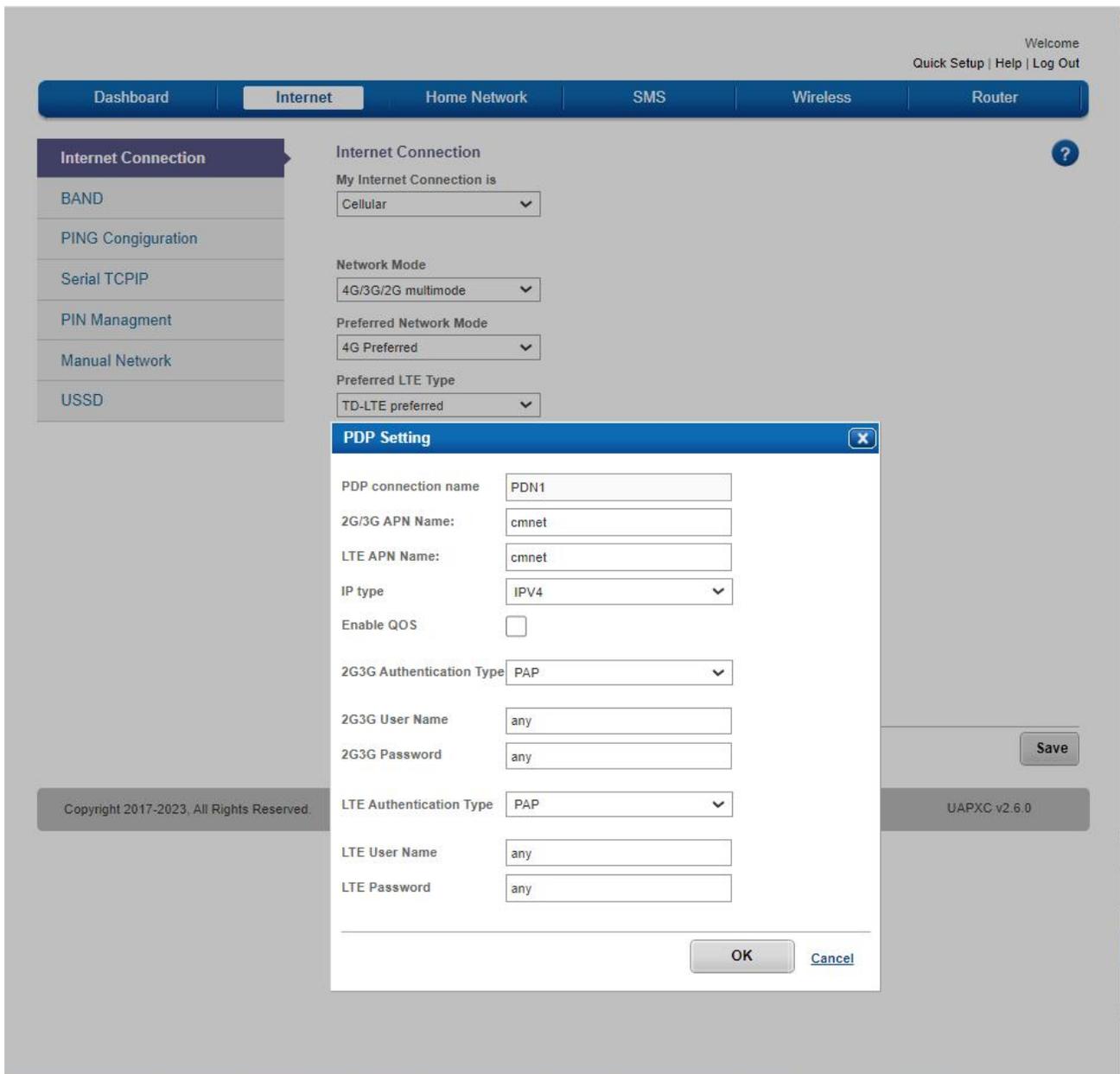
MTU
 (1000-1500)

Auto APN
 Auto Configure APN

Engineering Mode

PDN1 Settings:
 Manual APN Settings
 Dedicated Bearer1 TFT Setting

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The screenshot displays the MovingComm web interface. At the top right, it says "Welcome Quick Setup | Help | Log Out". The main navigation bar includes "Dashboard", "Internet", "Home Network", "SMS", "Wireless", and "Router". The "Internet" tab is active. On the left, a sidebar menu lists "Internet Connection", "BAND", "PING Configuration", "Serial TCP/IP", "PIN Management", "Manual Network", and "USSD". The main content area is titled "Internet Connection" and contains several dropdown menus: "My Internet Connection is" (Cellular), "Network Mode" (4G/3G/2G multimode), "Preferred Network Mode" (4G Preferred), and "Preferred LTE Type" (TD-LTE preferred). A "PDP Setting" dialog box is open in the foreground, containing the following fields: "PDP connection name" (PDN1), "2G/3G APN Name:" (cmnet), "LTE APN Name:" (cmnet), "IP type" (IPV4), "Enable QOS" (checkbox), "2G3G Authentication Type" (PAP), "2G3G User Name" (any), "2G3G Password" (any), "LTE Authentication Type" (PAP), "LTE User Name" (any), and "LTE Password" (any). At the bottom of the dialog are "OK" and "Cancel" buttons. In the background, a "Save" button is visible on the right, and footer text includes "Copyright 2017-2023, All Rights Reserved." and "UAPXC v2.6.0".

PING settings

This feature is disabled by default.

After enabling, you need to set the ping network address, ping interval, ping timeout time, ping timeout times, ping retry delay and ping mode . If there is a network problem and the ping fails and the set number of times is reached, the device will restart .

This setting takes effect after restarting.

Welcome
[Quick Setup](#) | [Help](#) | [Log Out](#)

DashboardInternetHome NetworkSMSWirelessRouter

- Internet Connection
- BAND
- PING Configuration
- Serial TCP/IP
- PIN Management
- Manual Network
- USSD

PING Configuration

PING State

PING Server

PING Interval
 Seconds

PING Timeout
 Seconds

PING Count

PING Delay

PING Mode

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PIN code management

The PIN code management interface provides SIM card PIN management functions, which can enable, disable, and verify SIM PIN functions, providing a certain degree of security for the use of SIM cards.

Welcome
Quick Setup | Help | Log Out

Dashboard | **Internet** | Home Network | SMS | Wireless | Router

Internet Connection
BAND
PING Configuration
Serial TCPIP
PIN Management
Manual Network
USSD

PIN/PUK Attempts ?
The number of PIN attempts left: 2
The number of PUK attempts left: 10

Enable PIN

Enable PIN

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Manual network selection

Manual network selection interface For special SIM cards, you can manually search the network and select a network that can be registered.

Welcome
Quick Setup | Help | Log Out

Dashboard | **Internet** | Home Network | SMS | Wireless | Router

Internet Connection
BAND
PING Configuration
Serial TCPIP
PIN Management
Manual Network
USSD

Manual Network ?

Manual Scan Network

Selectable Network:

Manually select network when system start
 I want to manually select network when system start

LTE background scan network time

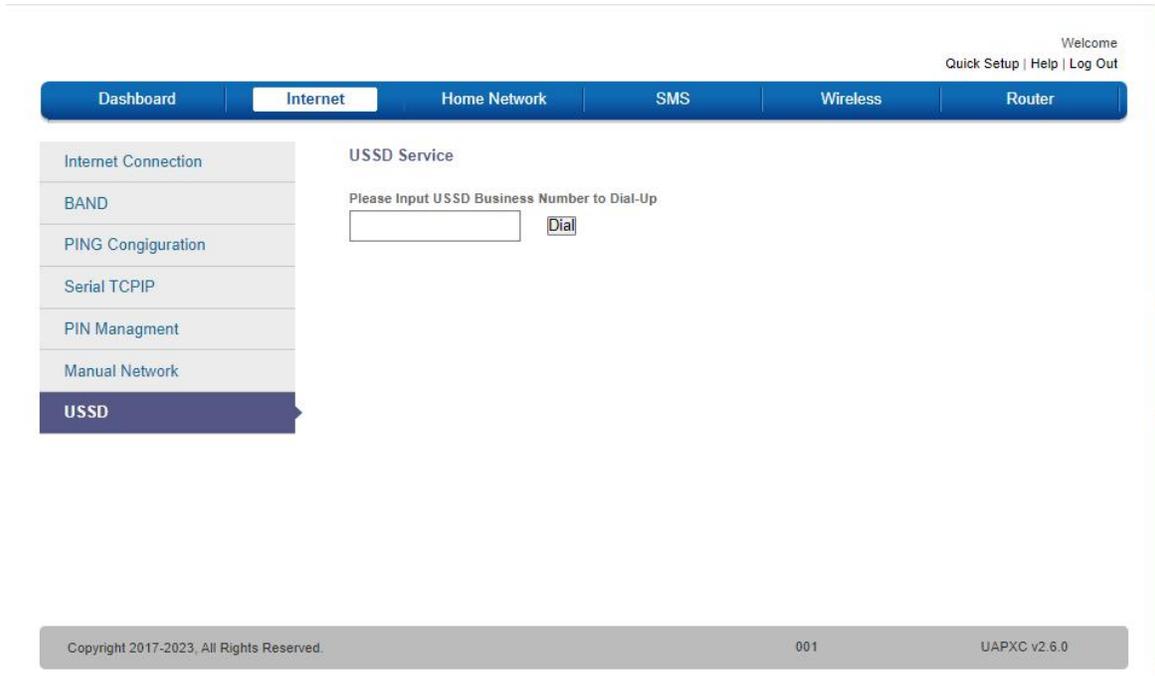
Current Select Network Mode
Automatic Mode

Save

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USSD function

For some SIM cards that require the USSD function, the USSD dialing function can be initiated on the USSD interface, and the USSD information is also displayed here.



The screenshot shows the web interface for configuring the USSD service. At the top right, there is a "Welcome" message and links for "Quick Setup", "Help", and "Log Out". Below this is a navigation bar with tabs for "Dashboard", "Internet", "Home Network", "SMS", "Wireless", and "Router". The "Internet" tab is selected. On the left side, there is a vertical menu with options: "Internet Connection", "BAND", "PING Congiguration", "Serial TCPIP", "PIN Managment", "Manual Network", and "USSD". The "USSD" option is highlighted with a dark blue bar and a right-pointing arrow. The main content area is titled "USSD Service" and contains the text "Please Input USSD Business Number to Dial-Up" above a text input field and a "Dial" button. At the bottom of the page, there is a footer with the text "Copyright 2017-2023, All Rights Reserved.", "001", and "UAPXC v2.6.0".

home network

DHCP settings

This page can configure the gateway address of the device, the IP address connected to the device and the number of connected devices, and can limit the connection of WiFi devices, etc.

Welcome
Quick Setup | Help | Log Out

Dashboard | Internet | **Home Network** | SMS | Wireless | Router

DHCP Settings ?

- Connected Devices
- Network Activity
- Custom Firewall Rules
- Port Filter
- Port Forwarding

DHCP Settings

DHCP Range: 192.168.1.1

Router LAN IP: 192.168.1.1

DHCP Server: Enabled Disabled

DHCP Start Address: 192.168.1.100

DHCP End Address: 192.168.1.200

DHCP Lease Time: 86400 (in Seconds)

DNS Configure Switch: Disabled

DNS1 IP Address:

DNS2 IP Address:

Redirection Function: Enabled Disabled

[Add Static IP](#)

MAC Address	IP Address
No entries found.	

DHCPV6 Settings

DHCPV6 Server: Stateless Server Stateful Server

[Save](#)

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Device connected

The interface displays a list of devices that have been connected via USB or WIFI.

Welcome
Quick Setup | Help | Log Out

Dashboard | Internet | **Home Network** | SMS | Wireless | Router

- DHCP Settings
- Connected Devices**
- Network Activity
- Custom Firewall Rules
- Port Filter
- Port Forwarding

Connected Devices ?

Name	Status	IP Address	MAC Address	Connection	Connected time
8c:16:45:84:1f:de	●	192.168.1.10	8c:16:45:84:1f:de	USB	0 Hour 12 Minutes 1 Second

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Log interface

The log mainly records the time of dial-up connection and the time of wireless terminal connection.

Welcome
Quick Setup | Help | Log Out

Dashboard | Internet | **Home Network** | SMS | Wireless | Router

- DHCP Settings
- Connected Devices
- Network Activity**
- Custom Firewall Rules
- Port Filter
- Port Forwarding

Last Login Time: 4/20/2024 11:42:55 ?

Access Logs Delete

PDP Name	CID	Start Time	End Time	IP Type	IPv4 Addr	IPv6 Addr	<input type="checkbox"/>

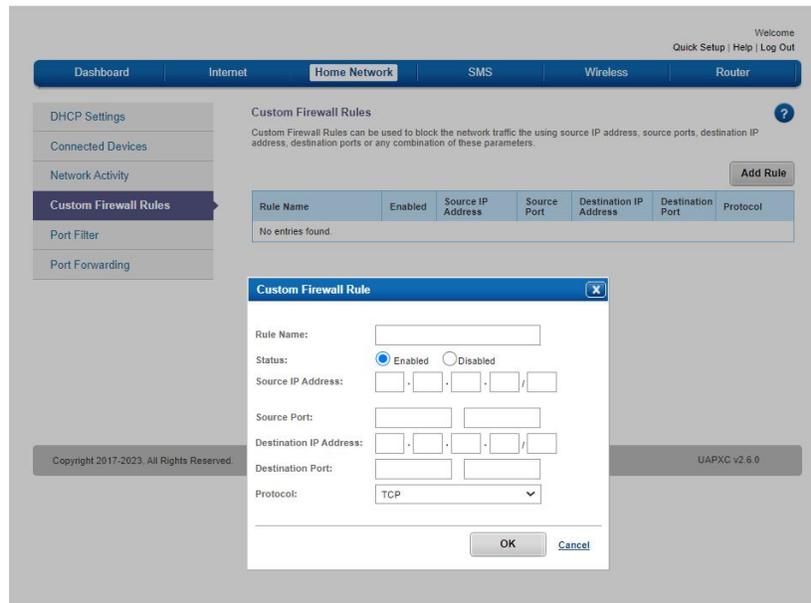
WiFi Client Access Logs Delete

Client MAC Address	Connect Time	Disconnect Time	<input type="checkbox"/>

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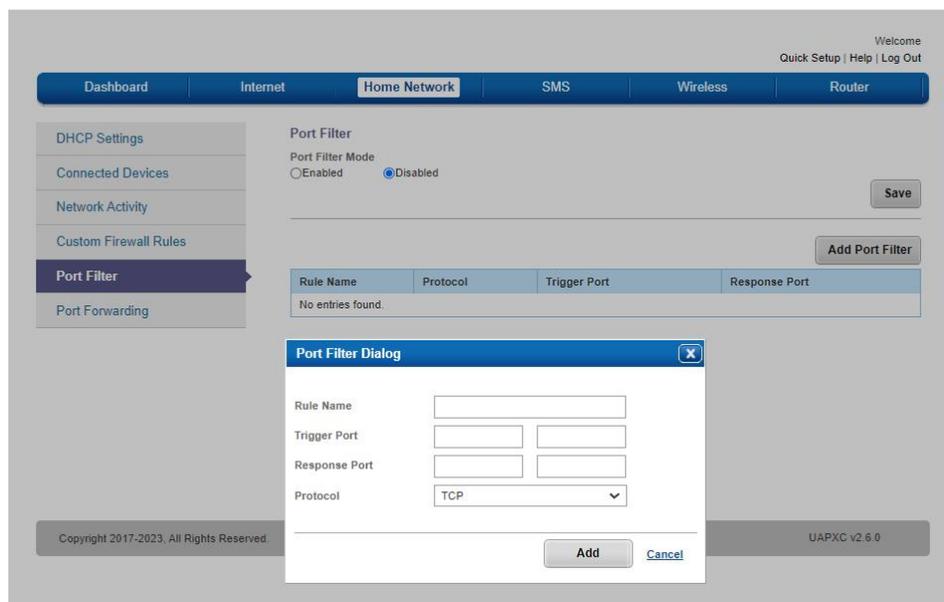
User firewall rules

The firewall interface provides certain security management functions, which can manage specific IP and port data packets, and control device access to the network by setting the source IP address (port), destination IP address (port), or any combination of these parameters.



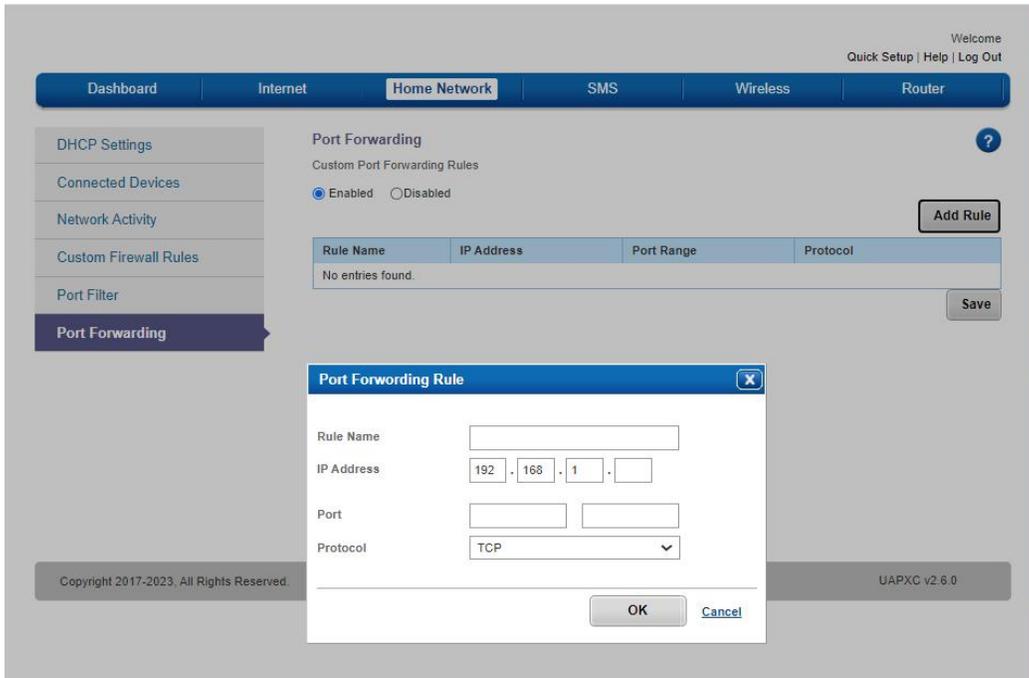
Port filtering

The port filtering interface provides the function of managing data packets according to ports.



Port Mapping

The port mapping interface provides the function of mapping external network ports to unreachable ports on the internal network.

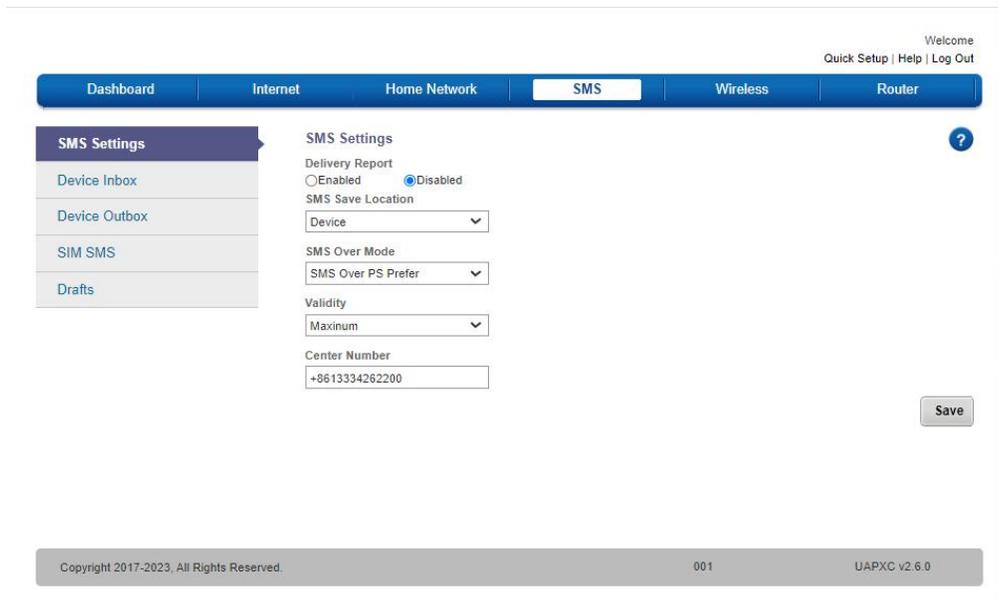


The screenshot shows a web management console interface for "Home Network" settings. The "Port Forwarding" section is active, showing a table for "Custom Port Forwarding Rules" with columns for "Rule Name", "IP Address", "Port Range", and "Protocol". The table is currently empty, displaying "No entries found." A modal window titled "Port Forwarding Rule" is open, allowing configuration of a new rule. The modal includes fields for "Rule Name", "IP Address" (with a pre-filled value of 192.168.1.), "Port" (with two empty input boxes), and "Protocol" (set to TCP). The interface also features a sidebar with navigation options like "DHCP Settings", "Connected Devices", and "Port Forwarding".

Text Message

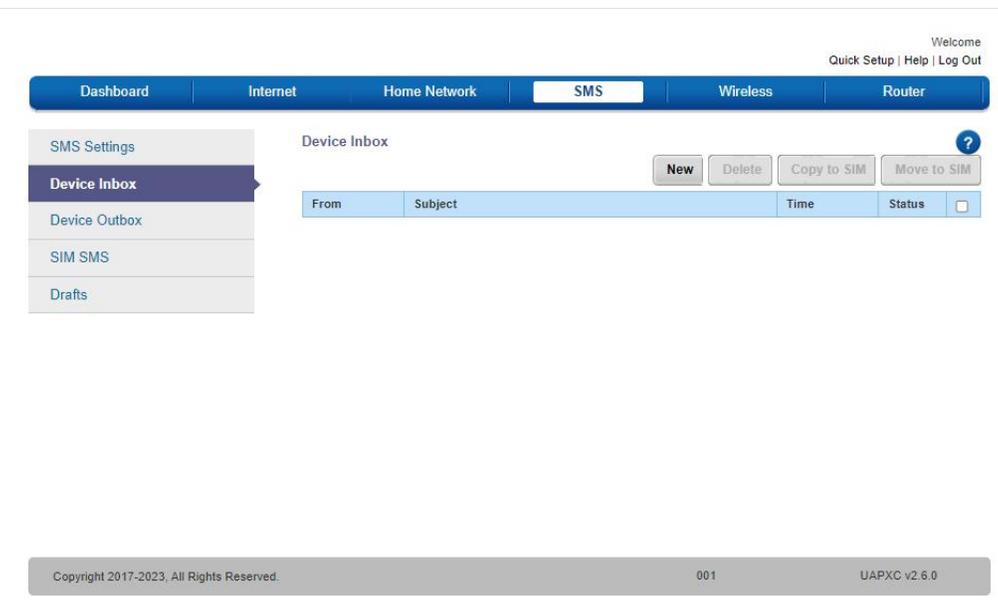
SMS settings

Set the SMS storage location, sending mode, time validity period and center number.



Inbox

The interface for receiving text messages sent from mobile phones and other devices does not support telecommunications cards.



Outbox

You can send text messages to mobile phones or other devices. Telecom cards are not supported.

Welcome
Quick Setup | Help | Log Out

Dashboard | Internet | Home Network | **SMS** | Wireless | Router

SMS Settings
Device Inbox
Device Outbox
SIM SMS
Drafts

Device Outbox

New Delete

Receiver	Subject	Time	Status	<input type="checkbox"/>
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SIM card side information

Information stored in the SIM card

Welcome
Quick Setup | Help | Log Out

Dashboard | Internet | Home Network | **SMS** | Wireless | Router

SMS Settings
Device Inbox
Device Outbox
SIM SMS
Drafts

SIM SMS

New Delete Copy to Device Move to Device

From	Subject	Time	Status	<input type="checkbox"/>
------	---------	------	--------	--------------------------

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draft box

Messages that have been edited but not sent can be saved in the draft box.

Welcome
Quick Setup | Help | Log Out

Dashboard | Internet | Home Network | **SMS** | Wireless | Router

SMS Settings
Device Inbox
Device Outbox
SIM SMS
Drafts

Drafts

New Delete

From	Subject	Time	Status	
------	---------	------	--------	--

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wireless

wireless setting

You can set the wireless working mode, channel bandwidth, channel, maximum number of connected clients, etc. You can also adjust some parameters of WIFI.

Welcome
Quick Setup | Help | Log Out

Dashboard | Internet | Home Network | SMS | **Wireless** | Router

Wireless Settings
Wireless Security Settings
Wireless MAC Filters

Wireless Settings

Status:
 Enabled Disabled

802.11 Mode:
802.11n(b/g compatible)

Channel Bandwidth:
20 MHz

Primary Channel:
Automatic

Band40 ACS Switch
 Enabled Disabled

Maximum Simultaneous Clients:
8

Beacon Period Setting
100 (in msec(50~4000))

DTIM Interval Setting
1 (1~100)

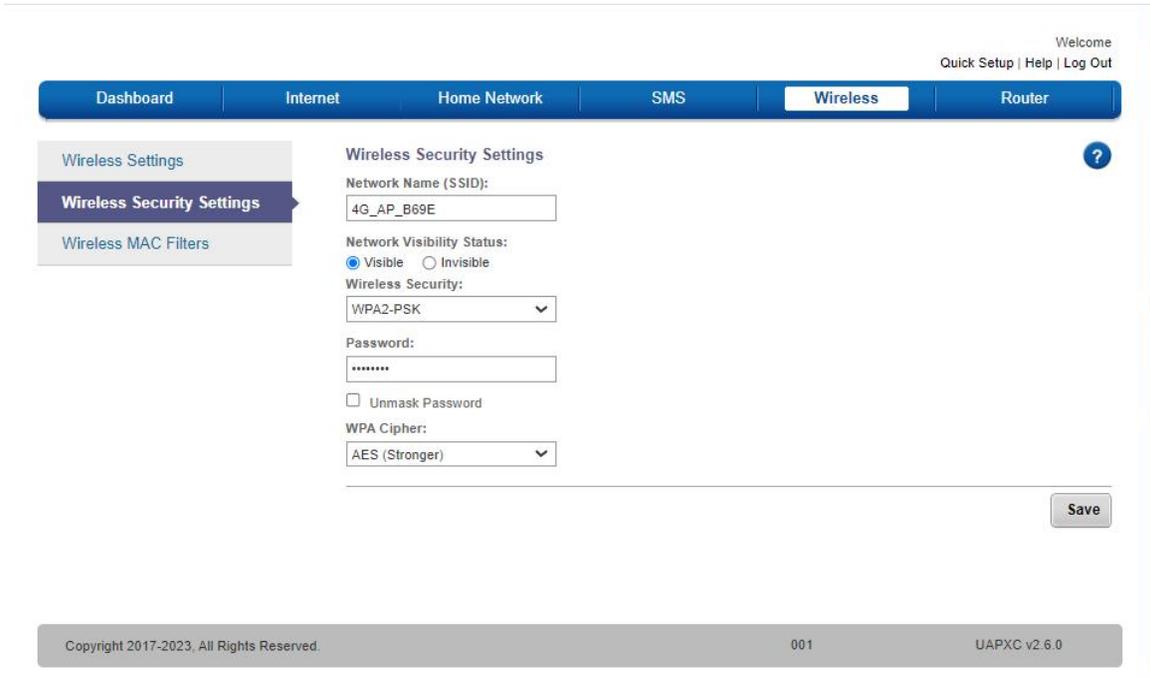
AP Isolate Switch
Close

Save

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wireless security settings

You can set the WIFI AP SSID name, wireless encryption password, etc.



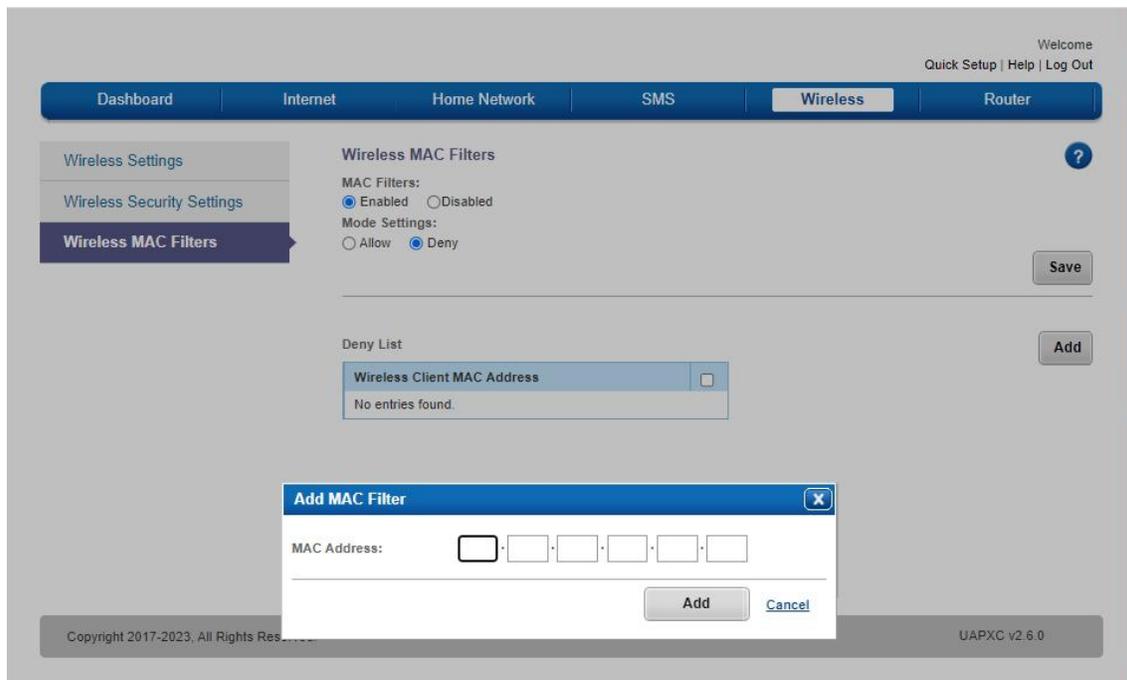
The screenshot shows the 'Wireless Security Settings' page in the MovingComm web interface. The page has a top navigation bar with 'Dashboard', 'Internet', 'Home Network', 'SMS', 'Wireless', and 'Router'. The 'Wireless' tab is selected. On the left, there is a sidebar with 'Wireless Settings', 'Wireless Security Settings' (highlighted), and 'Wireless MAC Filters'. The main content area is titled 'Wireless Security Settings' and contains the following fields:

- Network Name (SSID): 4G_AP_B69E
- Network Visibility Status: Visible Invisible
- Wireless Security: WPA2-PSK
- Password: [masked]
- Unmask Password
- WPA Cipher: AES (Stronger)

A 'Save' button is located at the bottom right of the form. The footer contains the text: Copyright 2017-2023, All Rights Reserved. 001 UAPXC v2.6.0

Wireless MAC filtering

Provides whitelist and blacklist modes for filtering based on wireless MAC address, and lists can be added and deleted.



Router management

User Management

Username and password can be changed.

Welcome
Quick Setup | Help | Log Out

Dashboard Internet Home Network SMS Wireless Router

User Management

User Management ?

Router Username:
admin

Router Password:

Save

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Configuration management

Can be used to restore factory settings .

Welcome
Quick Setup | Help | Log Out

Dashboard Internet Home Network SMS Wireless Router

User Management

Configuration Management ?

Software Upgrade

Reboot Router

Time Setting

ACS Management

Configuration Management

Restore Factory Settings

This option resets the router to the factory defaults. The existing settings will be lost.

Restore Factory Settings

Please choose configuration file(*.bin) to update.
Please make sure you connect to MIFI using USB cable before upgrade.
Device will reboot after update configuration file.

Browse

Update

Click below link to export configuration file.
[Export configuration file.](#)

Save Acatlog to SD Settings
SD Format:No SD Card

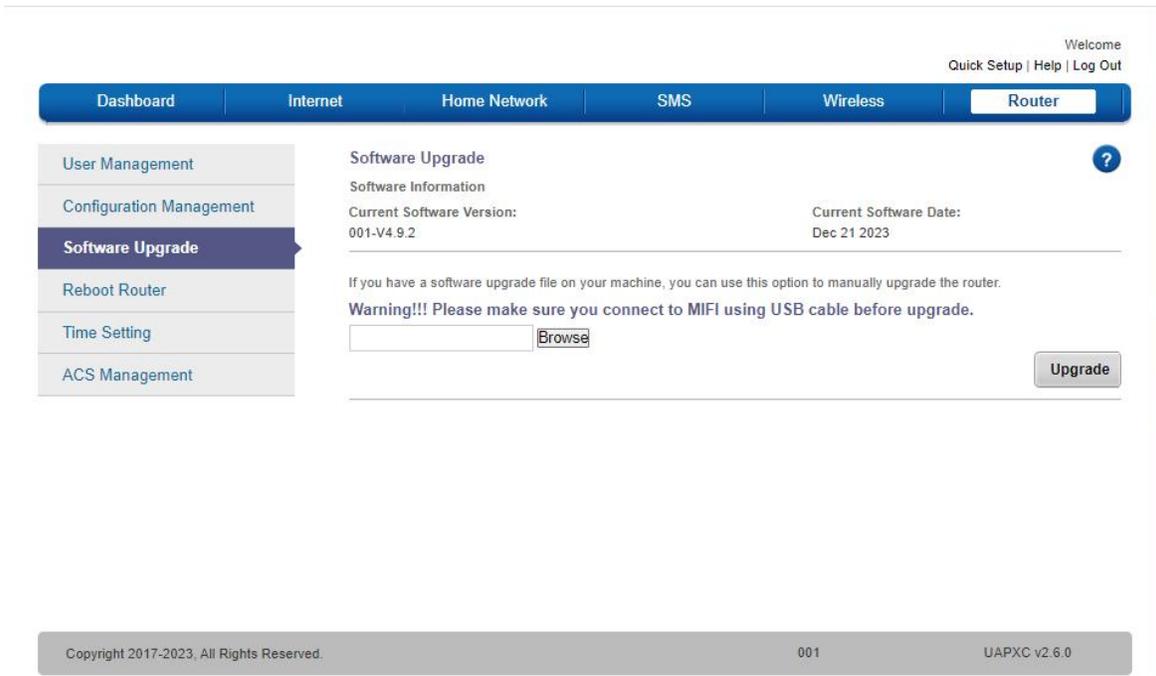
This option will require user to set save acat dump log to SD card or not, This log is for debug usage.

Save

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software upgrade

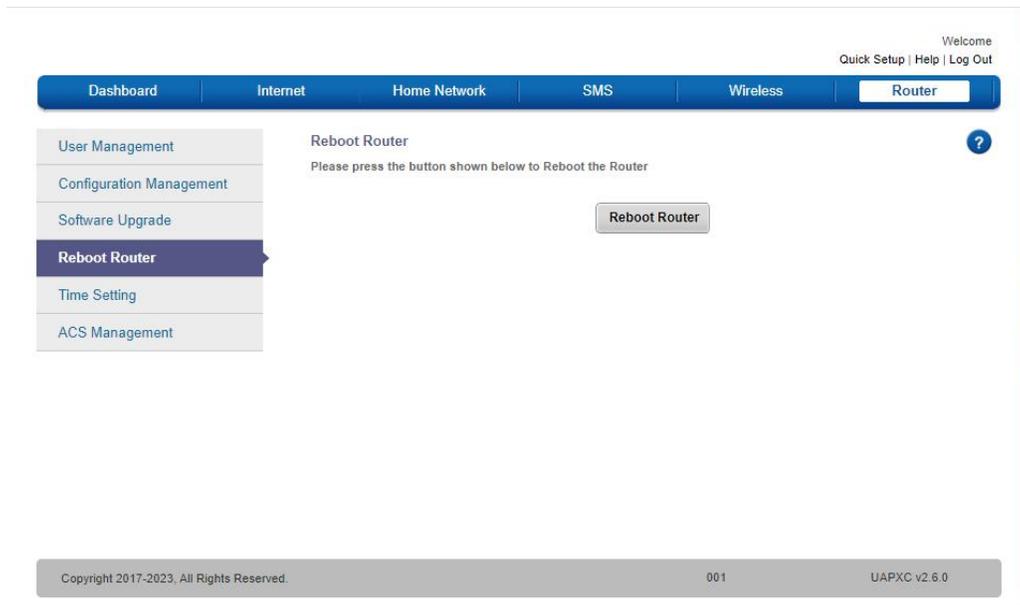
Software upgrade is mainly used to upgrade the software version of the device. (If you need to upgrade, please ask FAE to provide the software package)



The screenshot displays the 'Router' configuration page in a web interface. At the top right, it says 'Welcome' with links for 'Quick Setup', 'Help', and 'Log Out'. A navigation bar includes 'Dashboard', 'Internet', 'Home Network', 'SMS', 'Wireless', and 'Router'. A left sidebar lists 'User Management', 'Configuration Management', 'Software Upgrade' (highlighted), 'Reboot Router', 'Time Setting', and 'ACS Management'. The main content area is titled 'Software Upgrade' and includes a help icon. Under 'Software Information', it shows 'Current Software Version: 001-V4.9.2' and 'Current Software Date: Dec 21 2023'. A warning message states: 'Warning!!! Please make sure you connect to MIFI using USB cable before upgrade.' Below this is a file selection field with a 'Browse' button and an 'Upgrade' button. The footer contains 'Copyright 2017-2023, All Rights Reserved.', '001', and 'UAPXC v2.6.0'.

Restart the router

Restart the device. There are some items in the page settings that require restarting the device to take effect. If it cannot be used after setting, it is recommended to restart the device here.



Welcome
Quick Setup | Help | Log Out

Dashboard | Internet | Home Network | SMS | Wireless | Router

User Management
Configuration Management
Software Upgrade
Reboot Router
Time Setting
ACS Management

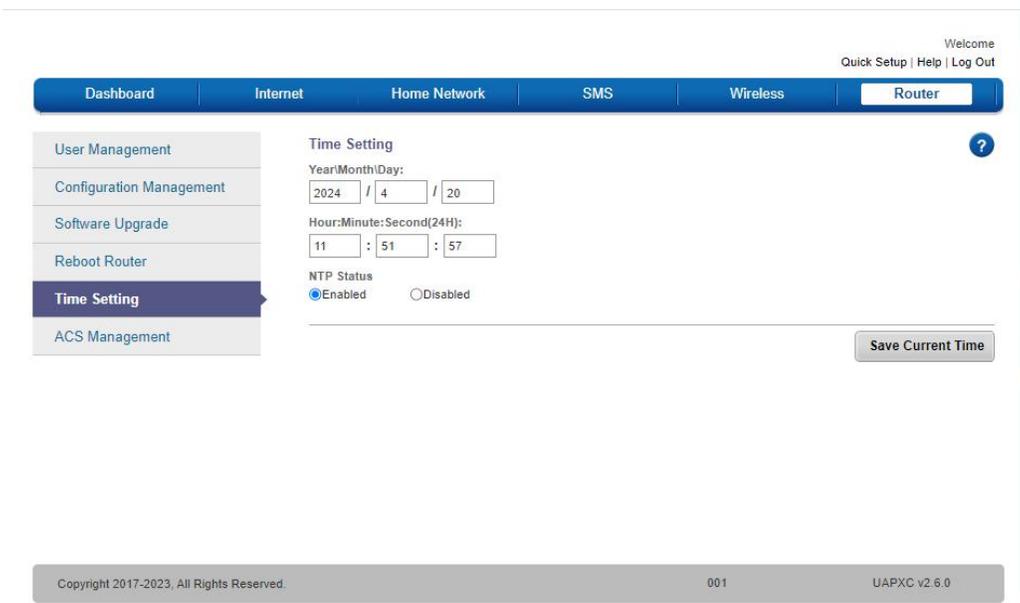
Reboot Router
Please press the button shown below to Reboot the Router

Reboot Router

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time setting

You can set the system time manually or set the system to automatically synchronize network time.



Welcome
Quick Setup | Help | Log Out

Dashboard | Internet | Home Network | SMS | Wireless | Router

User Management
Configuration Management
Software Upgrade
Reboot Router
Time Setting
ACS Management

Time Setting
Year:Month:Day:
2024 / 4 / 20
Hour:Minute:Second(24H):
11 : 51 : 57
NTP Status
 Enabled Disabled

Save Current Time

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ACS management

Provides a remote management server setting interface for wireless routers .

Welcome
Quick Setup | Help | Log Out

Dashboard |
 Internet |
 Home Network |
 SMS |
 Wireless |
 Router

User Management

Configuration Management

Software Upgrade

Reboot Router

Time Setting

ACS Management

ACS Management ?

ACS State

ACS URL:

Username:

Password:

Period inform

Period inform interval

Connection request name

Connection request password

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 001 |
 UAPXC v2.6.0

Common faults and analysis

Fault	Cause Analysis
light is not on	Check whether the power interface and power supply equipment are normal
Can't open UI interface	<p>Check whether the network port or USB is normal.</p> <p>Have you entered the gateway address normally or changed the gateway address yourself?</p> <p>Clear browser cookies</p>
UI shows no network	<p>Check that the device is in normal network mode.</p> <p>Check whether the tariff card is normal</p>
The end device cannot connect to the device via WiFi	<p>Confirm that the WiFi password is correct.</p> <p>Confirm that the WiFi function is turned on normally and that the WiFi hotspot is not hidden.</p> <p>Confirm that the connected device is not in the blacklist.</p>

Connector pin definition

Pin number	Pin name	Function description
1	GND	land
2	RX	Serial port data reception
3	Tx	Serial data sending
4	3V3	Level 3.3V
5	FACT	factory reset
6	NRST	Module reset
7	WIFI_LED	WIFI indicator light
8	LAN_LED	LAN indicator
9	DC_IN	External DC power supply 5-12V
10	GND	land
11	USB_VBUS	USB detection
12	USB_DM	USB negative
13	USB_DP	USB positive
14	GND	land
15	LAN_TX+	Ethernet port is sending data
16	LAN_TX-	Ethernet port negative data sending
17	LAN_RX+	Ethernet port positive data reception
18	LAN_RX-	Ethernet port negative data reception

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