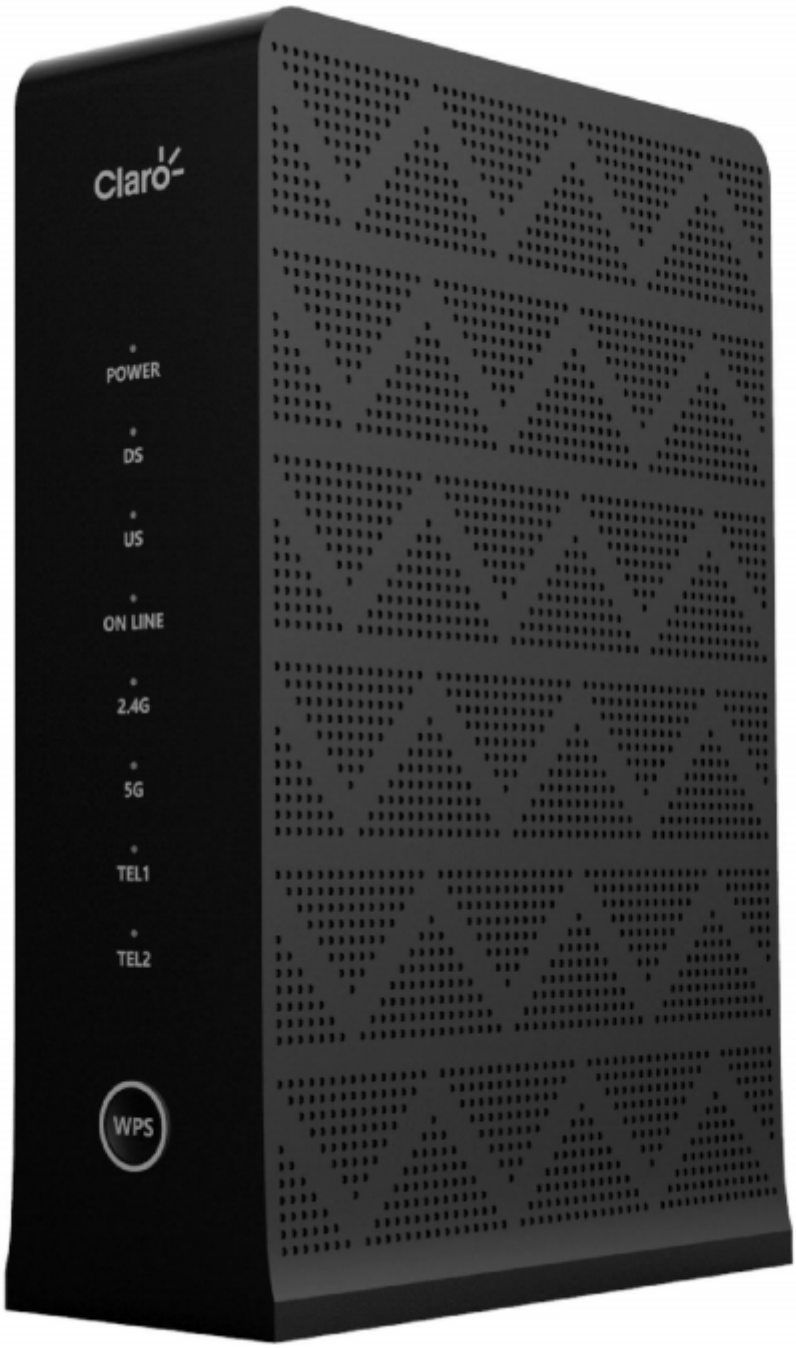
Model No.:OG3000

Embedded Multimedia Terminal Adapter

User Manual


Claro
POWER
DS
US
ON LINE
2.4G
5G
TEL1
TEL2
WPS

Contents

Objective

OG3000 is a high-performance cable gateway that integrates D3.0 cable modem, router, voice and wireless AP in one device. This article will introduce its technical specifications, installation and usage methods, and troubleshooting.

FCC Caution

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

-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.

***RF warning for Mobile device:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Definitions and abbreviations

DOCSIS: A project with the objective of developing a set of specifications and operations necessary for cable modems and associated equipment.

EMTA: Embedded Multimedia Terminal Adapter. Cablemodem and Voice equipment built in a single equipment.

Cable modem: This is the equipment at the subscriber's premises that is used to modulate and demodulate the data signal to and from the client over the HFC infrastructure.

PacketCable: A project to develop a set of telephony and operations specifications necessary for voice gateways and associated equipment used by the DOCSIS-based cable network.

TCP/IP: A network protocol that allows communication between interconnected networks, between computers with different hardware architectures and various operating systems.

TFTP: Trivial File Transfer Protocol, the system through which the media terminal adapter configuration data file is downloaded.

HTTP: Invisible to the user, HTTP is used by servers and clients to communicate and display information in the user's web browser.

DHCP (Dynamic Host Control Protocol): A protocol that allows a server to dynamically assign IP addresses to workstations dynamically.

1. Technical specifications

1.1 Hardware

Items	Features
Operating Temperature	0 to 40℃
Operating Relative Humidity	10-90% (Non condensing)
Storage Temperature	-40 to 70℃
Dimensions (H x W x D)	218 x 155 x 55mm
Diagnostic LED' s (Front)	POWER, US, DS, ONLINE, 2.4G, 5G, TEL1, TEL2
Diagnostic LED' s (Rear)	Ethernet Link/Speed

1.2 Interfaces

Items	Features
RF Interface	External 'F' type connector
Data Interfaces	4 x 10/100/1000 Base-T Ethernet (RJ-45 connector)
Analog Telephony Interface	2 lines, RJ-11
Input Voltage	100~240VAC, 50/60 Hz

1.3 Downstream

Items	Features
Bonded Channels	Up to 24
Tuner Configuration	Full capture tuning range
Frequency Range	108~1002 MHz
Data Rate (Max.)	Up to 1320 Mbps
RF Input Sensitivity Level	-15 to +15 dBmV
Modulation Type	64QAM and 256QAM

1.4 Upstream

Items	Features
Bonded Channels	Up to 8
Frequency Range	5~85 MHz
Data Rate (Max.)	240 Mbps
RF Output Level	+57 dBmV (32QAM and 64QAM, single upstream) +54 dBmV (32QAM and 64QAM, 4-8 upstreams) +58 dBmV (8QAM and 16QAM, single upstream) +56 dBmV (SCDMA, single upstream) +53 dBmV (SCDMA, 2-8 upstreams)
Modulation Type	QPSK, 8-QAM, 16-QAM, 32-QAM, 64-QAM

1.5 Wireless

Items	Features
Frequency Range	2.4GHz and 5GHz
Transmit Power	2.4GHz +20dBm (MCS0), +17dbm (MCS7) 5.8GHz +19dBm (MCS0), +15dbm (MCS9)
Receive Levels	2.4GHz <-80dBM 802.11n (MCS0) , <-69dBm 802.11n (MCS7), HT20 5.8GHz <-78dBM 802.11ac (MCS0) , <-55dBm 802.11ac (MCS9), VHT80
Spatial Streams (Max.)	3
Data Rate (Max.)	1600 Mbps

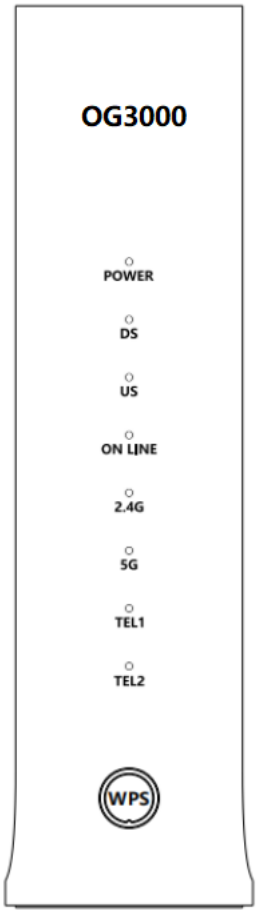
1.6 Telephony

Items	Features

Supervisory Voltage	48 Vdc nominal
Ringing Load Capacity	10 REN total; 5 per line
Provisionable High Loop Current Mode	Yes (40mA constant current source)

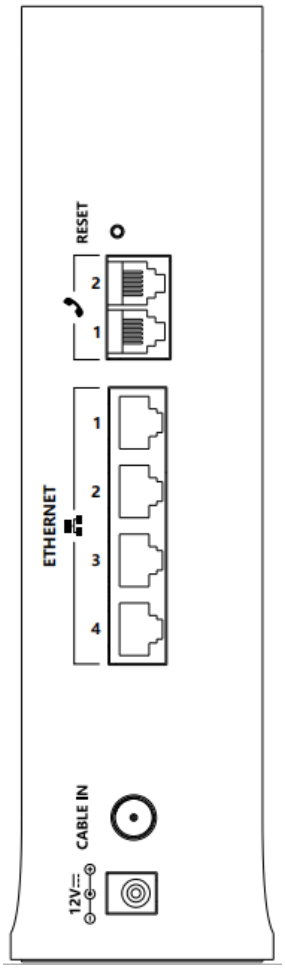
2. Appearance

The OG3000's front panel provides status LED Itemss to indicate correct operation and status.



Items	Description
POWER	Power status Items
DS	Indicates the status of data reception
US	Indicates the data transmission status
ONLINE	Shows the status of the network connection. When the cable of network is not Molex connectors or the signal light goes out. When connected to the network and data can be transmitted, the signal light is on
2.4G	2.4G wireless network status Items
5G	5G wireless network status Items
TEL1	Status Items for telephone line 1
TEL2	Status Items for telephone line 2
WPS	Just press the button, the wireless terminal that supports the WPS protocol can quickly connect to the device

The following figure shows the description and functions of the OG3000 rear panel components.



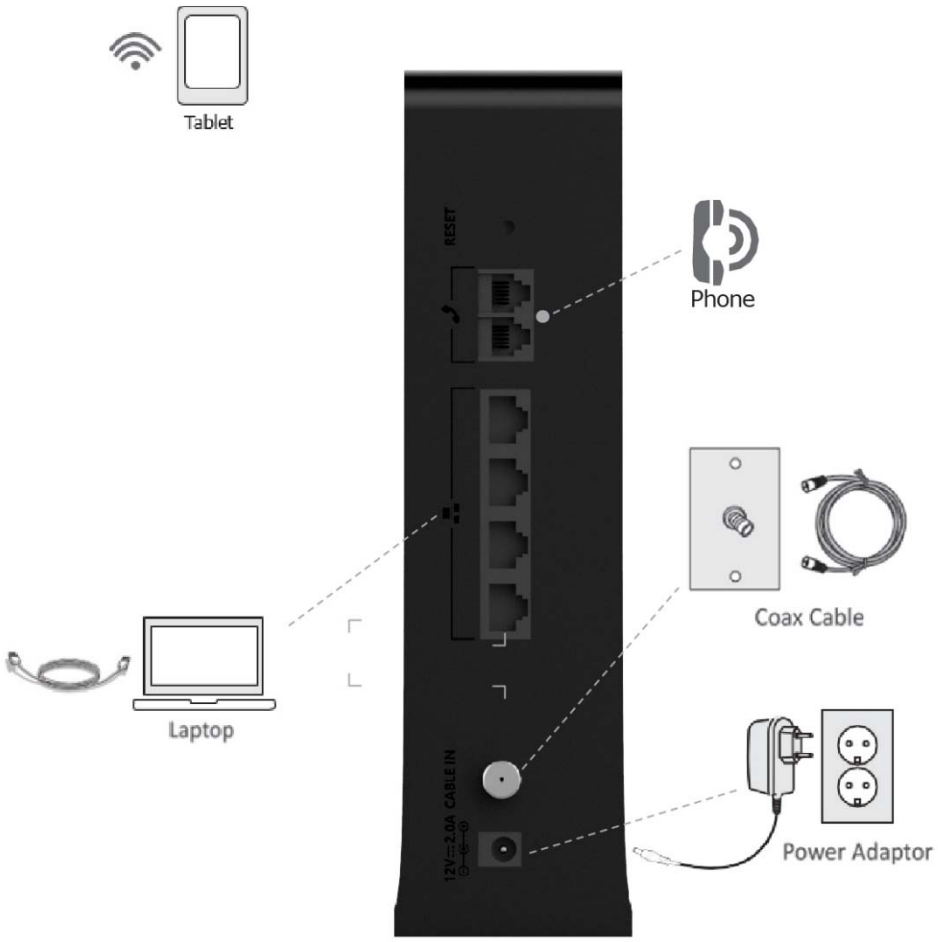
Items	Description
	Power connectors connection.
CABLE IN	RF connection interface cable.
ETHERNET	RJ-45 network cable (10/100 / 1000BaseT integrated) Connection interface.
	RJ11 Telephone line connection interface
RESET	Reset the device. Press for more than 5 seconds and the OG3000 will reset to factory settings.

3. Installation

3.1 Steps of installation

Warning: During OG3000 installation, improper operation and use may cause danger to the installer and the equipment may not function properly. Before installing and using, pay special attention to the following precautions.

- Follow the instructions in the figure below to connect the device correctly.
- Disconnect all telephone and network services before installation.
- Make sure the installation environment has good ventilation and cooling.
- Keep the OG3000 away from moisture and heat.
- Make sure the OG3000 and the socket are properly grounded.
- Wear antistatic gloves during installation and maintenance.
- Install the device in a central location in your home or office to ensure maximum wireless coverage.



1. Choose a suitable and safe location to install OG3000.

2. Connect one end of the cable to the corresponding cable connector on the back of the OG3000, and

connect the other end to the cable connector provided by your ISP.

3. Connect one end of the power adapter supplied with the OG3000 to the OG3000's power port and the other end to a household power outlet.

4. Wait for OG3000 to connect normally. This process can take 3 to 5 minutes. When all the Itemss on the front panel of the OG3000 (POWER, DS, US, 2.4G, 5G, ONLINE, TEL1, TEL2) are on. The device is online.

5. Connect one end of the coaxial cable (RJ-45) to the corresponding cable connector on the back of the OG3000 and connect the other end to the personal computer. Verify that you have Internet access on your personal computer.

6. In accordance with the wireless access point and password configured on the label on the bottom of the OG3000, use a wireless device to connect to the OG3000 and verify that the wireless can access the Internet.

7. If telephone service is activated, connect one end of the telephone cable (RJ-11) to the corresponding connector on the back of the OG3000 and the other end to a telephone or fax. Then use the telephone number assigned by your ISP and try dialing another telephone to verify that the telephone service is normal.

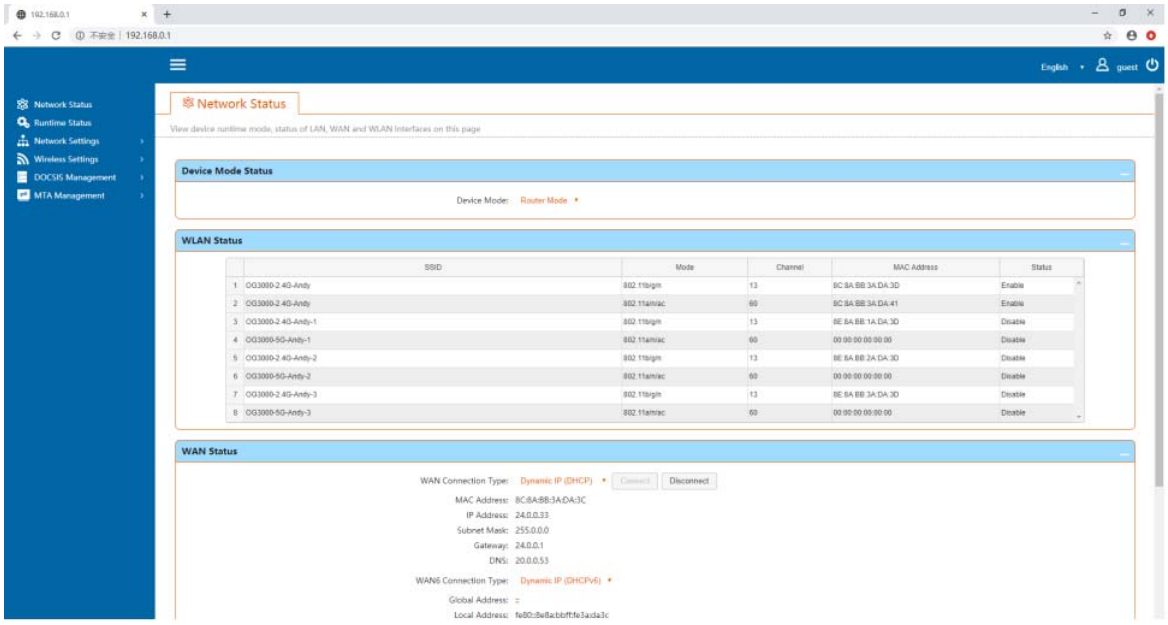
Cautions:

- To connect more Ethernet devices (such as multiple computers) at the same time, use a multiport Ethernet switch.
- The cable's signal distributor must be installed to connect it to a television, set-top box or video player at the same time.

3.2 Network Status

The installer can use the computer to access the device management IP address 192.168.0.1, open the WEB GUI and can see the current network status of the device without entering a password. Check if the device has opened the correct service.

On the page, you can view the wireless access point information, the LAN information, and whether the WAN port has obtained the IP assigned by the ISP to access the Internet.

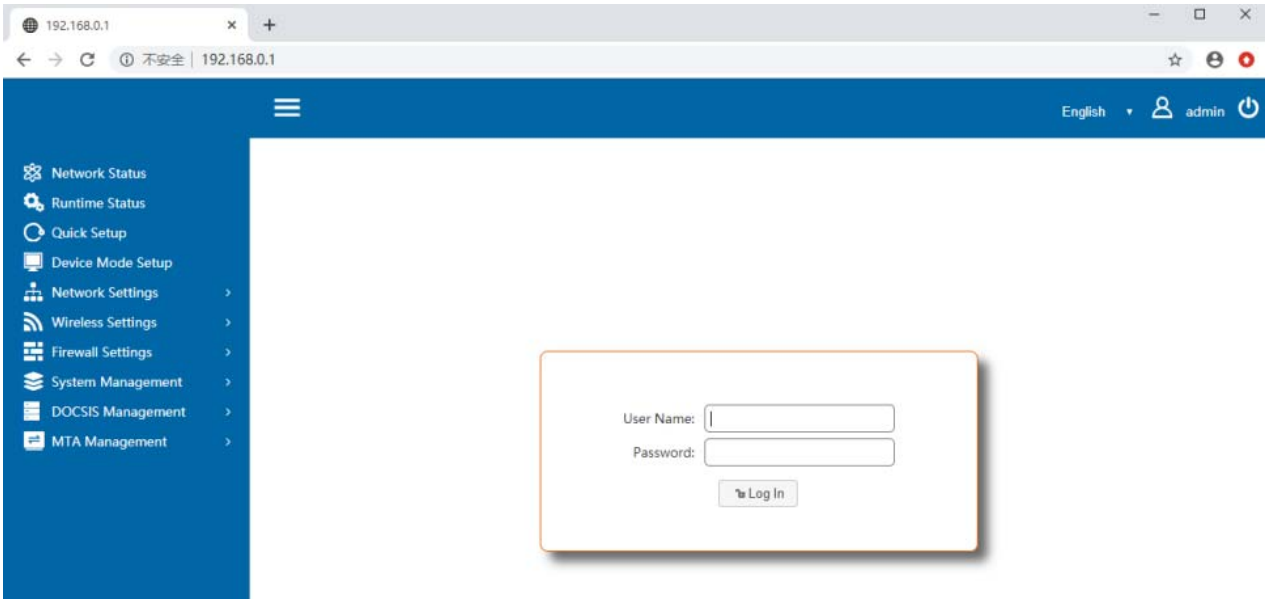


4. Configuration Introduction

4.1 Start Session

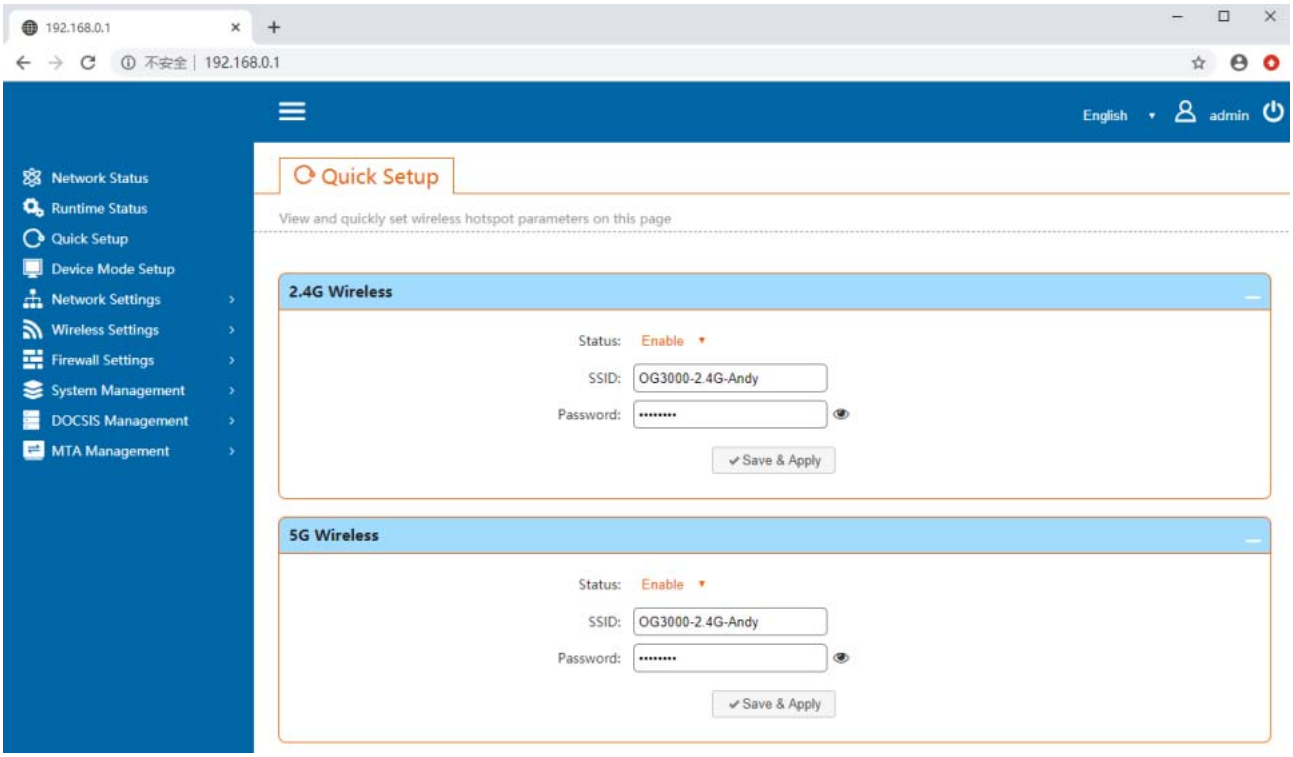
The user can click on the icon in the upper right corner of the WEB GUI.

On the login page that appears, use the username: **admin**, password: **admin** to enter the configuration interface.



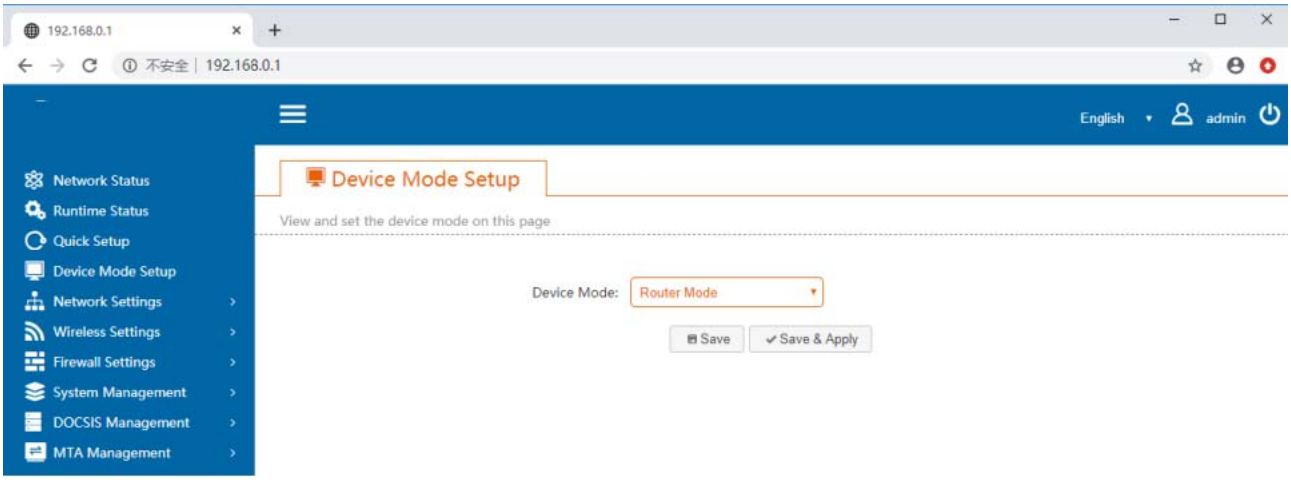
4.2 Quick Setup

This page allows you to configure 2.4G and 5G SSID names and passwords. It is not necessary to select an encryption method and channel parameters.



Items	Description
SSID	Wireless name. You can set 1-32 ASCII strings as the EMTA wireless name. You can also configure the wireless function Enable or Disable via the change button on the right side of the SSID field on the page.
Password	Wireless password. When you set the wireless encryption mode to Encryption, you can enter the password you want to set in this field. Please note that the legal wireless password is 8-31 ASCII strings.

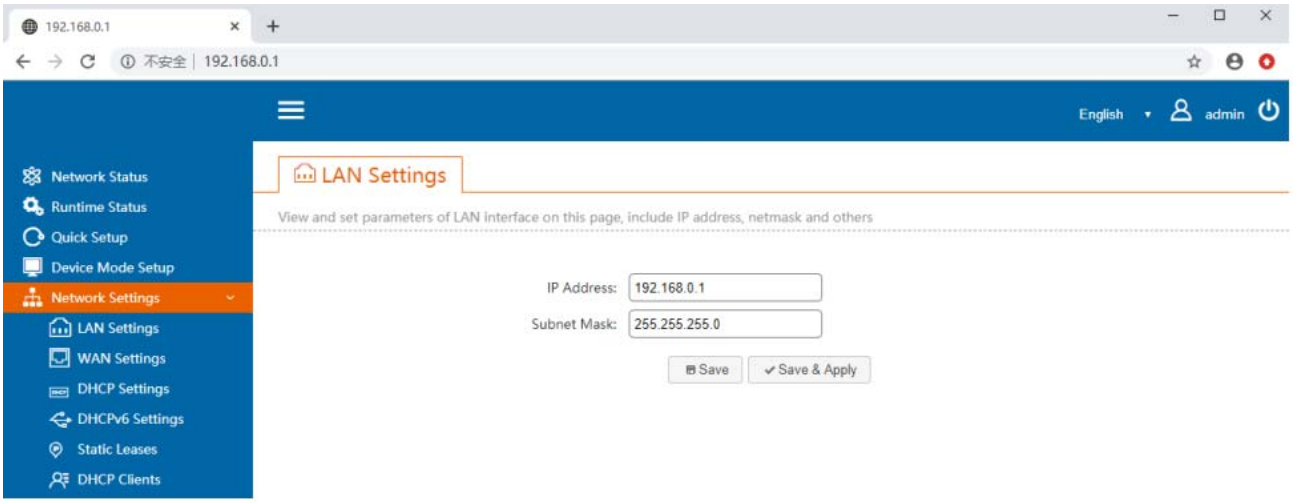
4.3 Device Mode Setup



Items	Description
Device Mode	The operating mode of the system. Default router mode 。 **Router Mode:** EMTA accesses the Internet through a cable modem. In this mode, EMTA has NAT, firewall and other network services. **Bridge Mode -** All network interfaces in EMTA are linked together. There are no network services like NAT or firewall.

4.4 Network Configuration

4.4.1 LAN settings

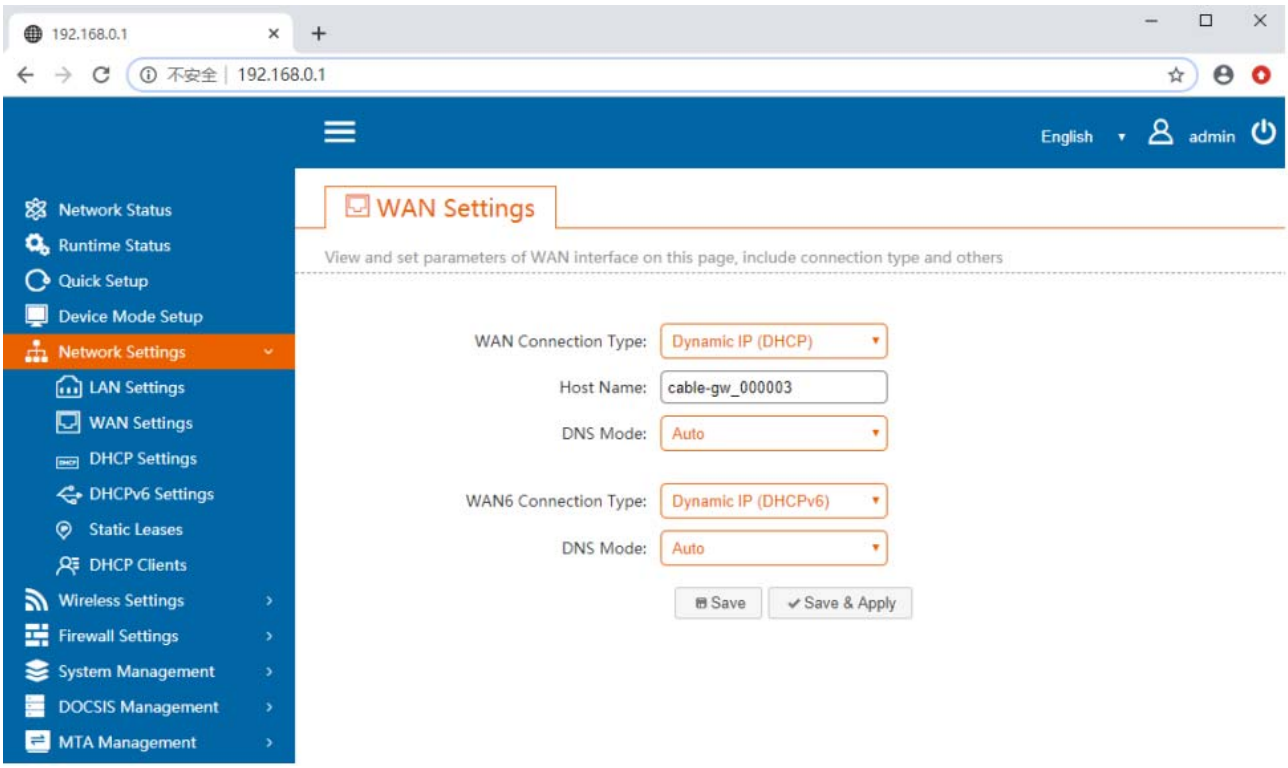


Items	Description
IP address	The LAN IP address is also the management IP that the device accesses from the LAN port. The default value is 192.168.0.1.

	Once this address is changed, the DHCP address pool will automatically update.
Subnet Mask	LAN subnet mask, the default is 255.255.255.0

4.4.2 WAN Settings

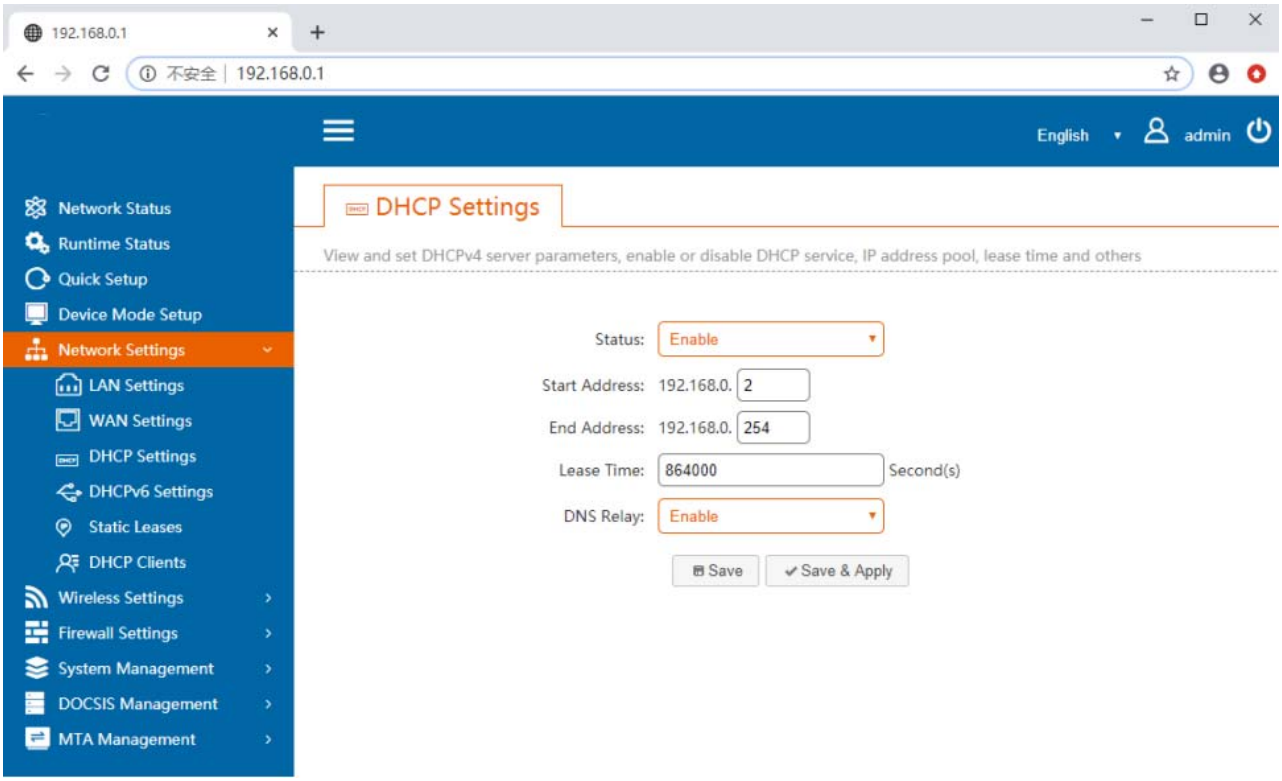
This page allows you to configure the EMTA LAN settings as detailed below.



Items	Description
WAN Connection Type	There are two types of WAN port connection modes, DHCP and Static. When the WAN port mode is a static IP address, you must configure the IP address, subnet mask, gateway address, and DNS address of the WAN port.
Host name	WAN port host name.
DNS Mode	There are two types of DNS modes: manual and automatic. When you do it manually, you must fill in two DNS addresses manually.
WAN6 Connection Type	The WAN IPv6 port includes three modes, DHCP (IPv6), Static, and DHCP (SLAAC). When the mode is Static, you must configure the IP address and the gateway address.
DNS Mode	There are two modes of IPv6 DNS: manual and automatic. When doing this manually, you must fill in two DNS addresses manually.

4.4.3 DHCP Settings

This page allows you to configure eMTA LAN DHCP configuration, the configuration is described below.

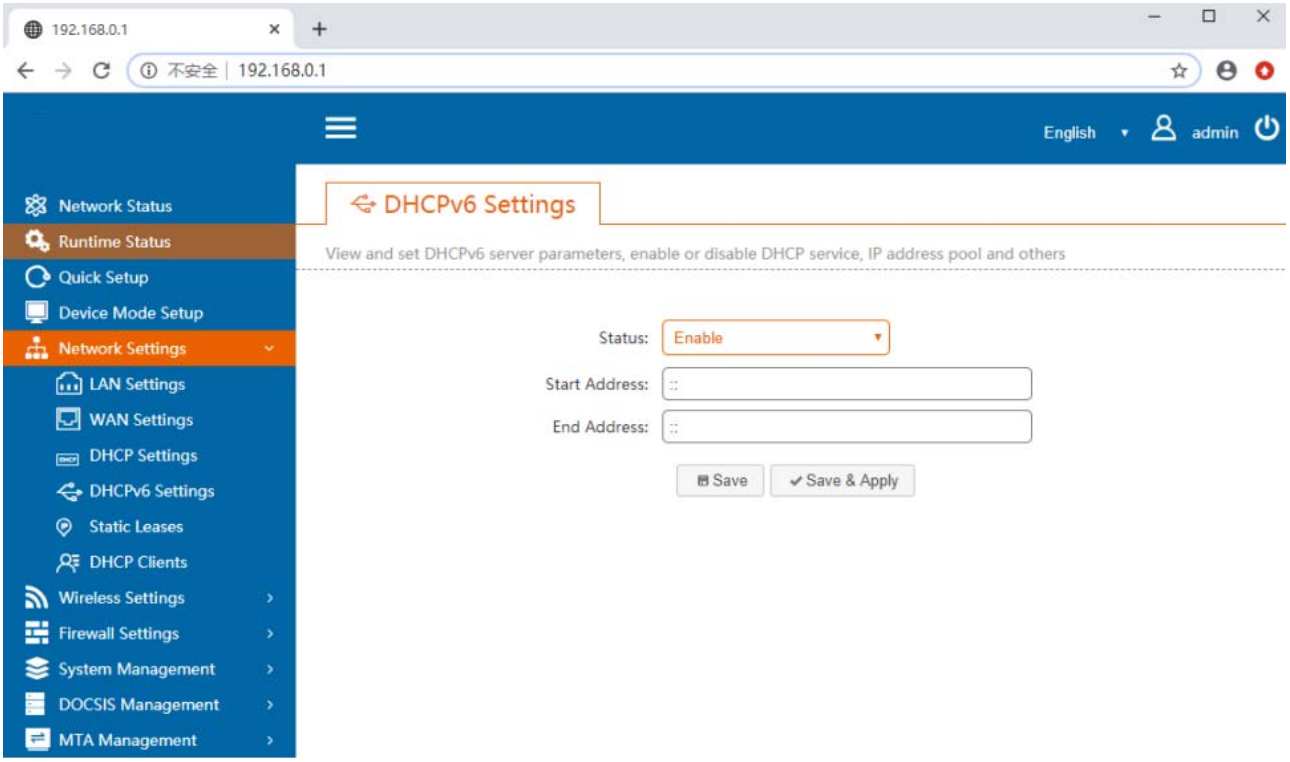


Items	Description
Status	DHCP function switch. You can enable or disable the DHCP function here. The default is to enable it.
Start Address	Start address of the DHCP address group. Here you can configure the starting address of the LAN DHCP address group. Only the last one can be edited, and this address cannot be duplicated with the LAN address .
End Address	End address of the DHCP address pool. You can set the end address of the LAN DHCP address pool here. Only the last address can be edited. This address cannot be duplicated with the LAN address and must be greater than the start address.
Lease time	DHCP rental time. Here you can configure the DHCP lease time. The unit of time is minutes. The range of settings is from 1 to 10,080 minutes .
DNS Relay	DNS relay function. You can enable or disable the DNS relay function here. By default, it is disabled. When activated, the DNS address acquired by the EMTA CPE is the EMTA

	LAN address. When disabled, the EMTA CPE obtains the DNS address from the EMTA WAN DNS address.

4.4.4 DHCPv6 Settings

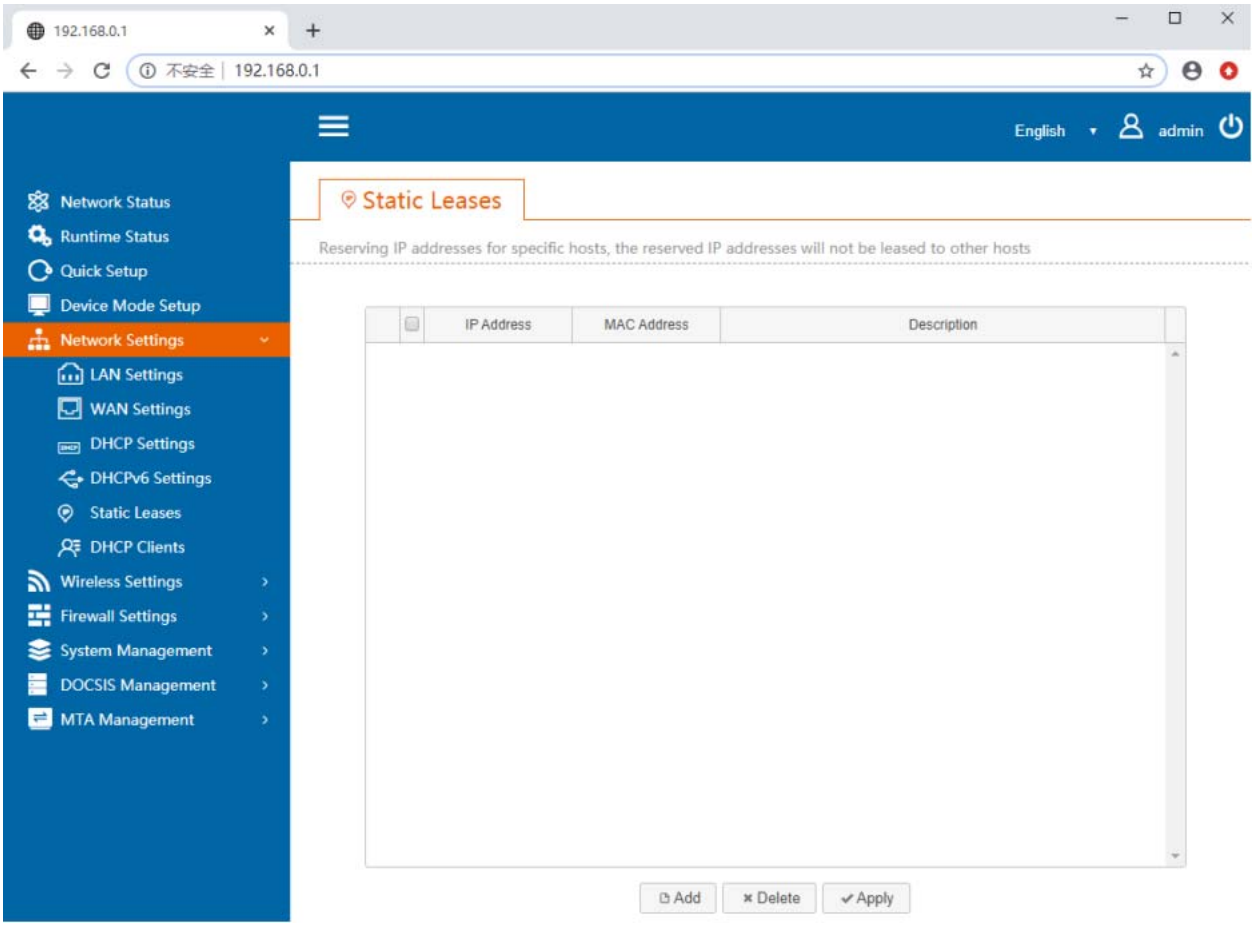
This page is used to configure the DHCPv6 LAN port address set.

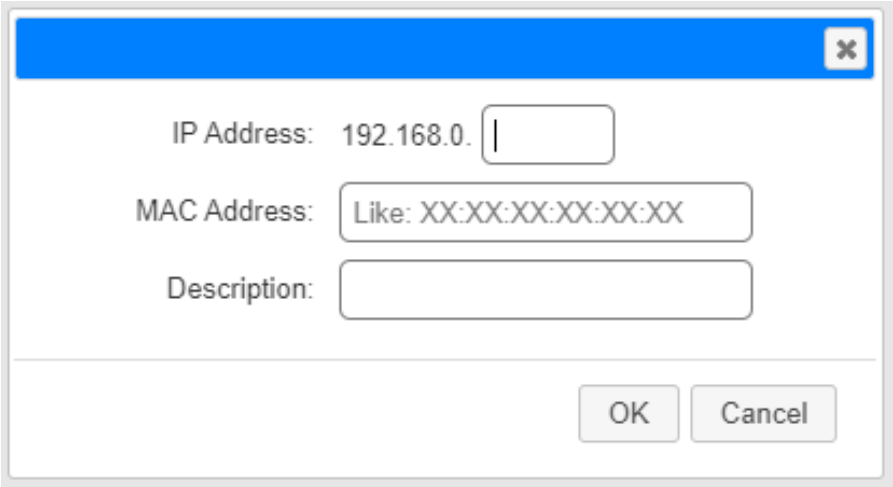


Items	Description
Status	Enables or disables the DHCPv6 function of the LAN port.
Start Address	Start address of the DHCPv6 LAN address group.
End Address	End address of the DHCPv6 LAN address pool.

4.4.5 Static Leases

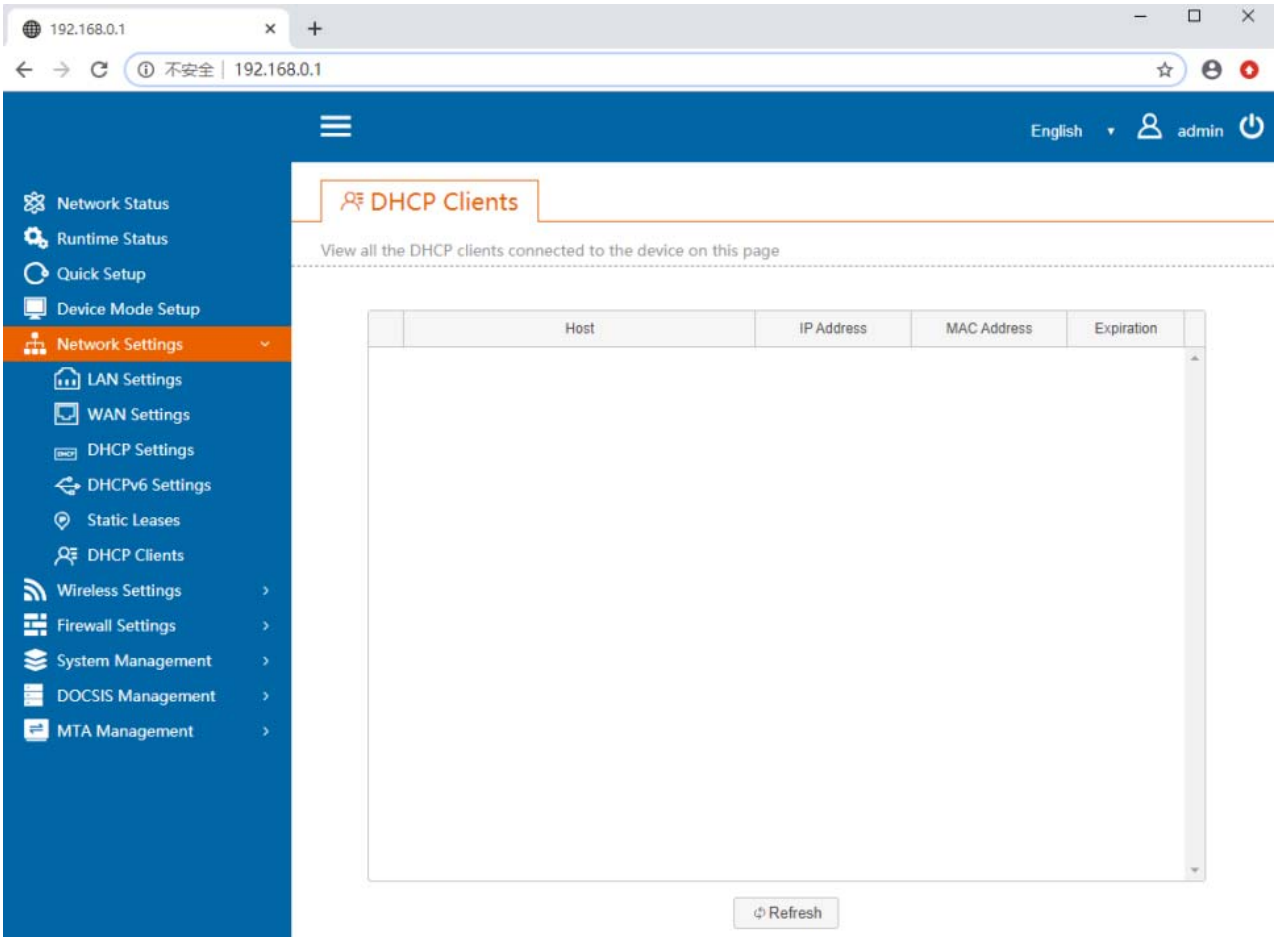
This page can assign a fixed IP address to the specified host. Click the Add button below the page to assign the corresponding MAC address to the IP address.





4.4.6 DHCP Clients

This page will display the following information for all hosts connected to the device through DHCP.

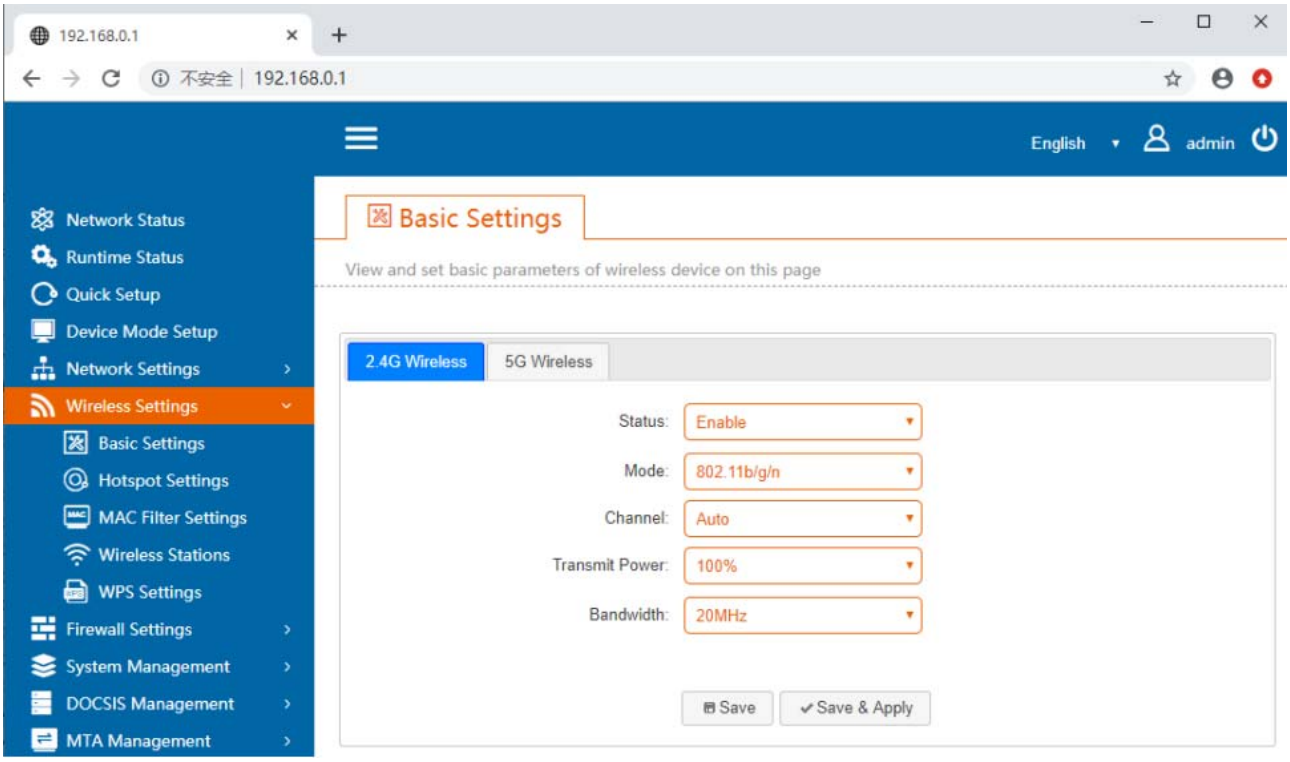


Items	Description
Host	Computer name.
IP Address	IP address assigned to the computer by the DHCP server on the device.
MAC Address	Address MAC of the computer.
Expiration	Lease time of the IP address assigned by the DHCP server to the host.

4.5 Wireless Settings

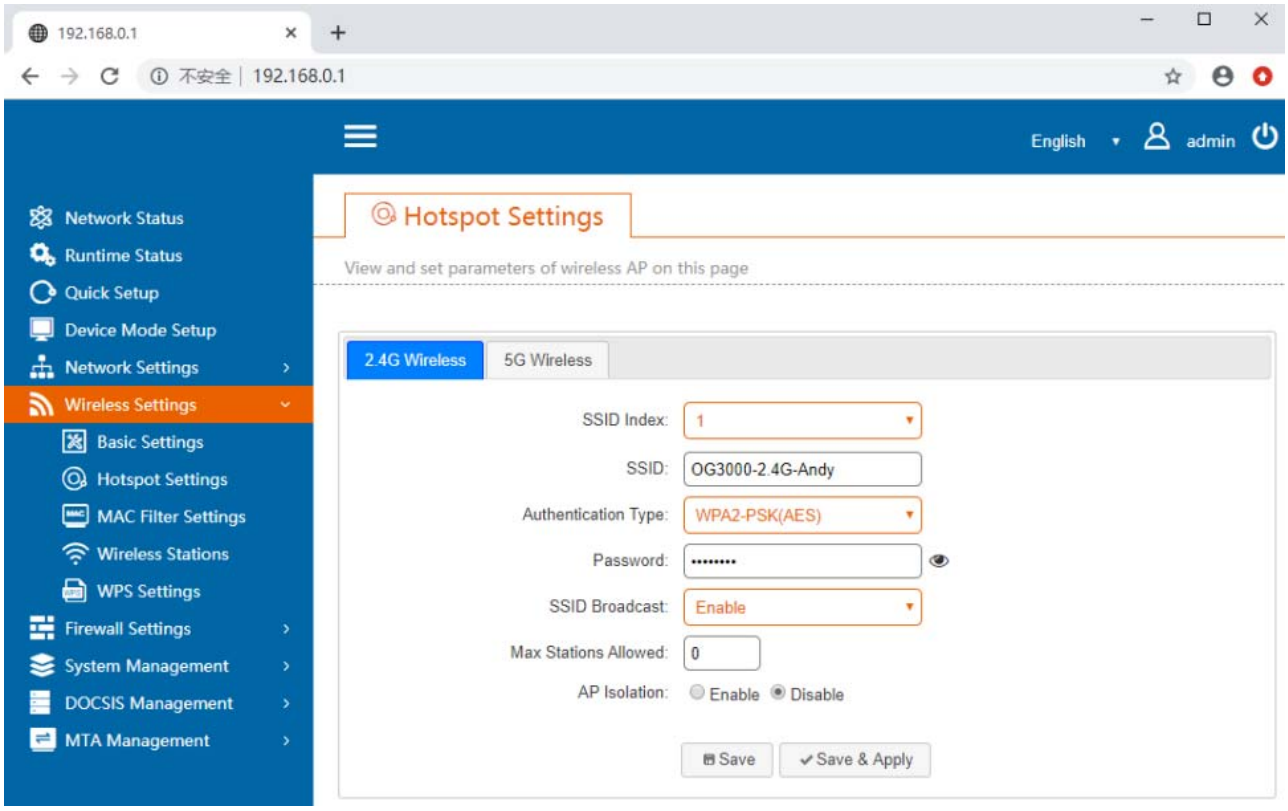
4.5.1 Basic Settings

This page can configure the basic parameters of 2.4G and 5G.



Items	Description
Status	Global wireless switch. Enable: enables the wireless access point; Disable: Turn off the wireless access point (this will prevent you from connecting to the Internet wirelessly).
Mode	802.11bgn mode settings. which generally does not need to be changed. 2.4G: The default value is 802.11 b / g / n. 5G: Default is 802.11 AC.
Channel	Select the wireless working channel. By default, it is automatic. Normally, there is no need to modify this. Only when the environmental interference is relatively large should it be changed to a relatively clean channel.
Transimit Power	Transmission power adjustment. The default value is 100%. You can adjust the transmission function as necessary. However, this can reduce wireless coverage or signal strength.
Bandwith	Bandwidth selection. The default value is Automatic. Generally, it is not necessary to modify it for this purpose.

4.5.2 Hotspot Settings



Items	Description
SSID Index	Wireless SSID index, 2.4G and 5G, each supports 4 SSID, users can choose each SSID for configuration.
SSID	The name of the SSID.
Authentication Type	Select the SSID encryption method Five types are currently supported: Open (None); WPA-PSK (TKIP); WPA2-PSK (AES); WPA / WPA2-PSK (TKIP / AES); WEP
Password	SSID password.
SSID Broadcast	**Enable**: The wireless device can discover the name of wireless SSID. **Disable**: The wireless SSID name is hidden and cannot be found.
Max station	The number of wireless clients that can connect to the SSID.
AP Isolation	The host under different SSIDs cannot transmit data to each other.

4.5.3 MAC Filter Settings

This function can filter wireless terminals connected to OG3000 wirelessly.

There are three types of filtering:

■ **Disable:**

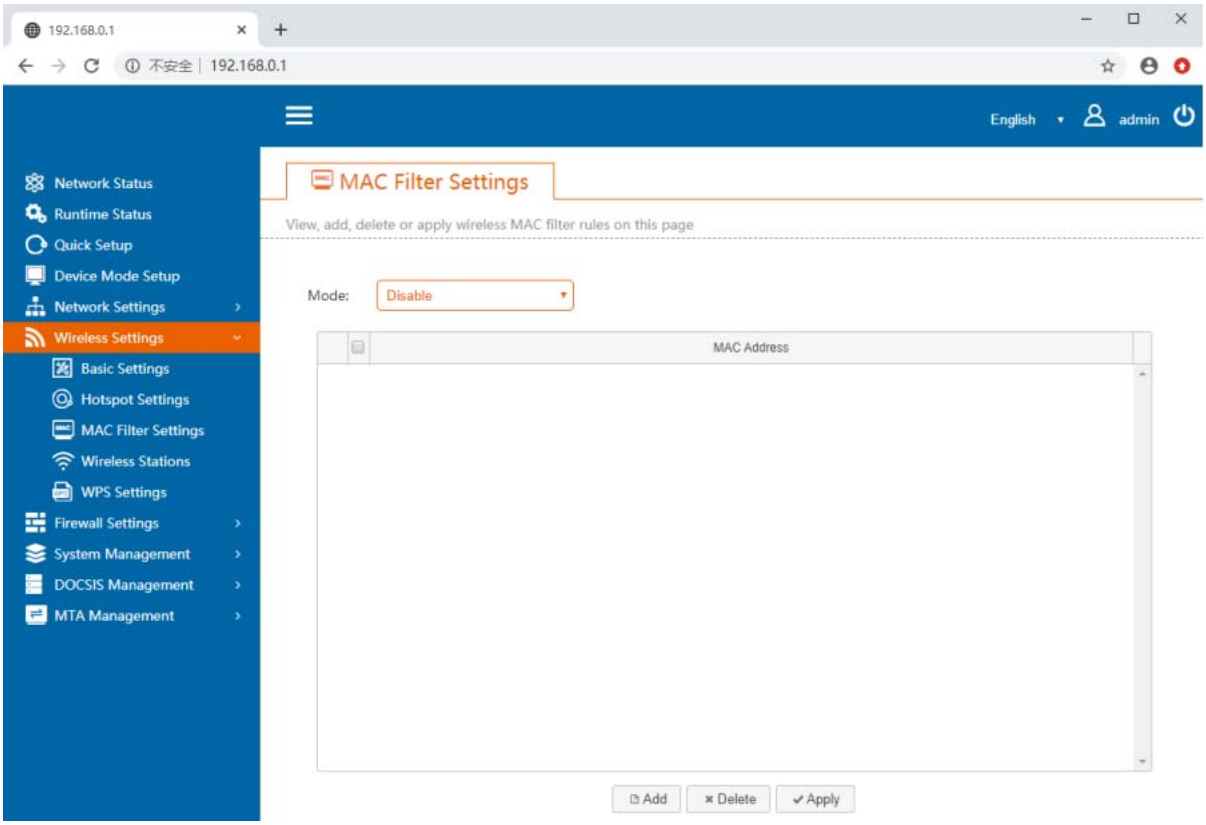
Disable MAC filter function

■ **Black list：**

Set the filtering mode on the black list. In this case, the device in the list will not be able to connect to this wireless access point.

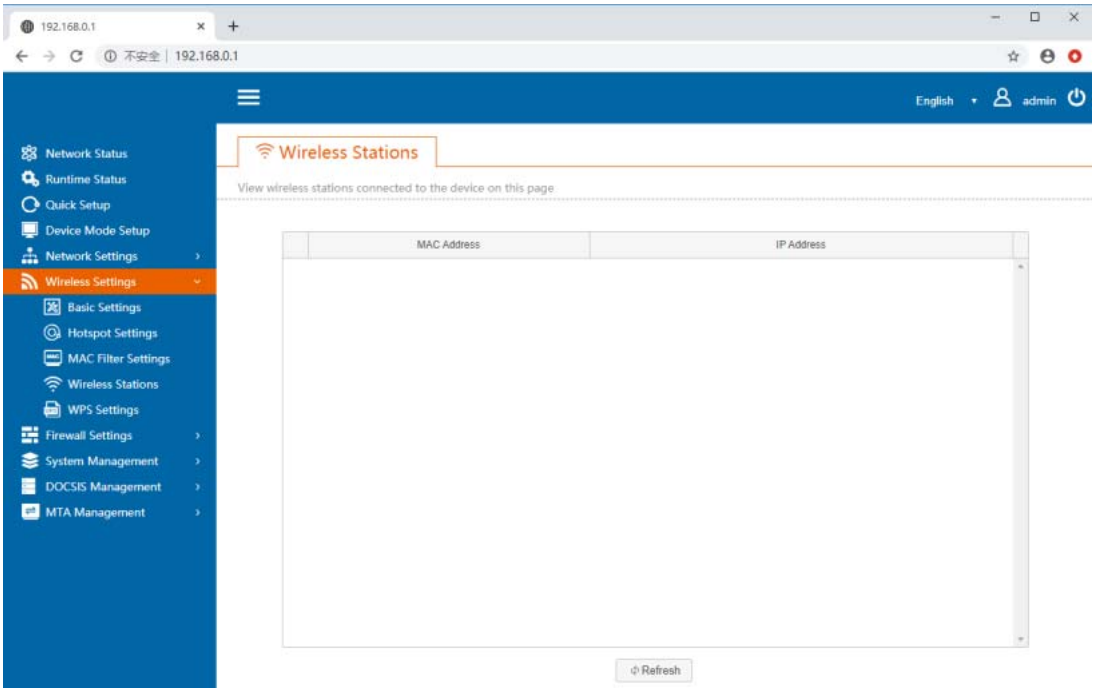
■ **White list：**

Set the filtering mode to the white list. In this case, only the devices in the list can connect to the wireless access point.



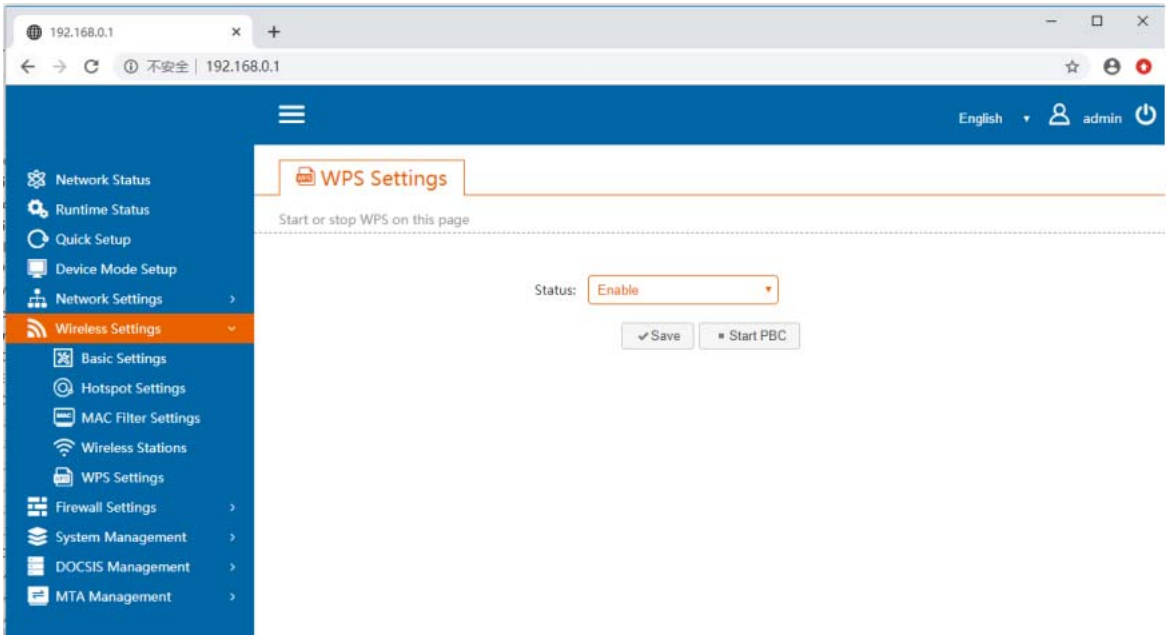
4.5.4 Wireless Stations

This page shows all the wireless devices connected to the OG3000. Contains the MAC address and IP address of the wireless device.



4.5.5 WPS Settings

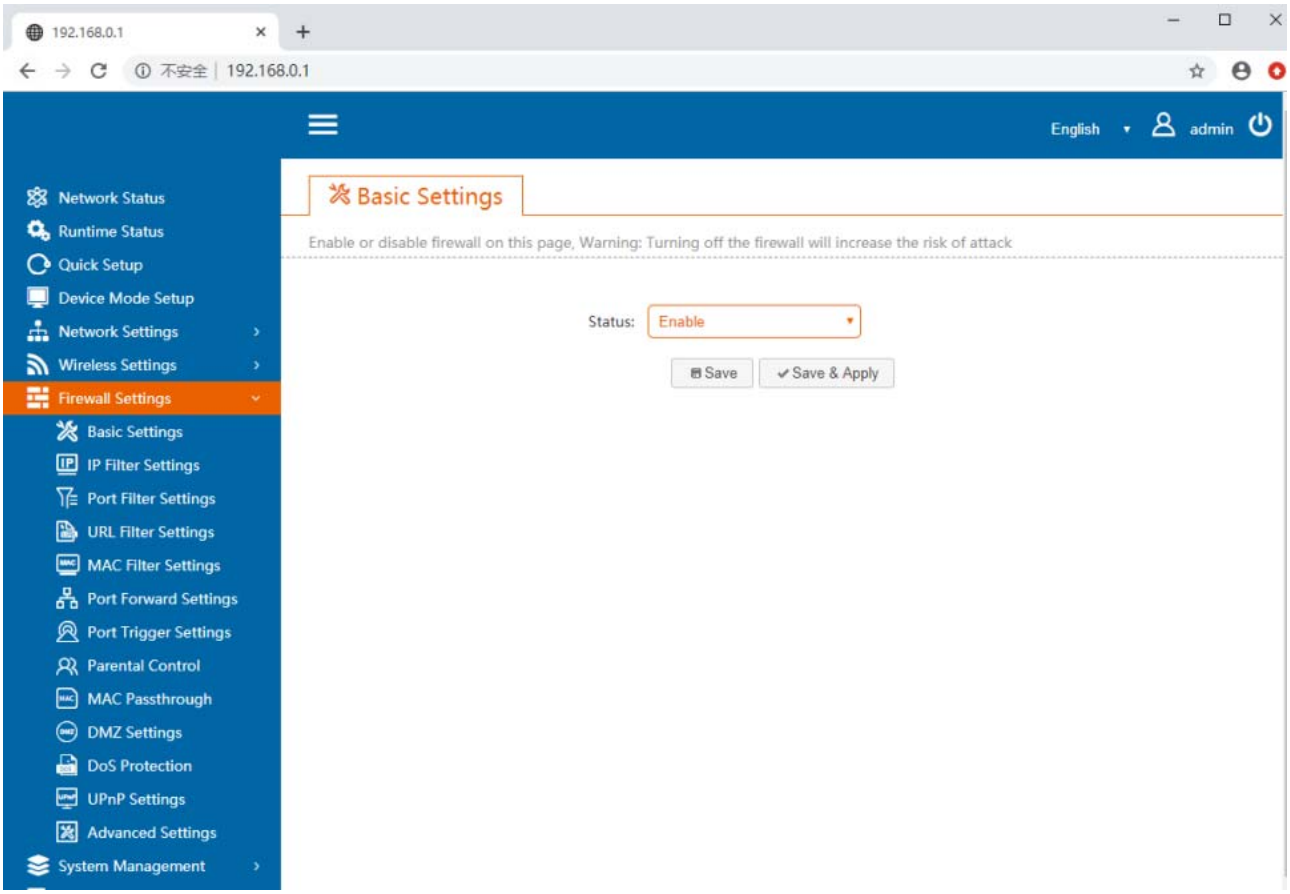
You can enable or disable WPS on the page. Its function is the same as the effect of the WPS button on the front panel of the device. It will enable or disable the 2.4G and 5.8G WPS function at the same time.



4.6 Firewall Settings

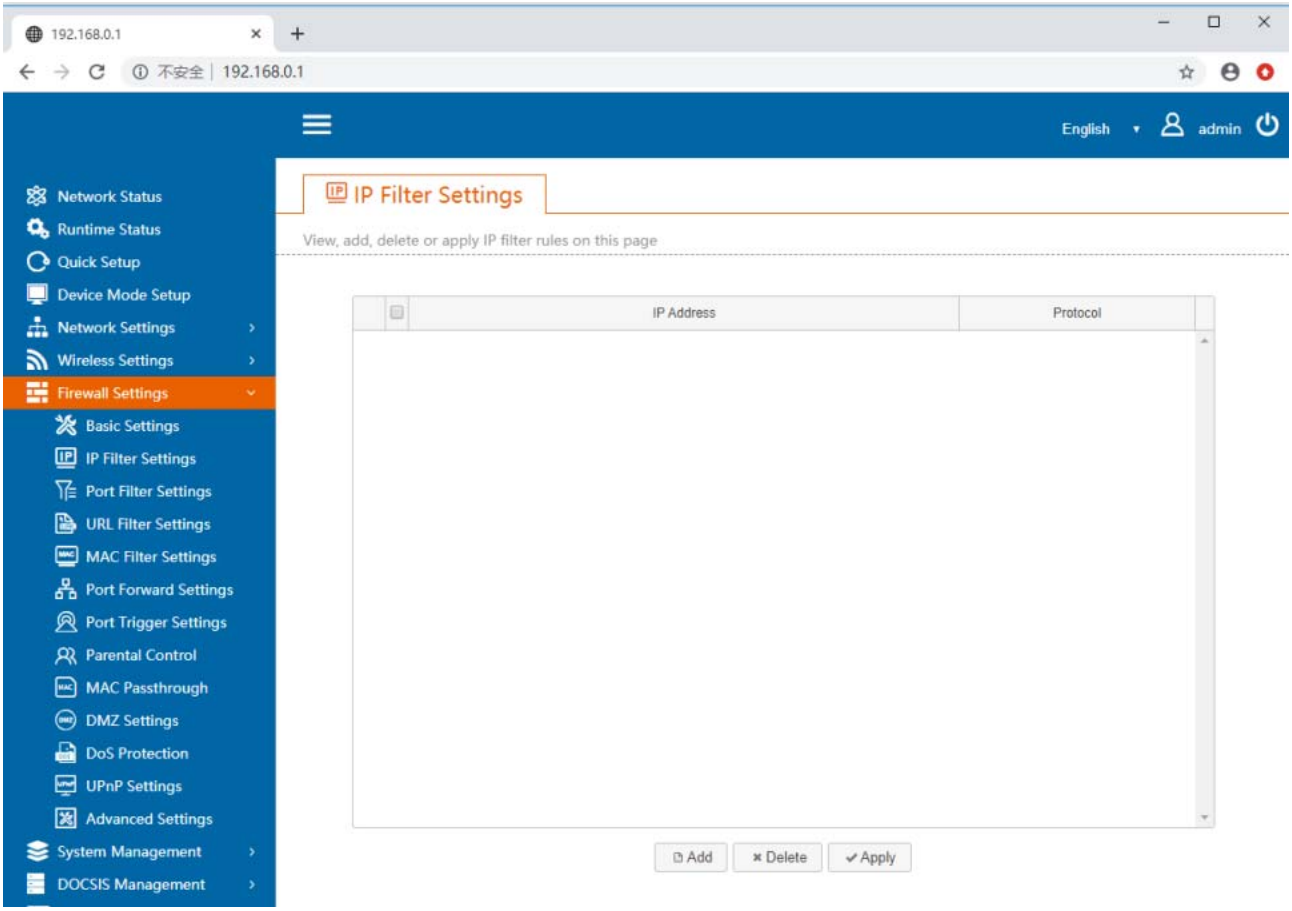
4.6.1 Basic Settings

You can disable or enable the firewall on this page. Some features in the following sections require that the firewall switch be enabled for it to take effect. By default, the firewall is always activated for security reasons. It is not recommended to turn it off. If you need to open certain ports or protocols, make the corresponding settings in the functions in the following sections.



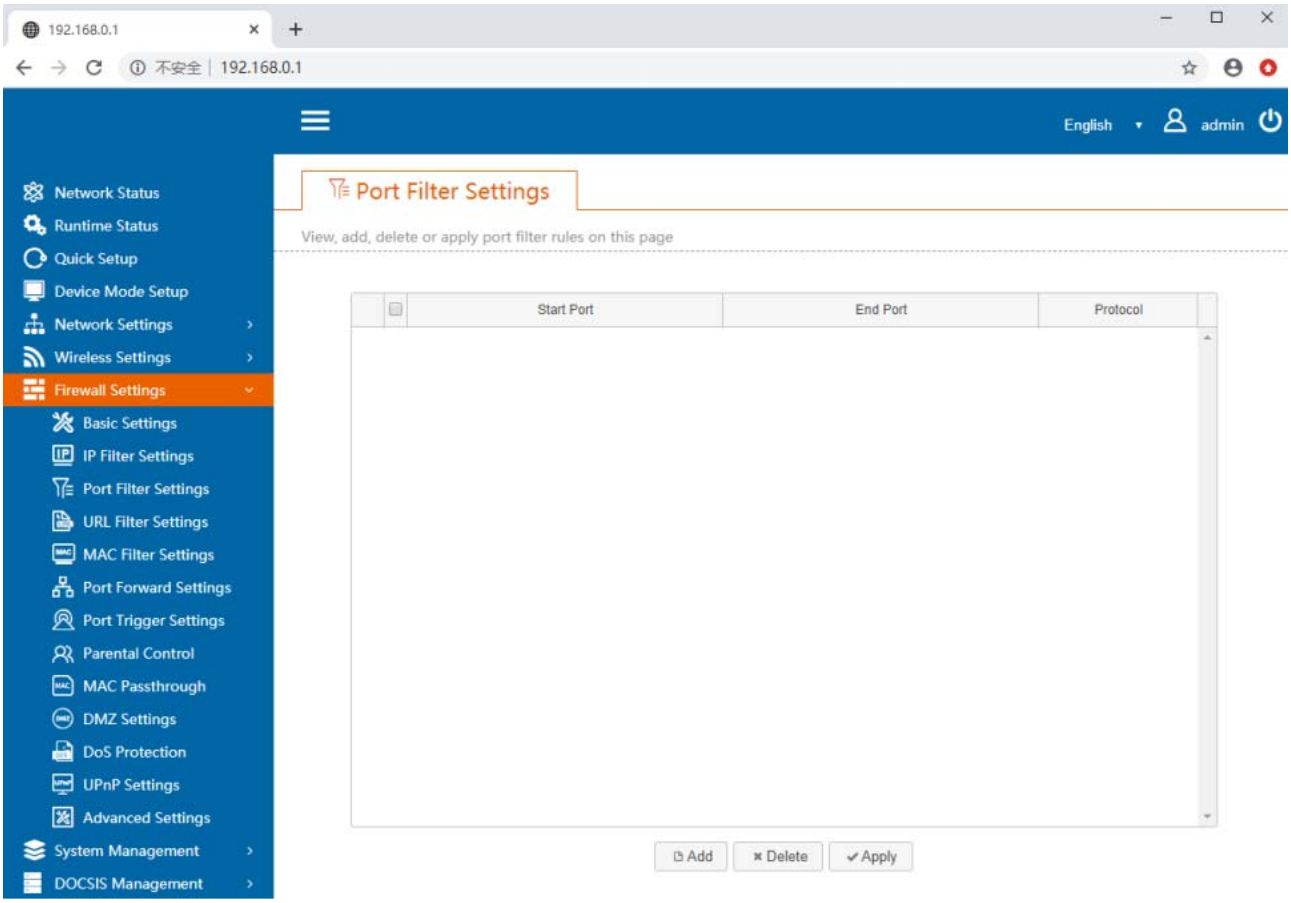
4.6.2 IP Filter Settings

This function is used to filter specified IP data packets. All IPs added to the table will be filtered and will not be forwarded.



4.6.3 Port Filter Settings

This function will prohibit the passing of data for the specified protocol in the specified port range.


192.168.0.1
不安全 | 192.168.0.1
English
admin
Network Status
Runtime Status
Quick Setup
Device Mode Setup
Network Settings
Wireless Settings
Firewall Settings
Basic Settings
IP Filter Settings
Port Filter Settings
URL Filter Settings
MAC Filter Settings
Port Forward Settings
Port Trigger Settings
Parental Control
MAC Passthrough
DMZ Settings
DoS Protection
UPnP Settings
Advanced Settings
System Management
DOCSIS Management
Port Filter Settings
View, add, delete or apply port filter rules on this page
Start Port
End Port
Protocol
Add
Delete
Apply

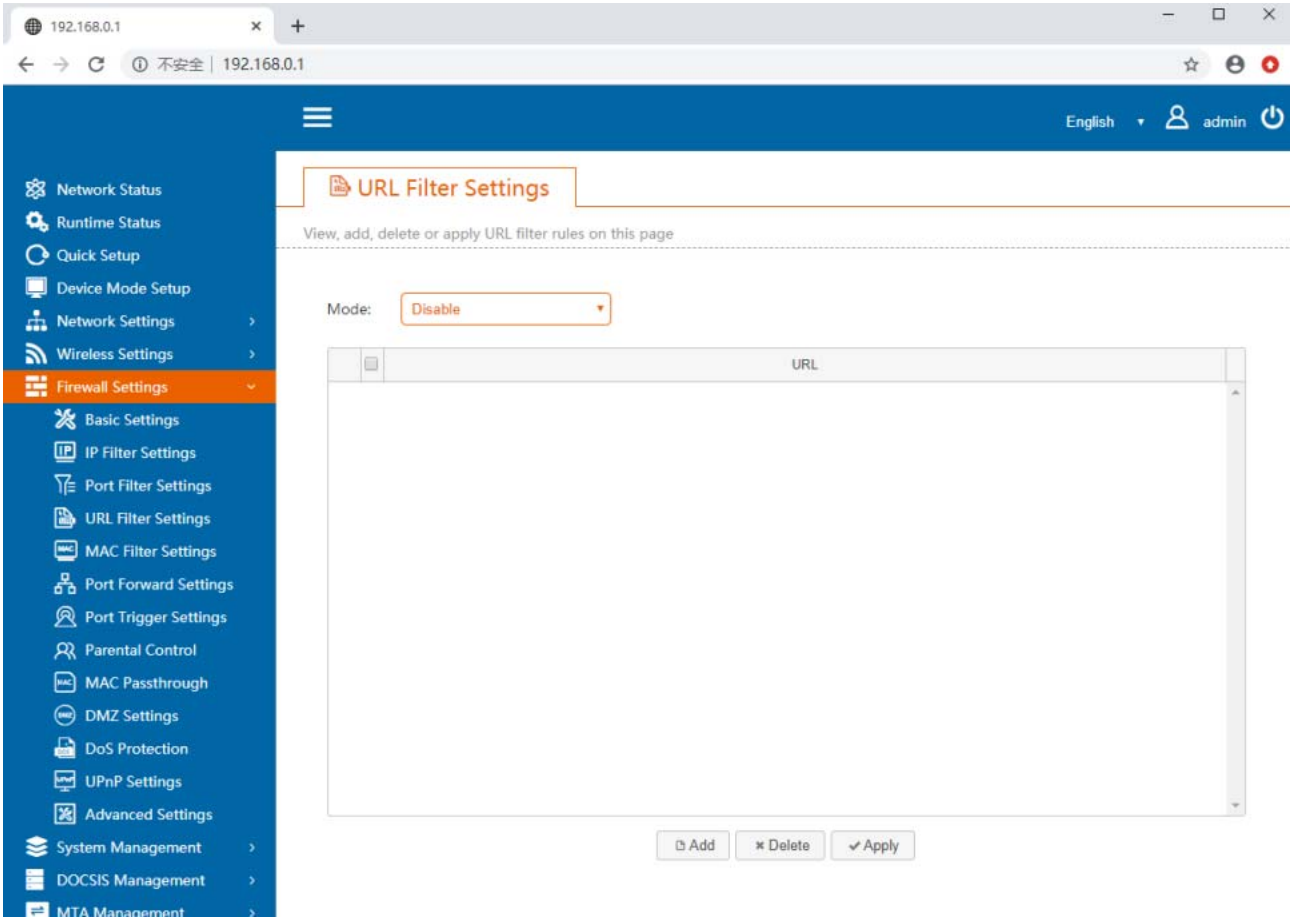
4.6.4 URL Filter Settings

This function is used to filter the Internet behavior of the device and disable or allow access to the specified URL.

■ When Disable is selected for Mode, the function is disabled.

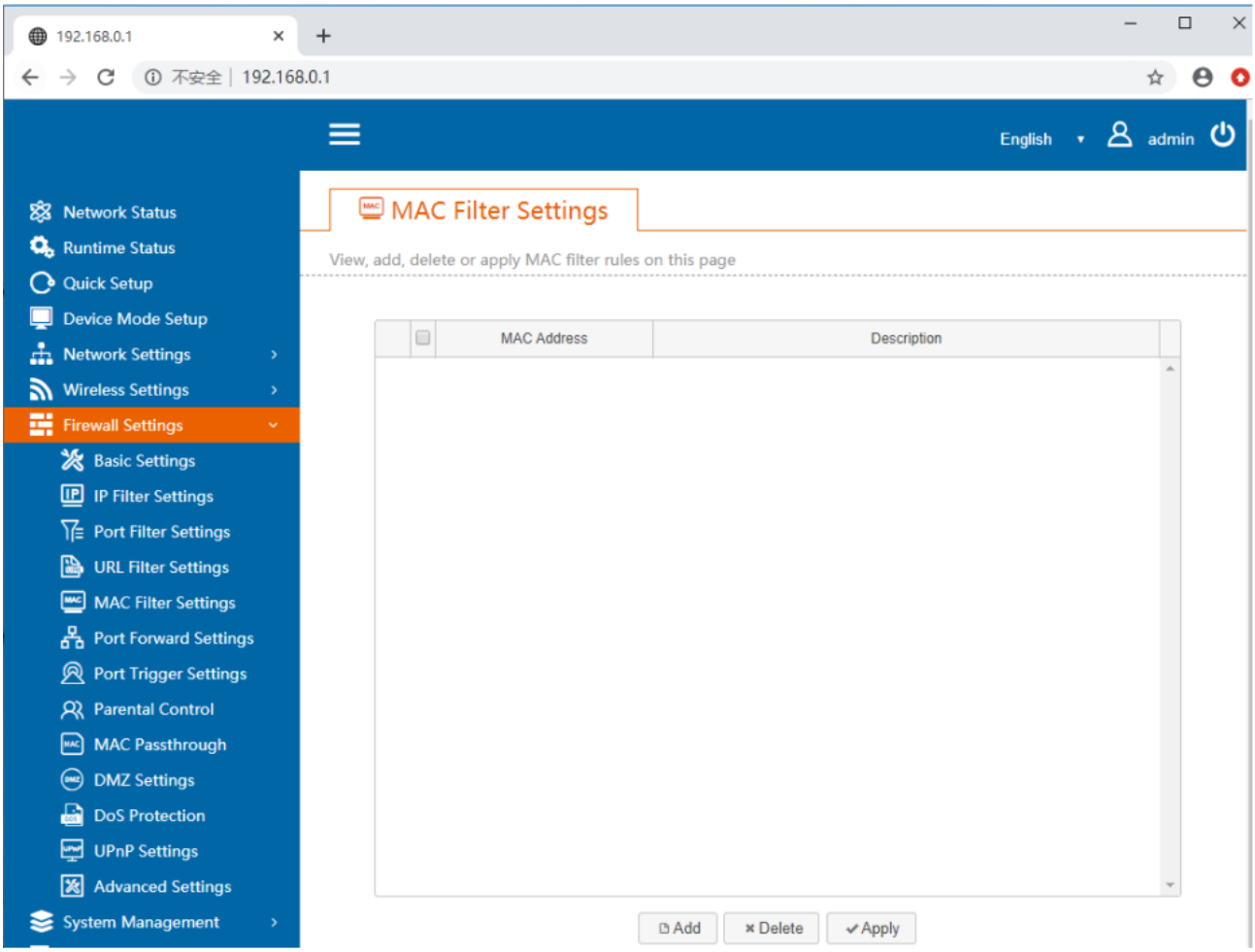
■ When Blacklist is selected for Mode, access to URLs added to the list is blocked.

■ When Mode is selected for whitelisting, only URLs added to the list are allowed; otherwise, access to the URL is not allowed.

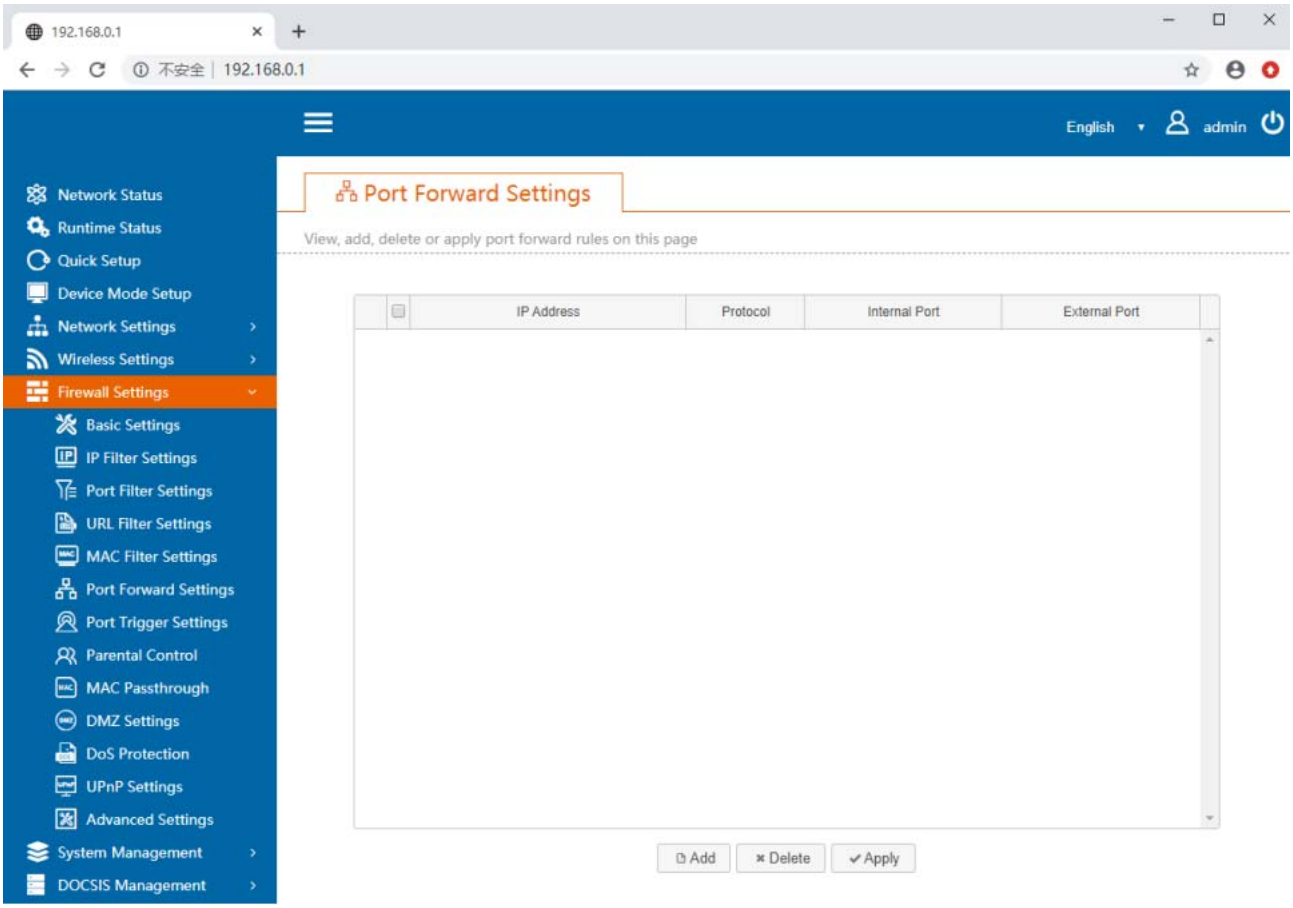


4.6.5 MAC Filter Settings

The MAC filter function is to allow or block access to external networks based on the MAC address. Any MAC address added to the table will not be able to access the Internet.



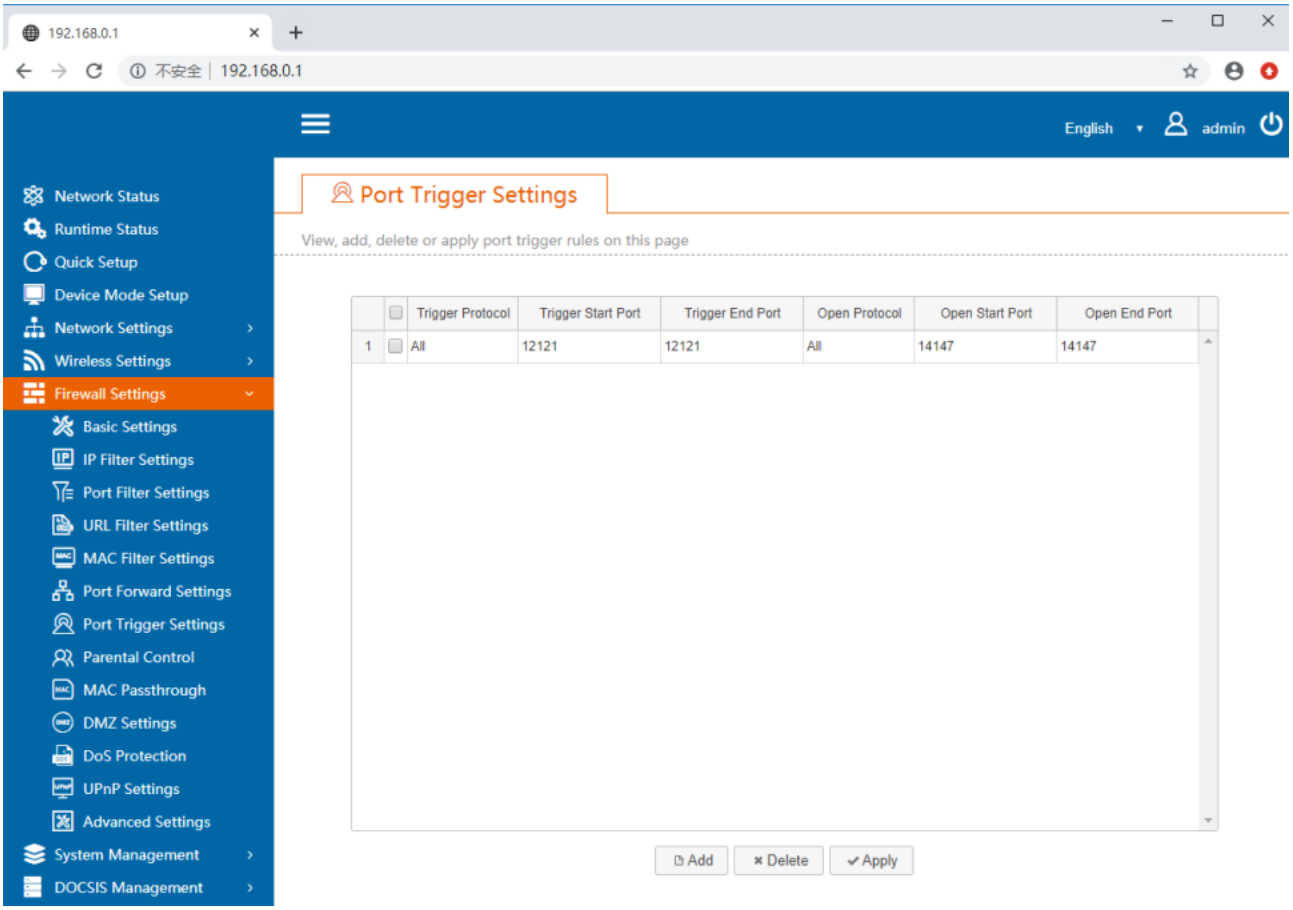
4.6.6 Port Forward Settings



Items	Description
IP address	IP of the host to be forwarded.
Protocol	The protocol that must be sent. TCP, UDP, ALL (TCP and UDP).
Internal port	Internal port number to be forwarded.
External Port	External port number used for forwarding.

4.6.7 Port trigger Settings

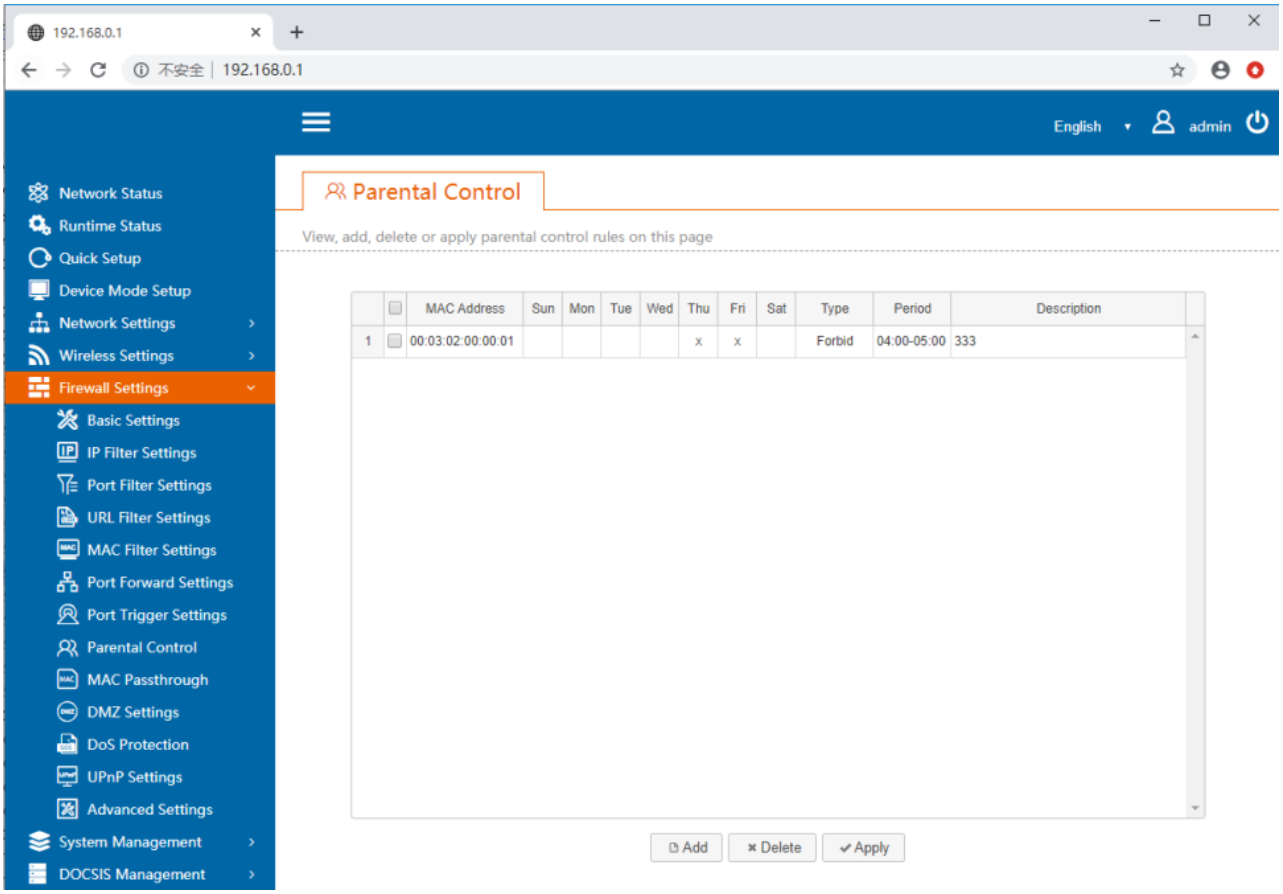
This feature means that the data flow comes from the host and port (activation port) of the internal network, automatically opens the designated port (open port) of the gateway WAN interface and forwards the data flow pointing to the open port of the WAN port for This host on the internal network.



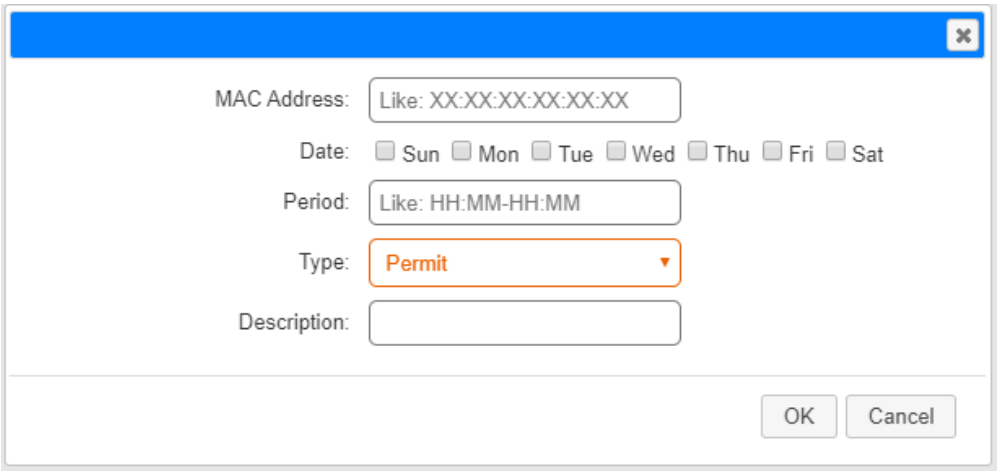
Items	Description
Trigger Protocol	The host needs to activate the protocol. TCP, UDP, ALL (TCP and UDP).
Trigger Start Port	The initial port number that the external host needs to activate.
Trigger End Port	The final port number that the external host needs to trigger.
Open protocol	Internal hosts require open protocols. TCP, UDP, ALL (TCP and UDP).
Open Start Port	The internal host needs to open the initial port number.
Open End Port	The internal host needs an open end port number.

4.6.8 Parental Control

This feature is used to achieve parental restrictions on children's online time.



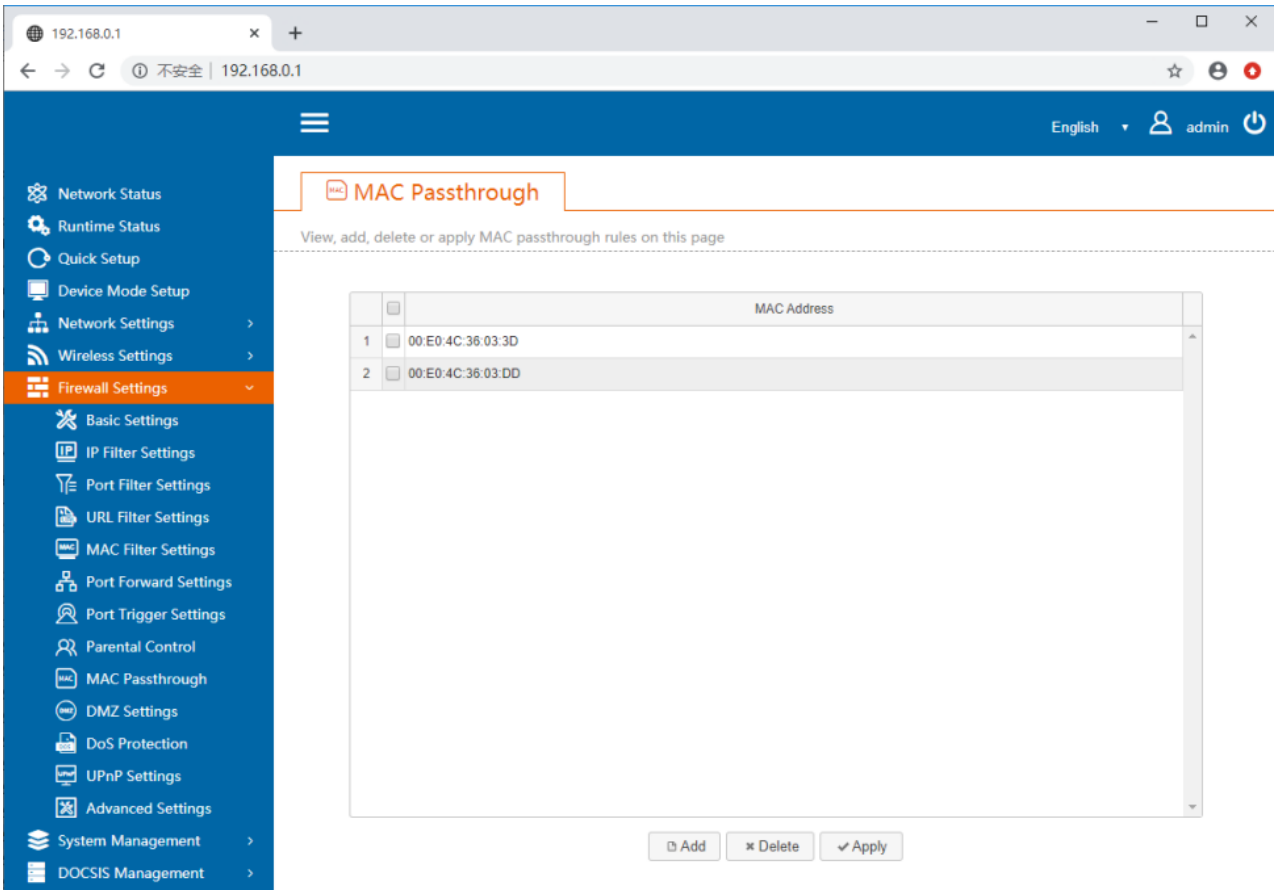
Click the added button, a dialog box will appear, you can set the rules.



Items	Description
MAC address	MAC address of the Internet device.
Date	You can check the day or several days of the week.
Period	Time period setting, precision is 1 minute.
Type	There are two types of parental controls: Allow and Prohibit. Allowing means allowing access to the Internet within the period and time period set forth above; Prohibiting means prohibiting access to the Internet.

4.6.9 MAC Passthrough

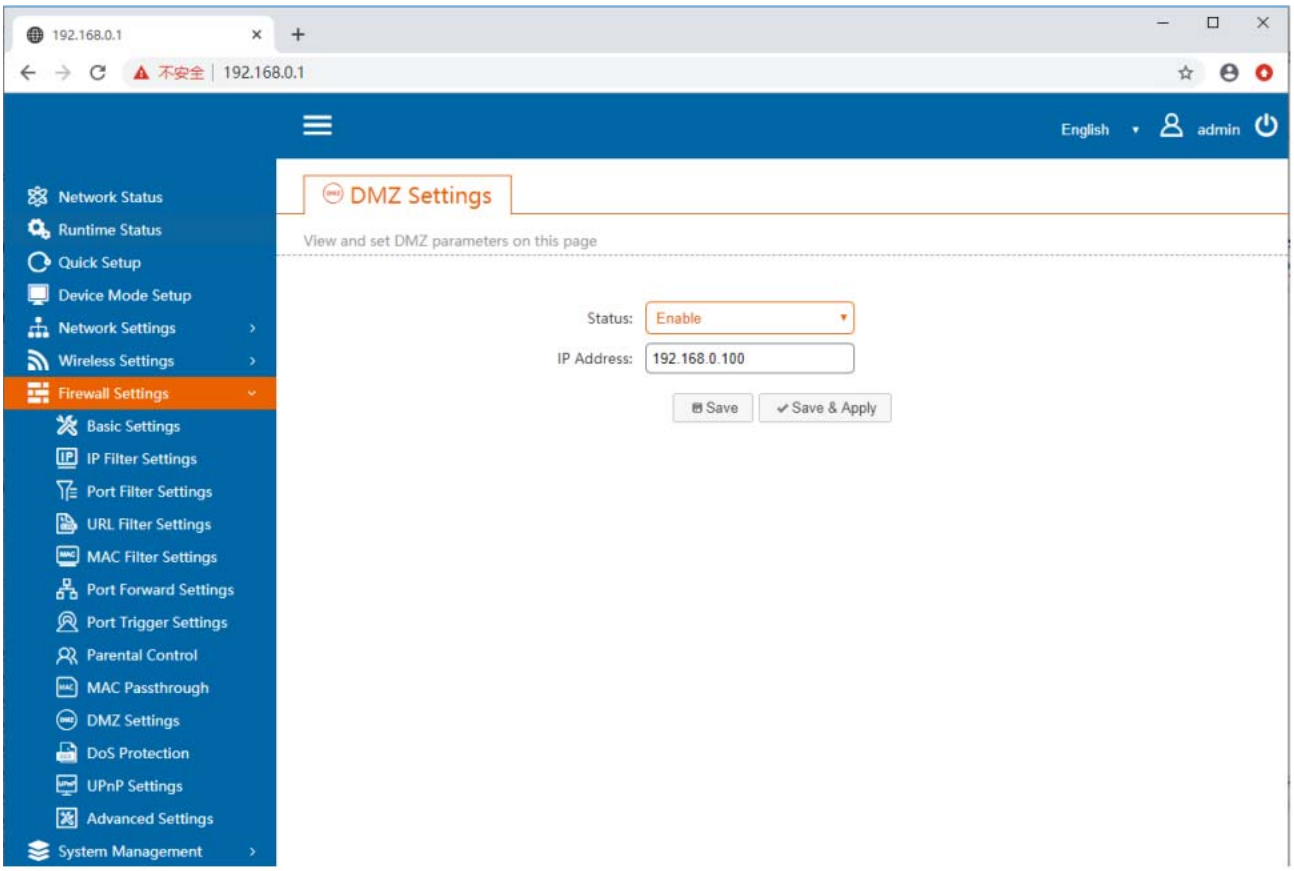
This feature allows the CPE connected to the device to penetrate the NAT of the device and obtain the IP directly from the front-end DHCP server. Just fill in the MAC address of the CPE in the table below. The number of CPEs supported by the device is 32. This feature is also called Mac passthroguh.



This page can add and delete MAC addresses.

4.6.10 DMZ

The DMZ (demilitarized zone) can expose hosts under the LAN port of the device to the external network. The external network only needs to access the IP of the WAN port to access the hosts under the LAN port. Users can remotely access hosts under the LAN port.

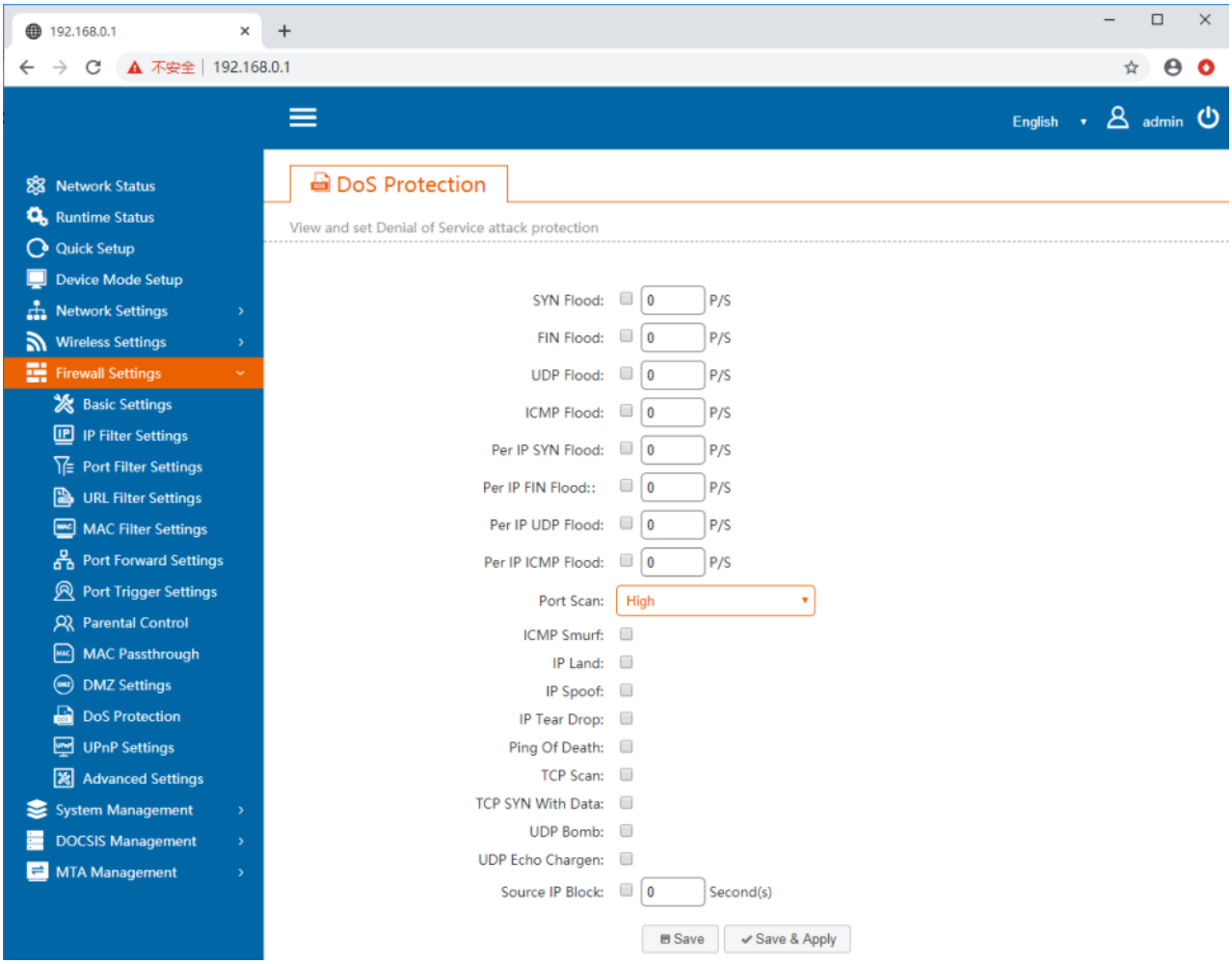


Items	Description
Status	Enables or disables the function or n DMZ of the device.
IP Address	IP address of the host under the LAN port.

4.6.11 DoS Protection

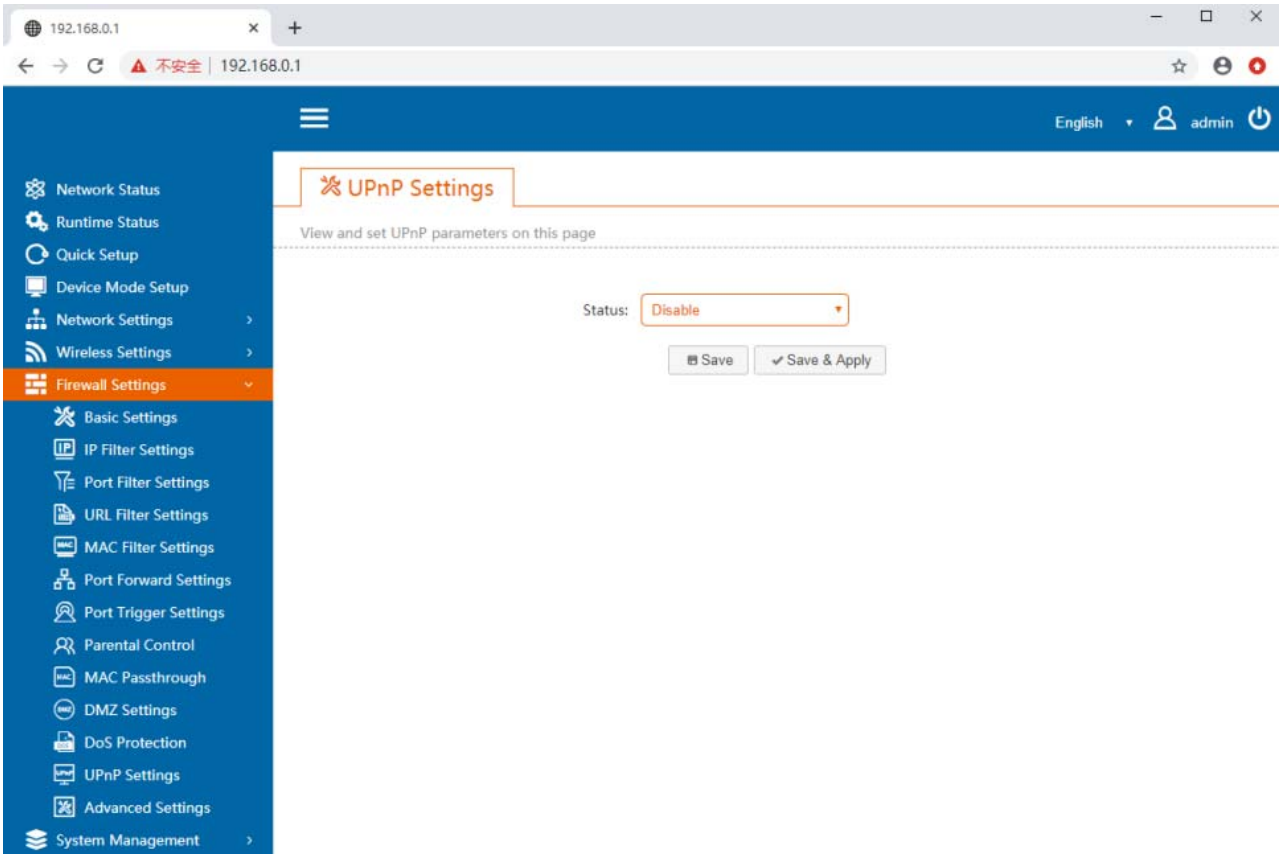
On this page, you can configure options to prevent Dos attacks, which can prevent various Dos attacks from the network.

Before enabling DoS Protection, make sure the firewall is turned on. If you need to enable the feature, you can check all types of attacks, click the **Save** button, and then click the **Save & Apply** button to take effect.



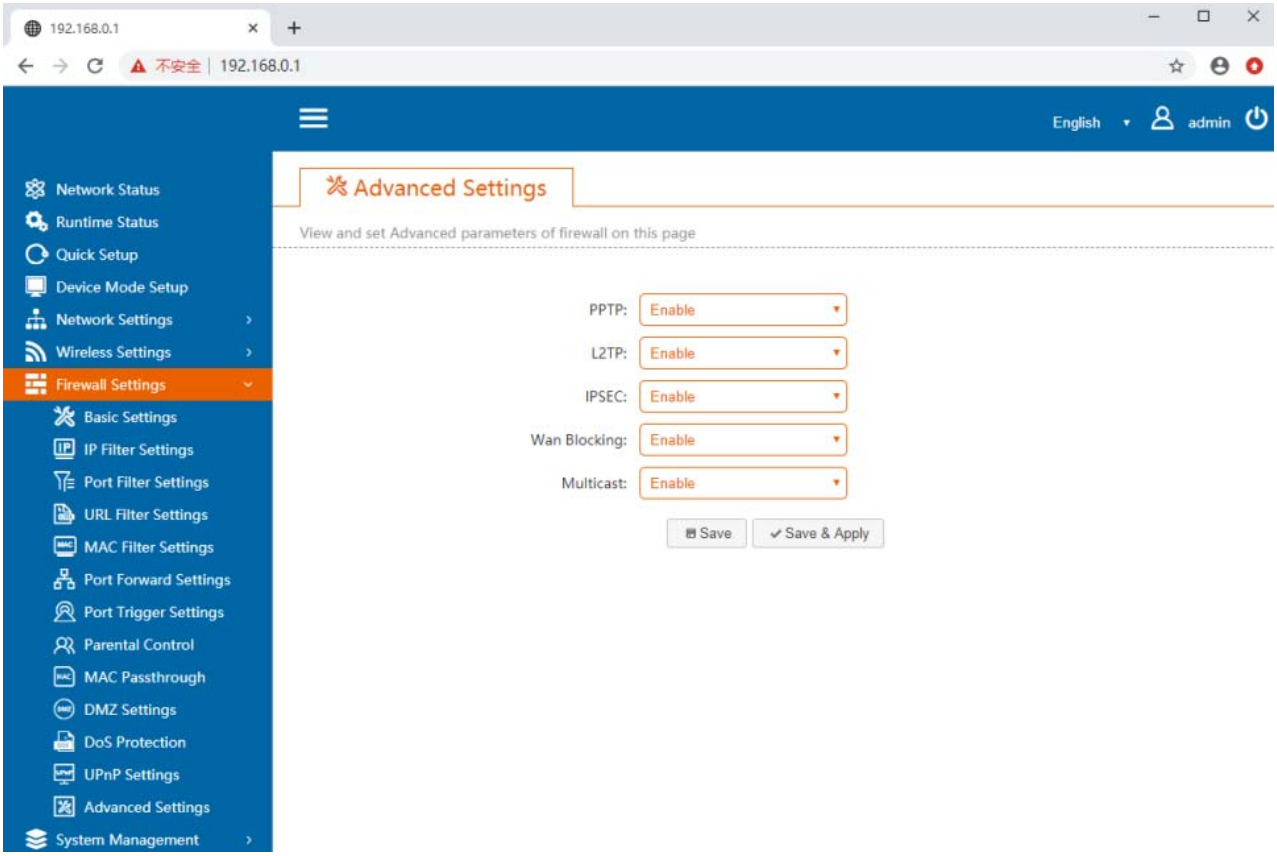
4.6.12 UPnP Settings

Universal Plug and Play (UPnP) is a common point-to-point network architecture for PCs and smart devices (or instruments), especially in homes. UPnP is based on Internet standards and technologies (such as TCP / IP, HTTP, and XML) that allow such devices to automatically connect and work with each other, making networks, especially home networks, possible for more people.



4.6.13 Advanced settings

This page contains some advanced settings for the firewall.

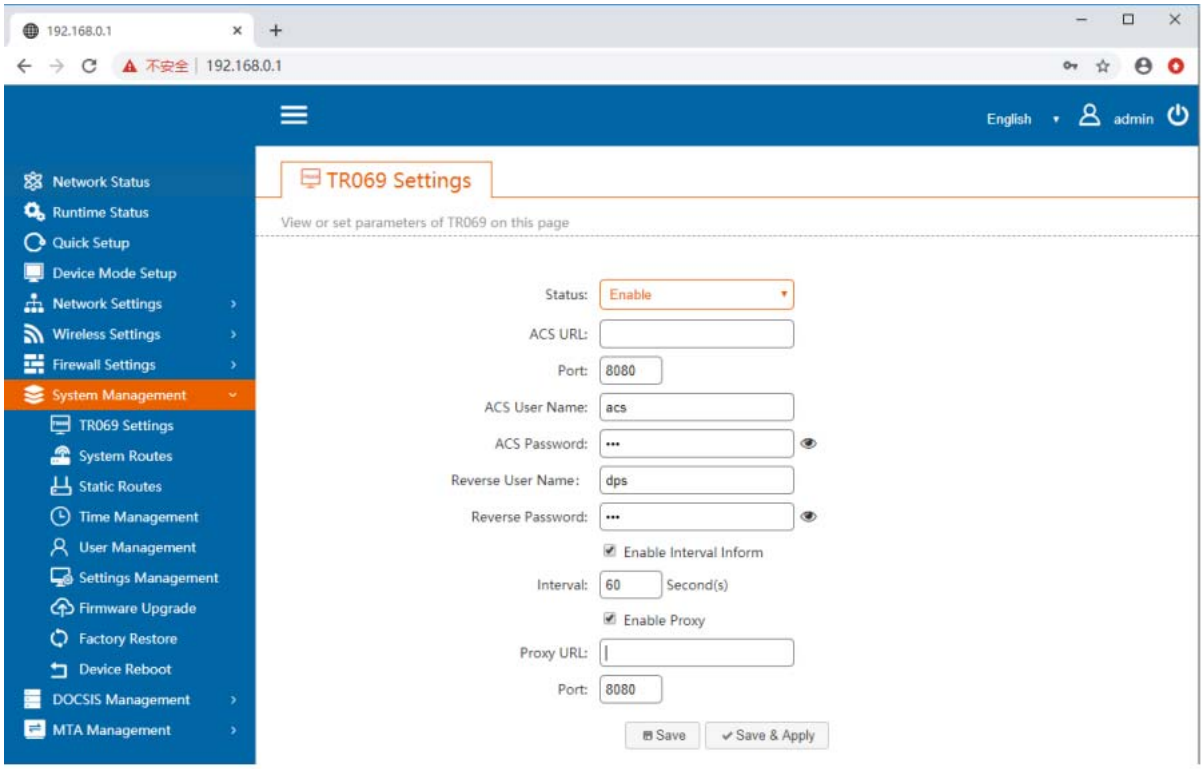


Items	Description
PPTP	Enable or disable the PPTP protocol of the device.
L2TP	Enable or disable the device's L2TP protocol.
IPSEC	Enable or disable the IPSEC protocol of the device.
Wan Blocking	Enable or disable ping on the WAN port.
Multicast	Enable or disable the device's Multicast protocol.

4.7 System Management

4.7.1 TR069 Settings

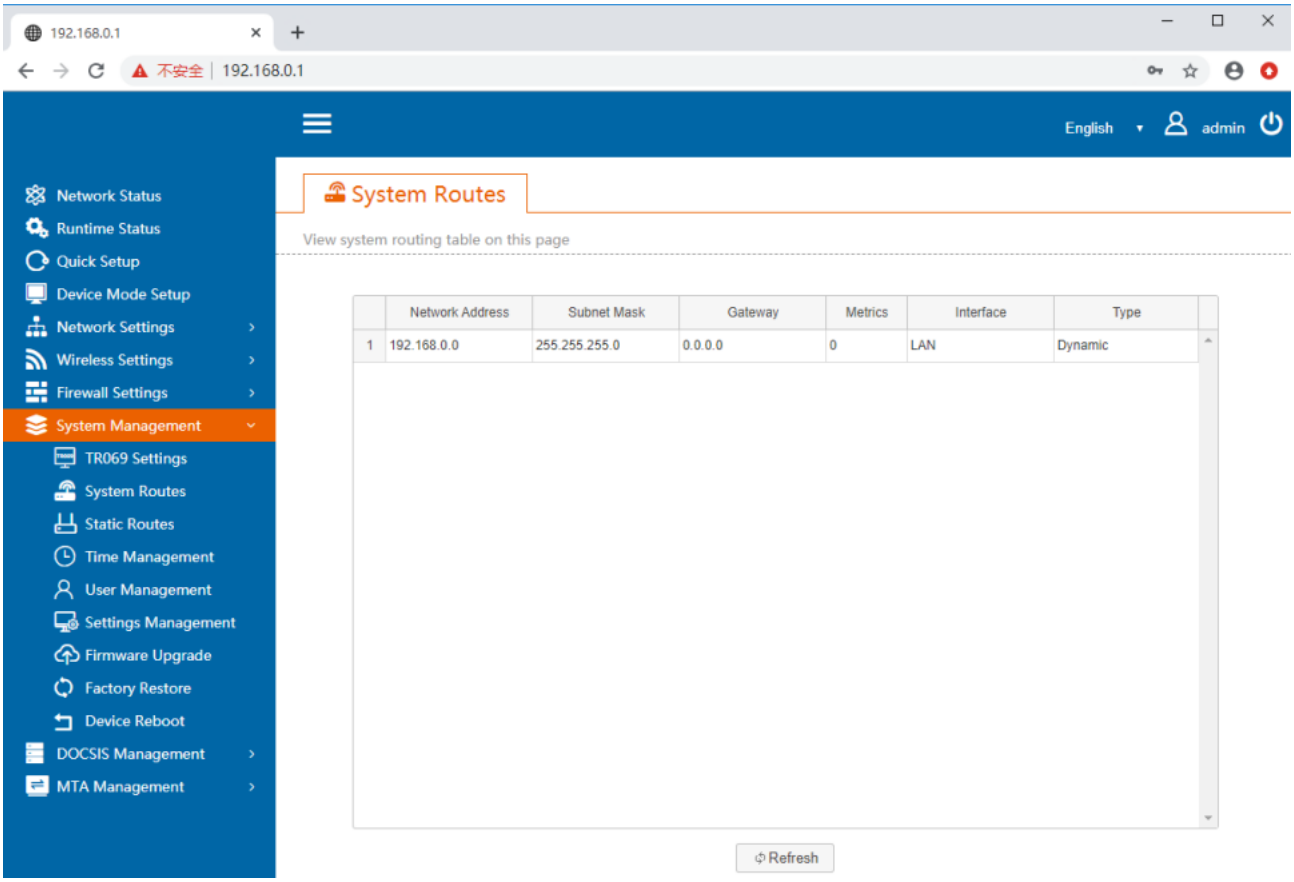
This page can be used to configure related TR069 management parameters.



Items	Description
Status	Enable or disable the function or n TR069 of the device.
ACS URL	ACS server URL.
Port	ACS server port.
ACS User Name	Username for the device to connect to the ACS server through TR069.
ACS Password	Password for the device connects to the ACS server travel of TR069.
Reverse User Name	Username for the ACS server to connect to the device through TR069.
Reverse Password	Password for the ACS server to connect to the device through TR069.
Enable Interval Inform	Enable or disable sending TR069 Inform messages on the device.
Interval	Interval to send notification messages TR069.
Enable Proxy	Enable or disable TR069 proxy function
Proxy URL	Proxy URL TR069.
Port	Port of the proxy TR069.

4.7.2 System Routes

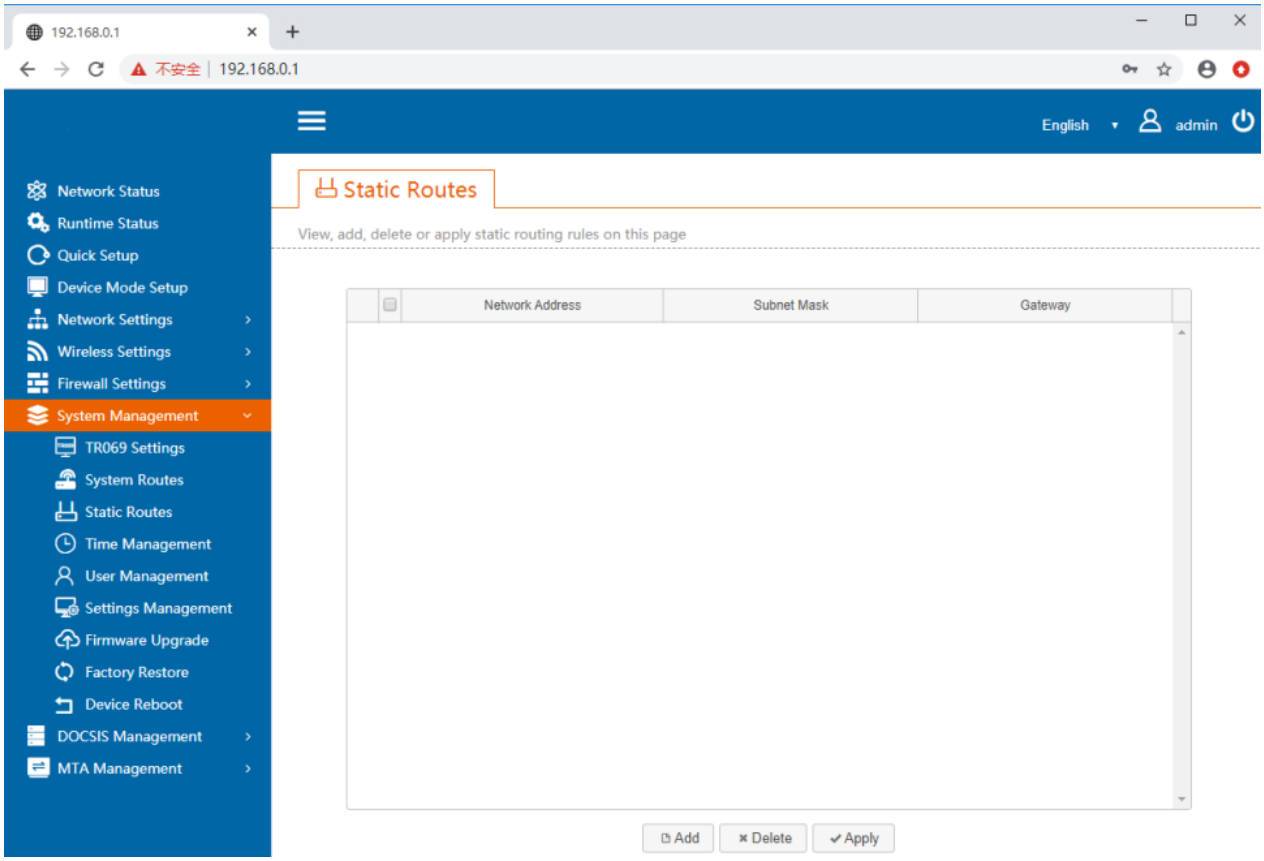
This page , you can view system routing table.



Items	Description
Network Address	Destination address, used to identify the destination address or destination network of the IP packet.
Subnet Mask	A subnet mask allows you to identify which part of an IP address is reserved for the network, and which part is available for host use.
Gateway	Next hop IP address, indicating the next router that the IP packet passes through.
Metrics	The minimum number of routing networks to pass from the device to the destination network.
Interface	Outgoing interface, from which interface the IP packet will be forwarded.
Type	Route type, static or dynamic.

4.7.3 Static Routes

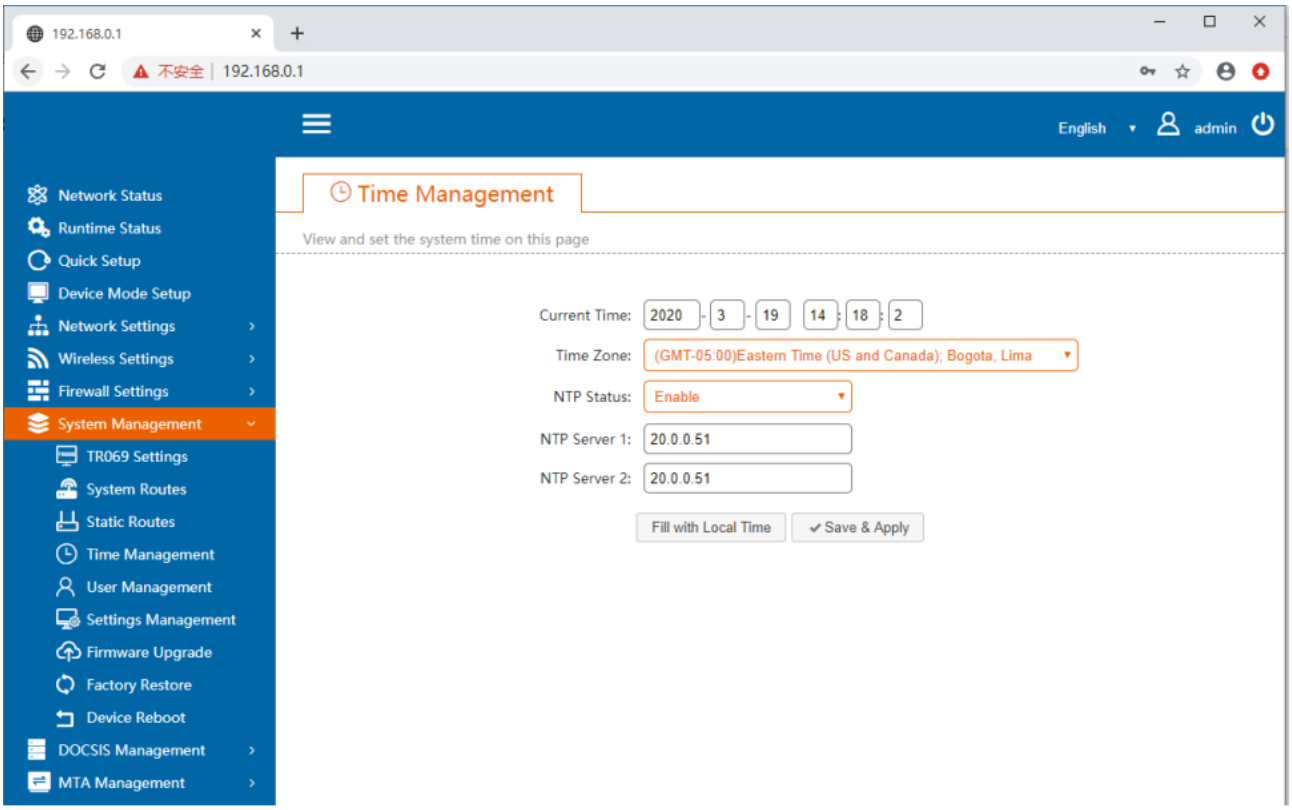
On this page, you can configure static routes to route data to the destination network.



Items	Description
Network Address	Destination address, used to identify the destination address or destination network of the IP packet.
Subnet Mask	A subnet mask allows you to identify which part of an IP address is reserved for the network, and which part is available for host use.
Gateway	Next hop IP address, indicating the next router that the IP packet passes through.

4.7.4 Time Management

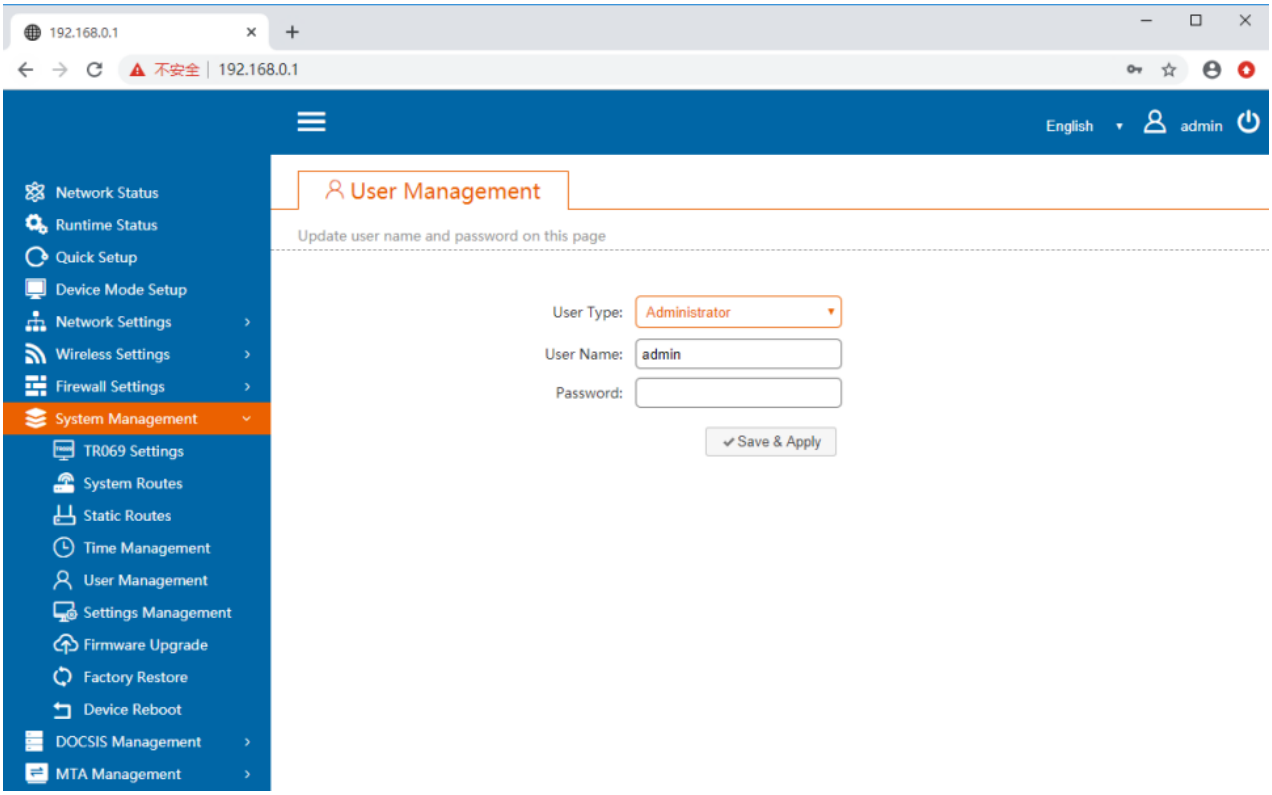
On this page, you can configure the system time to local time, or configure the NTP server to synchronize the system time.



Items	Description
Current Time	Show current system time.
NTP Status	Enable or disable NTP.
NTP Server 1	IP address of the first NTP server.
NTP Server 2	IP address of the second NTP server.

4.7.5 User Management

The system supports three accounts, administration account, user account and operator account. After logging in with the administrator account, the user names and passwords of all three accounts can be changed.

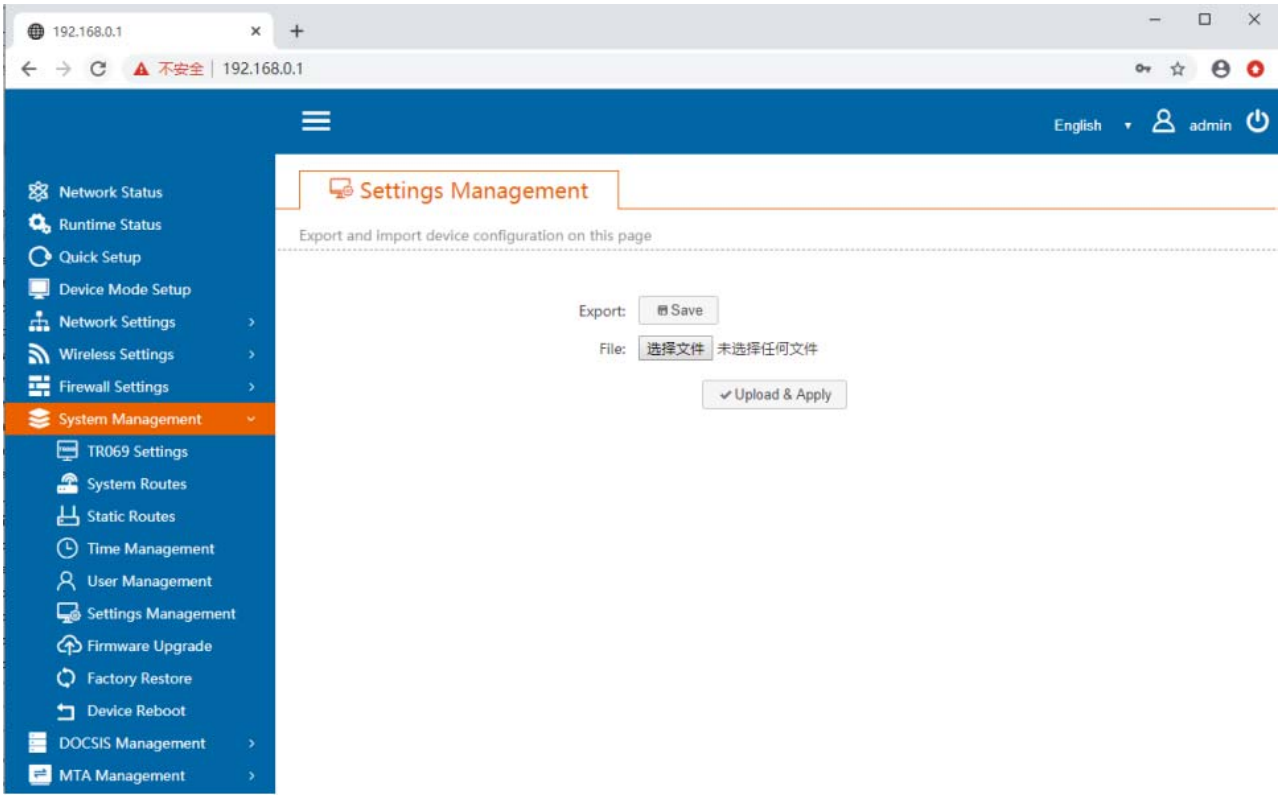


4.7.6 Settings Management

This page can export the current operating parameters of the device to a local file or import a new configuration file.

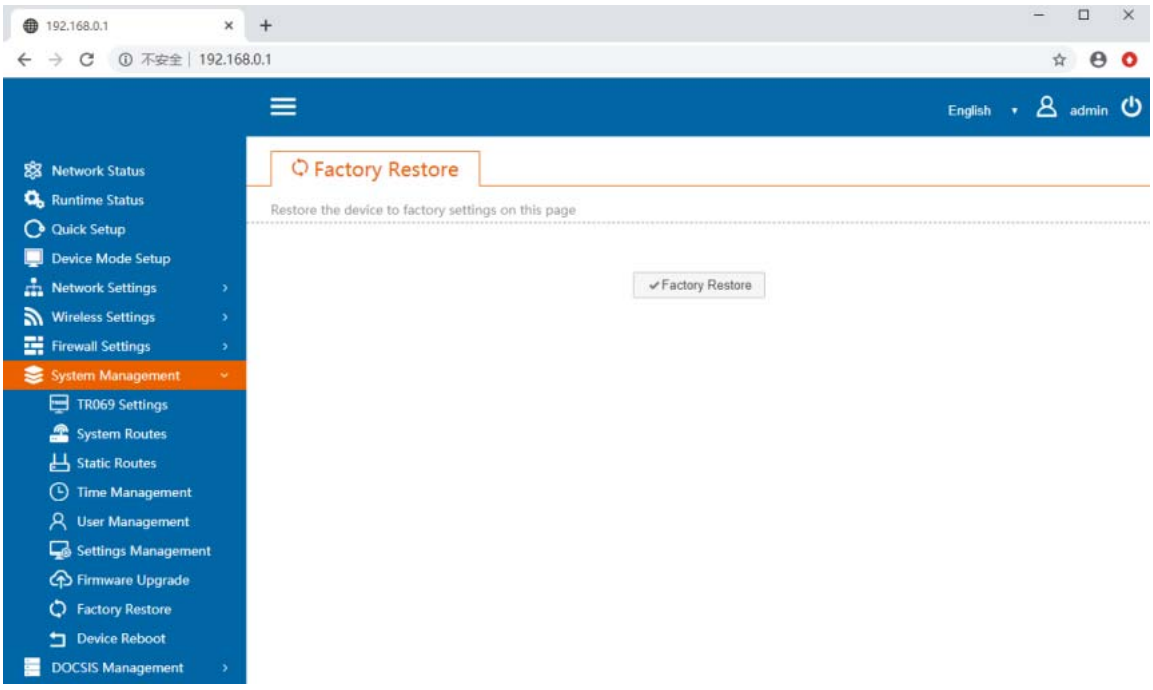
When the configuration file is exported, a config.bin file is generated.

When uploading a configuration file, select a correct file. Otherwise, the upload will fail.



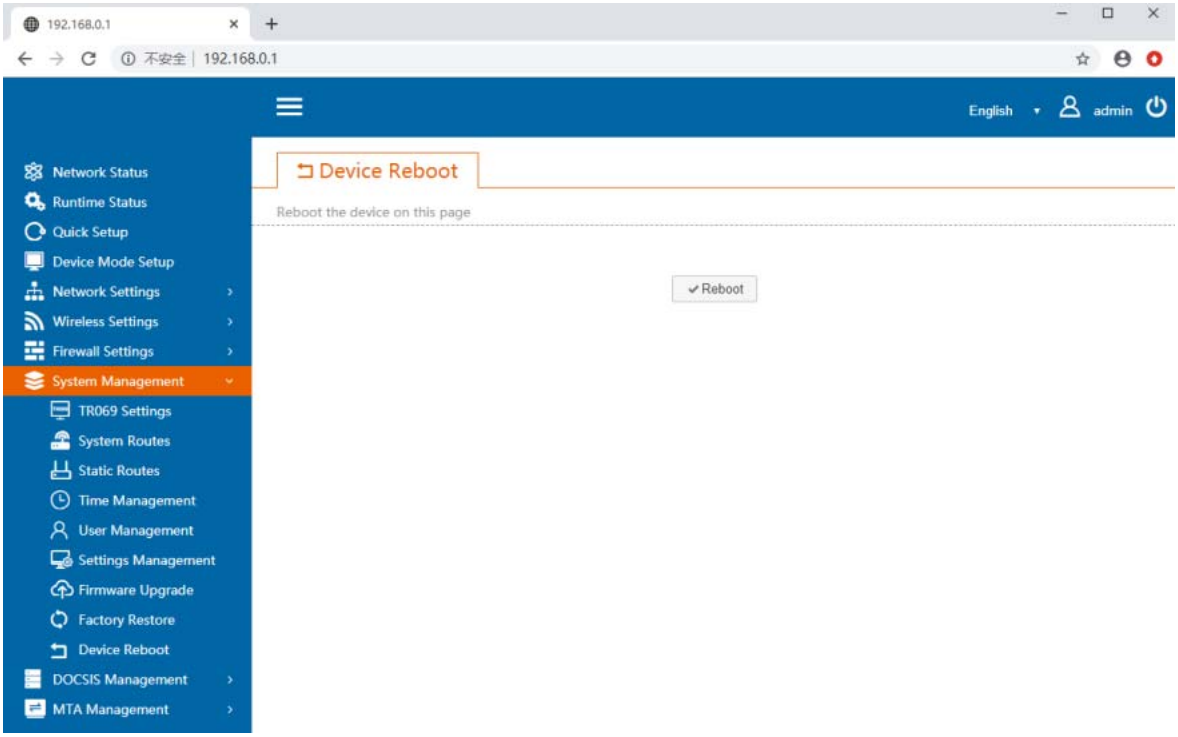
4.7.7 Factory Restore

On this page, you can restore device settings to factory settings, and you can resolve exceptions caused by configuration errors.



4.7.8 Device Reboot

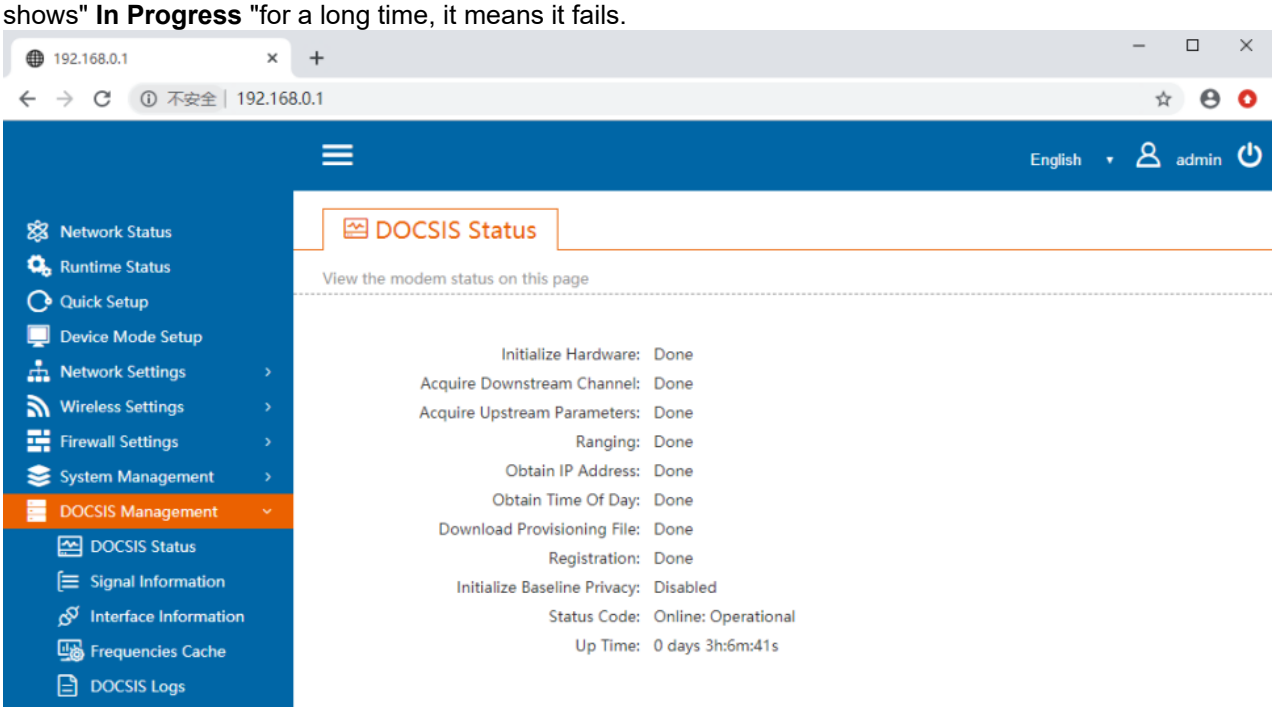
The device can be restarted on this page.



4.8 DICSIS Management

4.8.1 DOCSIS Status

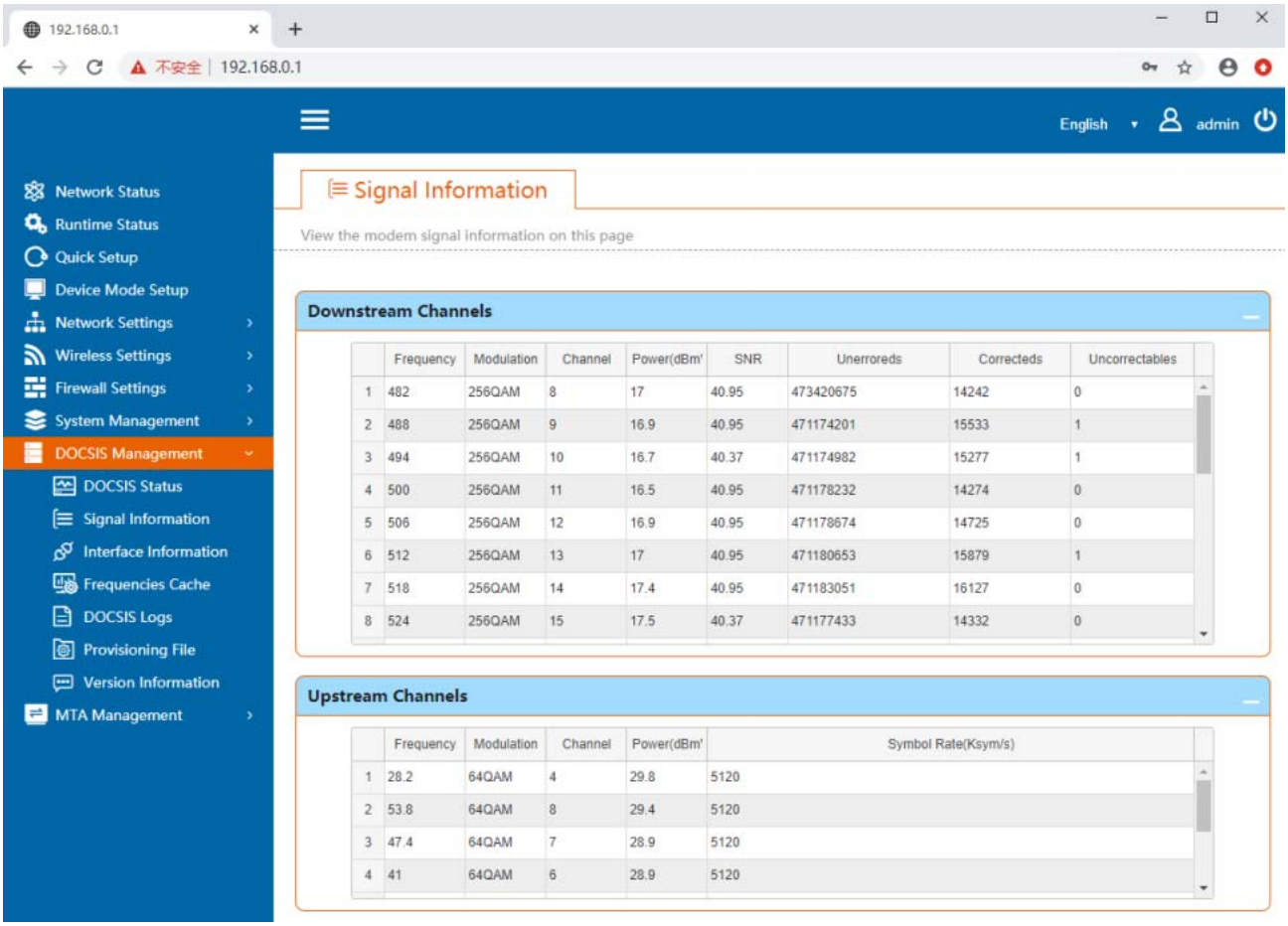
This page can view the operating information of the cable modem. **Done** "indicates success. If it shows" **In Progress** "for a long time, it means it fails.



Items	Description
Initialize Hardware	Initialize the system hardware.
Acquire Downstream Channel	The CM locks and synchronizes the downstream channel.
Acquire Upstream Parameters	The CM locks the upstream channel and gets its parameter information.
Ranging	Automatic range and transimit level adjustment.
Obtain IP Address	The CM requests the IP address and other network parameters through DHCP.
Obtain Time Of Day	CM gets the time from the network and sets it to the system time.
Download Provisioning File	The CM downloads a configuration file from the server and configures itself.
Registration	CM registers with CMTS.
Initialize Baseline Privacy	If the CM configuration file is configured to enable BPI, the CM starts initializing the BPI / BPI + module, otherwise the item is ignored and the status of the task item is displayed as Disabled.
Status Code	The current state of CM. The CM can access the network only when the CM has an **Operational** state.
Up Time	System online time.

4.8.2 Signal Information

This page shows the parameters of the upstream and downstream channels currently blocked by the CM. Through these parameters, you can understand the actual working environment of the CM.



Downstream Channels

Items	Description
Frequency	Frequency of this channel in MHz.
Modulation	Downlink channel modulation method.Supports 256QAM and 64QAM.
Channel	ID of the downstream channel.
Power	RF input sensitivity level in dBmV.
SNR	Signal noise rate.
Unerroreds	Number of correct packets.
Correcteds	Number of fixable packets.
Uncorrectable	Number of uncorrectable packets.

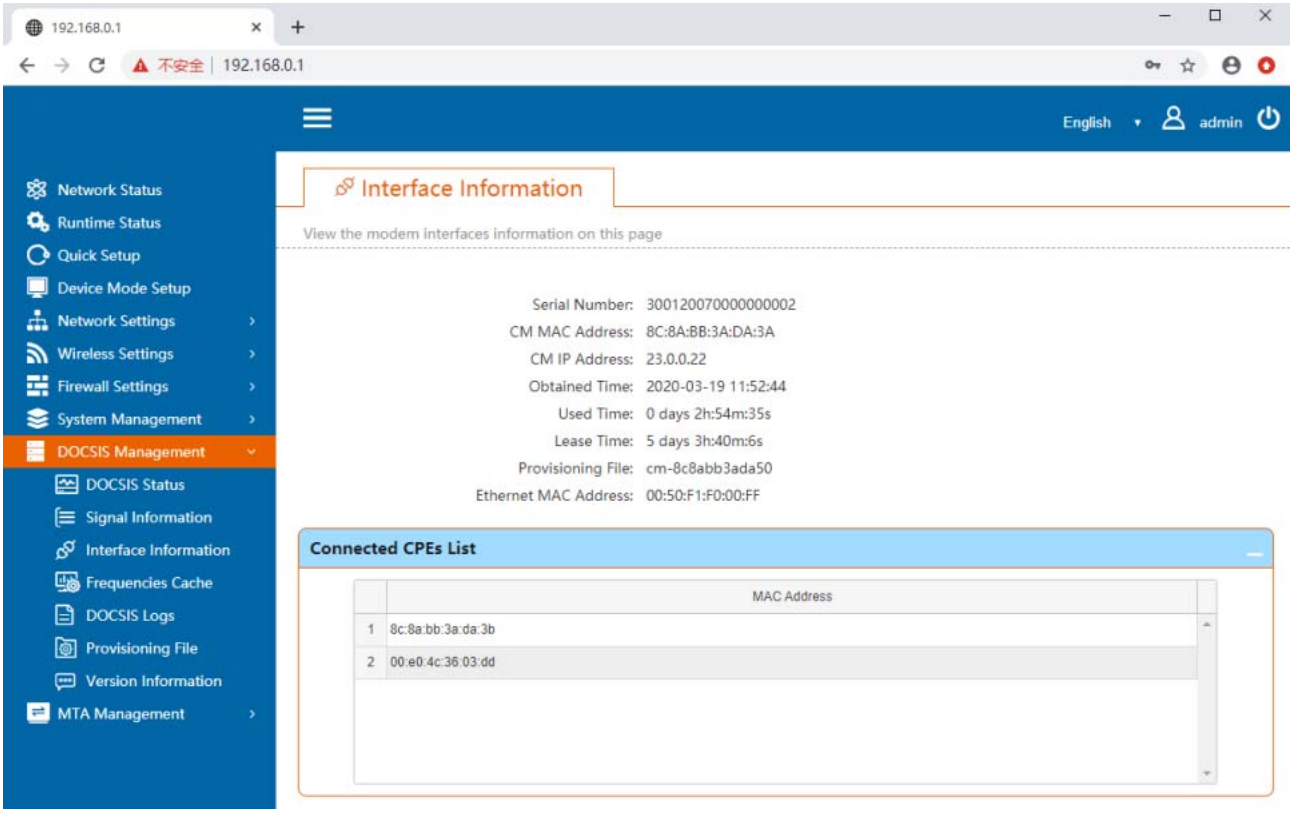
Upstream Channels

Items	Description
Frequency	Frequency of this channel in MHz .
Modulation	ID of the upstream channel.

Channel	RF output level in dBmV.
Power	Symbol rate in Ksym/s.
Symbol Rate	ID of the upstream channel.

4.8.3 Interface Information

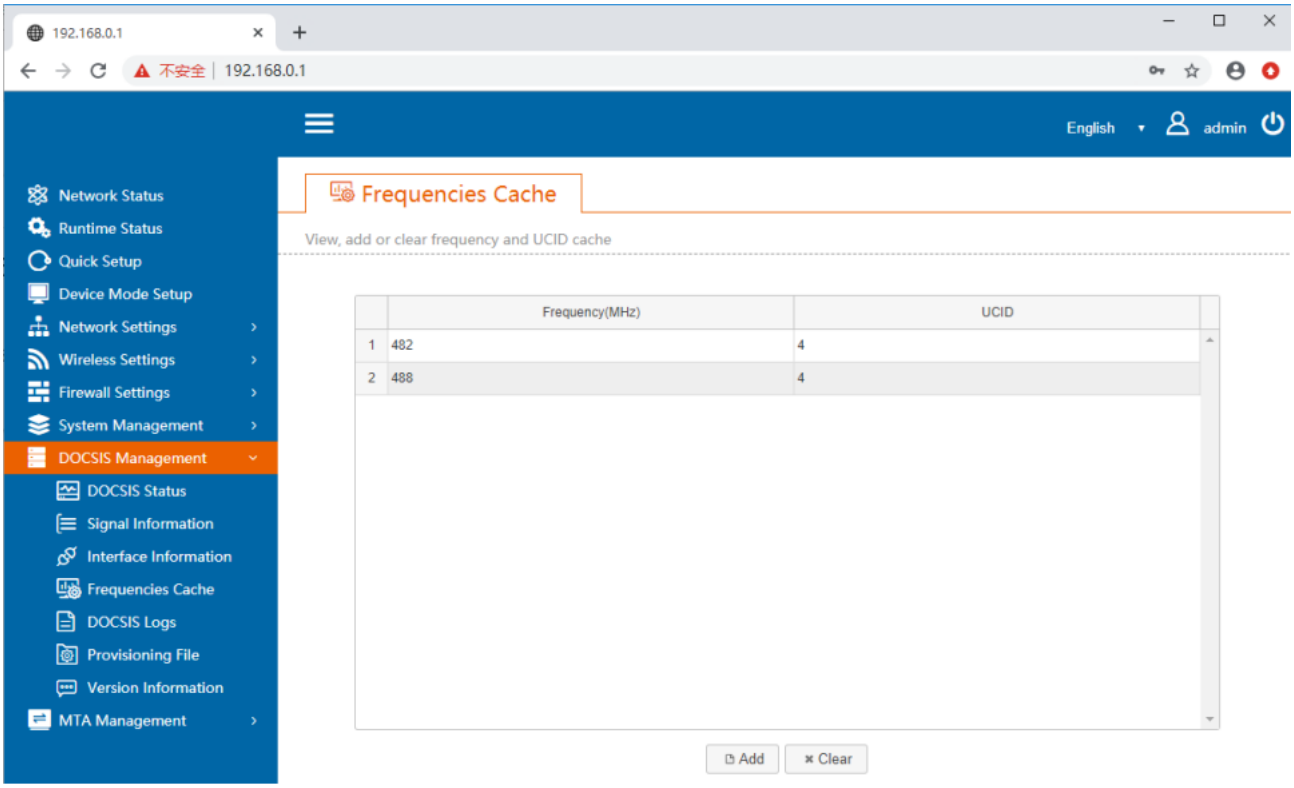
This page can view the CM's IP address, MAC address, configuration file, and other information.



Items	Description
Serial number	CM serial number.
CM MAC Address	CM MAC address.
CM IP Address	IP address obtained by CM from DHCP server.
Obtained Time	System time when the CM obtained the IP address.
Used Time	The CM runtime.
Lease time	The lease time of the CM IP address.
Provisioning File	CM configuration file.
Ethernet MAC Address	LAN address MAC of the CM.
Connected CPEs List	MAC address of the CM CPE.

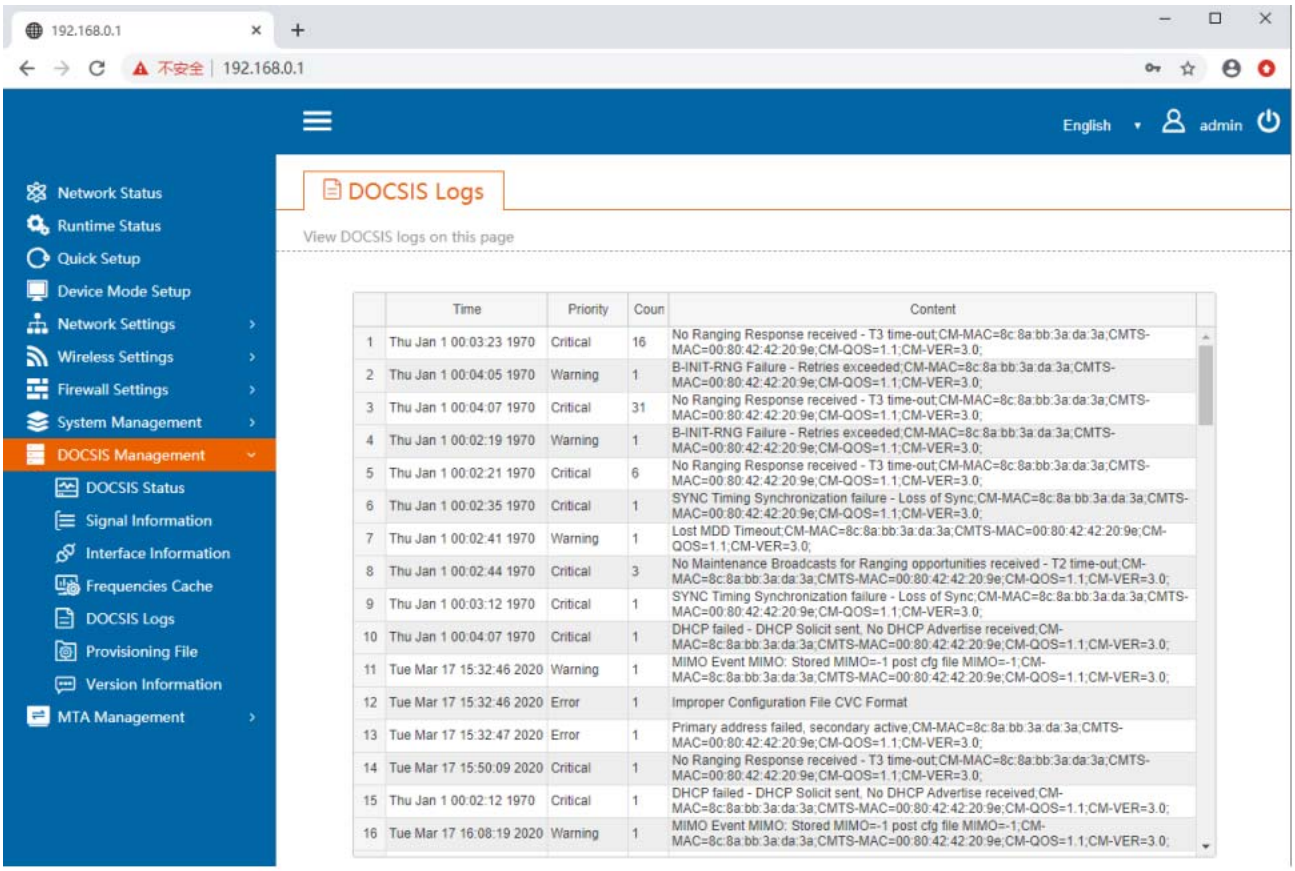
4.8.4 Frequencies Cache

On this page, you can view the downlink frequency of the CM cache, as well as add and remove frequencies. For the added frequency, the CM will scan the frequency first when connected next time.



4.8.5 DOCSIS Log

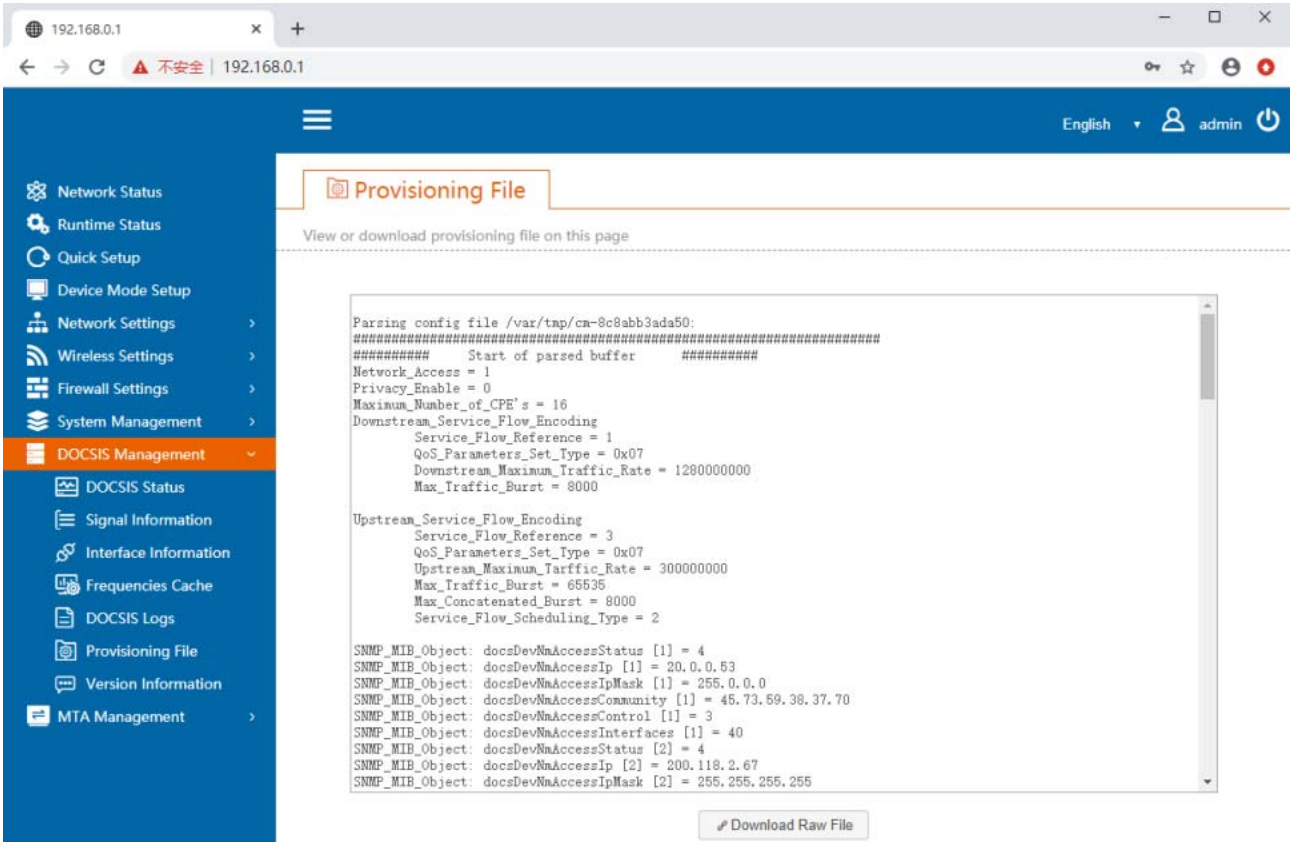
This page records the logs generated when the device is online and used.



Items	Description
Time	System time when registration occurred.
Priority	The priority of the records. **Notice**: NoticeTip Info **Error**: Error message **Critical**: Important Information
Count	The number of times this record appears.
Content	Record description information.

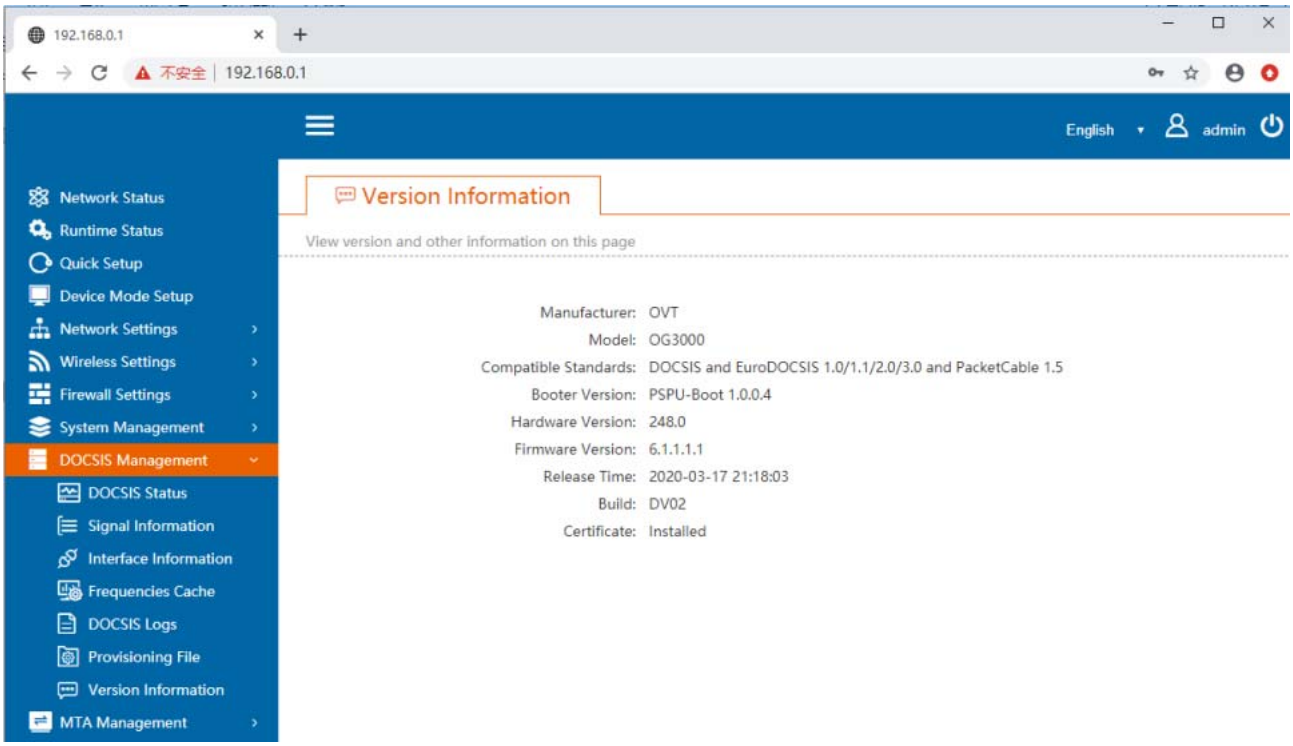
4.8.6 Provisioning File

This page can view the data information of the configuration file obtained by the CM. You can also download the configuration file to your local computer by clicking the "Download Flat File" button below.



4.8.7 Version Information

This page can view basic EMTA information, including information on software and hardware versions, etc.

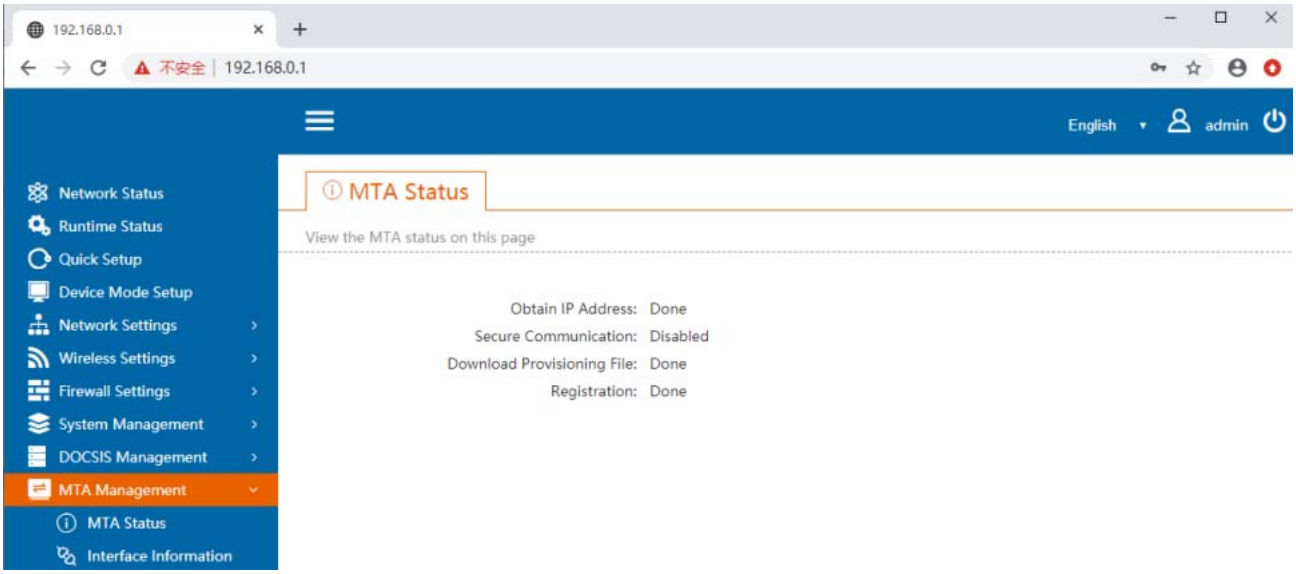


Items	Description
Manufacturer	Device manufacturer.
Model	Product model.
Compatible Standard s	Standards supported by the device.
Booter Version	Booter version.
Hardware Version	Hardware version.
Firmware Version	Software version.
Release Time	Software compilation time.
Certificate	If the relevant certification files are installed on the device.

4.9 MTA Management

4.9.1 MTA Ststus

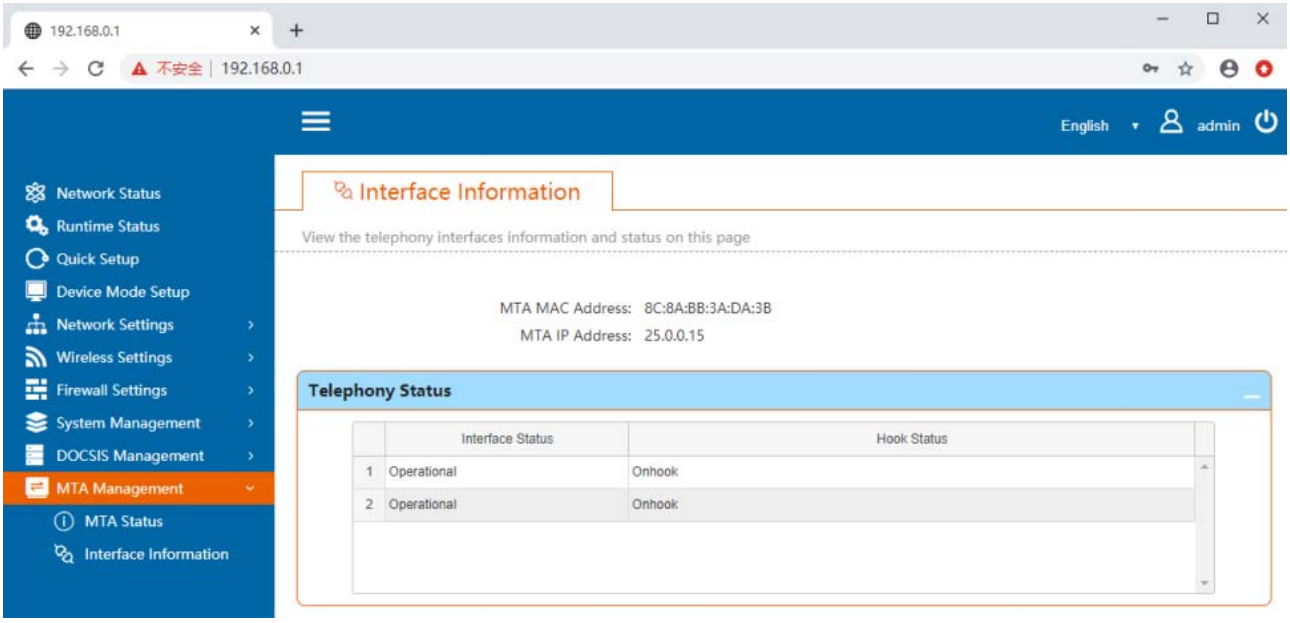
This page shows the MTA provisioning status, which can help you locate the MTA offline.



Items	Description
Obtain IP Address	IP address obtained by MTA.
Secure communication	MTA secure communication status.
Download Provisioning File	Name of the configuration file obtained by the MTA.
Registration	MTA registration status.

4.9.2 Interface Information

This page can view MTA IP information and telephone line status.



Items	Description
MTA MAC Address	MTA MAC address.
MTA IP Address	IP address obtained by MAT from the DHCP server.
Interface Status	Registration status of the telephone line.
Hook Status	Telephone status.

5. Status of the LEDs

The LED Items on the front panel is the most direct way for operation and maintenance engineers to locate the problem. The following table defines the status of each Items:

On = LED on, Off = LED off, Flashing = LED flashing, X = Not applicable.

Status	POWER	DS	US	ONLINE	2.4G	5G	TEL1	TEL2
System initialization	On	On -> Off	On -> Off	On -> Off	Off	Off	Off	Off
Not ready (2)	On	FLASH	On	Off	Off	Off	Off	Off
DS blocked (4) -> fullrange (6)	On	On	FLASH	Off	On	On	Off	Off
DHCPv4 terminated (7) -> Registration completed (11)	On	On	On	FLASH	On	On	Off	Off
Operational (12)	On	On	On	On	On	On	Off	Off
Access Denied (13)	On	FLASH	FLASH	Off	On	On	Off	Off
CPE Connection	On	X	X	X	On	On	Off	Off
CM Packet Forwarding	On	On	On	On	On	On	Off	Off
CM Software updates	On	FLASH	FLASH	On	On	On	On	On
Poor signal quality	On	On	On	FLASH	On	On	On	On
MTA registration	On	On	On	On	On	On	FLASH	FLASH
Operational MTA	On	On	On	On	On	On	On	On
Call phone	On	On	On	On	On	On	FLASH	FLASH

6. Troubleshooting

If there is a problem with the device, the following methods do not solve the problem, you can try to solve it by restoring the factory. If that doesn't work, please contact our engineers to solve it.

Note: Press the RESET button on the rear panel for more than 5 seconds, or operate on the page according to section 4.7.7. You can restore the device to factory settings.

6.1 CM cannot register online

1. Please check whether there is any problem with the signal quality of the cable. If the DS and US Itemss keep flashing, it must be a signal quality problem. Please adjust the cable line.

2. If the Online LED keeps flashing. Please enter the WEB GUI from the LAN port to visit the 4.8.1 page above to see which step to stop to locate the specific cause. Report issues to ISP technicians.

3. If the above steps still cannot be solved, please try to replace the device. If it is a problem with the equipment, please contact our engineers to analyze the equipment.

6.2 The PC cannot access the Internet

1. Visit the page in Chapter 3.2 to see if the device is in routing mode and if the device's WAN port has obtained an IP address that can access the Internet

2. Check whether the PC has obtained an address in the LAN address group. The default value is 192.168.0.x.

3. If you still cannot access the Internet. Switch to bridge mode to see if you can access the Internet.

4. If you still can't access, replace the PC

5. If that doesn't work, please contact our engineers.

6.3 The wireless client cannot send and receive data

1. Verify that the PC can also access the Internet through RJ45.

2. Please use professional wireless coverage viewing software to check whether the current wireless interference is great. If so, modify the wireless channel to a clean channel according to the page in 4.5.2 .

3. Check the wireless encryption mode. The wireless terminal device may not be compatible with the current encryption mode. Change the encryption mode of the device to non-encrypted.

4 . If that doesn't work, contact our engineers.

6.4 Telephone cannot be dialed successfully

1. According to the pages in sections 4.9.1 and 4.9.2 , check if the MTA has successfully registered and has been assigned the correct IP address.

2. Contact your ISP and verify if the assigned phone number is correct.

3. If it still can't be solved, try to replace the device.

4. If it still can't be solved, please contact our engineers to locate the problem.