

JATONTEC JT4300M LTE-A CPE Administrator user Manual v1.0

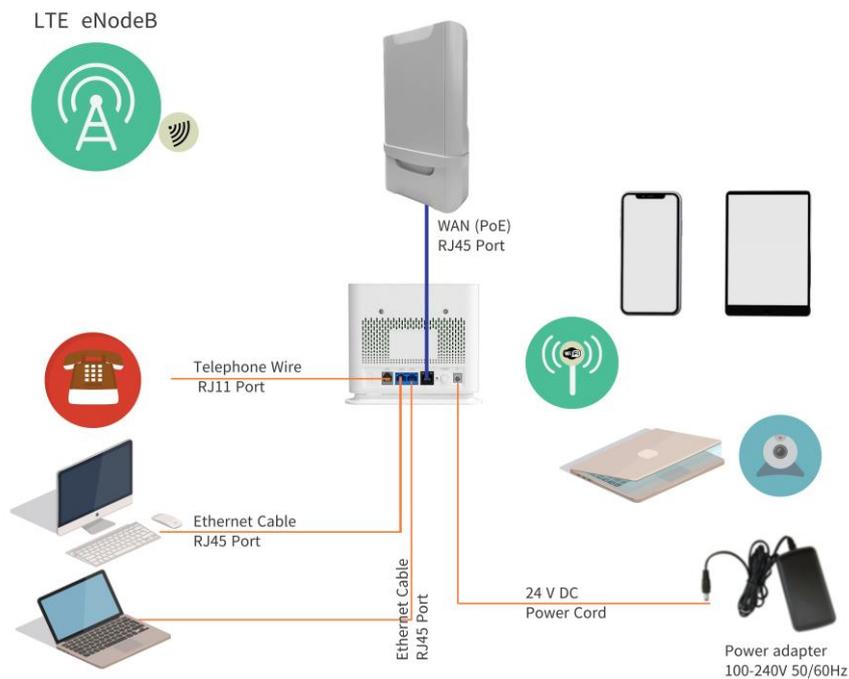


Table of Contents

1.	OVERVIEW	5
	OPERATOR DEVICE SPECIFICATION	5
	RADIO INTERFACE SPECIFICATION	5
	WI-FI INTERFACE	5
2.	GETTING STARTED.....	6
	PACKING LIST AND CPE UNIT	6
	INSTALLING AND POWER ON	6
	LED DISPLAY.....	8
3.	MANAGING CPE DEVICE.....	8
	WEB LOGIN.....	8
4.	SYSTEM INFORMATION	10
	SYSTEM STATUS	10
	NETWORK.....	11
	STATISTICS INFO	12
5.	LTE CONFIGURATION.....	13
	INTERFACE INFO.....	13
	RADIO SETTINGS.....	14
	PDN	15
	SIM CARD	16
	PLMN SELECTION	17
	CELL SELECTION.....	18
	PIN MANAGEMENT.....	19
	COMMAND	20
6.	NETWORK CONFIGURATION.....	21
	OPERATION MODE SETTING.....	21
	LAN NETWORKING.....	21
	VPN SETTING UNDER ROUTER MODE	22
	VPN SETTING UNDER L2 BRIDGE MODE.....	25
	PACKETS CLASSIFIER	27
	IPV6 SETTING.....	28
	DDNS SETTING UNDER ROUTER MODE.....	29
	CLIENT LIST	29
7.	WI-FI CONFIGURATION	30
	NETWORK SETTINGS.....	30
	WPS SETTING	30
	WI-FI STATUS	31
8.	SERVICE CONFIGURATION	32
	PORT FORWARDING	32
	PACKET FILTERING	32
	UPNP	32
	DMZ SETTING	33
	SECURITY SETTING.....	33
9.	VOIP CONFIGURATION.....	35
	NUMBER ANALYSIS.....	37
	CALL	38
	DSP.....	39
	ENHANCED SERVICES	40
	LINE FEATURES.....	41
	PORT.....	42
	MODULE MANAGEMENT.....	42
10.	SYSTEM MAINTENANCE	44
	GENERAL SETTING.....	44
	GENERAL SETTING.....	45
	TR069	46

NTP SETTING	47
AUTO UPDATE.....	48
MAINTENANCE	49
Iperf	50
PING	51
11. FAQ AND TROUBLESHOOTING.....	52

PLEASE READ THESE SAFETY PRECAUTIONS!

RF Energy Health Hazard



The radio equipment described in this guide uses radio frequency transmitters. Although the power level is low, the concentrated energy from a directional antenna may pose a health hazard. Do not allow human body to keep close contact with the device for long period of time while the transmitter is operating.

Protection from Rain and Lightning



The device needs to operate in an indoor environment where no rain or water leakage can be exposed to the device. Before connecting this instrument to the power line, make sure that the voltage of the power source matches the requirements of the instrument. The unit must be standards.

Disposal and Recycling Information



Pursuant to the WEEE EU Directive electronic and electrical waste must not be disposed of with unsorted waste. Please contact your local recycling authority for disposal of this product.

Reduction of Hazardous Substances



This CPE is compliant with the EU Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation (Regulation No 1907/2006/EC of the European Parliament and of the Council) and the EU Restriction of Hazardous Substances (RoHS) Directive (Directive 2002/95/EC of the European Parliament and of the Council).

FCC Notice, USA

This CPE unit can comply with Part 15B of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

This device is specifically designed to be used under Part 90Z, Subpart E of the FCC Rules and Regulations. Any unauthorized modification or changes to this device may void the operator's authority to operate this device.

Furthermore, this device is intended to be used only when installed in accordance with the instructions outlined in this manual. Failure to comply with these instructions may also void the operator's authority to operate this device and/or the manufacturer's warranty.

EC Conformance Declaration

Marking by the above symbol indicates compliance with the Essential Requirements of the RED Directive of the European Union (2014/53/EU). This equipment can meet the following conformance standards:

- EN 60950-1 (IEC 60950-1) - Product Safety
- EN 301 489-1, EN 301 489-17, EN 300 328 - EMC requirements for radio equipment

This device is intended for use in all European Community countries.

1. Overview

The JT4300M CPE is a highly advanced LTE outdoor multi-service product solution specifically designed to meet integrated data, voice and Wi-Fi access needs for residential, business and enterprise users. The product consists of an outdoor data CPE unit (ODU) and an indoor multiservice gateway unit (HGW) that supports advanced networking, VoIP gateway and WLAN AP functionalities. It enables wide service coverage and provides high data throughput and networking features to customers who needs easy broadband access, low cost VoIP service and Wi-Fi connectivity.

■ Operator Device Specification

Model	Description & User Interface
IDU	<ul style="list-style-type: none"> • 1 RJ45 10/100/1000M ETH (PoE), • 2 RJ45 10/100/1000M ETH, • 1 RJ11/FXS Line • SYS, NET, SIG(Tri color) , 2.4G Wi-Fi, 5G Wi-Fi, LAN1-2, LINE • 48V/0.5A DC • Dimensions: 170 mm x 138 mm x 55mm • Weight: < 300g
ODU	<ul style="list-style-type: none"> • 1 RJ45 10/100/1000M LAN Port • PWR, NET, SIM, Poe, ACT, RF(5LEDs) • 48V/0.5A PoE supply, ODU Power <15 Watts • Dimensions: 164 mm (L) x 56 mm (W) x 280 mm (D) • Weight: <1.5 Kg

■ Radio Interface Specification

Frequency Bands	Band 42
Radio Access	3GPP E-UTRA Release 10
Operation Mode	TDD/FDD, 2Tx DL MIMO
Output Power	23dBm
Throughput	Category 7
SIM Support	SIM card slot (2FF)

■ Wi-Fi Interface

Radio Access	802.11a/b/g/n/ac (2.4GHz 300 Mbps, 5GHz 867Mbps)
Output Power	15 ± 1dBm
Antenna	3dBi built-in antenna
Security	64/128-bit WEP, WPA/WPA2

2. Getting Started

■ Packing list and CPE Unit

Upon receiving the product, please unpack the product package carefully. Each product is shipped with the following items:

Table 2-1 Packing List

Outdoor CPE Products	Quantity
ODU unit	1
IDU unit	1
Mounting brackets	1
48V DC Power adapter	1
Ethernet Cable	1

If you find any of the items is missing, please contact our local distributor immediately.

CPE Unit :

Unpacking the Equipment Table 2-1 lists all the standard parts that are supplied in your LTE CPE Unit Installation Package. Please take the time to unpack the package and check its contents against this list.



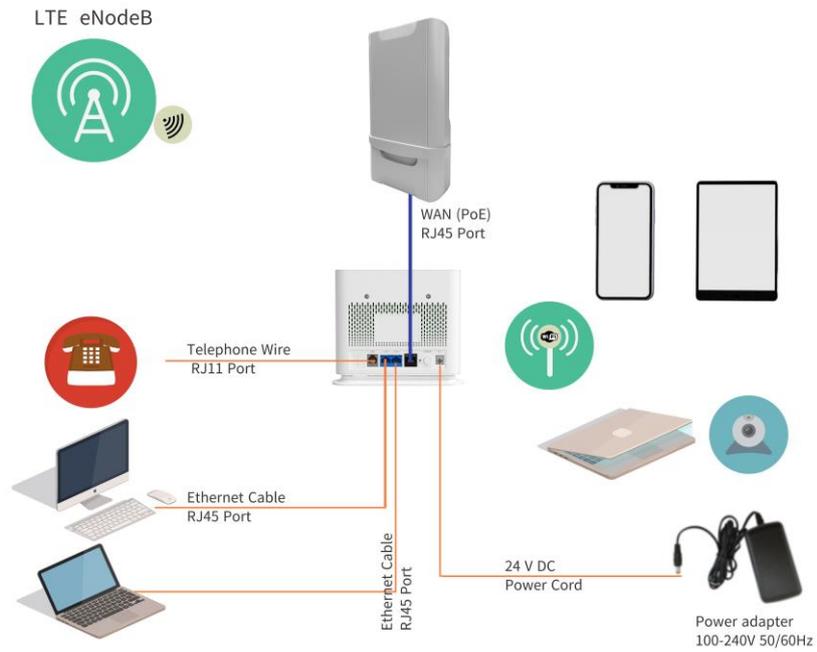
■ Installing and power on

For outdoor CPE product, it is suggested that the CPE device be installed in a shaded area to avoid direct sun light exposure and prolong the device life.

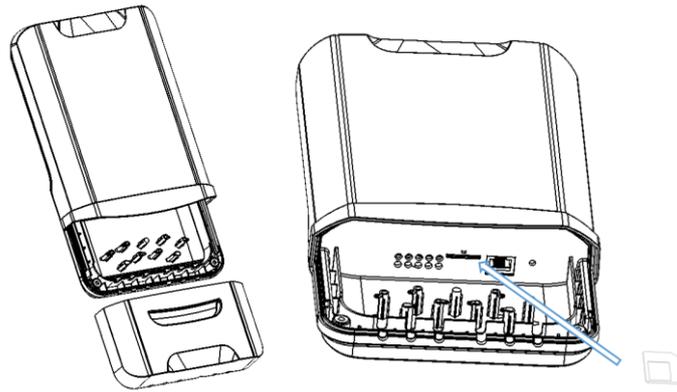
To power on the device, the CPE must use a 48V DC power supply adapter. The power adapters can operate in 90-250V AC range and therefore can be used in different country. An Ethernet cable is required to connect the WAN port of IDU with the POE(LAN) port of ODU. By the way, the ODU don't support the hot-plugging. Once the device is powered up, the user should wait for about 2 minutes before the device becomes operational. For CPE with the SYS LED indicator, a solid light indicates the system has completed the startup procedure.

To connect PC, LAN switch or other type of IP device to the CPE product, the user should use standard CAT6 Ethernet cable and connect to the appropriate LAN port. Once connected, the CPE(IDU) LAN LED indicator should be on.

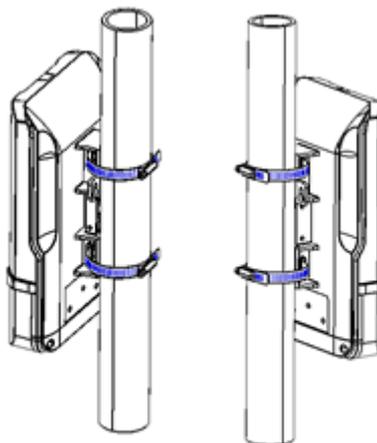
To use the phone service(Optional), operator can simply plug the phone line to the CPE RJ11 port in the back. If the line is not registered or configured, a fast-busy tone will be provided and the corresponding LINE LED light will be off.



■ **Insert SIM Card**



■ **Installing Outdoor Unit (ODU) – Clamp**



■ LED Display

Type	LED	Function	Description
IDU	SYS	Power indicator	Green color – Device is powered on.
	NET	WAN port status	Blinking green – The data is in transmission.
	SIG	RF signal indicator	Red: RSRP < -118dBm Green: -118dBm <= RSRP < -105dBm Blue: -105dBm <= RSRP
	2.4G & 5G	Wi-Fi indicator	Light is on – 2.4G & 5G Wi-Fi is on.
	LAN1&LAN2	LAN port status	Solid green – LAN port is up. Blinking green – LAN data activity in progress.
	Line (Optional)	POTS line status	OFF – Line is not registered or provisioned. Green Color – The line is ready and registered Green Blinking – Voice Call in progress

Type	LED	Function	Description
ODU	PWR	Power indicator	Solid green – Device is power on.
	SYS	System run indicator	Solid green – Device is in normal operation.
	SIM	SIM card indicator	Light is on – SIM card state is ready, Blinking Green – SIM card is error.
	LINK	LAN port status	Solid Green – LAN port is up.
	ACT	LAN port status	Blinking Green – LAN data transmission.
	RF (5LEDs)	RF Signal Strength	5 level signal strengths indication by 5 green LEDs. 1st Green LED: -115dBm < RSRP 2nd Green LED: -115dBm <= RSRP < -105dBm 3rd Green LED: -105dBm <= RSRP < -95dBm 4th Green LED: -95dBm <= RSRP < -85dBm 5th Green LED: -85 <= RSRP

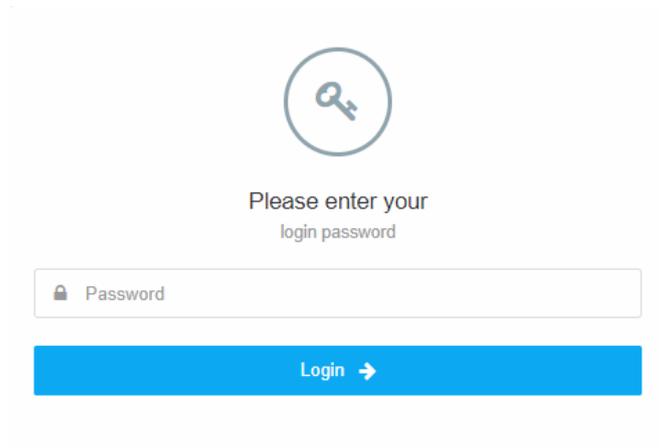
3. Managing CPE Device

The JT4300M offers rich management features which facilitate the task of service provider. It supports local management access, Telnet, WEB, and centralized remote OTA configuration, upgrades management and device monitoring via standard TR-069 ACS systems. The following describes the basic procedures for configuring the device for LTE operation.

■ WEB Login

It is a preferred to setup the CPE using a Web browser from a local PC connected to device LAN port. The operator should ensure that the connected PC has acquired IP address via DHCP from the device. After IP connectivity is established between the PC and CPE device, the operator

may launch a Web browser and specify <http://172.16.1.1> in the address bar. A window will pop up requesting password. Input the user login password and then click the “**Log in**” button. After successful log on, the default home page of the WEB GUI interface will appear. Note the default password is “[admin123](#)”.



The image shows a login interface. At the top center is a circular icon containing a key. Below the icon, the text reads "Please enter your login password". Underneath this text is a white rectangular input field with a small lock icon on the left and the word "Password" next to it. Below the input field is a solid blue rectangular button with the text "Login" followed by a right-pointing arrow.

4. System Information

■ System Status

The menu shows the general system info of the CPE device. It includes system, general, WAN, LAN, Wi-Fi information.

The screenshot displays the 'System Status' page of a CPE device. The left sidebar contains a navigation menu with the following items: System Information (selected), System Status, Network, Statistic Info, LTE Configuration, Network Configuration, Wi-Fi Configuration, Service Configuration, VoIP Configuration, and System Maintenance. The main content area is titled 'System Information / System Status' and is divided into three sections: Device Info, WAN Configuration, and LAN Info.

Device Info

Manufacturer	
CPU Usage	0%
Memory Usage	67%
Software Version	V2.0.0B715
Hardware Version	V1.0
S/N	K6200MFE9810
System Current Time	2018-07-31 18:52:23
System Up Time	24 mins, 35 secs
Operation Mode	Router (NAT)

WAN Configuration

Connected Type	LTE PDN
IP Address	
Subnet Mask	
Default Gateway	
DNS Server	202.96.128.86 202.96.134.33

LAN Info

LAN IP Address	192.168.0.1
Subnet Mask	255.255.255.0
MAC Address	6C:AD:EF:FE:98:10
DHCP Server Status	Enable
DHCP IP Address Pool	192.168.0.2 - 192.168.0.100
DNS Proxy Status	Enable

■ Network

The menu shows the general network status that includes PDN interface info.

The screenshot displays a web-based network configuration interface. On the left is a sidebar menu with the following items: System Information (selected), System Status, Network, Statistic Info, LTE Configuration, Network Configuration, WI-FI Configuration, Service Configuration, VoIP Configuration, and System Maintenance. The main content area shows the 'Multiple PDN Info' page with the following details:

Home / System Information / Multiple PDN Info

PDN 1

APN Name	
IP Address	10.11.102.195
Subnet Mask	255.255.255.255
Default Gateway	10.11.102.195
DNS Server	202.96.128.86 202.96.134.33

PDN 2

APN Name	APN2
IP Address	
Subnet Mask	255.255.255.255
Default Gateway	
DNS Server	

PDN 3

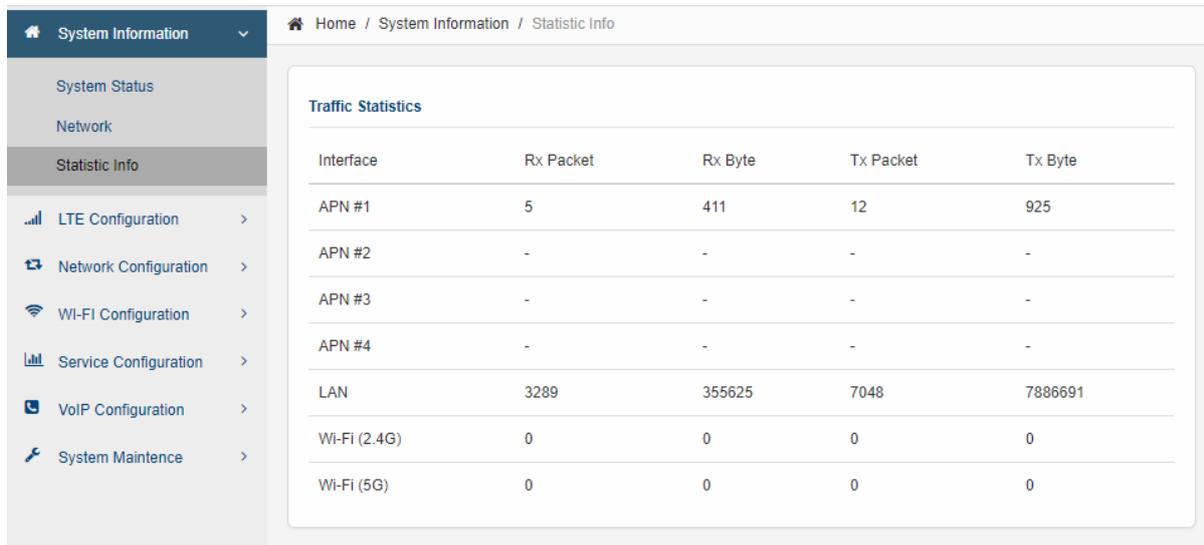
APN Name	APN3
IP Address	
Subnet Mask	255.255.255.255
Default Gateway	
DNS Server	

PDN 4

APN Name	APN4
IP Address	
Subnet Mask	255.255.255.255
Default Gateway	
DNS Server	

■ Statistics Info

The menu shows the CPE device traffic statistics and memory usage information.



Home / System Information / Statistic Info

Traffic Statistics

Interface	Rx Packet	Rx Byte	Tx Packet	Tx Byte
APN #1	5	411	12	925
APN #2	-	-	-	-
APN #3	-	-	-	-
APN #4	-	-	-	-
LAN	3289	355625	7048	7886691
Wi-Fi (2.4G)	0	0	0	0
Wi-Fi (5G)	0	0	0	0

5. LTE Configuration

■ Interface Info

The LTE interface info GUI gives detailed LTE information about the radio connection, the UL/DL Bandwidth, UL/DL Frequency, the receiving signal strength of the device by the LTE Info WEB GUI.

System Information >
Home / LTE Configuration / Interface Info

LTE Configuration

Interface Info

Radio Settings

APN

SIM Card

PLMN Selection

eNB Settings

PIN Management

Command

Network Configuration >

Wi-Fi Configuration >

Service Configuration >

VoIP Configuration >

System Maintenance >

Connect Info

Connection State	CONNECTED	Connected Time	1 min 22 secs
------------------	-----------	----------------	---------------

Radio Info

UL EARFCN	43250	DL EARFCN	43250
UL Frequency	3566000 KHz @ 20000 KHz	DL Frequency	3566000 KHz @ 20000 KHz
UL MCS	22	DL MCS	27
RSRP0	-105.83 dBm	RSRP1	-106.25 dBm
SINR0	17.6 dB	SINR1	17.08 dB
CINR0	17.53 dB	CINR1	17 dB
Transfer Mode	3	TX Power	-26.48 dBm
PCI	222	eNodeB ID	59
Cell ID	154	Registered PLMN	EPC230 46088
RSRQ	-6.92 dB	CQI	14
Band ID	42	C-RNTI	380
RRC State	active	EMM State	registered
Rank Indicator	0 (RANK1)	ECI	0003B9A
UL Throughput	0.0 kbps	DL Throughput	0.0 kbps

2nd Cell Info

Index	EARFCN	PCI	RSRP(dBm)	RSRQ(dB)	CINR(dB)	Active
1	43000	111	-108.30	-7.60	18.00	✔

Module Info

Chip Model	SQN3220CA	Band Support	42, 43
Duplexing Scheme	TDD	SIM Card State	Ready
Firmware Version	4.2.1.0-0 [M]	IMSI	460880000000013
IMEI	862343030311352	MSISDN	-

■ Radio Settings

The LTE radio can be enabled or disabled via 4G Radio setting. The radio can also be reset via Reconnect. Frequency scanning step and channel settings can all be configured as follow. By default, 500KHz frequency scanning step is assumed.

System Information > Home / LTE Configuration / Radio Settings

LTE Configuration

- Interface Info
- Radio Settings**
- APN
- SIM Card
- PLMN Selection
- eNB Settings
- PIN Management
- Command

Radio

Radio Enable Status ON

Frequency Scanning Step 500 KHz

Band Settings

Scan Mode Full Band

Apply ✓

Network Configuration >

Wi-Fi Configuration >

Service Configuration >

VoIP Configuration >

System Maintenance >

■ PDN

This menu is used to configure the operator APN profile. You can configure single or multiple APNs for the operator network. The below shows an example of two APN configuration.

The screenshot displays the APN configuration page. The left sidebar contains a menu with the following items: System Information, LTE Configuration (selected), Interface Info, Radio Settings, APN, SIM Card, PLMN Selection, eNB Settings, PIN Management, Command, Network Configuration, WI-FI Configuration, Service Configuration, VoIP Configuration, and System Maintenance. The main content area is titled 'APN' and includes the following sections:

- APN Selection:** APN Number is set to '# 1'.
- APN Settings:**
 - Enable: ON
 - APN Name: (empty field)
 - Authentication Type: NONE
 - Network Type: IPv4
 - MTU: 1400
 - Default Gateway: ON
 - APN Type: TR069 + VoIP
- APN List:** A table showing the status of APNs.

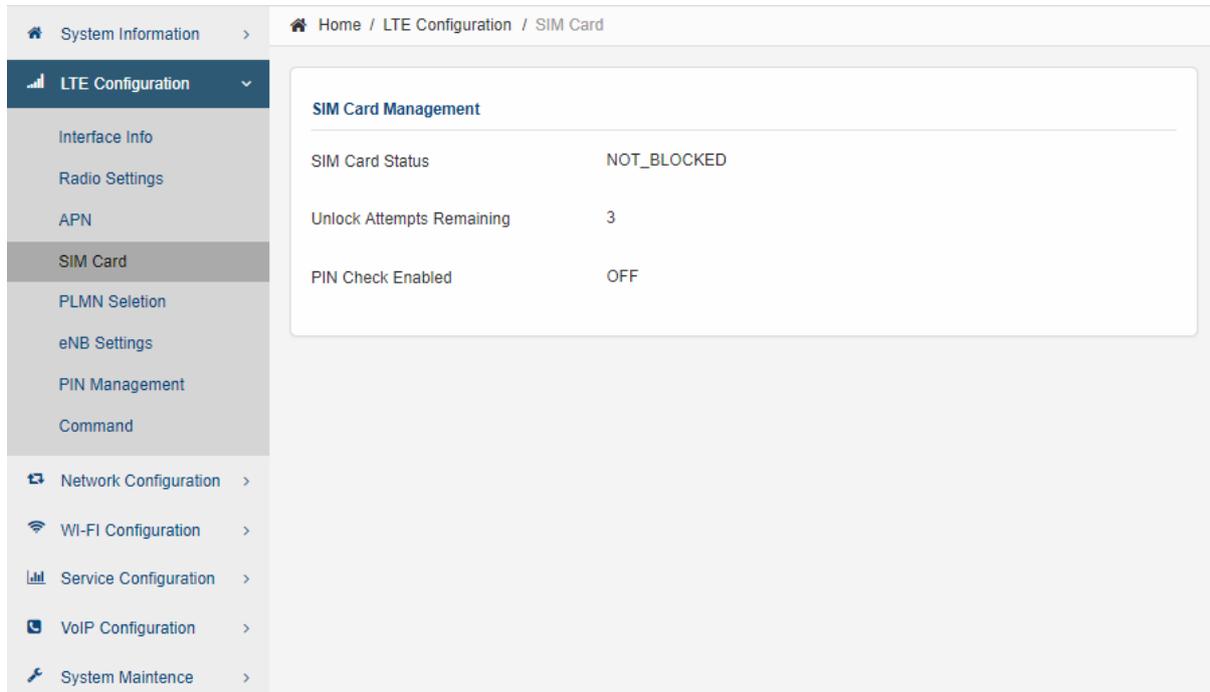
APN Name	Enable	Network Type	MTU	Default Gateway	APN Type	LAN Port
-	Enable	IPv4	1400	Enable	TR069 + VoIP	--
APN2	Disable	IPv4	1400	--	--	--
APN3	Disable	IPv4	1400	--	--	--
APN4	Disable	IPv4	1400	--	--	--

At the bottom right of the configuration area, there are two buttons: 'Save & Commit' and 'Apply'.

The user can view the APN status info in the System Information - Network menu.

■ SIM Card

The SIM card menu is used to view the SIM card status and perform card restriction for SIM card.



The screenshot shows a web-based configuration interface. The breadcrumb navigation at the top reads "Home / LTE Configuration / SIM Card". The left sidebar contains a menu with the following items: "System Information", "LTE Configuration" (expanded), "Interface Info", "Radio Settings", "APN", "SIM Card" (selected), "PLMN Selection", "eNB Settings", "PIN Management", "Command", "Network Configuration", "Wi-Fi Configuration", "Service Configuration", "VoIP Configuration", and "System Maintenance". The main content area displays "SIM Card Management" with the following status information:

SIM Card Management	
SIM Card Status	NOT_BLOCKED
Unlock Attempts Remaining	3
PIN Check Enabled	OFF

■ PLMN Selection

The user can add and configure the PLMN list to restrict the CPE to attach. The CPE will attach to network according to the PLMN priority assigned.

The image shows two screenshots of the 'PLMN Selection' configuration page. The top screenshot shows the 'Auto' mode, where the 'Operators' dropdown is set to 'Auto' and the 'Data Roaming' checkbox is checked. The bottom screenshot shows the 'Manual' mode, where the 'Operators' dropdown is set to 'Manual', there is a 'Scan' button, and the 'Data Roaming' checkbox is unchecked. Both screenshots show a sidebar with navigation options and a breadcrumb trail: 'Home / LTE Configuration / PLMN Selection'.

Top Screenshot (Auto Mode):

- System Information >
- Home / LTE Configuration / PLMN Selection
- LTE Configuration >
- Interface Info
- Radio Settings
- APN
- SIM Card
- PLMN Selection**
- eNB Settings
- PIN Management
- Command
- Network Configuration >
- Wi-Fi Configuration >
- Service Configuration >
- VoIP Configuration >
- System Maintenance >
- System Information >

Network Search

Operators: Auto (dropdown menu open showing: Auto, From USIM, Manual, Manual Priority)

Data Roaming:

Apply ✓

Bottom Screenshot (Manual Mode):

- System Information >
- Home / LTE Configuration / PLMN Selection
- LTE Configuration >
- Interface Info
- Radio Settings
- APN
- SIM Card
- PLMN Selection**
- eNB Settings
- PIN Management
- Command
- Network Configuration >
- Wi-Fi Configuration >
- Service Configuration >
- VoIP Configuration >
- System Maintenance >

Network Search

Operators: Manual (dropdown menu)

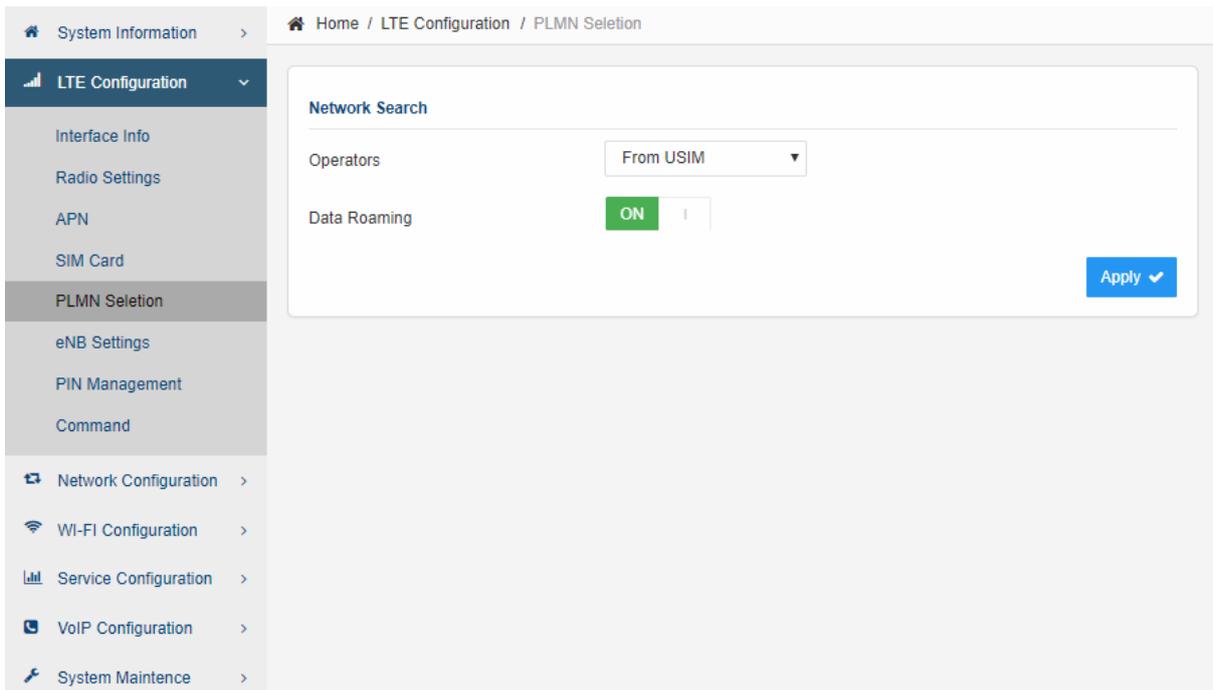
Scan

MCC:

MNC:

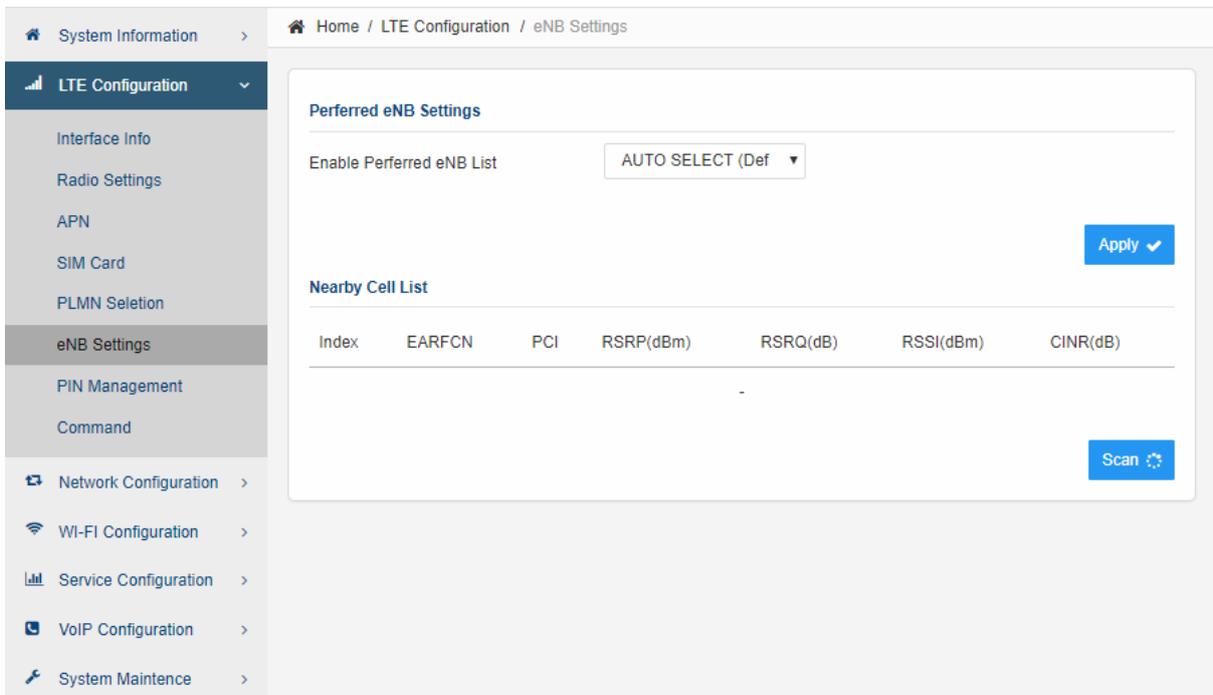
Data Roaming: ON

Apply ✓



■ Cell Selection

The cell selection menu is used to configure how CPE will select the best cell. User can configure the “Auto Select” mode to select cell based 3GPP standard. When configured with “Auto Select & Lock”, user add the desired cell ID to the list and the CPE will attach to the appropriate cell after a full scan. If configured with “Manual Select”, the CPE will not connect to any cell if they are in the list.



■ PIN Management

The PIN Management menu is used to view the SIM card status and perform PIN code management for SIM card. You disable or enable the SIM card PIN check on the CPE to bind the SIM card inserted.

The screenshot shows a web interface for PIN Management. The breadcrumb path is "Home / LTE Configuration / PIN Management". The left sidebar contains a menu with "LTE Configuration" expanded, showing options like "Interface Info", "Radio Settings", "APN", "SIM Card", "PLMN Selection", "eNB Settings", "PIN Management" (selected), and "Command". Below this are other configuration sections: "Network Configuration", "Wi-Fi Configuration", "Service Configuration", "VoIP Configuration", and "System Maintenance".

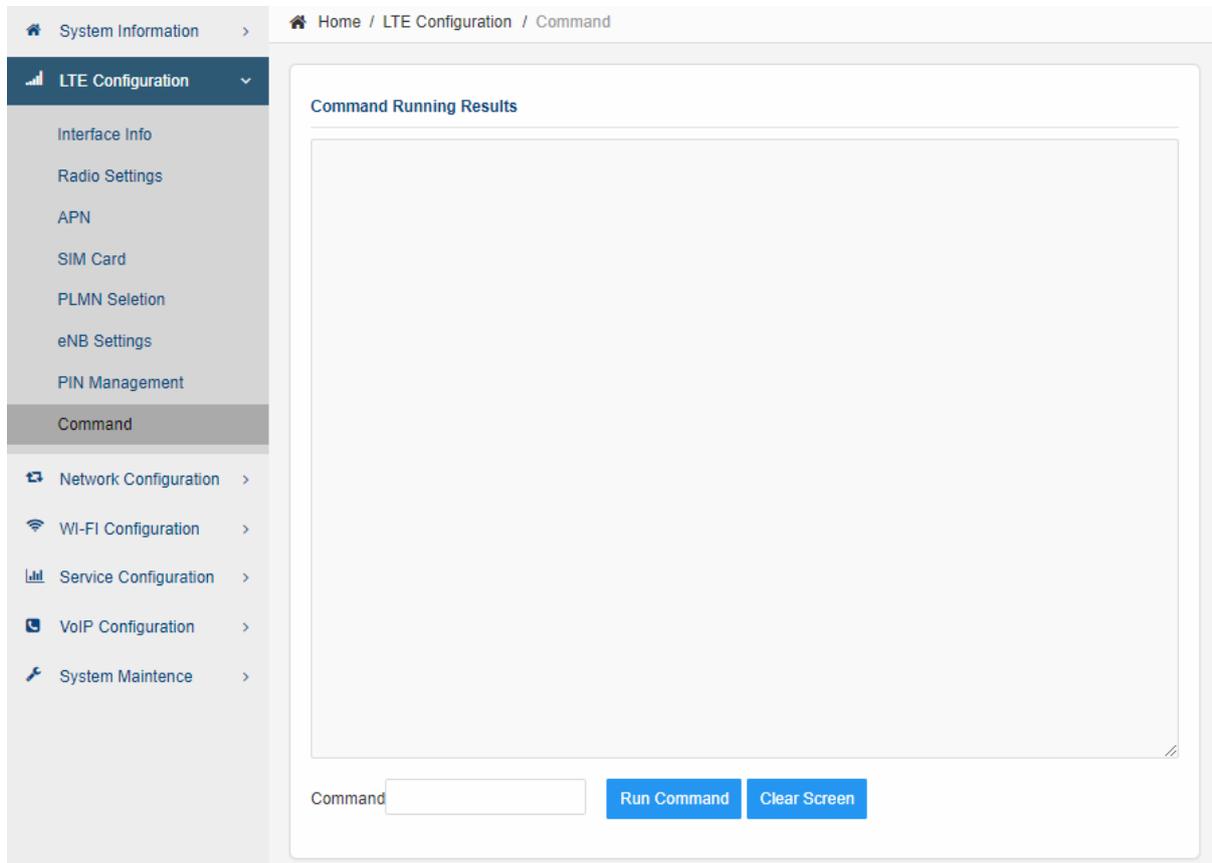
The main content area is titled "SIM Card Management" and contains the following fields:

Mode	Standard Mode
SIM Card State	PIN disabled
PIN Management	Enable PIN
PIN	<input type="text"/>
	Remaining Attempts: 3

An "Apply" button with a checkmark is located at the bottom right of the configuration area.

■ Command

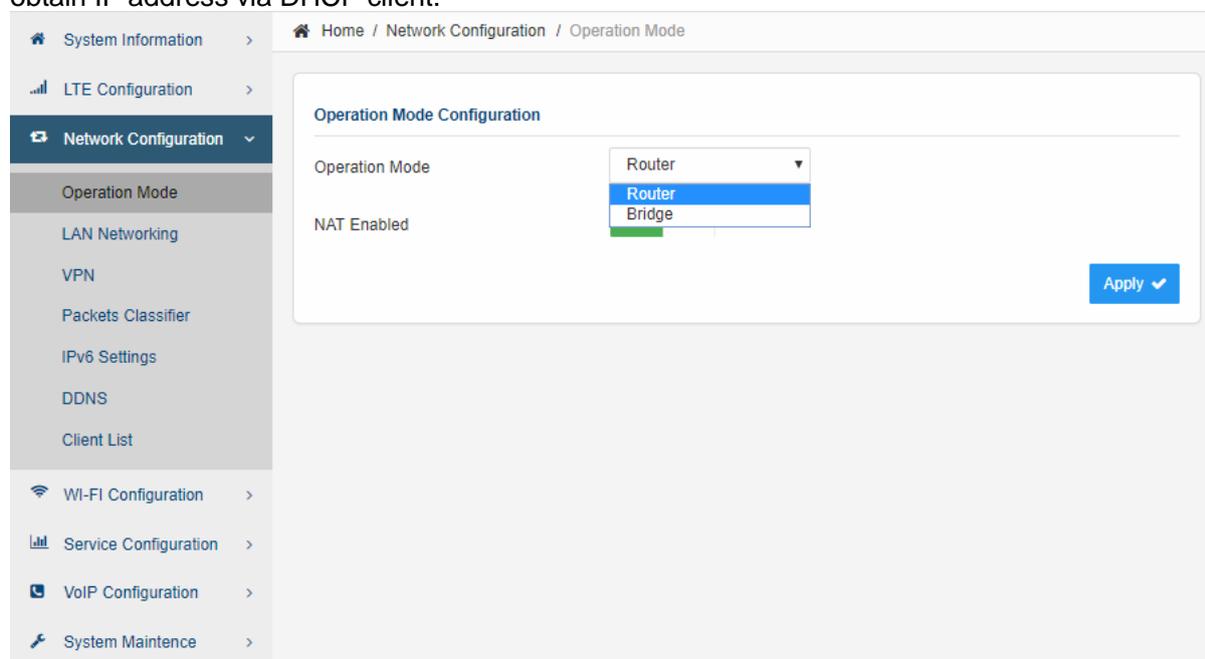
The Command menu is used to run LTE command via the WEB GUI interface. The user can type the command and click the “Run Command” button to execute.



6. Network Configuration

■ Operation Mode Setting

The default device Operation Mode is Router, and the PC connected to device LAN port will obtain IP address via DHCP client.



The screenshot shows the 'Operation Mode Configuration' page. The 'Operation Mode' dropdown menu is open, displaying 'Router' (the current selection) and 'Bridge' as an alternative. The 'NAT Enabled' checkbox is checked. An 'Apply' button is located in the bottom right corner of the configuration area.

The device operation mode could be changed from Router to Bridge if necessary as show by the following diagram:



Are you sure to continue?

The operation will require reset of local network connection.
You can access the device via <http://172.16.1.1>

Cancel

Yes

In Bridge mode, the PC which connected the LAN port of the CPE will obtain the IP directly from the network. However, the device WEB GUI may still be accessed via port 8080 from remote side if remote management is enabled. For local LAN access, the user or operator can configure LAN PC with a static IP address as 172.16.1.x and login the WEB GUI via <http://172.16.1.1>.

■ LAN Networking

The LAN setting allows user to specify the device LAN IP, DHCP server setting, Local DNS and etc. When Router mode is selected, the DHCP server should be enabled by default.

User is advised to leave the default setting unchanged for quick configuration and smooth device operation.

Home / Network Configuration / LAN Networking

LAN Setup

IP Address: 192.168.0.1

Subnet Mask: 255.255.255.0

MAC Address: 6C:AD:EF:FE:98:10

DHCP Server Configuration

DHCP Server: ON

Start IP Address: 192.168.0.2

End IP Address: 192.168.0.100

Lease Time: 1440

DNS Server Address Mode: Auto

DNS Proxy: ON

Statically Assigned

#	IP Address	MAC Address
	XXX.XXX.XXX.XXX	
	XXX.XXX.XXX.XXX	
	XXX.XXX.XXX.XXX	

Setup Options

802.1d Spanning Tree: OFF

LLTD: OFF

IGMP Proxy: OFF

Router Advertisement: OFF

[Apply](#)

■ VPN Setting Under Router Mode

This section allows user to configure VPN service for selected connection mode. In router mode, PPTP, L2TP and GRE can be selected. In L2 Bridge mode, only L2 GRE can be configured. The router mode VPN configuration is shown below.

System Information > Home / Network Configuration / VPN

LTE Configuration >

Network Configuration >

- Operation Mode
- LAN Networking
- VPN**
- Packets Classifier
- IPv6 Settings
- DDNS
- Client List

Wi-Fi Configuration >

Service Configuration >

VoIP Configuration >

System Maintenance >

VPN Configuration

VPN

- Disable
- Disable**
- L2TP
- PPTP
- GRE

Apply ✓

The L2TP configuration under router mode is shown below.

The screenshot shows the 'VPN Configuration' page in a router's web interface. The left sidebar contains navigation options: System Information, LTE Configuration, Network Configuration (selected), Operation Mode, LAN Networking, VPN (selected), Packets Classifier, IPv6 Settings, DDNS, Client List, WI-FI Configuration, Service Configuration, VoIP Configuration, and System Maintenance. The main content area is titled 'VPN Configuration' and includes the following settings:

- VPN: L2TP (dropdown menu)
- Enable Unmanaged L2TPv3 Tunnels: Disable (dropdown menu)
- L2TP Mode**
- Server Address: xxx.xxx.xxx.xxx (text input)
- Username: (text input)
- Password: (text input)
- Host Name: KZT (text input)
- MTU Size: 1360 (text input) with a range of (800 - 1360)

At the bottom right, there are two buttons: 'Apply' and 'Reconnect'.

The PPTP configuration under router mode is shown as follows.

The screenshot shows the 'VPN Configuration' page in a router's web interface, similar to the L2TP configuration page. The left sidebar is the same. The main content area is titled 'VPN Configuration' and includes the following settings:

- VPN: PPTP (dropdown menu)
- PPTP Mode**
- Server Address: xxx.xxx.xxx.xxx (text input)
- Username: (text input)
- Password: (text input)

At the bottom right, there are two buttons: 'Apply' and 'Reconnect'.

The L2 GRE configuration under router mode is shown below.

The screenshot displays the 'VPN Configuration' page in a web-based management interface. The left sidebar contains navigation options: System Information, LTE Configuration, Network Configuration (selected), Operation Mode, LAN Networking, VPN (highlighted), Packets Classifier, IPv6 Settings, DDNS, Client List, WI-FI Configuration, Service Configuration, VoIP Configuration, and System Maintenance. The main content area shows the VPN configuration for a GRE tunnel. The 'VPN' type is set to 'GRE' and the 'Tunnel Layer' is 'Layer 3'. Below this is a table for 'GRE Tunnel' configuration. The table has columns for 'No.', 'Tunnel Destination IP Address', 'GRE I/F IP', 'GRE R/F IP', 'Private Address', 'Key', and 'Checksum'. There are 'Add +' and 'Delete Selected ✖' buttons below the table. An 'Apply ✓' button is located at the bottom right of the configuration area.

VPN Configuration

VPN: GRE

Tunnel Layer: Layer 3

GRE Tunnel

No.	Tunnel Destination IP Address	GRE I/F IP	GRE R/F IP	Private Address	Key	Checksum
-----	-------------------------------	------------	------------	-----------------	-----	----------

Add + Delete Selected ✖

Apply ✓

■ VPN Setting Under L2 Bridge Mode

Under the L2 Bridge connection mode, L2 GRE or L2TP can be configured as follows.

Home / Network Configuration / VPN

VPN Configuration

VPN: L2TP

Enable Unmanaged L2TPv3 Tunnels: Enable

L2TP Mode

Encapsulation: IP

Interface Status: DOWN

	Local Endpoint	Peer Endpoint
Tunnel ID	<input type="text"/>	<input type="text"/>
Session ID	<input type="text"/>	<input type="text"/>
Tunnel IP Address	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>
Internet IP Address	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>
Cookie (Hex digits)	<input type="text" value="None"/>	<input type="text" value="None"/>
Offset	<input type="text"/>	<input type="text"/>
Layer2 Specific Header	<input type="text" value="Default"/>	--
VLAN Configuration	<input type="text" value="Passthrough"/>	--

Apply Reconnect

Home / Network Configuration / VPN

VPN Configuration

VPN: GRE

Tunnel Layer: Layer 2

GRE Tunnel

<input type="checkbox"/>	No.	Tunnel Destination IP Address	Key	Checksum
<input type="button" value="Add +"/> <input type="button" value="Delete Selected x"/>				

Apply

■ Packets Classifier

This configuration menu allows user to tag DSCP or TOS value for CPE local data (Management) and LAN port data (Data).

The image displays two screenshots of the 'Packets Classifier' configuration page in a web interface. The left sidebar contains a navigation menu with categories like System Information, LTE Configuration, Network Configuration, and others. The main content area is titled 'QoS Configuration' and contains the following settings:

QoS Configuration

DSCP/TOS Select: (Dropdown menu showing: Disable, DSCP, TOS)

Apply ✓

QoS Configuration

DSCP/TOS Select: (Dropdown menu showing: DSCP)

Device Data DSCP: (Dropdown menu showing: Tagged)

SIP: (Dropdown menu showing: Tagged)

RTP: (Dropdown menu showing: Tagged)

Data Traffic DSCP: (Dropdown menu showing: Tagged)

Apply ✓

Home / Network Configuration / Packets Classifier

QoS Configuration

DSCP/TOS Select	TOS	
Device Data TOS	Tagged	0
SIP	Tagged	0
RTP	Tagged	0,2,4,8,16
Data Traffic TOS	Tagged	0

Apply ✓

■ IPv6 Setting

In this page, user configure the IPv6 operation setting for the CPE device.

Home / Network Configuration / IPv6 Settings

IPv6 Connection Type

IPv6 Operation Mode	IPv4/IPv6 Dual-St: ▾ Disable IPv4/IPv6 Dual-Stack
DHCPv6 Address Settings	
DHCPv6 Autoconfiguration Mode	Stateless ▾
DNS Server Address Mode	Autoconfiguration ▾
DNS Server	<input type="text"/>
	<input type="text"/>

Apply ✓

■ DDNS Setting Under Router Mode

This configuration menu allows user to configure use of different DDNS service for router mode operation.

The screenshot shows the DDNS configuration page. The left sidebar contains navigation options: System Information, LTE Configuration, Network Configuration (selected), Operation Mode, LAN Networking, VPN, Packets Classifier, IPv6 Settings, DDNS (selected), Client List, WI-FI Configuration, Service Configuration, VoIP Configuration, and System Maintenance. The main content area is titled 'Dynamic DNS Settings' and includes a 'Dynamic DNS Provider' dropdown menu with options: Disable, dyndns.org, freedns.afraid.org, www.zoneedit.com, www.no-ip.com, and Custom. Below the dropdown is a 'Dynamic DNS Status' field. At the bottom right, there are 'Force Update' and 'Apply' buttons.

■ Client List

This shows all the LAN clients that are connected to the CPE device.

The screenshot shows the Client List page. The left sidebar is identical to the previous screenshot, with 'Client List' selected. The main content area is titled 'DHCP Clients' and displays a table with the following columns: #, Host Name, MAC Address, IP Address, and Expires in. The table currently shows 'N/A' in the MAC Address column, indicating no active clients.

#	Host Name	MAC Address	IP Address	Expires in
		N/A		

7. Wi-Fi Configuration

■ Network Settings

In the Wi-Fi configuration, the operator can modify the default SSID and select the desired Security Policy to protect device Wi-Fi access. For easy configuration, the operator can use one of the following three recommended common security policies for setup.

The screenshot shows the '2.4G Wi-Fi Setup' configuration page. The left sidebar contains navigation options: System Information, LTE Configuration, Network Configuration, WI-FI Configuration (selected), Network Settings, WPS Settings, Wi-Fi Status, Service Configuration, VoIP Configuration, and System Maintenance. The main content area has a breadcrumb trail 'Home / WI-FI Configuration / Network Settings' and two tabs: '2.4G Wi-Fi Setup' (active) and '5G Wi-Fi Setup'. The configuration fields are as follows:

Enable 2.4G Wi-Fi Network	<input checked="" type="checkbox"/> ON
Network Name(SSID)	MyWiFi-FE9810
	<input type="checkbox"/> Hidden
Password	*****
	<input type="checkbox"/> Visible passwords
Security Mode	WPA-PSK/WPA2
Network Mode	802.11b/g/n Mixe
Country Code	CN (China)
Frequency (Channel)	AutoSelect
Channel Bandwidth	20 MHz
TX Power	100%

An 'Apply' button with a checkmark is located at the bottom right of the configuration area.

■ WPS setting

The WPS setting allows user to enable or disable Wi-Fi WPS service.

The screenshot shows the 'WPS Settings' configuration page. The left sidebar is identical to the previous screenshot, with 'WI-FI Configuration' selected. The main content area has a breadcrumb trail 'Home / WI-FI Configuration / WPS Settings' and a single tab: 'WPS Setting'. The configuration is as follows:

WPS Enable Status	Disable
-------------------	---------

An 'Apply' button with a checkmark is located at the bottom right of the configuration area.

■ Wi-Fi Status

The menu shows the Wi-Fi info of the CPE device.

Home / System Information / Wi-Fi Status

2.4G Wi-Fi Info 5G Wi-Fi Info

Wi-Fi Configurations

SSID	MyWiFi-FE9810 (ON)
Wi-Fi Mode	802.11b/g/n Mixed Mode
Channel	AutoSelect (Channel 6)

Station List

#	MAC Address	IP Address
-		

8. Service Configuration

■ Port Forwarding

This menu allows user to configure the port forwarding rules for the CPE in router mode.

The screenshot shows the 'Port Forwarding' configuration page. The left sidebar contains a navigation menu with 'Service Configuration' expanded to show 'Port Forwarding', 'Packet Filtering', 'UPnP', 'DMZ Setting', and 'Security Setting'. The main content area is titled 'Port Forwarding Settings' and features a toggle switch for 'Port Forwarding' set to 'OFF'. Below this is a table with columns: 'No.', 'WAN Port Range', 'Protocol', 'LAN IP Address', 'LAN Port Range', and 'Comment'. The table is currently empty. There are 'Add +' and 'Delete Selected x' buttons below the table. An 'Apply' button is located at the bottom right of the configuration area.

■ Packet Filtering

This allows user to create packet filter to control the client access.

The screenshot shows the 'Packet Filtering' configuration page. The left sidebar is the same as in the previous screenshot, with 'Packet Filtering' selected. The main content area is titled 'Basic Settings' and features a toggle switch for 'Packet Filtering' set to 'OFF'. Below this is a 'Default Policy' dropdown menu set to 'Dropped'. Underneath is a section titled 'Current filters in system' with a table. The table has columns: 'Index', 'Source MAC address', 'Dest IP Address', 'Source IP Address', 'Protocol', 'Dest Port Range', 'Source Port Range', 'Day', 'Time', 'Action', and 'Comme'. The table is currently empty. There are 'Add +' and 'Delete Selected x' buttons below the table. An 'Apply' button is located at the bottom right of the configuration area.

■ UPnP

This menu allows user to configure the UPnP application for on-demand “DMZ” support. The current forwarding rules created can be viewed and cleared if required.

Home / Service Configuration / UPnP

UPnP Configuration

UPnP Enable OFF

Advertisement Interval (30~1800s)

Port

UPnP Portmap Table

Internal IP Address	Internal Port	External IP Address	External Port	Protocol	Description
--					

Apply ✓ Restart ↻

■ DMZ Setting

This menu allows user to configure the DMZ setting for CPE in router mode. Web server, Telnet/SSH and Ping Service port can be exempted from DMZ mapping if required. By enabling DMZ option will make the specified local LAN host (DMZ IP) exposed to Internet.

Home / Service Configuration / DMZ Setting

DMZ Setting

DMZ Setting

DMZ IP Address

Exclude Web Server Port

Apply ✓

■ Security Setting

This allows to configure security protection and ALG options.

Home / Service Configuration / Security Setting

Security Settings

Enable the Firewall	<input checked="" type="checkbox"/>	
Ping from WAN Filter	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Block SYN Flood	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ALG

FTP ALG	<input checked="" type="checkbox"/>	
PPTP ALG	<input checked="" type="checkbox"/>	
SIP ALG	<input checked="" type="checkbox"/>	

Apply ✓

System Information >

LTE Configuration >

Network Configuration >

WI-FI Configuration >

Service Configuration ▾

- Port Forwarding
- Packet Filtering
- UPnP
- DMZ Setting
- Security Setting**
- VoIP Configuration >
- System Maintenance >

9. VoIP Configuration

In this configuration page, the operator requires to enter the SIP operator name, account and password information if he desires to configure the VoIP networking. The register status check box must be enabled to allow device SIP registration.

The SIP register and proxy server configuration should be performed by the network operator via administration management interface. The SIP account status is displayed for operator information. When the SIP line is registered and ready, the Line LED in the front panel will be light up. If the device VoIP function is not working properly, the operator is advised to contact the network operator for assistance.

The screenshot displays the 'SIP User Account' configuration page within a web interface. The left sidebar contains a navigation menu with the following items: System Information, LTE Configuration, Network Configuration, WI-FI Configuration, Service Configuration, VoIP Configuration (selected), SIP User Account (highlighted), SIP Configuration, Number Analysis, Call Configuration, DSP Configuration, Enhanced Services, Line Features, Port Configuration, Module Management, and System Maintenance. The main content area shows the breadcrumb 'Home / VoIP Configuration / SIP User Account' and a 'User Configurations' section with the following fields: Port Status (Unregistered), Receive Port (5060), User Name, Account, and Password. An 'Apply' button with a checkmark is located at the bottom right of the configuration area.

User Configurations	
Port Status	Unregistered
Receive Port	5060
User Name	
Account	
Password	

Apply ✓

Home / VoIP Configuration / SIP Configuration

Register Configurations

Register Status OFF

Registrar Address

Registrar Receiving Port

Registrar Period (s)

Local Hostname

Use Registrar as Hostname ON

Use Registrar as Proxy ON

Keep-Alive status ON

Keep-Alive Period (s)

[Remove Binding](#) [Apply](#)

SIP Protocol Parameter Configurations

Hook Flash

Max Forwards

Max Auth

Supported 100rel

User Agent Product Lable MAC Address Version

Use Tel URL OFF

[Apply](#)

■ Number Analysis

The device is collects dial numbers from external phone or fax. Dialed digits are analyzed before being sent out to another element in a VoIP network. Dial numbers can be modified according to specific needs. Rules can be setup to modified a dial number, if it meets certain condition.

Home / VoIP Configuration / Number Analysis

Call Route Configuration

<input type="checkbox"/>	Index	Prefix	Source	MinLen	MaxLen	Type	Route Addr	ChgInd
Add + Delete x								
Apply ✓								

Number Change Configuration

<input type="checkbox"/>	Index	Type	Position	Length	Number
Add + Delete x					
Apply ✓					

■ Call

Call Configuration section defined a few behaviors when a call is outgoing or incoming.

The screenshot displays the 'Call Configuration' page in a web interface. The breadcrumb path is 'Home / VoIP Configuration / Call Configuration'. The left sidebar contains a navigation menu with the following items: System Information, LTE Configuration, Network Configuration, WI-FI Configuration, Service Configuration, VoIP Configuration (selected), SIP User Account, SIP Configuration, Number Analysis, Call Configuration (highlighted), DSP Configuration, Enhanced Services, Line Features, Port Configuration, Module Management, and System Maintenance.

The main content area is titled 'Dial Plan(DigitMap) Configuration' and includes the following settings:

- Dial Plan:** A text area containing the digit map: `*68|*XX.T|*XX.#|XX.T|XX.#|****`
- IP Dialing:** A toggle switch set to 'OFF'.

Below this is the 'Call Parameter Configuration' section with the following settings:

- Port Select Mode in Group:** Early Release Firs
- SIP Call Hold Mode:** Set SDP C address
- Send SIP Hook Flash:** yes

The 'Call Timer Configuration' section includes the following settings:

- Ringback Timer:** 120
- Ring Timer:** 125
- Busy Timer:** 40
- Offhook Warning Timer:** 60

An 'Apply' button with a checkmark is located at the bottom right of the configuration area.

■ DSP

Voice is sampled and coded into digital bit stream, before they are packetized into IP packets. The following sections discuss various codecs supported by the device.

Home / VoIP Configuration / DSP Configuration

DSP Configurations

DTMF Transfer Mode	<input type="text" value="audio-stream"/>
Echo Cancellation	<input checked="" type="checkbox"/> ON
Silence Suppression	<input type="checkbox"/> OFF
DSP Gain	<input type="text" value="0"/>
Support Codec	<input checked="" type="checkbox"/> PCMA <input checked="" type="checkbox"/> PCMU <input checked="" type="checkbox"/> G.721 <input type="checkbox"/> G.722 <input type="checkbox"/> G.723 <input checked="" type="checkbox"/> G.729
Preferred Codec	<input type="text" value="PCMA"/>
Packetization Period	<input type="text" value="20"/>
G723 Rate	<input checked="" type="radio"/> 6.3kbps encoding rate <input type="radio"/> 5.3kbps encoding rate
RFC2833 Payload	<input type="text" value="101"/>
Call Id(FSK) Type	<input type="text" value="BellCore"/>
RTP Start Port	<input type="text" value="10000"/>
Drop 2833 Event Packet	<input type="checkbox"/> OFF
Region	<input type="text" value="Default"/>

Fax Configurations

Fax Mode	<input type="text" value="T.38"/>
Max Rate	<input type="text" value="14400bps"/>
Port Offset	<input type="text" value="2"/>
Send Nat T38	<input checked="" type="checkbox"/> ON

■ Enhanced Services

The device supports a rich set of supplementary services. Click on “Enhanced Services Configuration”, the following Supplementary Service Subscription are displayed in the right frame of browser window:

Many of the enhanced services need to be provisioned with the proper activation codes to work with the soft switch. The default service codes are displayed below. Service codes are configurable.

Supplementary Service Subscription

Call Waiting
 Call Transfer
 Caller ID
 Call Forward All
 Call Forward Busy
 Call Forward No Answer
 Do Not Disturb
 Speed Dial
 Hot Line
 Block CID
 Blind Call Transfer
 Call Park
 Call Pick Up
 3WC
 Data Call
 Voice Mail

Service Codes Configuration

Call Forward All Act	*72
Call Forward All Deact	*73
Call Forward Busy Act	*90
Call Forward Busy DeAct	*91
Call Forward No Answer Act	*92
Call Forward No Answer Deact	*93
Do Not Disturb Act	*78
Do Not Disturb Deact	*79
Speed Dial Act	*74
Speed Dial Use	
Hot Line Act	*52
Hot Line Deact	*53
CW Act	*56
CW Deact	*57
CW Per Call Act	*71
CW Per Call Deact	*70
Block CID Act	*67

■ Line Features

Line Settings specify user specific parameters for supplementary services. These settings will remain even their associated features are deactivated, so that users are not required to set them next time.

System Information > Home / VoIP Configuration / Line Features

LTE Configuration >

Network Configuration >

Wi-Fi Configuration >

Service Configuration >

VoIP Configuration >

- SIP User Account
- SIP Configuration
- Number Analysis
- Call Configuration
- DSP Configuration
- Enhanced Services
- Line Features**
- Port Configuration
- Module Management

System Maintenance >

Call Forward Settings

Cfwd All Dest	<input type="text"/>
Cfwd Busy Dest	<input type="text"/>
Cfwd No Ans Dest	<input type="text"/>
Cfwd No Ans Delay (s)	<input type="text" value="20"/>

Hot Line Settings

Hot Line Dest	<input type="text"/>
Hot Line Delay (s)	<input type="text" value="4"/>

Callout Right Configuration

Control Mode	<input type="text" value="No Restrict"/>
WhiteList	<input type="text"/>
BlackList	<input type="text"/>

■ Port

Port configuration defines physical and electrical layer parameters, such as port transmit power.

Home / VoIP Configuration / Port Configuration

Port Attribute [apply to ports]

Port Status: ok no-loop

Port Gain: -3.5db/-3.5db

Port Attribute [apply to device]

Encoding Mode: a law (Modification will not take effect until system reset)

Min Hook Time: 150ms

Max Hook Time: 500ms

Port Application Attribute

Port Application: Fax Polarity Reverse

Private Number

Private Number:

Apply

■ Module Management

The device need not be reset if changes are made are at application level, e.g. Proxy IP address change. However, the media protocol can be restarted to effect changes.

Home / VoIP Configuration / Module Management

Restart SIP Protocol

Protocol Type: SIP

Protocol Status: Running

Protocol Restart

Reset VoIP Setting

Load VoIP Default Setting: **Load Default**

System Information >

LTE Configuration >

Network Configuration >

Wi-Fi Configuration >

Service Configuration >

VoIP Configuration >

- SIP User Account
- SIP Configuration
- Number Analysis
- Call Configuration
- DSP Configuration
- Enhanced Services
- Line Features
- Port Configuration
- Module Management**

System Maintenance >

10. System Maintenance

■ General Setting

The menu allows user to configure the device management control and language setting.

Home / System Maintenance / General Setting

Language Settings

Select Language: English

Apply ✓

Device Management Control

WEB Admin Management: Enable All

Specified Remote IP Address: []

Enable Debug Mode: OFF

Allow User SIP Account Configuration: ON

Allow User SIP Server Configuration: OFF

Allow HTTP Login from WAN: ON

Web Server Port: 80

HTTPs Enable: OFF

HTTPs Port for Remote Access: 443

Auto-Logout Timeout: ON

Time Setting: 20

Apply ✓

■ General Setting

The menu allows user to configure the WEB GUI login password.

The screenshot shows a web interface for configuring system settings. On the left is a navigation menu with the following items: System Information, LTE Configuration, Network Configuration, Wi-Fi Configuration, Service Configuration, VoIP Configuration, System Maintenance (expanded), General Setting, Account Setting, TR069, NTP Setting, Auto Update, Maintenance, and Diagnosis. The main content area is titled 'Administrator Settings' and contains four input fields: 'User Account' (with the value 'admin'), 'Old Password', 'New Password', and 'Confirm Password'. An 'Apply' button is located at the bottom right of the settings area. The breadcrumb path at the top reads 'Home / System Maintenance / Account Setting'.

■ TR069

The menu allows user to configure the necessary setting for TR069 management of the CPE device.

Home / System Maintenance / TR069

TR069 Configuration

TR069 Enable	<input type="checkbox"/> OFF
ACS URL	<input type="text"/>
ACS Username	<input type="text"/>
ACS Password	<input type="password"/>
Periodic Inform Enable	<input checked="" type="checkbox"/> ON
Periodic Inform Interval	<input type="text" value="90"/>
Periodic Inform Time	<input type="text" value="2001-01-01T00:00:00"/> <small>(e.g. 2000-01-01T01:01:01)</small>
CPE Username	<input type="text" value="admin"/>
CPE Password	<input type="password" value="*****"/>

Load ACS Certificate

ACS Certificate Status	N / A
Size (Byte)	N / A
Certificate Path	<input type="button" value="Choose File"/> No file chosen

■ NTP Setting

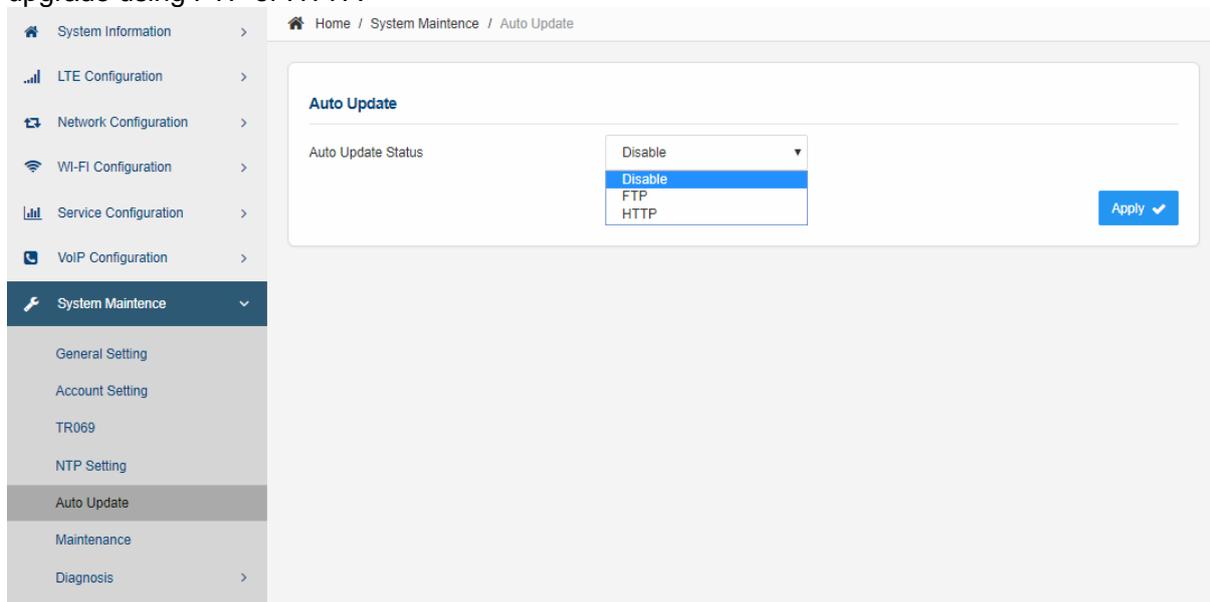
The menu allows user to configure the NTP setting for the CPE device.

The screenshot shows a web interface for configuring NTP settings. On the left is a navigation menu with categories: System Information, LTE Configuration, Network Configuration, Wi-Fi Configuration, Service Configuration, VoIP Configuration, and System Maintenance. Under System Maintenance, there are sub-items: General Setting, Account Setting, TR069, NTP Setting (highlighted), Auto Update, Maintenance, and Diagnosis. The main content area has a breadcrumb trail: Home / System Maintenance / NTP Setting. The NTP Setting form includes: NTP Client (ON), Current Time (Tue Jul 31 21:33:41) with a Sync with host button, Time Zone ((UTC+08:00) China Coast), NTP Server (time.nist.gov), and NTP synchronization(Hours) (12). An Apply button is at the bottom right.

Field	Value
NTP Client	ON
Current Time	Tue Jul 31 21:33:41
Time Zone	(UTC+08:00) China Coast
NTP Server	time.nist.gov
NTP synchronization(Hours)	12

■ Auto Update

The user can select the Auto Update device's firmware. This menu can configure the remote upgrade using FTP or HTTP.



The screenshot shows a web interface for configuring the Auto Update feature. On the left is a navigation menu with the following items: System Information, LTE Configuration, Network Configuration, Wi-Fi Configuration, Service Configuration, VoIP Configuration, System Maintenance (selected), General Setting, Account Setting, TR069, NTP Setting, Auto Update (highlighted), Maintenance, and Diagnosis. The main content area has a breadcrumb trail: Home / System Maintenance / Auto Update. The title is "Auto Update". Below the title, there is a label "Auto Update Status" and a dropdown menu. The dropdown menu is open, showing three options: "Disable" (selected), "FTP", and "HTTP". To the right of the dropdown is a blue "Apply" button with a checkmark icon.

■ Maintenance

This menu allows user to perform firmware upgrade via WEG GUI with option to reset to factory setting. It can also configure the remote upgrade using FTP, TFTP or HTTP.

The screenshot displays the 'Maintenance' section of the WEG GUI. The left sidebar contains a navigation menu with 'System Maintenance' selected. The main content area is titled 'Home / System Maintenance / Maintenance' and features several functional sections:

- Firmware Upgrade over HTTP:** Includes a 'Location' field with a 'Choose File' button and 'No file chosen' text, a 'Reset to Factory Defaults' checkbox, and an 'Upgrade' button.
- Firmware Rollback:** Shows 'Current Firmware Version' and 'Rollback Firmware Version' both set to 'V2.0.0B716', with a 'Rollback' button.
- Configuration File Management:** Includes a 'Location' field with a 'Choose File' button and 'No file chosen' text, an 'Import & Overwrite SIP Account' checkbox, and 'Apply', 'Import', and 'Export' buttons.
- Restart the Device:** Features a 'Restart the Device' button.
- Load Factory Default:** Features a 'Load Factory Default' button.

■ Iperf

This menu allows user to configure iPerf testing using WEB GUI interface. Both TCP and UDP tests can be supported. Remote iPerf server is required to conduct the tests.

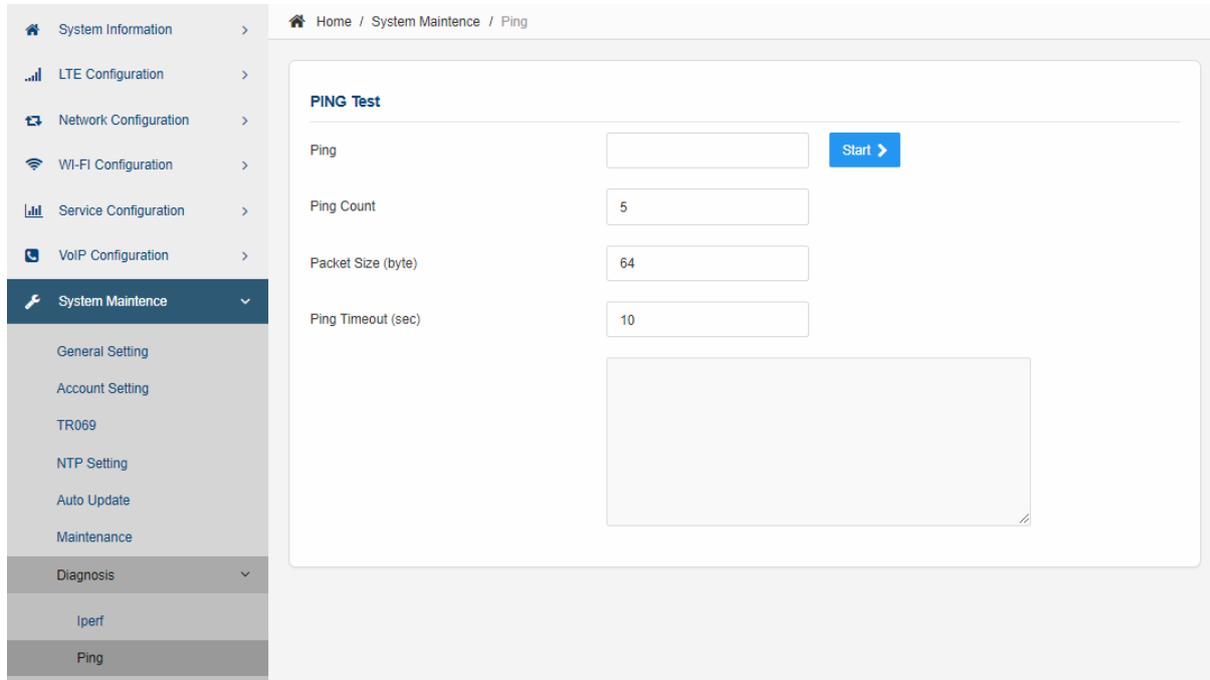
The screenshot displays the 'Iperf Settings' configuration page. The left sidebar contains a navigation menu with 'System Maintenance' selected, and sub-items like 'General Setting', 'Account Setting', 'TR069', 'NTP Setting', 'Auto Update', 'Maintenance', 'Diagnosis', 'Iperf', and 'Ping'. The main content area has a breadcrumb 'Home / System Maintenance / Iperf'. The 'Iperf Settings' section includes the following fields:

- Client/Server: Client (dropdown)
- Server Address: (empty text input)
- Port: 5001 (text input)
- Measurement Time (sec.): 20 (text input)
- Protocol Type: TCP (dropdown)
- Parallel Client Threads: 1 (text input)

At the bottom right of the settings section are 'Start' and 'Stop' buttons. Below this is a 'Result' section with a large empty text area and a 'Clear' button at the bottom right.

■ Ping

This menu allows user to perform PING tests using WEB GUI interface. Both IPv4 and IPv6 can be supported.



The screenshot shows a web interface for performing a Ping test. On the left is a navigation menu with the following items: System Information, LTE Configuration, Network Configuration, Wi-Fi Configuration, Service Configuration, VoIP Configuration, System Maintenance (selected), General Setting, Account Setting, TR069, NTP Setting, Auto Update, Maintenance, Diagnosis (expanded), Iperf, and Ping. The main content area is titled "PING Test" and contains the following fields and controls:

- Ping:** An empty text input field for the target IP address, followed by a blue "Start" button with a right-pointing arrow.
- Ping Count:** A text input field containing the number "5".
- Packet Size (byte):** A text input field containing the number "64".
- Ping Timeout (sec):** A text input field containing the number "10".
- Results:** A large, empty rectangular box intended for displaying the test results.

11. FAQ and Troubleshooting

1) **My PC cannot connect to the CPE.**

- Re-plug the PC Ethernet cable and check if the PC LAN connection is up or showing activity.
- Check if the SYS LED is on. If it is not, check the power cord and make sure it is connected properly. Also verify that the AC power supply is available.
- If the PC LAN shows no activity and CPE SYS LED is off but the power cord and ETH cable are connected properly and there is AC supply, then it is likely the power adapter is damaged. Please contact distributor to obtain replacement part.

2) **My PC cannot acquire IP from the CPE.**

- First check if the Network card is up and working properly. Then check the PC Network card configuration and make sure the DHCP is enabled.
- To release and renew the correct IP address, please unplug the Ethernet cable from PC and wait for about 5 seconds, then connect it again.
- If the problem persists, please contact the operator or distributor for further diagnoses.

3) **My CPE networking is not working properly.**

- You may want to check if the LTE connection is up and running properly. You can do this by login the WEB GUI and check the Interface Info page.
- You may want to perform a factory reset and see if the problem is being corrected. You can do this by log into the WEB GUI using “**admin123**” password and perform restore the unit to default factory setting.
- If the problem cannot be corrected by factory reset, please contact the operator or distributor for further diagnoses.

4) **I forget the login password and like to reset the unit to factory default.**

- You may press and hold the RESET button in the back of the unit for 5 seconds. The unit will reset and reboot. Please wait until the unit finishes rebooting to regain access the device WEB GUI using default login credentials.
- After device reset, if the device cannot connect to the network, please contact the operator or distributor for further support. Additional device provision may be required.