



YX Series MOIP User Manual V5.1.5

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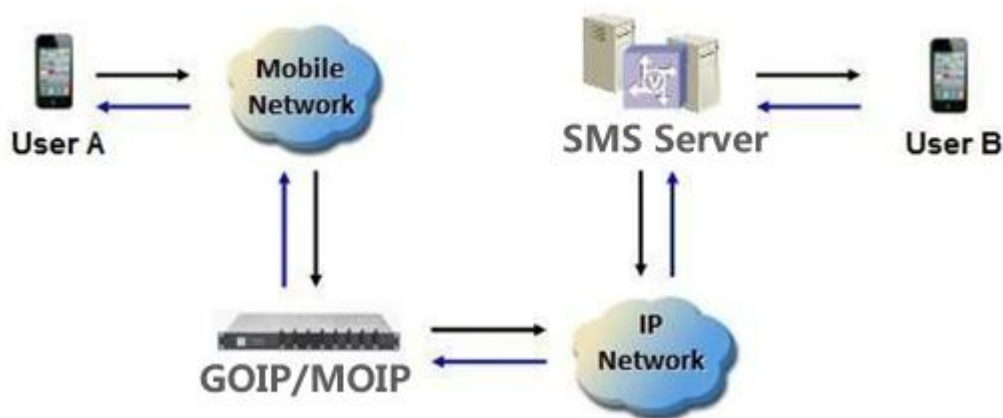
❖ 1 Introduction

1.1 Overview

A MOIP Gateway (MOIP Gateway) is a device which reduces costs when SMS from . It enables direct routing between IP and mobile networks.

MOIP Gateway is now used more and more for telephone carriers to land their IP SMS to mobile network. In those areas where fixed line services are unavailable or much more expensive than the mobile cost, MOIP Gateway is an irreplaceable alternative.

The following figure shows a basic topology of MOIP Gateway usage.



1.2 Glossary

- MoIP: Modem over Internet Protocol.
- SMS: Short Message Service
- MMS: Multimedia Messaging Service
- DTMF: Dual Tone Multiple Frequency.
- IMEI: International Mobile Equipment Identity (with 15 digits).
- PDD: Post Dial Delay.
- LCR: Least Cost Routing.
- USSD: Unstructured Supplementary Service Data.
- GSM: Global System Communications.
- CDMA: Code Division Multiple Access.
- WCDMA: Wideband Code Division Multiple Access.
- CDMA: Code Division Multiple Access
- LTE(FDD-LTE TDD-LTE): Long Term Evolution

❖ 2 Equipment Information

2.1 Product Brief

YX series MOIP Gateway is a multi-functional and high performance product, which is designed with advanced embedded technology. YX series is able to process traditional SMS service and internet data service.

YX series MOIP Gateway please check the following table about the difference:

Model Number	Channel	Sim capacity in each channel	Total sim capacity	Frequency(optional)
YX MOIP 8-8	8	1	8	GSM / CDMA / WCDMA / 4G(LTE)
YX MOIP 8-32	8	4	32	GSM / CDMA / WCDMA / 4G(LTE)
YX MOIP 16-16	16	1	16	GSM / CDMA / WCDMA / 4G(LTE)
YX MOIP 16-64	16	4	64	GSM / CDMA / WCDMA / 4G(LTE)
YX MOIP 16-128	16	8	128	GSM / WCDMA / 4G(LTE)
YX MOIP 16-256	16	16	256	GSM / 4G(LTE)
YX MOIP 16-512	16	32	512	GSM / 4G(LTE)
YX MOIP 32-32	32	1	32	GSM / WCDMA / 4G(LTE)
YX MOIP 32-128	32	4	128	GSM / WCDMA / 4G(LTE)
YX MOIP 32-256	32	8	256	GSM / WCDMA / 4G(LTE)
YX MOIP 32-512	32	16	512	GSM / WCDMA / 4G(LTE)
YX MOIP 64-64	64	1	64	GSM / WCDMA / 4G(LTE)
YX MOIP 64-256	64	4	256	GSM / WCDMA / 4G(LTE)
YX MOIP 64-512	64	8	512	GSM / WCDMA / 4G(LTE)

2.2 Appearance





- 8/16/32/64 Antennas
- 1 USB Serial Port (Baudrate 115200)
- 1 Network Interface (RJ45)
- 1 Power Interface (DC 12V 3A/5A/7.5A/8A)
- 1 Power light
- 1 Reset Button
- 8/16/32/64/128/256/512 SIM card slots
- 8/16/32/64/128/256/512 LED lights

2.3 Special Features

- Support SIM Bank
- VPN(pptp)
- SIM Card Rotating
 - ◆ SIM card check and switch rules:
 - ◇ SIM Online Time Checking
 - ◇ Accumulated SMS Count Checking
 - ◇ Accumulated Failed SMS Count Checking
 - ◇ Consecutive Failed SMS Count Checking
- SIM intelligent switching(By switching rules)
- ERMS(Easement Remote Management System)
- SMS Server: EIMS , IMFS
- SMS protocol: SMPP3.4 , HTTP API
- Port Inter-Calling
- SMS Prefix Setting
- USSD Send (Auto/Manual)
- Auto Balance check(need set by USSD/SMS)
- SIM card Number check (need set by USSD/SMS)
- Web Browser: Firefox/Chrome /IE/Opera

2.4 Specification

Number of Channels	8 channels 8/32 SIM slots 16 channels 16/64/128/256/512 SIM slots 32 channels 32/128/256/512 SIM slots 64 channels 64/256/512 SIM slots	
Frequency	2G/3G/4G(Optional): YX MOIP Optional List (Real-time)	
Network Protocols	DHCP/PPPoE/VPN(pptp) NTP Telnet/HTTP/FTP/TFTP	
SMS protocol	SMPP3.4 , HTTP API , YX	
SMS Server	EIMS , IMFS	
SMS Capability	SMS Codecs	PDU, TXT , IS08859-1 (Support Auto)
	SMS send speed	About 720P/Port/Hour(Related to network conditions)
	SMPP Receive Codecs	GSM BIT7,IA5,LARIN-1,UCS2,UTF-8
	Other characteristics	Send Interval, Delivery report, Send statistics, Receive statistics, SMS Send Limit(day/month/total), SMPP Send, SMPP Server,
	MMS/Sender ID change	Not support
Number of Ports	1 WAN 10/100Base-T Ethernet(RJ-45 connector) 1 Console(USB)	
LED	1 Power and 4/8/16/32/64groups of card online and running status indicator	
Power Supply	100-240VAC, 50 - 60 Hz IN, 12VDC 3A/5A/7.5A/8A Out	
Operating	Operating temperature: 0 - 50°C	
Warranty	12 Months	

2.5 Mobile Features

- SMS Send, Receive and Forward(GSM/SIP/HTTP/email)
- SMS Inbox
- AT Command , USSD
- SMS Format: PDU/TXT
- PIN Code Management
- Carrier Selection
- Caller ID Hidden(need SIM Card support)

2.6 Maintenance and Management

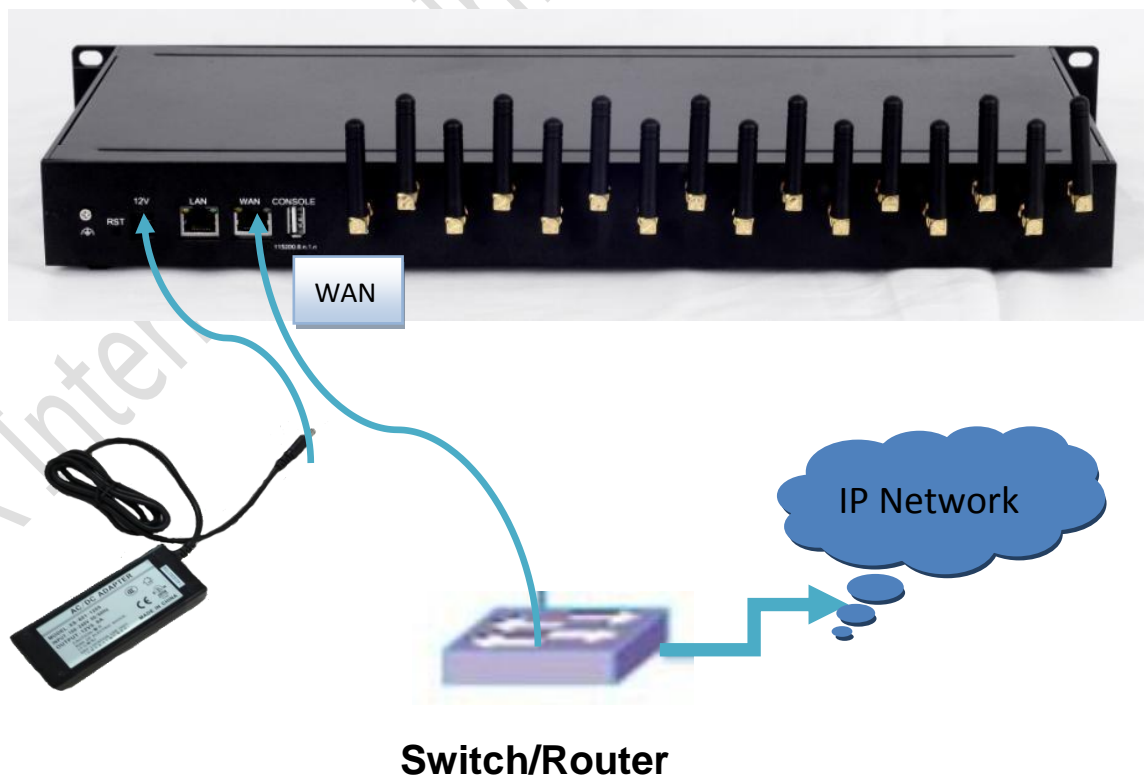
- Multi-language Interface
- USB Serial COM
- Configuration Backup and Restore
- Support HTTP/TFTP Upgrade
- SMS statistics: Successful statistics, failure statistics, continuous failure statistics, success rate
- WEB Remote Management System
- SMPP3.4 support
- HTTP API support

❖ 3 Equipment Installation

This chapter describes how to install a new MOIP Gateway to a physical network environment, how to initialize it and start it in a proper way.

3.1 Network Setup

Network is a prerequisite to install MOIP Gateway. The following figure shows the topology of Network with a MOIP Gateway connected.(No LAN port)



3.2 Equipment IP Address

The default IP of MOIP Gateway WAN port is 192.168.1.10, while the default LAN port IP is 10.10.10.1(The Version not up the LAN port).

3.3 Equipment Connection

Follow the steps below to install the MOIP Gateway to Network.

- 1) Fix the antenna to the MOIP Gateway. (Optional)
- 2) Insert SIM card(s) to slots.
- 3) Connect an Ethernet Cable to the WAN port of MOIP Gateway. The other end of the Ethernet Cable should be connected to Network port of route or switch.
- 4) Connect an Ethernet Cable to the Network port of MOIP Gateway. The other end of the Ethernet Cable should be connected to PC or other network device. (Optional)
- 5) Plug in the MOIP Gateway.

3.4 LED Indicators

There are a set of LED lights in the front of MOIP Gateway. Lights will be on or glittering when the MOIP Gateway is power on and running. The following table describes various meanings of status corresponding to LED lights in different display color.

Power	It indicates whether the system is running or not.
Calling	That one Card slot light to keep bright
Lock card	That one Card slot light flashing(0.5s/times)
No balance / SMS Control (Meet these conditions when the lock card)	That one Card slot light flashing(2s/times)
The device did not start successfully	All slot lights keep bright

❖ 4 Web Settings

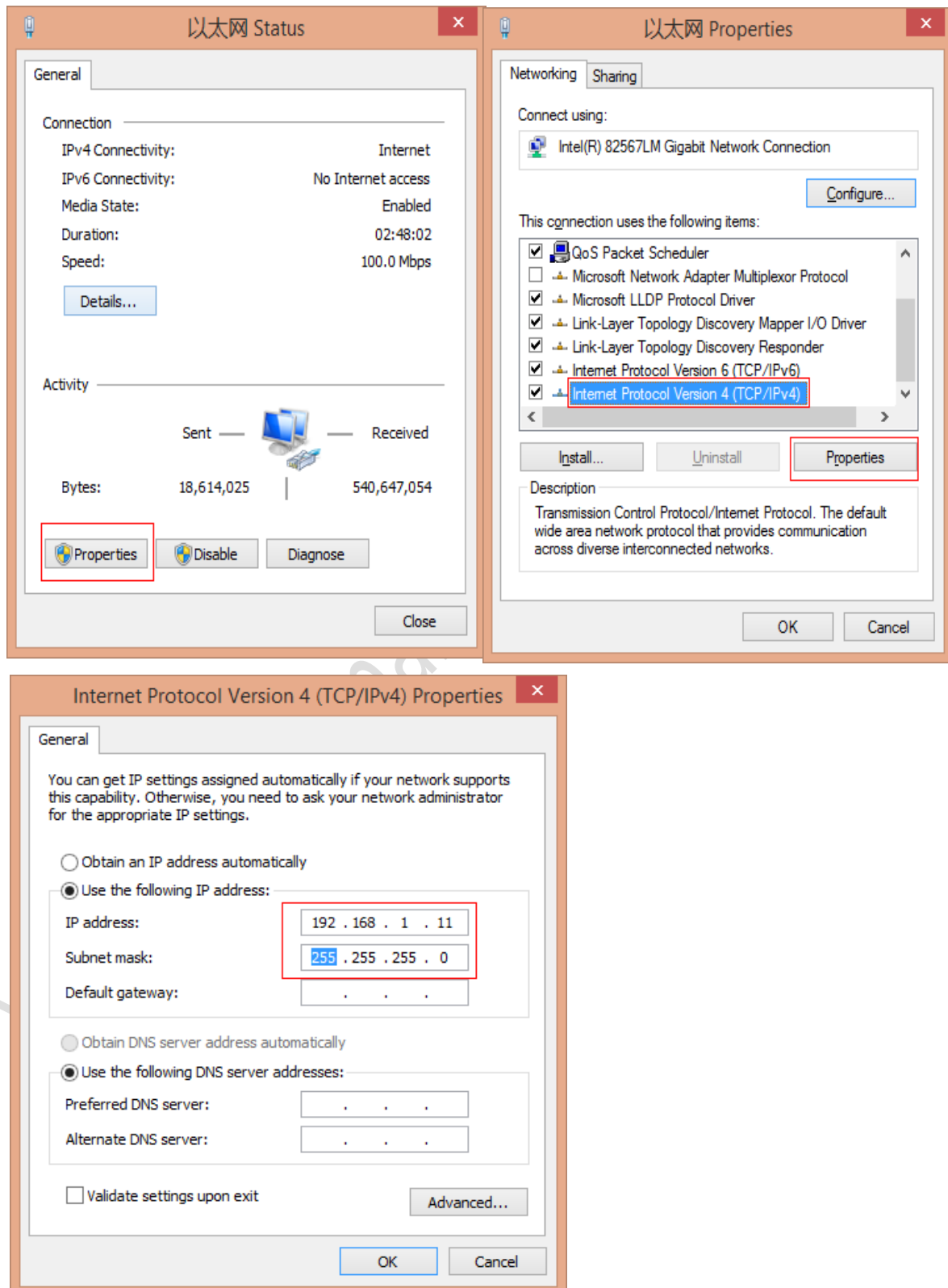
This chapter describes how to set up MOIP Gateway through Web Page. There is a built-in web server which can be accessed at URL: http://GATEWAY_IP/, while GATEWAY_IP is the WAN IP address of the MOIP Gateway, such as 192.168.1.10.

As an example, the following introduction will base on the MOIP Gateway with WAN IP 192.168.1.10.

4.1 Login

First, connect a computer to the same LAN with MOIP, add the MOIP IP segment in the computer.

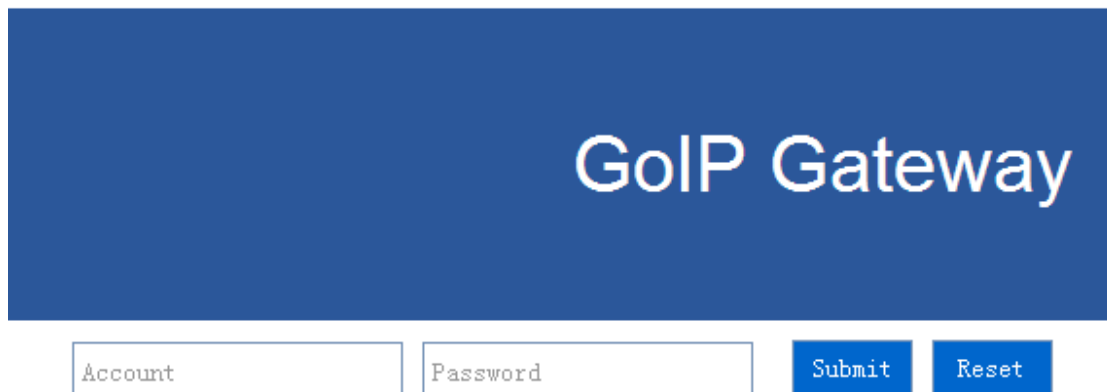
If your computer's IP address is not 192.168.1. XXX, how to change:



Save it.

Open web browser and access URL <http://192.168.1.10>. The default login page will be displayed as following.

CN | EN

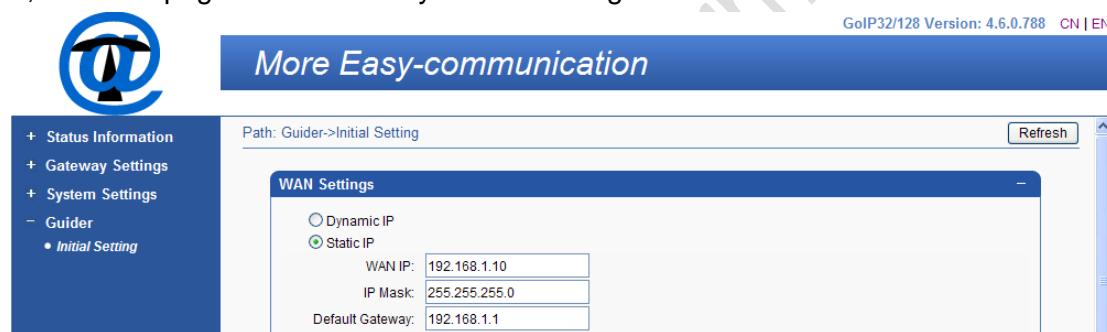


The login page for GoIP Gateway features a blue header with the text "GoIP Gateway". Below the header, there are two input fields labeled "Account" and "Password", followed by "Submit" and "Reset" buttons.

The default login account and password are:

Account	root
Password	root

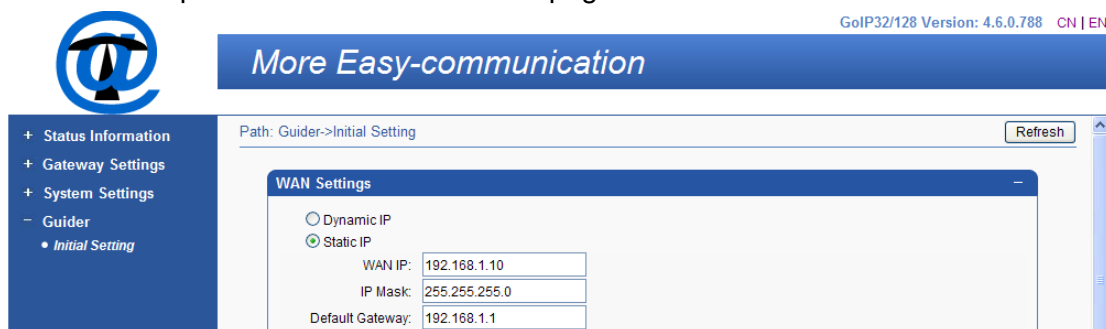
It is recommended to use IE/FireFox/Chrome to access the web pages. After successfully logged in, the main page to set Gateway is as following:



The main settings page for GoIP Gateway. It includes a logo on the left, a navigation menu with options like "Status Information", "Gateway Settings", "System Settings", "Guider", and "Initial Setting". The main content area shows "WAN Settings" with options for "Dynamic IP" and "Static IP". The "Static IP" option is selected, and the fields for "WAN IP", "IP Mask", and "Default Gateway" are filled with "192.168.1.10", "255.255.255.0", and "192.168.1.1" respectively. A "Refresh" button is also present.

❖ 5 Guider

Guider will be described in this paragraph. The most frequently modified parameters and most of the individual parameters are listed in this page.



WAN port is to connect to switch or route then you can use PC that on the same LAN network to login. There's three types of wan connect.

Static IP: You can set WAN IP, IP Mask, Default Gateway and DNS Server of WAN port to connect the Internet.

Dynamic IP: You can get IP address, IP Mask, Default Gateway and DNS Server dynamically from your DHCP server.

PPPoE: In this mode, you can use MOIP device to dial-up network. You can set User Name and Password which you get from your ISP. And you also can set MTU and Service Name.

❖ 6 Status Information

6.1 Call Status

6.1.1 Call Status

The screenshot below shows the live SIM status.

Path: Status Information->Call Status Refresh

Port	SIM	Call Status	Duration	RlsRsn	Balance	SIM Led	Provider	Net	Sig	Description
1	B	OK	00:00:03	0;0	28.60		502152	4G		yx- >0063936730165 3

The status columns are specified as following:

- Port: The physical port sequence from 1 to 8/16/32/64.
- SIM: SIM Card slot number in use.
- Call State: Specify the call status.
- Duration: Specify the call duration.
- RlsRsn: Hang up the reason code (On the left is the Mobile hang-up code, on the right is the VOIP hang-up code)
- Balance: Specify the current balance of the card in this port.
- SIM Led: shows the MOIP Gateway port LED status. Different LED
- Provider: The mobile provider that system detects.
- Net: The current mobile network model (2G/3G/4G), need device support
- Signal Intensity: Specify the mobile signal intensity.
- ASR: Shows the port of ASR statistics.
- ACD: Shows the port of ACD statistics.
- Description: Specify the card dialing number status.
- Clear Data: Clear ASR and ACD data, restart statistics.

Note:

LED A/B/C/D(.01-.16) displays in accordance with the lights on the front board of MOIP Gateway. Port 1 to 4/8/16/32/64 relate to the physical port of MOIP Gateway. The following table shows the relationship between LED color and port status. (When registering a card, the description of the card may not be displayed in real time. Please refer to the information displayed on the icon)

Note:	Card Detected	Card Inserted	Registering Card	Register OK	Calling
	No Balance	Register Failed	Locked	Locked By Operator	Locked By User

6.1.2 Call Statistics

The screenshot below shows the call statistics information for analysis.

Call Statistics Clear Data									
Port	Calls	Alerted	Connected	Con Fails	NC	PDD	ACD	ASR	Tot CallDur
Total	1332	0	291	0	4/222		00:02:00	21%	09:40:34
1A	201	0	51	0	1/42		00:01:54	25%	01:37:08
1B	146	0	23	13	0/27		00:02:19	15%	00:53:24

The status columns are specified as following:

- Port : Shows the status of each SIM card slot.
- Calls: Specify the total calls made out from this port since the last start up of system.
- Alerted: Specify the total number of responded alerting message for all the calls made.
- Connected: Specify the total number of answer from destination for all the calls made.
- Consecutive Fails: Specify the consecutive fail calls.
- No Carriers(NC): The carrier did not respond to the outgoing statistics
- PDD: Specify the average duration to receive the response of alerting message.
- ACD ASR : Display ACD and ASR for each SIM card slot
- Tot CallDur: The port total calls duration used out from this port since the last start up of system.
- Clear Data: Clear all data, restart statistics.

A total summary is displayed at the bottom of the table.

6.2 Device Status

The screenshot below shows the SIP and Module status.

SIP Status			
PortNo.	Registration Status	Module Status	IMEI
1	Ready	Yes	865328020699475
2		Yes	865328020694914
3		Yes	865328020695382
4		Yes	865328020694575
5		Yes	865328020731336
6		Yes	865328020729645
7		Yes	865328020725965
8		Yes	865328020730353
9		Yes	865328020693411
10		Yes	865328020700661

The status columns are specified as following:

- Port No: The physical port sequence from 1 to 4/8/16/32/64.
- Registration Status: Shows the port registration to SIP server information status.

- Module Status: Shows the port Module use status(Yes/No). If NO is displayed, please try restarting. If still, Please contact YX NOC
- IMEI: Specify the port current using of IMEI.

6.3 System Status

The screenshot below shows the system status. It includes WAN status, LAN(please ignore) and others. The reported information can help you get the system status detail in a fast, simple way.

WAN Status

Connection Mode: Static

IP: 192.168.1.10

DNS Server IP: 192.168.1.1

Connection Status: Connected

Default Gateway 192.168.1.1

MAC Address: 00-32-f1-00-57-f9

LAN Status

IP: 10.10.10.1

DHCP Server Status: Enabled

IP Mask: 255.255.255.0

Other Status

Current Time: 2017-12-02 16:48:07 +8:00

Hardware Version: 5.2.0.2.5

Software Version: 516-476-829-041-100-070

Running Time: 6 Hr 18 Min 27 Sec

Firmware Version: 0.3.7

Released Time: Jan 20 2017 11:36:09 r3830

6.4 Traffic Statistics

This is used to count the internet traffic of the card in use

Traffic Statistics

Data List

Show Cur

Show All

Clear Data

<input type="checkbox"/>	Port	Total Flow	Day flow	Last 24 hour traffic	Last hour traffic	Recent Internet traffic	Last visit URL
<input type="checkbox"/>	1B	0	0	0	0	0	
<input type="checkbox"/>	2A	0	0	0	0	0	
<input type="checkbox"/>	3A	0	0	0	0	0	


6.5 Media Statistics

Here statistics IP network media and traffic data situation

Media Statistics							
Data List							
				Show Cur	Show All	Clear Data	
<input type="checkbox"/> Port	Codec	Remote IP:Port	Local Port	Tx pkts/Bytes	Tx Rate/Bytes	Rx pkts/Bytes	Rx Rate/Bytes
<input type="checkbox"/> 1B	G729	72.11.140.170:60028	16868	1209 / 89466	49 / 3.5KB/s	1164 / 86136	51 / 3.7KB/s
<input type="checkbox"/> 2A		0.0.0.0:0	0	0 / 0	0 / 0B/s	0 / 0	0 / 0B/s
<input type="checkbox"/> 3A		0.0.0.0:0	0	0 / 0	0 / 0B/s	0 / 0	0 / 0B/s
<input type="checkbox"/> 4C	G729	72.11.140.170:60100	16874	1184 / 87520	50 / 3.6KB/s	1165 / 86210	49 / 3.5KB/s

6.6 SMS Statistics

Here Statistics SMS send and receive, send failure and success of the situation

SMS Statistics									
Data List						<input type="button" value="Show Cur"/>	<input type="button" value="Show All"/>	<input type="button" value="Clear Data"/>	
<input type="checkbox"/>	Port	SIM Status	Received	Sent	Sent OK	Send Failed	Con. Failed	Sending	Success Rate
<input type="checkbox"/>	Total		73	76	55	21	0	0	72.37%
<input type="checkbox"/>	1B		2	3	1	2	0	0	33.33%
<input type="checkbox"/>	2A								

6.7 InterCall Statistics

Path: Status Information->InterCall Statistics

Refresh

Inter-Calling Statistics									
Port	State	Duration	Inc. Calls	Out. Calls	Success	Failed	Rcvd SMS	Sent SMS	Descriptions
1B	IDLE		0	0	0	0	0	0	
2A	IDLE		0	0	0	0	0	0	
3A	IDLE		0	0	0	0	0	0	

The status columns are specified as following:

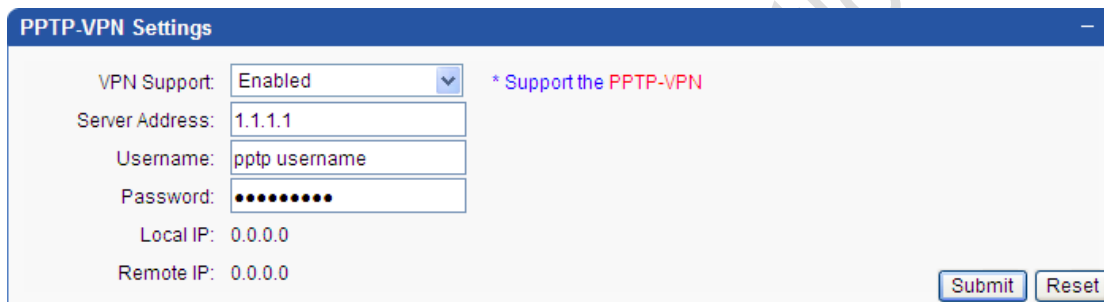
- Port No: The physical port sequence from 1 to 8/16/32/64.
- State: Specify the call status.

- Duration: Specify the call duration.
- Inc calls: Specify the total incoming calls since the last start up of inter calling system.
- Out Calls: Specify the total outgoing calls since the last start up of the inter calling system.
- Success: The number of successes in Inter-Calling
- Failed: The number of failed in Inter-Calling
- Rcvd SMS: Specify the total received SMSs since the last start up of the system.
- Sent SMS: Specify the total sent SMSs since the last start up of the system.
- Descriptions: Specify the card status.

❖ 7 Gateway Settings

7.1 Network Settings

The screenshot below shows the operation mode to set VPN settings, and the protocol of vpn is pptp.



The screenshot shows a window titled "PPTP-VPN Settings". It contains the following fields and controls:

- VPN Support:** A dropdown menu set to "Enabled". To its right is a red asterisk and the text "* Support the PPTP-VPN".
- Server Address:** A text input field containing "1.1.1.1".
- Username:** A text input field containing "pptp username".
- Password:** A text input field with masked characters (dots).
- Local IP:** A text input field containing "0.0.0.0".
- Remote IP:** A text input field containing "0.0.0.0".
- At the bottom right are two buttons: "Submit" and "Reset".

Fields are specified as following:

- VPN Support: Whether support VPN or not.
- Server Address: Specify the VPN server address.
- Username: Specify the username of VPN.
- Password: Specify the password of VPN.
- Local IP: The VPN client ip.
- Remote IP: The VPN remote ip



The screenshot shows a window titled "Network Management Settings". It contains the following fields and controls:

- Web Port:** A text input field containing "80".
- Telnet Port:** A text input field containing "23".
- At the bottom right is a button: "Submit".

The default port of web server is 80. The field Web Port is used to set another different port for web server. For example, if field Web Port is set to 8080 and wan IP is 192.168.1.10, the web pages then should be accessed through URL: http://192.168.1.10:8080 from this computer.

The field Telnet Port is used to change the default port of telnet service.

7.2 SIP Setting

Path: Gateway Settings->SIP Setting Refresh

Advanced Settings

Forbid GSM Call ⓘ: ☐ Enabled * excluding white list numbers

GSM Auto Answer ⓘ: ☐ Enable

Auto Answer Time: * Secs

Submit

The screenshot below shows the operation mode to set application feature:

The fields are specified as following:

- Forbid GSM Call: Specify whether need to prevent the GSM incoming call. If set to enable, any of the incoming calls whose callerid is not in the white list specified in White Number List will be prevented.
- GSM Call AutoAnswer: Specify whether need to auto-answer the call which is from GSM. If set to Enable, AutoAnswer Time can be used to specify the delay to automatically answer the incoming GSM call.

7.3 Port Setting

7.3.1 USSD Operations

The screenshot below shows the operation mode of USSD operation to MOIP Gateway.

USSD Operations

Please Select Port: ☐ All

☐ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08
☐ 09 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16
☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 23 ☐ 24
☐ 25 ☐ 26 ☐ 27 ☐ 28 ☐ 29 ☐ 30 ☐ 31 ☐ 32

AT Command:
 USSD Command:
 Time Interval(min):
 Manually Call:

Port	Status	Content	Operation
1A		[10-04 00:21:19] USSD is sent, please wait ...	
1B			
1C			
1D			
2A		[10-04 00:21:19] USSD is sent, please wait ...	
2B			
2C			
2D			
3A		[10-04 00:21:19] USSD is sent, please wait ...	
3B			

Fields are specified as following:

- Select port: Choose some or all port to execute AT or USSD command.
- At Command: You can enter AT command then execute to the port which you select.
- USSD Command: Enter USSD query command.
- Time Interval: Query balance regularly.
- Manually Call: Manually input a number, let the sim card mark a call

7.3.2 Base Station

The screenshot below shows the operation mode to set Basic Settings of Port settings

Basic Config

Network Type: Auto

Lock The Operator

Enable

Unnormal SIM Supp:

Enable

Submit

It's for choosing the frequency(Auto/2G/3G/4G) band and whether lock the operator(Please fill in the carrier code), generally, we don't enable the lock the operator. When the gateway can't detect the SIM and you sure the install SIM is right, we need to enable Unnormal SIM Support.

7.3.3 Hardware properties

The screenshot below shows the operation mode to set Hardware properties.

Hardware Properties

PortNo.	Type	Disable	Bind SIM Card	InputVol	OutputVol	Balance	Operations
1	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
2	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
3	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
4	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
5	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
6	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
7	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
8	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
9	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
10	GSM	<input type="checkbox"/>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D	0	12	0.00	Restart More>>
Hotline:		Unconditional Forward:					
Busy Forward:		NoAnswer Forward:					

The columns are specified as following:

- Port No: The MOIP Gateway mobile port. Each port contains one or four card slots. Port No starts from 1 to 64.
- Type: Values are GSM/CDMA/WCDMA/4G(LTE). (According to your module.)
- Disable: Specify whether enable or disable this port.
- Bind SIM Card: The SIM card that not bind will be locked by gateway.
- Input Volume: Specify the input voice volume of this port.
- Output Volume: Specify the output voice volume of this port.
- Balance: Shows the current balance of sim card
- Operations:
 - ◆ Restart: Restart the module
 - ◆ More:
 - ✧ Hot-line: Specify a sip phone on the softswitch to pick up the incoming calls
 - ✧ Unconditional Forward/ No Answer Forward Number/ Busy Forward: These parameters are designed to be used with a third party system.

7.4 Basic Station(Only 2G)

7.4.1 Basic Settings

The screenshot below shows the operation mode to set globally for base settings.

Max Channels:	4	
Lowest Valid Signal:	-90	dbm
Switch Period:	60	Minutes
Base Balancing:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	
Submit		

Fields are specified as following:

- Max Channels: Specify the max base stations
- Lowest Valid Signal: Specify the lowest valid signal
- Switch period: Specify the period of switching base station
- Base Balancing: Specify whether enable base balancing, we suggest disable it.

7.4.2 Base stations Settings/Operations

The screenshot below shows the operation mode to set base stations settings and operations

Port No	Base Selection	Base Station	White List	Black List	Operations
1	Auto	642			Refresh
2	Auto	122			Refresh
3	Poll	111			Refresh
4	642(-80dbm)	122			Refresh
5	122(-81dbm)	0			Refresh
6	111(-86dbm)	0			Refresh
7	637(-87dbm)	0			Refresh
8	644(-90dbm)	0			Refresh

- Port No: The MOIP Gateway mobile port. Each port contains one or four card slots. Port No. starts from 1 to 4/8/16/32/64.
- Base Selection: the default base selection mode is auto which makes the devices to choose mobile base automatically, if you want to switch base station periodically, please select Poll, and you can set the switch period.
- Base Station: The current using of base station.
- White List: Specify the white list of base station, can be multiple, use a comma.
- Black List: Specify the black list of the base station, can be multiple, use a comma.
- Operations: When click the refresh button will change a new base station.

7.5 IMEI Setting

Specify IMEI Prefix: The screenshot below shows the operation mode to set IMEI for each card inserted in MOIP Gateway SIM slot.

☒ Specify IMEI Prefix ☐ Customize Range ☐ Get IMEI From Server

IMEI Switching

<input checked="" type="checkbox"/> Enable	Continuous call failure:	<input type="text" value="20"/>
<input type="checkbox"/> Enable	Online Time(Min):	<input type="text" value="0"/>
<input type="checkbox"/> Enable	Calls Num:	<input type="text" value="0"/>
<input type="checkbox"/> Enable	Talks Num:	<input type="text" value="0"/>
<input type="checkbox"/> Enable	Call dur. Value(Min):	<input type="text" value="0"/>
	Call dur. Prd(Sec):	<input type="text" value="60"/>

Port IMEI

Port	IMEI	A	B	C	D
1	864460031218614	86446003121	86446003121	86446003121	86446003121
2	864460031218531	86446003121	86446003121	86446003121	86446003121
3	864460031218143	86446003121	86446003121	86446003121	86446003121

IMEI Switching: IMEI switching conditions can be set here, you can automatically change the IMEI when needed

Port IMEI: You can fill IMEI in the corresponding SIM card slot. IMEI a total of 15 figures, including the custom 14 and one last check code, you can fill in the 14 numbers, the check code will automatically fill complete. You can also fill in less than 14, the device will automatically fill in other numbers, which is automatically change IMEI in accordance with the prefix IMEI.

The specified IMEI, instead of the default IMEI of the card, will be used for the corresponding card to communicate with mobile base.(Set IMEI here will take effect immediately)

Customize Range: The screenshot below shows the operation mode to set Dynamic IMEI for each card of the designated port. If a card on a port is assigned with a group of IMEIs, it will randomly use any of the IMEI in group to communicate with mobile base.

☐ Specify IMEI Prefix
 ☒ Customize Range
 ☐ Get IMEI From Server

Dynamic IMEI List

Data List

Add New

Delete

<input type="checkbox"/>	IMEI Start	IMEI Size	Operation
<input type="checkbox"/>	864460031214530	10000	[Delete] [Edit]

IMEI Switching

☒ Enable
 Continuous call failure:

☐ Enable
 Online Time(Min):

☐ Enable
 Calls Num:

☐ Enable
 Talks Num:

☐ Enable
 Call dur. Value(Min):

Call dur. Prd(Sec):

Submit

Reset

Port IMEI

Port	IMEI	A	B	C	D
1	864460031218614				

Add New

Click button Add New to expand the data input area to add new data. Fields are specified as following:

- Data Status: Mark the status of current data record. Option values are Add/Edit. Value Add means the data is new while value Edit means the data is old.
- IMEI Start: Specify an initial IMEI value for the IMEI group, You need to enter the first 14 digits of the IMEI. The device will automatically complete the last check digit, and randomly generate IMEI from this IMEI begin.
- IMEI Size: Specify the number of IMEI backwards generated from the beginning

Click button Submit on the right to save the new data record.

Edit

All the records are displayed in list. Two operations are provided on the right of each record. Click Edit to expand the current data record to Data Detail Area which is above the Data List.

Click button Submit on the right to save the old data record.

Delete

Click Delete on the right of each record to delete the current record. A message box will be popped for delete confirmation.

Get IMEI From Server: Get IMEI from server, needs to be used with SIM Server and set on SIM Server

7.6 Rules Setting

7.6.1 Prefix

The screenshot below shows the operation mode to set manipulation for dial prefix.

The screenshot displays a web interface for configuring prefix rules. It is divided into two main sections: 'Prefix Translation (GSM --> IP)' and 'Prefix Translation (IP --> GSM)'. Each section has a 'Data Detail' form and a table for rule entries.

Prefix Translation (GSM --> IP) Section:

- Data Detail:** Includes fields for 'Data Status' (Add), 'Port' (All), 'Original Prefix' (0086), and 'Translated Prefix' (0). A 'Submit' button is present.
- Table:** A table with columns: Ports, Original Prefix, Translated Prefix, and Operation. It currently shows 'No Data'.

Prefix Translation (IP --> GSM) Section:

- Data Detail:** Includes fields for 'Data Status' (Add), 'Callee Prefix' (0086), 'Digits Stripped' (4), and 'Digits Added' (0). A 'Submit' button is present.
- Table:** A table with columns: Callee Prefix, Digits Stripped, Digits Added, and Operation. It currently shows 'No Data'.

CallerId Hidden Section:

- Includes a 'CallerId Hidden' dropdown menu set to 'Disabled' and a 'Dial Prefix' input field. A 'Submit' button is present.

Fields are specified as following:

- Prefix: The original prefix in phone number.
- Manipulated Prefix: Specify the digits with which the value specified by Prefix will be substituted.

GSM-->IP

Take the value in screenshot as an example, the prefix 0086 in dialed number will be substituted with 0. That's to say, if 00867522777557 is input to dial, the final number dialed out is 07522777557.

Note: the manipulation is executed after pattern is matched.

IP-->GSM

- Callee Prefix: Specify the callee prefix.
- Digits Stripped: Specify the digits which are stripped.
- Digits Added: Specify the digits which are added.

Take the value in screenshot as an example, the callee ID is 0086xxxxx, we specify 0086 as the callee prefix,strip 4 digits and add 0,when dial 0086123456789,the gateway will strip 0086 and add 0 call 0123456789.

CallerId Hidden

- CallerId Hidden:Enable or disable caller ID hidden.Your carrier must support that function.
- Dial prefix:Use the dial prefix you set when enable caller ID hidden.

7.7 Mobile Setting

7.7.1 PIN Setting

The screenshot below shows the operation mode to set globally for PIN settings

Fields are specified as following:

- PIN Unblock: Specify whether enable the pin unblock.
- Port: starts from 1 to 64
- PIN: Specify the PIN for card A/B/C/D/(more) of the port

7.7.2 Billing Setting

The screenshot below shows the operation mode to set MOIP billing. A smart billing server for mobile port is embedded in MOIP Gateway.

Fields are specified as following:

- Billing: Specify whether enable MOIP billing or not. If set to Enabled, system will bill the outbound calls for the port which has been assigned with billing tariffs.
- Hangup The Call: Specify whether enable hangup the call when balance is ont enough. When select enable, the call will be hang up immediately when run out of balance. But when you select disable the call will not be hangup.
- USSD Check: Specify whether enable to get balance through USSD check or not. This field takes effect only when MOIP Billing is set to Enabled.
- Auto Query Balance: Query USSD at fixed time intervals.

The screenshot below shows the operation mode to set Caution Balances, Invalid Balances and The provider ID is detected by MOIP Gateway automatically. For a new Gateway without any card inserted, there may be no records in the two lists.

Provider List					
Index	Provider ID	Name	Query Method	Caution Balances ⁱ	Invalid Balances ⁱ
1	502152	Yes 4G Yes 4G	SMS ▼	2.00	0.56
2	50212	U Mobile	USSD ▼	0.70	0.14
3	50216	Digi Digi	USSD ▼	0.00	0.00
4	50218	U Mobile	USSD ▼	0.70	0.14

Submit

Provider ID: Carrier code, different operators can be set separately

Query Method: USSD/SMS, If you set USSD, please set USSD Query Keyword List , If you set SMS, please set SMS Query Keyword List.

Caution Balances: The device calculates the balance automatically by billing, and when the forewarning balance is reached, the balance will be queried once to calibrate the balance(Usually set the balance of 1 minute)

Invalid Balances: Balance after calibration, the implementation of automatic calculation of the balance again, when less than the invalid value will lock, and prompts you(Usually set the balance of 1 minute)

7.7.3 USSD/SMS Query Keyword List

USSD Query Keyword List

Index	Provider ID	Query Command	Balance Keywords	Invalid Balance Keywords	Invalid SIM Keywords
1	502152				
2	50212	*118#	Bal: RM		
3	50216				
4	50218	*118#	Bal: RM		

Inquiry Now Submit

SMS Query Keyword List

Index	Operator ID	Send Num	Recv Num	Query Cmd	Balance Keys	Inval Bal Keys	Inval SIM Keys
1	502152	0183301111	0183301111	Bal	Bal: RM		
2	50212						
3	50216						
4	50218						

Inquiry Now Submit

Fields are specified as following:

- Provider ID: Carrier code, different operators can be set separately.
- Query Command: Specify the query command(If you do not know, please consult your operator)
- Balance Keywords: Please fill in the USSD or SMS sent query command, in the message returned by the operator, the front character of the balance value, As shown:

4A 0183301111 11-30 17:33 RM0 Yes4G: A/C Bal: RM65.00, Rebate Bal: RM0.00 Details(4)

The balance read will be displayed in the Call status, After setting, you need to save and reboot to take effect.

- Invalid Balance Keywords: If the device recognizes this keywords from USSD/SMS, it will lock the SIM card and prompt no balance.
- Invalid SIM keywords: If the device recognizes this keywords from USSD/SMS, it will lock the SIM card and prompt blocked by operator

7.7.4 Tariff List

The screenshot below shows the operation mode to set billing tariff.

Add New

Click button Add New to expand the data input area to add new data. Fields are specified as following:

- Data Status: Mark the status of current data record. Option values are Add/Edit. Value Add means the data is new while value Edit means the data is old.
- Destination Prefix: Specify the destination prefix used to bill call. If this prefix is best matched with a destination of an outgoing call from the port(s), the corresponding tariff will be chosen to bill the call. The prefix can be a regular expression. For example, [2-8] matches any phone number which starts with digit 2 to 8. And [0-9] matches all phone numbers.
- Tariff: Specify the tariff detail. In the picture, the tariff means 0.001 balance value will be deduct per 60 seconds.(Please fill in the actual use of the balance)

Click button Submit on the right to save the new data record.

Edit

All the records are displayed in list. Two operations are provided on the right of each record. Click Edit to expand the current data record to Data Detail Area which is above the Data List.

Click button Submit on the right to save the old data record.

Delete

Click Delete on the right of each record to delete the current record. A message box will be popped for delete confirmation.

Another shortcut button is also provided on the top right of Data List to delete multiple selected records in batch. A message box will be popped for confirmation of batch delete.

7.8 USSD Setting

The screenshot below shows the operation mode to send USSD through the MOIP Gateway.

7.8.1 USSD Auto Send

Here set USSD can be automatically sent as needed(For example, you can customize a preferential voice package by automatic USSD)

Path: Gateway Settings->USSD Command Refresh

USSD Auto Send

☐ By Dur. Min Minutes: Max Minutes: USSD:

☐ By Schedule1 Begin Time: End Time: USSD: ☐ Drop

☐ By Schedule2 Begin Time: End Time: USSD: ☐ Drop

☐ By Schedule3 Begin Time: End Time: USSD: ☐ Drop

By Dur.: Automatic timed send

By Schedule: Automatic send according to the set time

Drop: When enabled, hang up calling automatically when conditions are met.

7.8.2 USSD List

USSD List

USSD Command

Port	Status	Command	Response	Operations
<input type="checkbox"/> 1A		<input type="text"/>	10-03 23:13:29 Balance: 47.35 Free Calls: 0 mins Data: 49MB Free SMS E-E: 50 To get a detailed usage report, pls dial #1341# (Charge: Rs.1)	<input type="button" value="Send"/>
<input type="checkbox"/> 2A		<input type="text"/>	10-04 03:44:20 Balance: 71.40 Free Calls: 0 mins	<input type="button" value="Send"/>
<input type="checkbox"/> 3B		<input type="text"/>	10-04 03:44:19 Balance: 114.24 Free Calls: 0 mins	<input type="button" value="Send"/>
<input type="checkbox"/> 4A		<input type="text"/>	10-04 03:44:19 Balance: 219.70 Free Calls: 0 Mins	<input type="button" value="Send"/>
<input type="checkbox"/> 5A		<input type="text"/>	10-04 03:44:19 Your Balance - Rs. 85.85 To get a detailed usage report, pls dial #1341#	<input type="button" value="Send"/>
<input type="checkbox"/> 6B		<input type="text"/>	10-04 03:44:19 Balance: 120.49 Free Calls: 0 Mins	<input type="button" value="Send"/>

Fields are specified as following:

- USSD Command: The value of the USSD
- Port: Select tick to need send USSD ports
- Response: Show respond to the content of the carrier
- Send: Press this button, will start sending USSD

7.9 Automation

7.9.1 Scheduled Sending SMS

Scheduled Sending

Periodic Sending: ☐ Disable ☒ Enable

Minimum Period: * minutes

Maximum Period: * minutes

Recipients: * Semi-colon can be used to separate multiple receivers.

Content:

SMS Warning:

SMS Receiver for Warning:

Some mobile operators detect SIM cards used only in calling without sending SMS, will blocked SIM's.

SMS Warning: A SMS warn the gateway manager to check the SIMs when they are locked(Not mobile operator blocking, it's the politic schedule to limit the SIM use time, use frequency to avoid blocking).

7.9.2 SIM Online Time Checking

SIM Online Time Checking

Enable or Not: ☒ Enable

Drop Call: ☐ Enable * Drop the active call when online time expired.

Online Time: * Minutes

Locking Duration: * Seconds, 0 means no lock and -1 means forever.

Drop Call: Enabled, the online time to meet the conditions, immediately hang up. Not enabled, it will wait for this call done.

Locking Duration: Here to set the card slot lock time, fill -1 means always locked that when you manually replace the SIM card will reset

7.9.3 Accumulated SMS Count Checking

Accumulated SMS Count Checking	
Enable or Not: <input checked="" type="checkbox"/> Enable	
Reset When Switching: <input type="checkbox"/> Enable	* Reset the condition when switching to next SIM card.
USSD Query: <input type="checkbox"/> Enable	* Send USSD query command before switching.
Accumulated SMS Count: <input type="text" value="100"/>	
Locking Duration: <input type="text" value="0"/>	* Seconds, 0 means no lock while -1 means permanent lock.

Accumulated SMS Count: The card that is in use takes effect when the number of issued SMS reaches this value

Other : Please refer to 7.11.4 for instructions

7.9.4 Accumulated Failed SMS Count Checking

Accumulated Failed SMS Count Checking	
Enable or Not: <input checked="" type="checkbox"/> Enable	
Reset When Switching: <input type="checkbox"/> Enable	* Reset the condition when switching to next SIM card.
USSD Query: <input type="checkbox"/> Enable	* Send USSD query command before switching.
Failed SMS Count: <input type="text" value="20"/>	
Locking Duration: <input type="text" value="0"/>	* Seconds, 0 means no lock while -1 means permanent lock.

Failed SMS Count: The card in use takes effect when the cumulative number of SMS failures has reached this value

Other : Please refer to 7.11.4 for instructions

7.9.5 Consecutive Failed SMS Count Checking

Consecutive Failed SMS Count Checking	
Enable or Not: <input checked="" type="checkbox"/> Enable	
Reset When Switching: <input type="checkbox"/> Enable	* Reset the condition when switching to next SIM card.
USSD Query: <input type="checkbox"/> Enable	* Send USSD query command before switching.
Consecutive Failed SMS: <input type="text" value="5"/>	
Locking Duration: <input type="text" value="-1"/>	* Seconds, 0 means no lock while -1 means permanent lock.


Consecutive Failed SMS: This is only valid if a consecutive Failed SMS


Other : Please refer to 7.11.4 for instructions

7.10 SIM Pool Setting

The setting here is to allow the device to run on the SIM card that receives the SIM card (the SIM card is no longer required on the MOIP). SIM card installed on SIMBANK. SIMBANK through the Internet SIM card will be transferred to the use of MOIP. MOIP and SIMBANK can be used across countries and regions.

Basic Settings

SIM Poll  :

Registration  :

* If connect directly to a SIM pool device, disable the registration.

Server Address:


* Add "port" to specify a special port.

Username:


Password:

Status:

Other Settings

SIM Allocation Mode  :

* Active means request to server and Passive means wait server's request.

Use Local Policy  :

* If enabled, the policy of page **Lock/Switch Card** will be used.

Signal Transport:

Registration: This means registering with the SIM server

Server Address: Please enter the SIM Server server IP

Username: Please fill in the account from SIM Server

Password: Please fill in the Password from SIM Server

Status: If the registration is successful, it will prompt ok

SIM Allocation Mode: Active mean that MOIP voluntarily applied for a SIM card to SIMServer / SIMBANK

Use Local Policy: When enabled, the settings for MOIP Automation will take effect, and the Automation settings will be obtained from SIMServer when disabled

Signal Transport: When UDP is unstable, you can try TCP

7.11 InterCall Setting

7.11.1 Port Inter-Calling

The screenshot below shows the operation mode to set globally for port inter- calling.

Fields are specified as following:

- Port Inter-Calling: Specify whether enable port inter-calling.
- Min Call Duration: Specify the minimum call duration.
- Max Call Duration: Specify the maximum call duration.

This panel allow SIMs in the gateway to call each other randomly. Consider that SIMs inside only call out all the time, so it's easy to be judged as an illegal use.

When enable "Port Inter-Calling", every SIM can receive income call in period which is custom option in "Conditions Settings".

7.11.2 Conditions Settings

The screenshot below shows the operation mode to set conditions settings of port inter-calling.

Fields are specified as following:

- By Device Online Time: Gateway will start port inter calling by the device online time, and the time between min interval and max interval.

- Consecutive Failed Calls: Gateway will start port inter calling when reaches the consecutive failed calls.
- By Consecutive: Gateway will start port inter calling when reaches the consecutive calls.
- Total Call Duration: Gateway will start port inter calling when reaches the call duration.

According to the actual situation, input the reasonable numerical.

7.12 SIM Num Settings

The screenshot below shows the operation mode to get Local Number by USSD

The screenshot shows a web interface titled "Auto Query". It contains a table with the following columns: Operator ID, Method, Content, Number Key, Service Num, Recv Num, and Translation. The first row has the value "51502" in the Operator ID column. The Method column has a dropdown menu with options: NONE, USSD (selected), SMS, and SIM. The Content, Number Key, Service Num, and Recv Num columns are empty. The Translation column has a small box with a right arrow. Below the table are three buttons: "Inquiry Now", "Submit", and "Reset".

Fields are specified as following:

- Method: when enable it, gateway will get the SIM number by USSD command/SMS command /SIM storage
- Content: Specify the USSD command/SMS command for querying SIM number.
- Number Key : Here to fill in the SIM card number in front of a few characters (Please refer to the mobile settings inside the balance query keyword setting method)
- Prefix Translation: change the SIM number prefix(You can remove the country code, the device is displayed as local number).

The screenshot below shows the operation mode to set local number manually.(If the above methods are unable to obtain the number, you can also manually enter the number here)

The screenshot shows a web interface titled "SIM Number". It contains a table with the following columns: Port and SIM Number. The first row has the value "1A" in the Port column. The SIM Number column has four sub-columns labeled A, B, C, and D, each with an input field. The second row has the value "2A" in the Port column, and the SIM Number sub-columns A, B, C, and D also have input fields.

Fields are specified as following:

- Port No: The MOIP Gateway mobile port. Each port contains one or four card slots. Port No starts from 1 to 64.
- Number A: Specify the number for card A of the port
- Number B: Specify the number for card B of the port
- Number C: Specify the number for card C of the port
- Number D: Specify the number for card D of the port
- Number More..

7.13 Auto Recharge

This item is used to configure automatic recharge settings, which need to be used with automatic recharge server(If you have server, please contact YX NOC install auto recharge software)

Path: Gateway Settings->Auto Recharge Settings Refresh

Basic Settings

Auto Recharge ⓘ:

Server Address: * Add "port" to specify a special port.

Username:

Password:

Status:

Submit Reset

Other Settings Collapse

Min Balance: * If balance reached to this value, the auto-recharge will be trigger.

Submit Reset

7.14 Status Notification

This item is used to configure status notification settings that allow the device to submit status to the URL you set.

Basic Settings

Enable:

URL:

Interval time: * Secs

Submit Reset

7.15 Internet Setting

Internet Traffic Settings

☐ Enable Online Time(Min):

☐ Enable Calls Num:

☐ Enable Talks Num:

☐ Enable Call dur. Value(Min): Call dur. Prd(Sec):

Submit Reset

URL Settings

URLs

Seperated by comma
or CRLF.
(Max to 1023
characters)

Submit Reset

APN Settings

Operator ID	APN
502152	<input type="text"/>
50212	<input type="text"/>

Internet Traffic Settings: This item is used to set the Internet access conditions. When the conditions are met, the Internet access operation will be performed automatically one times

URL Settings: This is used to fill in, you need to make the device visit the URLs

APN Setting: Please enter the APN you want to define in different carrier codes

❖ 8 SMS Setting

8.1 SMS Setting

8.1.1 SMS Receive

The screenshot below shows the operation mode to receive sms.

SMS Inbox					
SMS List				Refresh	Clear
Port	Sender	Time	Content	Operations	
1A	10010	10-06 13:51	温馨提示: 您5日上网流量0.00MB, 本月累计上网流量0.00MB。如需帮助, 可访问沃在线客服chat.gd10010.cn/lrts。	Details(4)	
2A	10010	10-06 13:49	温馨提示: 您5日上网流量0.00MB, 本月累计上网流量0.00MB。如需帮助, 可访问沃在线客服chat.gd10010.cn/lrts。	Details(3)	
3A	10010	10-06 13:52	温馨提示: 您5日上网流量0.00MB, 本月累计上网流量0.00MB。如需帮助, 可访问沃在线客服chat.gd10010.cn/lrts。	Details(3)	
4B	10010	10-06 14:02	温馨提示: 您5日上网流量0.00MB, 本月累计上网流量0.00MB。如需帮助, 可访问沃在线客服chat.gd10010.cn/lrts。	Details(2)	

Fields are specified as following:

- Port No: The MOIP Gateway mobile port. Each port contains one or four card slots. Port No starts from 1 to 64.
- Sender: Specify the sms sender.
- Time: Specify the sms receive time.
- Content: Specify the sms content.
- Operations: Click the Detail button to get more detail about the specify port.

The screenshot below shows the operation mode to get sms details.

SMS Details						Collapse
Please Select Port:	3					
Please Select SIM:	B					
SMS List						Back Refresh Clear Delete
<input type="checkbox"/>	Port	Sender	Time	Content	Operations	
<input type="checkbox"/>	3B	10011	10-03 19:01	Your AC Balance Rs. 100. Dial *344# to check balance...Rs300 Top-up cards now available in retail shops!	Reply Delete	

Fields are specified as following:

- Please Select Port: Specify the port.
- Please Select SIM: Specify the sim.
- Port: Specify the port.
- Sender: Specify the sms sender.
- Time: Specify the sms receive time.
- Content: Specify the sms content.
- Back: Back to the SMS content web page.
- Refresh: Refresh the web page.
- Clear: Clear the sms.
- Reply: Reply the sms
- Delete: Delete the corresponding sms.

8.1.2 SMS Send

The screenshot below shows the operation mode to set basic settings.

The screenshot shows a window titled "Settings of Sending SMS". It contains two main settings: "SMS Format" with radio buttons for "PDU" (selected) and "TXT", and "Forward Protocol" with a dropdown menu set to "GSM". A "Submit" button is located at the bottom right.

Fields are specified as following:

- SMS Format: Specify the sms format.
- Forward Protocol: Specify forward protocol.

The screenshot below shows the operation mode to set sip protocol of forwarding sms.

The screenshot shows the "Settings of Sending SMS" window with "Forward Protocol" set to "SIP". Additional fields include "Server IP" (empty), "Content-Type" (set to "text/plain"), and "Content Charset" (set to "UTF-8"). A "Submit" button is at the bottom right. Two asterisked notes are present: "* If set to empty, the SMS will be sent to SIP server." and "* the full content type of SIP MESSAGE body."

Fields are specified as following:

- Forward Protocol: Specify forward protocol sip.
- Server IP: Specify the sms server ip.
- Content-Type: Specify the Content-Type.
- Content Charset: Specify the content charset.

The screenshot below shows the operation mode to set http protocol of forwarding sms.

The screenshot shows the "Settings of Sending SMS" window with "Forward Protocol" set to "HTTP". Fields include "URL", "Username" (with a placeholder "username"), "Password" (with a placeholder "password"), "Sender" (with a placeholder "sender"), "Receiver" (with a placeholder "receiver"), "Device Port" (with a placeholder "port"), and "Charset" (set to "UTF-8"). A "Submit" button is at the bottom right. Three asterisked notes are present: "* The http:// protocol prefix can be omitted.", "* Parameter name = value", and "* Parameter name".

Fields are specified as following:

- Forward Protocol: Specify the forward protocol http.
- URL: Specify the sms server URL.
- Username: Specify the username.
- Password: Specify the password.
- Sender: Specify the sender.
- Receiver: Specify the receiver.
- Device Port: Specify the device port.

- Charset: Specify the charset UTF-8.

The screenshot below shows the operation mode to set scheduled sending sms

Fields are specified as following:

- Content: Specify the sms content.
- Recipients: Specify the recipients. Semi-colon can be used to separate multiple receivers.
- Send To Local SIM: Enable this feature and set the local SIM's number, the inter port will send sms.
- By Duration: Gateway will start sms sending by the device online time, and the time between minimum minutes and maximum minutes.
- By Consecutive Failed Calls: Gateway will start sms sending by consecutive failed calls.
- By Consecutive Calls: Gateway will start sms sending by consecutive calls.
- By Call Duration: Gateway will start sms sending by call duration.

The screenshot below shows the operation mode to send SMS through the MOIP Gateway.

- Select port. The module here means MOIP mobile port and the SMS is sent out through the card which is in service on this port.
- Input the receivers separated by semi-colon.
- Input SMS content and click button send to send out the SMS.
- Field Received SMS is used to display the last response of the SMS sent out, if the response is not empty.
- Field Successful SMS Number records down the total number of SMS which is successfully sent out. Field Failed SMS Number records down the total number of SMS which is sent failed.

8.2 SMS Ctrl Setting

Path: SMS Settings->SMS Control

Basic Settings

SMS Ctrl Mode:

Switch SIM:

When the sent SMS reached the maximum.

Set by Each Port:

Using variable limitation for each port.

Port Settings

Port	Max SMS	Max SMS / Day	Max SMS / Month
1	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="500"/>
2	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="500"/>
3	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="500"/>
4	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="500"/>
5	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="200"/>
6	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="500"/>
7	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="500"/>
8	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="350"/>
9	<input type="text" value="n"/>	<input type="text" value="n"/>	<input type="text" value="500"/>

SMS Statistics									
Data List									
<input type="button" value="Show Current"/> <input type="button" value="Show All SIM"/> <input type="button" value="Batch Reset"/>									
<input type="checkbox"/>	Port	Status	Total SMS	Remain	Daily SMS	Remain	Monthly SMS	Remain	Operations
<input type="checkbox"/>	1								
<input type="checkbox"/>	2								
<input type="checkbox"/>	3								
<input type="checkbox"/>	4								
<input type="checkbox"/>	5	●	26	Unlimited	26	Unlimited	26	174	<input type="button" value="Reset"/>
<input type="checkbox"/>	6	●	193	Unlimited	77	Unlimited	193	307	<input type="button" value="Reset"/>
<input type="checkbox"/>	7								
<input type="checkbox"/>	8								

Switch SIM: When the sent SMS reached the maximum. It will switch to next SIM card

Set by Each Port: Using variable limitation for each port. When this setting is enabled, set each port separately, If set is "0" , this is not enabled

Max SMS: The maximum total number of sent (Need to set the time server, and read the local time correctly)

Max SMS / Day: One day the maximum total number of sent

Max SMS / Month: One Month the maximum total number of sent

SMS Statistics: Here will be Statistics all ports to send SMS data situation(Reset button to reset the sending status of this card) **This data will be stored in the sim card**

8.3 SMPP Setting

Basic Settings																	
SMPP ⓘ:		CLIENT ▼															
Forward Sms:		Disabled ▼															
Sms Report:		Enabled ▼															
Sms Report Msg Type:		Deliver_SM ▼															
Data List																	
<input type="button" value="Add"/> <input type="button" value="Delete"/>																	
<input type="checkbox"/>	Account	Password	IP	Port	Code	Status	Device Port										
No Data.																	
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	GSM b ▼		<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03								
<input type="checkbox"/>							<input type="checkbox"/> 04	<input type="checkbox"/> 05	<input type="checkbox"/> 06								
							<input type="checkbox"/> 07	<input type="checkbox"/> 08	<input type="checkbox"/> 09								
							<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12								
							<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15								
							<input type="checkbox"/> 16										
<input type="button" value="Submit"/> <input type="button" value="Reset"/>																	

SMPP Protocol version 3.4, TOP: This option will be added to provide the user to report on this parameter

CLIENT:

Please set the "account" "password" "IP" and "port number" from the SMPP server ,

Sms Report: If you need sms report, please enable this setting, generally please keep it enabled
If the registration is successful, the status will prompt green "transceiver"

SERVER:

Please set the "account" "password" and "port number" and let the client settings same and registration to MOIP

Sms Report: If you need sms report, please enable this setting, generally please keep it enabled
If the registration is successful, the status will prompt green "transceiver"

The screenshot shows a 'Basic Settings' window with the following fields and options:

- SMPP:** A dropdown menu set to 'SERVER'.
- Port:** A text input field containing '0'. A note next to it says: "* Add ":port" to specify a special port."
- Forward Sms:** A dropdown menu set to 'Disabled'.
- Sms Report:** A dropdown menu set to 'Enabled'.
- Sms Report Msg Type:** A dropdown menu set to 'Deliver_SM'.
- Data List:** A section with 'Add' and 'Delete' buttons. Below it is a table with columns: Account, Password, Code, Status, and Device Port. The table is currently empty, showing 'No Data.'.
- Submit and Reset buttons:** Located at the bottom right of the window.

8.4 EIMS Setting(SMS Server Registration)

This setting can be used to running the network SMS business, which needs to be connected to the SMS Server IMFS or EIMS system. you can also contact your account manager and provide us with an SMS route. We will run the network SMS business together.

Please provide the device's MAC to the SMS partner company.

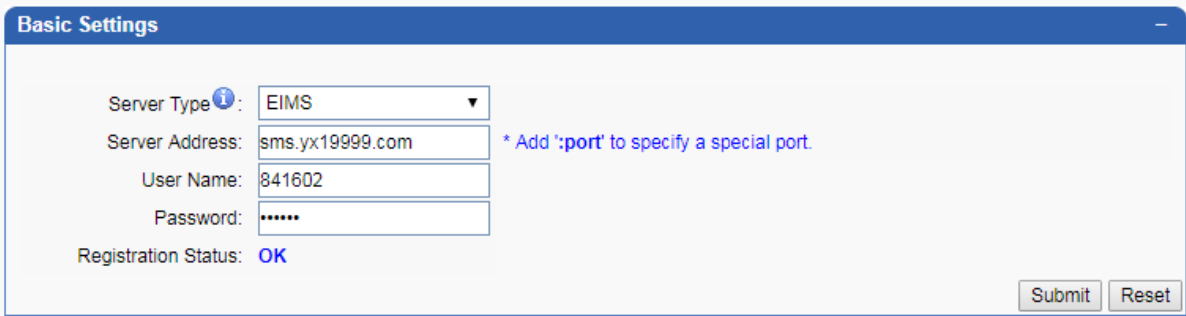
Server Type: Please select EIMS to run SMS Business.

Server Address: IMFS/EIMS SMS Server IP (Please get it from your SMS business partner company)

User Name: Register account (Please get it from your SMS business partner company)

Password: Register password (Please get it from your SMS business partner company)

Registration Status: When it displays OK, it is register success!



Basic Settings

Server Type: EIMS

Server Address: sms.yx19999.com * Add ':port' to specify a special port.

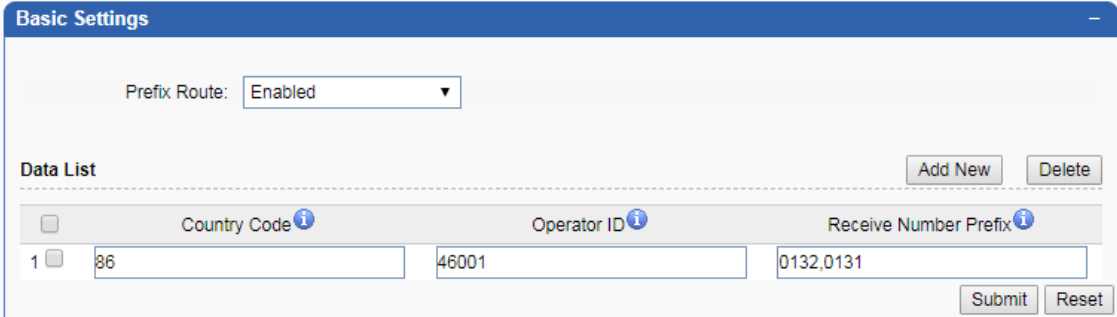
User Name: 841602

Password: *****

Registration Status: OK

Submit Reset

8.5 SMS Prefix Route



Basic Settings

Prefix Route: Enabled

Data List

	Country Code	Operator ID	Receive Number Prefix
1	86	46001	0132,0131

Add New Delete

Submit Reset

This setting is used to limit the prefix of the number when running the network SMS business to ensure that the number number conforms to the sending rule of the SIM card.

❖ 9 System Setting

9.1 LED Setting

This setting can set the prompt of the SIM card slot LED

Path: Gateway Settings->LED Settings Refresh

LED Setting

Lock Card Flash Frequency

Carrier Lock Card:	Slow	<input type="range"/>	Fast	100
Profile Lock Card:	Slow	<input type="range"/>	Fast	100
No Balance:	Slow	<input type="range"/>	Fast	500
Registered Failed:	Slow	<input type="range"/>	Fast	1000

Submit Reset

9.2 Network Debug

The screenshot below shows the auto ping settings

Start Ping on device up

Auto Ping : ☐ Disabled ☒ Enabled

IP:

Package Size:

Last Time:

Package Lost Rate:

* Seconds, 0 means pinging all the time.
* Device will restart if actual package lost rate is lower than this value.

Submit

Fields are specified as following:

- Auto Ping: Specify whether enable auto ping, when the device power on to runing.
- IP Address: Specify the ip address.
- Packet Size: Specify the packet size.
- Last Time: Specify the ping duration.
- Package Loss Rate: Specify the package loss rate.

The screenshot below shows the manual ping settings

Ping Manually

IP: 98.126.86.1

Package Size: 56

Package Count: 4

* 56 bytes by default.

* 4 by default. 0 means pinging all the time.

Result:

Start Ping

PING 98.126.86.1 (98.126.86.1): 56 data bytes

64 bytes from 98.126.86.1: seq=0 ttl=51 time=194.159 ms

64 bytes from 98.126.86.1: seq=1 ttl=51 time=186.227 ms

64 bytes from 98.126.86.1: seq=2 ttl=51 time=176.886 ms

64 bytes from 98.126.86.1: seq=3 ttl=51 time=188.901 ms

98.126.86.1 ping statistics ---

4 packets transmitted, 4 packets received, 0% packet loss

round-trip min/avg/max = 176.886/186.543/194.159 ms

Fields are specified as following:

- IP Address: Specify the ip address.
- Packet Size: Specify the packet size.
- Packet Count: Specify the packet count.

The ping tool is easy to check the gateway network status. Especially when calls can't connect but every SIP parameters are correct, this tool will be helpful to find out problems.

The following is used to capture packets, non-professionals, please do not operate

Capture

Auto Capture: Disabled

IP or Host:

Port: 0

File Size: 2M*3

* capture automatically when system booting.

* blank means do not limit the ip address.

* Default is 0,0 means all ports

Submit

Start ...

9.3 Log Settings

This item is used to set the device needs to record the log and save the relevant information can be used for engineering personnel to maintain and check the equipment status, please ignore in the normal use.

Log File

Logfile Count:

None

* The size of single logfile is 1MB.

Dying Msg Size:

32KB

* The dying message(**dyingmsg.log**) size in KB.

GDB File Count:

5

UTL Log Level:

WARN

Submit

Cancel

Log Modules

☐ POTS

☐ CCM

☐ SIP

☐ SIP Message

☐ SIP Route

☐ WIRELESS

☐ DSP

☐ ESP

☐ SPC

☐ EBM

☐ RC

☐ LED

☐ EAR

Submit

Cancel

Network Log

☐ Send Log To Server

Log Server:

goip.yx19999.com

☐ Memory Monitoring

Mem Val(MB):

0

*When the memory below this value,Sends monitoring information to log server.

Submit

Cancel

9.4 File Management

This is used to export and view log files, please ignore in the normal use

File List					
Seq.	Filename	Modification Time	Type	Size	Operations
1	messages.log	1970-01-01 00:00:30	log	173691	<div>Delete</div> <div>Export</div>

9.5 User & Device

9.5.1 User

The screenshot below shows the operation mode to manage system user.

User List

Data Detail

Data Status: Account: Password: Privilege:

Data List

<input type="checkbox"/>	Account	Privilege	Operation
<input type="checkbox"/>	root	Admin	[Edit]
<input type="checkbox"/>	user	User	[Delete] [Edit]

Default User

The default system user account is root. This account can't be deleted and only Password and Privilege can be modified for this account.

Add User

Click button Add New to expand the data input area to add new data. Fields are specified as following:

- Data status: Mark the status of current data record. Option values are Add/Edit. Value Add means the data is new while value Edit means the data is old.
- Account: The user account used to login web system. The account value can not be modified after save.
- Password: The password used to login web system.
- Privilege: The privilege of user. Option values are Admin/User.

Click button Submit on the right to save the new data record.

Edit User

All the user records are displayed in list. Two operations are provided on the right of each record.

Click Edit to expand the current data record to Data Detail Area which is above the Data List.

Click button Submit on the right to save the old data record.

Delete User

Click Delete on the right of each record to delete the current record. A message box will be popped for delete confirmation.

Another shortcut button is also provided on the top right of Data List to delete multiple selected records in batch. A message box will be popped for confirmation of batch delete.

9.5.2 Device Settings

The screenshot below shows the operation mode to set Device settings.

Fields are specified as following:

- Device Alias: Specify the device alias.
- Auto Reboot: Specify the auto reboot time.
- Scheduled Reboot: Specify the scheduled reboot time.

9.5.3 Date And Time

The screenshot below shows the operation of date and time settings.

The default time zone is UTC+8, you can change the time zone as your country. For example, Bangladesh is UTC+6, and change as +6. If your device is not touch with the internet and want to get accurate time, the time server will help.

9.5.4 Remote Mangement

The screenshot below shows the operation mode for remote management.

Remote Management is used to manage the MOIP Gateways located in other physical locations. Network must be available for the gateway to communicate with ERM Server, When the registration is complete, you can access your device from the ERM server at any time/address.

YX ERM Server(You can register directly through the registration button to register and follow the prompts to use)

domain name: MOIP.yx19999.com

IP: 43.249.30.126

Registered address: <http://goip.yx19999.com:808/erm/registry.jsp>

Login address: <http://goip.yx19999.com:808/erm/login.jsp>

ERM user manual: <http://goip.yx19999.com:808/erm/help/help.html>

The configuration fields are specified as following:

- Enable ERM: Specify whether enable ERMS registration or not. Option values are Enabled/Disabled.
- ERM Server IP: Specify the ERM Server address.
- ERM Server Port: Specify the ERM server port.
- Account: Specify the account which create in the ERM.
- Password: Specify the password which create in the ERM.
- Status: Specify the registration status.

9.5.5 SNMP

This is the connection configuration for the SNMP protocol, which you can configure if you have an SNMP server

SNMP

SNMP: Enable

Listener Port: 161

* SNMP listening port

Ro Community: public

* Read community name for SNMP access

Rw Community: private

* Community name for SNMP access

Enterprise: 0

Submit

Reset

SNMP Trap Server List

Data List

Add New

Delete

<input type="checkbox"/>	IP	Port	Community	Operation
No Data				

9.6 Role Management

Role list

Collapse

Data List

Add

Role Name	Home	Permit	Operation
Admin	System Stati ▾	All Permit	
	Status	<input checked="" type="checkbox"/> Call Status <input checked="" type="checkbox"/> Device Status <input checked="" type="checkbox"/> System Status	
	Information	<input checked="" type="checkbox"/> Traffic Statistics <input checked="" type="checkbox"/> Media Statistics <input checked="" type="checkbox"/> SMS Statistics <input checked="" type="checkbox"/> InterCall Statistics	
		<input checked="" type="checkbox"/> USSD Setting <input checked="" type="checkbox"/> SIMPOOL Setting	
	Gateway	<input checked="" type="checkbox"/> SIM Num Settings <input checked="" type="checkbox"/> Callback Setting	
	Settings	<input checked="" type="checkbox"/> Callwait Setting <input checked="" type="checkbox"/> Auto Recharge <input checked="" type="checkbox"/> Status Notification <input checked="" type="checkbox"/> Internet Settings	
	SMS Setting	<input checked="" type="checkbox"/> SMS Ctrl Setting <input checked="" type="checkbox"/> SMPP Setting	
	System Settings	<input checked="" type="checkbox"/> Log System <input checked="" type="checkbox"/> Module Update	
User	System Stati ▾		

Submit

Reset

Add: You can add and configure permissions, which can be assigned to the corresponding user when completed.

Role Name: The default is Admin and User, If you need to configure related permissions, you need to add a Role

Home: The default home page is displayed

Permit: The list of permissions this role can use

9.7 Update/ backup & Restore

The screenshot below shows the operation mode for system update/restore.

The screenshot shows a web interface with three main sections:

- Import File:** Contains a 'File Type' dropdown menu set to 'Firmware', a 'File Name' text input field, a '浏览...' (Browse...) button, and 'Submit' and 'Cancel' buttons.
- Export Configuration:** Contains the instruction 'Click 'Export' button to export the configuration.' and an 'Export' button.
- Restore To Factory:** Contains the instruction 'Click 'Restore' button will restore system to factory settings.' and a 'Restore' button.

System Update

The content for system update includes:

- firmware
- configuration
- ramfs
- kernel
- uboot
- debug tools
- voice prompt
- voice cfg
- mac file
- lic file
- customized

The configuration fields are specified as following:

- File Type: Specify the content to update. Option values are listed above.
- File Name: Specify the content file name. Click button Browser and then select the target file from the popped file selection window.

Export Configuration

Click 'Export' button to export the configuration

Restore To Factory

System restore is used to restore the system to default settings. A message box will be popped for the confirmation of restore.

Firmware Version Down(Or Contact Your Account Manager)

[YX Series MOIP/SIMBANK Lastest Firmware Version](#)

9.8 Save & Reboot

Generally, any modification should require the reboot of MOIP Gateway to bring the modification into effect. However, single Save without Reboot is also frequently used to save the modifications which will be effective on next reboot of MOIP Gateway.



The screenshot above shows the operation buttons. Button Save is used to save all the modifications while button reboot is used to save modifications first and then reboot device immediately.

❖ 10 Http API command

10.1 SMS

10.1.1 HTTP Send URL

http://host:port/goip_send_sms.html?port=1&username=root&password=root&charset=utf8&recipients=10010&sms=cxye

(Click on the link above or fill in this url in the browser, or send through the java program.)

host:port: MOIP ip address, if have set port ,please add it(default 80)

port: specify which port send the sms out, if don't have this option, it will random choose 1 port.

username: device username

password: device password

charset: the sms content code。 utf8, gb2312 available, default is utf8

receipients: the sms receiver, separate with ";" if send multiple receiver

sms: the sms contents.

10.1.2 HTTP Receive URL

http://host:port/goip_get_sms.html?username=root&password=root&sms_id=xxx&sms_num=xxx

sms_id: From which SMS began to receive(default 1, it mean Device receive the first SMS start)

sms_num: receive SMS amount (default 0 ,it mean receive all SMS)

For received SMS:

To report: "code SCTS," code of 0 indicates success arrived, utf-8

Ordinary message: utf-8 BASE64 encoding

10.2 USSD

10.2.1 HTTP Send URL

http://host:port/goip_send_ussd.html?username=root&password=root&port=1&ussd=*123%23

(Click on the link above or fill in this url in the browser, or send through the java program

host:port: MOIP ip address, if have set port ,please add it(default 80)

username: device username

password: device password

port: specify which port send the sms out, if don't have this option, it will random choose 1 port.

ussd: the ussd contents (if your ussd have #,please use %23 instead)

10.2.2 HTTP back:

Demo:

{code:0,reason:"OK",resp:"your balance is 100.00\$"}
YX International Information Co., Ltd.

code: back code

reason: ussd send status

resp: ussd contents.