EJOIN ACOM5xx VoIP Gateway

User Manual



Shenzhen Ejoin Technology Co.,Ltd.

Address: 3rd Floor, Wanyuan Business Building, Liuxian NO.2 Road, 71 Block, Bao an District. Shenzhen City, P.R China.
Tel: +86-755-85245166
Fax: +86-755-85245122
Email: sales@ejointech.com
Skype: ejointech.v
Website: www.ejointech.com

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Chapter I Equipment Information

1.1 Product Brief

ACOM5xx series VoIP Gateway is a multi-functional and high performance product, which is mainly used for call termination (VoIP to Mobile) and origination (Mobile to VoIP). It can enable to make 16 calls simultaneously. It is based on SIP and compatible with Asterisk, 3CX, Elastix, IPPBX, VOS, VPS operating platform.

ACOM5xx VoIP Gateway also can be used as a Network SMS modem which supports SMS sending and receiving. It has flexible HTTP/SMPP API for SMS service. Customers can develop SMS server easily by the API.



1.2 Product Application

Figure 1.2-1 Product Application

1.3 Product Appearance

Back Panel



Figure 1.3-1 Back Panel

Description of the front panel(from left to right):

- 1 Ground connection
- 1 reset button (press RST button about 10s will restore to factory settings)
- 1 Power Interface (DC 12V 5A)
- 2 Network Interface (LAN and WAN, RJ45)
- 1 Console Interface (USB to Serial, Baudrate 115200)
- 16 Antenna Connector

Front Panel



Figure 1.3-2 Front Panel

Description of the front panel(from left to right):

- 64 SIM slots (4 SIM cards per channel)
- 1 Power light (indicate the status of the power connection)
- 64 LED lights (indicate the status of SIM cards)
- 2 fans

1.4 Special Features

- Support G729a/b/e,G723.1,G.711 A/U law, G726, G722, iLBC
- Proxy Encryption Solution for IP Block
- Support SIM Pool
- VPN (PPTP and OPEN-VPN)
- SIM Card Rotating
- Base station intelligent switching/locking
- IMEI modification
- Support SMPP
- SMS and USSD HTTP API
- Support SNMP
- ERMS (Ejoin Remote Management System)
- Port Inter-Calling/SMS sending
- Fake ringback
- Call waiting
- Support call back
- Support consume SIM data
- Auto-recharge
- MNP
- State notification(CDR)
- Call Duration Limitation
- Dial Plan/Prefix Inward Translation/Intelligent Routing

1.5 Specification

Mode	ACOM504	ACOM508	ACOM516	ACOM532
Channels	4 8		16	32
SIM slots	4	8	16/64/128/256/512	32/64/128/256/512
frequency	GSM/CDMA/WCDMA/LTE			
SIP Specification	RFC3261, Session Timer RFC4028, STUN			
codec	G729a/b/e,G723.1,G.711 A/U law, G726, G722, iLBC			
DTMF	RFC2833, SIP info, In-band			
Network protocol	IPv4,TCP, UDP, PPPoE, DHCP, DNS, NAT, Telnet, HTTP, TFTP			
Firmware update	TFTP/HTTP			
ERMS	Ejoin Remote Management System			

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Call statistics	ASR, ACD, PDD
Encryption	EJOIN, VOS2000, RC4, BASE64

Table 1.5-1

1.6 Mobile Features

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

Chapter II Equipment Installation

2.1 SIM Card Placement

Insert SIM cards like the figure 2.1-1. The SIM cards should be mini-SIM (2FF).



Figure 2.1-1 SIM Card Placement

2.2 Antenna Installation

The external antenna should be installed vertically always on a site with a good wireless signal. It is strongly recommend that you choose the long antenna.



Figure 2.2-1 Antenna Installation

2.3 Network Connection

Plug Ethernet line into gateway WAN port, and then connect the other end of the Ethernet line with switch or router. Note: Do not use LAN port, LAN port is useless.



Figure 2.3-1 Network Connection

2.4 **Power Connection**

Connect the small end of the power cable to the power input on the back panel, and plug the other end of the cable into a 220V power outlet.



Figure 2.4-1 Power Connection

2.5 Serial Connection

Connect one side of serial cable to the console port on the back panel, another side to computer USB port.(Don't need connect it normally)



Figure 2.5-1 Serial Connection

Chapter III Web Settings

3.1 Login

Open the web browser and type the IP address. If it is the first time you login the gateway, please use the default settings below:

IP Address: 192.168.1.67

Account: root

Password: root

Gateway Administra	ition System
User Login	Account: Password: Login Reset

Figure 3.1-1 Login web

3.2 Basic Settings

WAN Settings

There are three types of WAN port IP: Static, Dynamic and PPPoE. (Default static IP is 192.168.1.67). You can also change the wan settings when get a new device. If you want to

access in this default IP, your local PC need a same network segment 192.168.1.xxx.

l Settings		 Collaps
WAN Type:	Static IP	
WAN IP:	192.168.1.67	
IP Mask:	255.255.255.0	
Default Gateway:	192.168.1.1	
DNS Server:	192.168.1.1	Submit Boost

Figure 3.2-1 WAN Settings

Items	Description
WAN Type	Static IP: manually set up gateway IP.
	Dynamic IP: automatically get IP from local network.
	PPPoE: need ISP offer the account and password. Use this mode
	when there is no router in the local network
WAN IP	The WAN IP address of gateway
IP Mask	The subnet mask of gateway
Default Gateway	Default gateway IP address. Example: router IP.
DNS Gateway	Domain name server IP address. Example: 8.8.8.8.



SIP Server Settings

This is the gateway settings for connecting with softswitch or server, such as VOS, VPS, IPPBX and Asterisk.

Protocol Mode:	Registration	~	Encryption Method:	NONE	\sim	
SIP Server IP:			SIP Server Port:	5060		
Phone Number:			Account:			
Password						1.2

Figure 3.2-2 SIP Server Settings

Items	Description
	There are two protocol modes: registration and point to point.
Protocol Mode	Note: point to point can be used only when gateway and server in
	the same LAN or both have public IP.
	There are two encryption methods: EJOIN and VOS2000. (Note:
Encryption Method	Choose "EJOIN" Encryption need to set proxy server and port
	first.)
SIP Server IP	The IP or domain name of softswitch which will send traffic to the
	gateway. For example: VOS IP.
SIP Server Port	SIP port of softswitch, default port is 5060.
Phone Number	The caller phone number for SIP client, it can also be regarded as
	the SIP port number which can be called.
Account	SIP registration account which is provided by softswitch. For
Account	example: the routing gateway ID on VOS.
Password	The password of SIP registration account.

Table 3.2-2

3.3 SIP Settings

3.3.1 Basic Settings

Running Parameters

Protocol Mode:	Point-to-Point V	Encryption Method:	NONE V	
SIP Server:		SIP Server Port:	5060	
Primary Proxy IP		Proxy Port:	5060	
Secondary Proxy IP:		Proxy Port:	5060	
Expiration Period	180	Local Port:	5060	
Use Phone Number 1:	Disabled •	* If the username is not the	e same with userid, enable it.	
Receive All Call	Disabled v	* If enabled, all call will be	accepted.	
Drop Account Prefix	Enabled •	* Remove the account pre	fix presented in callee number.	
Auto Resp 183:	Enabled 🔻	* Send 183-Session-Progr	ess immediately for a incoming INVITE.	
Route By From 0:	Enabled •	Allows Other Callers:	Disabled •	
Route Mode	In-Turn 🔻			
Notify Line Capacity	Enabled v	Capacity Scale:	O 100 %	
No Line Code 0:	503 Service Unavailabl 🔻	* Responce this SIP code	when no availabe line	
Custom User-Agent:		* the User-Agent header u	sed in SIP message.	
Ignore Answer Signal:	Disabled •	Delay Time:	0 Seconds	
Ignore Contact:	Disabled •			
Ignore Rtp Src:	Disabled •			
Contact Type:	Local Address 🔹			
Called number sources:	To 🔻			

Figure 3.3.1-1 Running Parameters

Items	Description		
Protocol Mode	It is the same as that in Basic Settings. The modification here		
	also apply to Basic Settings page.		
Encryption Method	It is the same as that in Basic Settings.		
SIP Server	It is the same as that in Basic Settings.		
SIP Server Port	It is the same as that in Basic Settings.		
	Proxy server will receive requests from client, and make the		
Dimora Drown ID	signaling and media streams are able to penetrate the firewall. It		
Primary Proxy IP	is usually used when gateway can't registered with the softswitch		
	because of network blockade.		
Proxy Port	The proxy server port. Ejoin default proxy port is 25600.		
Secondary Proxy IP	It is the same as primary proxy, don't need to set it.		
Expiration Daried	Gateway will send a register request to the softswitch during		
	every half time of expiration period.		
Local port	Device sip port, default is 5060, if set to 0, means dynamic sip		
Local port	port		

Lice Dhone Number	If the username is not the same with user id, enable it. Keep it			
	dsiabled			
	Disabled: only the SIP server address which is type in basic			
	settings or phone book can send traffic to this gateway.			
	Enabled: traffic from any server can send traffic to this gateway			
Receive All Calls	(same LAN or both gateway and server have a public IP). It's			
	dangerous when eabled, hackers may send traffic to the gateway			
	then steal SIM balance.			
	If it is enabled, it will remove the account prefix presented in			
Drop Account Prefix	callee number.			
102	If it is enabled, gateway will send 183-Session-Progress			
Auto Resp 183	immediatey for an incoming INVITE.			
	If it is enabled, gateway will only accept the call whose "From"			
Route By From	header(caller ID) is matched. Note: if the gateway is just used as			
	call termination, please disable it.			
A 11 O41 C 11	If it is enabled, gateway will accept the call even incoming call's			
Allows Other Callers	ID not match.			
	In-Turn: traffic will be routed to the first released port.			
Pouto Modo	Balance: traffic will be routed to the fewest historical calls port.			
Route Mode	Sequence: traffic will be routed by ascending port.			
	Random: traffic will be routed randomly.			
	This function is for VOS3000, Device send the available ports to			
Notify Line Capacity	VOS3000 and VOS3000 send traffic with corresponding ports.			
	VOS3000 version should be no less than 2.1.6.0			
Composity goals	eg: capacity scale 50%, device has 30 available ports, then device			
Capacity scale	will send 30*50%=15 ports to VOS3000.			
No Line Code	Gateway will send this SIP code as response to SIP server when			
	no available port.			
Custom User Agent	The User Agent header which is used in SIP message.			
	Device will not send connected signaling to the sip server after			
Ignore Answer Singal	the call connected, it will send the connected signaling to sip			
	server after the delay time			
Delay Time	The time of sending connected signaling			

Janara Contact	Disabled: send reply signaling to contact.		
Ignore Contact	Enabled: send reply signaling to request address.		
Ignore Rtp Src	If it is enabled, device will send rtp to the sdp address		
	Local address: the device wan port ip and sip port.		
Constat type	Public address: device change the contact to public ip and sip		
	port automatically(NAT traversal)		
	Customize: set the device public ip and sip port manually.		
Called number sources	Called number use request url or to, it's same value usually.		

Table 3.3.1-1

3.3.2 Channel Settings

SIP Acc	counts					Collapse
Mult	tiple Port Support 0:	Disabled	 *If enabled, each account 	unt can use various port to	o register to server.	
Use Be	st Matched Lines 🛈 :	Disabled	•			
Port	Remarks	Allowed Prefix	Phone Number	Account	Password	Status
1	07	0,075				
2	07	077				
3	07	0				
4	07	5				

Figure 3.3.2-1 Channel Settings

Items	Description
Multiple Port Support	If enabled, each port can registered a sip account
Dynamic registration	If enabled, the port will send unregistered signaling to sip server when the sim card remove.
Remarks	Note for the port
Allowed Prefix	Intelligent routing, gateway will route calls by the allowed prefix. for example: channel 1 is with prefix 070 and 075, this channel will only accept the calls with prefix 070 and 075, others will not be routed to this channel. If allowed prefix is blank, it can accept any calls. If all prefixes don't match, the

	call will be rejected.
	Disabled: shorter prefixes will be tried if the port matched by
Use Best Matched Lines	this prefix can't deliver the call.
	Enabled: no more prefixes will be tried if the port matched by
	this prefix can't deliver the call.
Local Port	Sip port for each channel.
Sin Server	Sip server ip, if the server port is not 5060, need to put port
	eg: 1.2.3.4:6070
Phone Number	When enable route by from, the channel will only accept the
	call which caller ID is input in phone number.
Account	SIP registration account.
Password	The password of SIP registration account.
Status	The status of registration. When gateway is registered with
Suitus	softswitch, it will show ready.

Table 3.3.2-1 Channel Settings

3.3.3 STUN Settings

STUN (Simple Traversal of UDP through NAT) is a protocol for assisting devices behind a NAT firewall or router with their packet routing. If you have the STUN server, enable STUN support, fill the server IP and port (default port is 3478), then it will work.

TUN			 Collapse
STUN Support:	Enabled	~	* If enabled, support the media traversal for non-symetric NAT.
STUN Server IP:	stunserver.org		* Fill your stun server ip if you have.
STUN Server Port:	3478		* The default port is 3478.
	<u>k</u>		Submit Reset

Figure 3.3.3-1 STUN Settings

3.3.4 MNP Settings

MNP Support:	Enabled	-	* If enabled, the server can select channel or change callee number.
Select Order:	ASC	-	* ASC/DESC will try to ensure the load balance, but Random not.
Route:	After Manipulation	-	
Server URL:			
Username:			
Password:			

Figure 3.3.4-1 MNP Settings

Items	Description
	Mobile Number Portability (MNP) enables mobile telephone users to
MNP support	retain their mobile telephone numbers when changing from one mobile
	network operator to another.
Select Order	When the traffic send to the gateway, it can select ascending order,
Select Older	descending order or random ports.
	There are two choices of route: 1. Route calls after manipulation. 2.
Route	Route calls before manipulation. Note: route calls by allow prefix,
	callee number prefix manipulation by inward translation.
Server URL	MNP server address
Username	MNP server username
Password	Password of the username

Table 3.3.4-1 MNP Settings

3.4 Gateway Settings

3.4.1 Port Settings

Basic Settings

c Settings				 Collapse
Frequency Band:	850-900-1800-1900	•	MHz	
Network Type:	Auto	۲		
Register Type:	Voice network	۲		
Unnormal SIM Supp:	Enable			
				Submit Reset

Figure 3.4.1-1 Basic Settings

Items	Description
Frequency Band	Choose the module frequency.
Network Type	It's used for 3G or 4G device to change the network type
Register Type	voice or data network for registering
Unnormal SIM supp	It's used for special country, keep it disabled.

Table 3.4.1-1 Basic Settings

Hardware Properties

Hardware Properties							
Port	Enable SIM Card	Lock Operator	Mobile Base	Provider	In Vol	Out Vol	IMEI
v 1	🖉 A 🖉 B 🖉 C 🖉 D	0	0	0	0	4	866854039336071
2	✓ A ✓ B ✓ C ✓ D	0	0	0	0	4	866854039244127
3	🖉 A 🖉 B 🖉 C 🖉 D	0	0	0	0	4	866854039046795
4	✓ A ✓ B ✓ C ✓ D	0	0	0	0	4	866854039181683
5	✓ A Ø B Ø C Ø D	0	0	0	0	4	866854039021566
6	✓ A ✓ B ✓ C ✓ D	0	0	0	0	4	866854039218766
7	🖉 A 🖉 B 🖉 C 🖉 D	0	0	0	0	4	866854039021574
8	✓ A ✓ B ✓ C ✓ D	0	0	0	0	4	866854039218782

Figure 3.4.1-2	Hardware	Properties
----------------	----------	------------

Items	Description
Port NO.	Gateway channel
Enable SIM Card	The SIM is enabled with $$, and disabled without $$. You can enable or
	disable SIM by this button.
Lock Operator	Roaming sim card lock operator
Mobile Base	The base station of SIM registered.

Input Vol	Input volume of module, unmodifiable value.				
Output Vol	Output volume of module. unmodifiable value.				
	International Mobile Equipment Identity of this module. This				
IMEI	gateway support IMEI modification, you can do it on IMEI settings				
	page.				

Table 3.4.1-2 Hardware Properties

3.4.2 Base Stations

Basic Settings

Basic Settings			Collapse
Max Channels: Lowest Valid Signal:	4	dbm	
Switch Period:	60	Minutes	
Base Balancing:	Disable		Submit Reset

Figure 3.4.2-1 Basic Settings

Items	Description
Max Channels	The maximum number of base station
	The lowest valid signal of base station, the default value is -90
Lowest Valid Signal	dbm. SIM card will not register in the base station which signal is
	lower than the value.
	Base station switch period, the default value is 60 minutes. Base
Switch Period	station will switch automatically by the period (when base
	selection is "poll").
	Disable: every channel will select the base station with best signal.
Base Balancing	We suggest this mode.
	Enable: every channel will try to select different base station.

Table 3.4.2-1 Basic Settings

The device will change base station when it reaches the value which set in the conditions settings below.

Conditions Settings			🕑 Collaps
Consecutive Failed Calls By Consecutive Calls Total Call Durations Cumulative of Calls	Failed Calls: 0 Consecutive Calls: 0 Call Durations: 60 Call Sume: 0	Minutes	
			Submit Reset

Figure 3.4.2-2 Conditions Settings

Base Stations settings/operations

Port No	Base Se	lection	Base Station	White List	Black List	Operations
1	Auto	-	0			Refresh
2	Auto	-	0			Refresh
3	Auto	-	114			Refresh
4	Auto	-	0			Refresh
5	Auto	-	114			Refresh
6	Auto	-	0			Refresh
7	Auto	-	0			Refresh
8	Auto		0			Refresh
9	Auto	-	0			Refresh
10	Auto	-	0			Refresh
11	Auto	-	0			Refresh
12	Auto	-	0			Refresh
13	Auto	-	0	1 1		Refresh
14	Auto	-	0			Refresh
15	Auto	-	0			Refresh
16	Auto	-	0			Refresh

Figure 3.4.2-3 Base Stations Settings

Items	Description
Port NO.	Gateway channel, starts from 1 to 16.
	Auto: every channel will select the base station automatically.
Base Selection	Poll: base station will switch during every switch period, if set a base
	station in white list, it will be locked in this channel.

Base station	It will show the base station
White List	The base station white list, if you just put one base here and select "poll", this channel will lock the base station.
Black List	The base station can't be used if put in black list.
Operations	Refresh the base station information.

Table 3.4.2-2

3.4.3 IMEI Settings

IMEI means International Mobile equipment Identity, it is a 15-digit number. The gateway can do IMEI modification, it can protect SIM from blocking. With the function, you can do static IMEI or dynamic IMEI.

Modify IN	NEI : Specify Prefix	¥				
IMEI Sv	vitching				6	Collapse
1	Enable By	SIM Switching.				
	Enable Co	ontinuous Call Failure:	0			
	Enable Or	nline Time(Min):	0			
	Enable Ca	alls Num:	0			
	Enable Ta	l <mark>ks Num:</mark>	0			
	Enable Ca	all dur. Value(Min):	0	Call dur. P	d(Sec): 60	
Port IM	EI				(Collapse
Port	IMEI					
			20 M			
1	865383502131455	A	В	с	D	
1	865383502131455 865383502131943	A	B	c c	D	
1 2 3	865383502131455 865383502131943 865383502131646	A A	B B B	C	D D	
1 2 3 4	865383502131455 865383502131943 865383502131646 865383502131513	AAAAAA	B B B B		D D D D D D D D	
1 2 3 4 5	865383502131455 865383502131943 865383502131646 865383502131513 865383502131653	AAA AA A AA AA AA A AA A A A A A A A A A A A A A A A A A A A	B B B B B B		D D D D D D D D D D D D D D D D D D D	

Figure 3.4.3-1 IMEI Settings

You can set any different IMEI for every port, just set 14-digit number, the last digit will generate itself. If you need set with special prefix, just click "copy", you can see the figure as above: set 865 in port 1A, after click "copy", every port will have a IMEI prefix 865, click "auto complete", the IMEI prefix will generate automatically. If you just put an IMEI prefix

in the blank, the IMEI will changed when SIM switch(default), and also you can change the conditions for changing above.

Modify IMEI : Customiz	ze Range 👻		
Dynamic IMEI List	🛞 Collasp		
Data Detail			
Data Status:	Add		
IMEI Size:	1		Submit
Data List			Add New Delete
	IMEI Start	IMEI Size	Operation
(m)	863435412312336	10000	[Delete] [Edit]

Figure 3.4.3-2 Dynamic IMEI Settings

You can click "Add New" button to add a new dynamic IMEI list, this list includes initial IMEI value of IMEI group and the size of IMEI group. click "Delete" will delete a exist IMEI list, if you want to change the settings of dynamic IMEI list, please click "Edit" button.

3.4.4 PIN Settings

PIN means personal identification number, it just like a password of SIM card, it can help to prevent SIM card from being stolen and improve security. Most SIM cards don't have PIN code. If a SIM card is with PIN, you need input PIN code in corresponding slot and enable "PIN Unblock", then the SIM card will work.

Port Pl	Port PIN						
Port	A	В	С	D			
1	1234						
2							
3							
4							
5							
6							
7				-			
8							
9							
10							
11							
12							
13							
14							

Figure 3.4.4-1 Basic Settings

3.4.5 SIM Settings

SIM Schedule

SIM schedule is a function for multiple slots device, with this function, you can enable different sim cards in different time. As the screenshot below, A slot sim cards enable in time from 00:00 to 6:00, B slot sim cards enable in time from 6:00 to 12:00.

Data List																		Add
Begin End								SIM	Slots									Oper.
		@ 01	✓ 02	Ø 03	@ 04	05	@ 06	Ø 07	Ø 08	@ 09	10	11	12	13	14	15	16	[Edit]
00:00 06:00	M A	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1 31	32	[Del]
		@ 01	✓ 02	Ø 03	✓ 04	05	06	Ø 07	@ 08	@ 09	10	11	12	13	14	15	16	[Edit]
06:00 12:00	B	17	18	19	1 20	1 21	1 22	23	1 24	25	26	27	1 28	29	30	1 31	/ 32	[Del]

Figure 3.4.5-1 SIM Schedule

3.4.6 Number Settings

You should set the SIM number first before enable the inter port calling/SMS-sending. You can get SIM number by USSD or SMS automatically.

Auto Settings			\bigcirc	Collapse
Auto-Get LocNum:	USSD	•		
USSD Command:	*134*2#		Get Now	
Number Keywords:	number		* The prefix keywords of the SIM number in USSD response.	
Prefix Translation:		930	> The prefix to be added	
			Submit	Reset

Figure 3.4.6-1 Auto Settings by USSD

Items	Description
Auto-Get LocNum	When choose USSD, the gateway will get the SIM number by USSD
USSD Command	The USSD command for querying SIM number.
Number Keywords	The prefix keywords of the SIM number in USSD response. For example: the USSD response is your SIM number 923345556978, then keyword is number, it is usually the word before SIM number.
Prefix Translation	If you get the number is 923345556978, but you don't need a country code, you can do prefix translation, delete 923 then add 0.

Table 3.4.6-1 Auto Settings by USSD

The page below shows the setting of getting number by SMS, it is same as USSD, you should send the SMS content to the operator to get the SIM number.

Auto Settings			 Collapse
Auto-Get LocNum:	SMS	-	
SMS Content:	1		Get Now
Service Num:			
Number Keywords:			* The prefix keywords of the SIM number in SMS response.
Prefix Translation:		930	> The prefix to be added
			Submit Reset

Figure 3.4.6-2 Auto Settings by SMS

If you can't get the SIM number by USSD or SMS, you need set the SIM number manually.

SIM Number	IM Number						
Port	A	В	C	D			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12	51						
13							
14							

Figure 3.4.6-3 SIM Number

3.4.7 Billing Settings

This is the billing system page, this billing system is widely used in querying balance automatically which can remind customers to recharge or replace the no balance SIM cards. The theory of this billing system: every SIM card will get an accurate balance from USSD or SMS response, then the system will deduct money in every billing period by tariff which you set, so it may take some deviation.



Figure 3.4.7-1 Basic Settings

Items	Description
Billing	Enable it, the billing system will be up.

Hangup The Call	If it is enabled, the call will be hang up when the balance is lower than invalid balance value.		
Source of operators	When operator ID and IMSI are different, can use this settings		
Periodic query balance	Get balance periodically, it may be more accurate.		
Bal Warn Card Query	If it is enabled, it will query the balance when lower than caution balance value.		
	Enable: query balance failed, use last balance		
Use Last Balance	Disable: query balance failed, balance show N/A, the sim can't		
	be used if it is lower than invalid balance value and it show		
	yellow sim LED		

Table 3.4.7-1

Provide	er List				🙆 Collapse
Index	Operator ID	Operator Name	Query Method	Caution Balances	Invalid Balances
1	46001	CHINA UNICOM GSM	USSD 💌	0.00	0.00
					Submit Reset
Index	Operator ID	Query Command	Balance Keywords	Invalid Balance Keywords	Invalid SIM Keywords
Index	Operator ID	Query Command	Balance Keywords	Invalid Balance Keywords	Invalid SIM Keywords
1	46001				
				Inquiry Now	Submit
SMS QI	uery Keyword	l List			 Collaps
Index (Operator ID S	ervice Num Query	Cmd Balance	Keys Invalid Bal Keys	Invalid SIM Keys
1	46001				

Figure 3.4.7-2 Related Settings

Inquiry Now

Submit Reset

Items	Description
Query Method	USSD or SMS for querying balance

	When the balance is lower than caution balance value, the		
Caution Balances	billing system will send a USSD or SMS to recalibrate		
	balance.		
Invalid Balances	The SIM can't be used if it is lower than invalid balance value		
	and it will show ^{No Balance}		
Query Command	The HTTP or SMS command for querying balance		
	The balance keywords in USSD or SMS response. For		
Balance Keywords	example: your credit balance is AED 45.82. then AED can be		
	the keywords		
Invalid Balance Keywords	Can't get balance from invalid balance keywords.		
1			
	If the SIM is blocked by operator, it may get another response		
Invalid SIM Keywords	If the SIM is blocked by operator, it may get another response like: sorry, your SIM is blocked now. then you can set		
Invalid SIM Keywords	If the SIM is blocked by operator, it may get another response like: sorry, your SIM is blocked now. then you can set blocked as a invalid SIM keywords. The card will show		
Invalid SIM Keywords Service Num	If the SIM is blocked by operator, it may get another response like: sorry, your SIM is blocked now. then you can set blocked as a invalid SIM keywords. The card will show The operator number, it will send SMS back to you.		
Invalid SIM Keywords Service Num Query Cmd	If the SIM is blocked by operator, it may get another response like: sorry, your SIM is blocked now. then you can set blocked as a invalid SIM keywords. The card will show The operator number, it will send SMS back to you. SMS command for querying balance		
Invalid SIM Keywords Service Num Query Cmd Balance Keys	If the SIM is blocked by operator, it may get another response like: sorry, your SIM is blocked now. then you can set blocked as a invalid SIM keywords. The card will show The operator number, it will send SMS back to you. SMS command for querying balance Same as Balance keywords.		
Invalid SIM Keywords Service Num Query Cmd Balance Keys Invalid Bal Keys	If the SIM is blocked by operator, it may get another response like: sorry, your SIM is blocked now. then you can set blocked as a invalid SIM keywords. The card will show The operator number, it will send SMS back to you. SMS command for querying balance Same as Balance keywords. Same as USSD.		

Table 3.4.7-2 Related Settings

Click"Add New" button, you can set a tariff list with different destination prefix. "x " means for all prefix. You can also do the operations of delete and edit here.

Tariff List			 Collaps
Data Detail			
Data Status:	Edit		
Destination Prefix:	x		
Tariff:	0.0010	/ 60	Submit
Data List			Add New Delete
	Destination Prefix	Tariff	Operation
	x	0.0010/60	[Delete] [Edit

Figure 3.4.7-3 Tariff List

3.4.8 AT Command

Module Operations

You can select different module and do the operations of restart, stop and start.

Module Operations		🛞 Collapse
Please Select Module:	 Restart Stop Start 	

Figure 3.4.8-1 Module Operations

Command Operation

mmano	d Operati	ons	Collaps
Please S	Select Port:	All 01 02 03 04 05 06	07 🗖 08 15 🗖 16
Man	nually Call:	+8613715266978 Start	
AT C	command:	at+cpin? Send	
USSD C	command:	Send Query All	
sponse C	Data		Clear Resfresh
Port	SIM Statu	s Content	Operation
1A			
24		at+cpin?	
ZA	-	+CPIN: READY	
ЗA			
3A 4A			

Figure 3.4.8-2 Command Operations

Items	Description
Select port	Select port to do command operations.
Manually call	Check the SIM can send a call or not.
AT Command	AT command to check SIM status.
USSD command It's for querying balance, number and recharge etc.	
SIM status	Display the SIM status.
Content	The response after sending USSD/AT command.

Table 3.4.8-1 Command Operations

3.4.9 USSD Command

USSD Auto Send

USSD command send automatically by the conditions below, Drop means drop the current call after call duration time reached.

By Dur.	Min Minutes:	0	Max Minutes:	0	USSD:	
By Call Dur.	Dur. Minutes:	0	Billing Prd(S)	60	USSD:	Drop
By Schedule1	Begin Time:	00:00	End Time:	00:00	USSD:	Drop
By Schedule2	Begin Time:	00:00	End Time:	00:00	USSD:	Drop
By Schedule3	Begin Time:	00:00	End Time:	00:00	USSD:	Drop

Figure 3.4.9-1 USSD Auto Send

On this page, you can send USSD command manually and get USSD response more convenient.

USSD List						Collaps		
USSE) Comn	nand		Сору	Show Current	Show All SIM	Clear Data	Send
	Port	Status	Command		Response			Operations
	1A							
	2A							
	ЗA							
	4A							

Figure 3.4.9-2 USSD List

Items	Description	
Сору	Copy the USSD command to other channel.	
Show Current	Display the active SIM cards.	
Show ALL SIM	Display all SIM cards.	
Clear Data	Clear the USSD response.	
Send	Execute the USSD command.	

Table 3.4.9-1 USSD list

3.4.10 Switch Card

Basic Settings

Basic Settings		 Collaps
SMS Warning 🛈 :	Disabled 🔹	
SMS Receiver for Warning:		
Restart save current card 🛈 :	Disabled 🔹	
		Submit Reset

Figure 3.4.10-1 Basic Settings

Items	Description
SMS warning	When sim card locked, device will send a sms to destination mobile for warning
SMS Receiver for Warning	The destination mobile which sms send
Restart save current card	Whether to save the current card of each port when restart, so that I can continue to be used after restarting. eg: 1B sim card is active, after restart, the active card will be 1A, but if enable this button, the active card will still be 1B.

Table 3.4.10-1 Basic Settings

Conditions for Locking Card

When the SIM reaches any conditions below, gateway will lock/switch it.

Conditions for Locking	J Card	Collapse
SIM Online Time Checking		
Enable or Not:	Enable	
Accumulated Call Duration (Checking	
Enable or Not:	Enable	
Accumulated Connected Ca	IIs Checking	
Enable or Not:	Enable	
Reset When Switching:	Enable	* Reset the condition when switching to next SIM card.
Connected Calls:	5	
Locking Duration:	-1	* Seconds, 0 means no lock while -1 means permanent lock.
Accumulated Calls Checkin	g	
Enable or Not:	Enable	

Figure 3.4.10-2 Locking Card Conditions

We take "consecutive failed calls checking" for example to explain the lock/switch function.

Items	Description
Enable or Not	If it is enabled, the consecutive failed calls will be used as a condition for system to check.
Reset When Switching	This condition will be recalculated next time when it is switched by other conditions. For example:
USSD Query	After switch to next SIM, the next SIM will send USSD query command first.
Failed Calls	The maximum number of consecutive failed calls on this SIM card. If the number of consecutive failed calls reaches this value, the card will be locked if this condition is enabled.
Locking duration	The duration of locking. 0 means no lock while -1 means permanent lock.

Table 3.4.10-2 Locking Card Conditions

If the SIM card is locked by gateway, it will show Θ , it means locked by device. And you will also see the Description on running status >> call status page.

Lock/switch card conditions	Description on call status page
SIM Online Time Checking	Switch timer fired

Accumulated Call Duration Checking	Talk dur expired
Accumulated Connected Calls Checking	Talk num expired
Accumulated Calls Checking	Call num expired
Consecutive Failed Calls Checking	Failed call num expired
Consecutive No-Alert Calls Checking	Noalert num expired
Consecutive No-Answer Calls Checking	Noanswer num expired
Consecutive No Carrier Calls Checking	Nocarrier num expired
Consecutive Short-Duration Calls Checking	Shortdur num expired
Accumulated SMS Count checking	SMS num expired
Accumulated Failed SMS Count Checking	Failed SMS num expired
Consecutive Failed SMS Count Checking	Con-failed SMS num expired

Table 3.4.10-3 Description in call status

Click the top right-hand corner "add port cfg", can define different ports with different lock/switch cards conditions

3.4.11 Inter-Calling

Port inter-calling is a good solution for protecting SIM from blocking. It's a human behavior feature.

Basic Settings			 Collapse
Port Inter-Calling:	Enabled	•	* If enabled, device will enable the feature by following conditions.
Send SMS:	Disabled	-	* If enabled, the callee will send a SMS to caller before inter-calling.
Min Call Duration:	60		* Seconds
Max Call Duration:	120		* Seconds
			Submit Reset

Figure 3.4.11-1 Basic Settings

Items	Description
Port Inter-Calling	The function will work if it is enabled. (need to set SIM number for every port first).
Send SMS	If it is enabled, the callee will send a SMS to caller before inter- calling
Min Call Duration	The minimum call duration when do port inter calling
-------------------	--
Max Call Duration	The maximum call duration when do port inter calling. the call
	duration will between minimum and maximum duration.

Table 3.4.11-1 Basic Settings

When enable this function, after excessing the condition below, the idle port will call each other random (need to set the SIM number for every port first).

Conditions Settings						۲	Collaps
Time flow control	00:00	24-00					
Strate now control Strate now control Strate now control	Min Interval	60	Minutes	Max Interval:	120	Minutes	
Consecutive Failed Calls	Failed Calls:	5		indo (indo) fai.			
By Consecutive Calls	Consecutive Calls:	20					
Total Call Durations	Call Durations:	60	Minutes				
Cumulative of Calls	Call Sums:	0					
By Continuous SuccCalls	Con SuccCalls:	0					
		60.				Submit	Rese

Figure 3.4.11-2 Conditons Settings

If you enable "Send SMS", you will see the page below.

SMS Li	st	Collapse
Data List		Add New Delete
	SMS Content	Operation
	please call me!	[Delete] [Edit]
	call me right now!	[Delete] [Edit]
	plz call me when u're free.	[Delete] [Edit]

Figure 3.4.11-3 SMS List

The callee will select a SMS content first, then send to caller before inter calling, you can click "Add New" button to add new SMS content and delete or edit the SMS content.

3.4.12 Internet Settings

SIM cards use data, this settings can protect sim card from blocking.

The screenshot below shows time from 20:00 to 23:00, consume 100MB data.

alist			A
Begin	End	Consumption Flow(MB)	Oper
0-00	23:00	100	[Edit] [Del]

Figure 3.4.12-1 data flow schedule

The screenshot below shows which URL the device will surf for consuming data.

URLs	www.sina.com.cn www.facebook.com www.yahoo.com	Seperated by comma or CRLF. (Max to 1023 characters)

Figure 3.4.12-2 URL Settings

The apn settings for sim card. Note: if APN settings leave blank, can't consume data.

APN Settings			Collapse
Operator ID	APN	User Name	Password
46001			
46000			



3.4.13 Call Dur. Control

Call duration control is for users to control the SIM using time. And the data will not flush even you restart the device or pull off the SIM.



Figure 3.4.13-1 Call Duration Settings

Items	Description
	Falsh : control call duration by local device.
Call Duration DataSource	ETMS: control call duration by ETMS server.
	If use simpool, control call duration in sim center.
	Enable: all channels use same call duration limitation.
Use Global Settings	Disable: you can set different call duration limitation for single
	channel.
Total Max Duration	The value of limitation. After the call duration reaches this value,
Total Wax Duration	the SIM will be locked by device. 0 means no limit.
Daily Max Duration	The value of limitation. After the daily call duration reaches this
Daily Wax Duration	value, the SIM will be locked by device. 0 means no limit.
Month Max Duration	The value of limitation. After the call duration reaches this value,
Wohth Wax Duration	the SIM will be locked by device. 0 means no limit.
Timing Start Date	Month call duration reset time, default is 1.
	Operator charging time, when the call is over this time, operator
Min Duration Unit	will collect fees. For example: china mobile charge per minute, the
	min duration unit will be 60 seconds.
Call Duration Error	If set a value, every call's duration will add that value
	Enabled: calls will be dropped after the SIM reaches call duration
Drop Call If Expired	time.
	Disabled: calls will not drop.

Table 3.4.13-1 Call Duration Settings

You can scan more details about the call duration control on the page below. Once the SIM is

Call D	uration	Statistic	cs 🛈					🕒 Collapse
Data L	ist				[Show Current	Show All SIM	Batch Reset
	Port	Status	Tot Dur. / Remain Dur.	Daily Dur. / Daily Rem Dur.	Month I	Dur. / Month Ren	n Dur. C	Operations
	1A							
	2A							
	ЗA							
	4A							
	5A							
	6A							

used up, it will be locked by gateway. If you still want to use it, you need to click "Reset".

Figure 3.4.13-2 Call Duration Statistics

Items	Description
Total Dur.	The value of total duration
Remain Dur.	Indicates the current SIM remain time.
Daily Dur.	The value of Daily Duration
Daily Rem Dur.	Indicates the current SIM daily remain time
Month Dur.	The value of Month Duration
Month Rem Dur.	Indicates the current SIM Month remain time
Show Current	Show active sim cards duration statistics, default settings
Show ALL SIM	Show all sim cards duration statistics(including offline sim card)
Bath Reset	The call duration will reset to the initial value. (daily cal duration will reset every day)

Table 3.4.13-2 Call Duration Statistics

If you need every channel has different call duration (single call duration control), please disable use global settings, and then you will see the page below.

Port Setti	ngs			Collapse
Port	Total Max Duration	Daily Max Duration	Min Duration Unit	DropCall-If-Expired
1	0	0	60	
2	0	0	60	
3	0	0	60	
4	0	0	60	

Figure 3.4.13-3 Port Settings

3.4.14 Call Num Control

Call number control is for users to control the call counts. And the data will not flush even you restart the device or pull off the SIM.

Call	Number	r Settings					 Collapse
		Ctrl Mode:	FLASH	•			
	т	iming Start Date:	1				
	Total N	lax Call Number:	0 means no limit				
	Daily N	lax Call Number:	30				
	Month M	lax Ca <mark>ll Number:</mark>	0				
						Sub	mit Reset
Call N	umber S	tatistics					 Collaps
Call N Data Lis	umber S	tatistics			Show Current	Show All SIM	 Collaps Batch Reset
Call N Data Lis	umber S st Port	tatistics Status Tot N	um./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Rem	Show All SIM	Collaps Batch Reset perations
Call N Data Lis	umber S st Port 1A	tatistics Status Tot N	um./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Rem	Show All SIM	Collaps Batch Reset perations
Call N Data Lis	umber S st Port 1A 2A	tatistics Status Tot N	um./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Rem	Show All SIM	Collaps Batch Reset perations
Call N Data Lis	umber S st Port 1A 2A 3A	tatistics Status Tot N	um./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Rem	Show All SIM	Collaps Batch Reset perations
Call N Data Lis	umber S st Port 1A 2A 3A 4A	tatistics Status Tot N	um./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Rem	Show All SIM	Collaps Batch Reset perations
Call N Data Lis	umber S st Port 1A 2A 3A 4A 5A	tatistics Status Tot N	um./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Rem	Show All SIM	Collaps Batch Reset perations

Figure 3.4.14-1 Call Number Settings

3.4.15 Talk Num Control

Talk number control is for users to control the connected call counts. And the data will not flush even you restart the device or pull off the SIM.

all N	lumber Se	ettings					۲	Collaps
		Ctrl Mode	E FLASH	T				
	Timin	ng Start Date	e; 1					
	Total Max	Talk Numbe	r: 0 means no limit					
	Daily Max	Talk Numbe	r: 0 means no limit					
1	Month Max *	Talk Numbe	r: 0					
							Ruhmit	Recet
							Submit	Reset
<mark>Statis</mark> Data Li	tical Talks	5			Show Current	Show All SIM	Submit	Reset Collaps Reset
Statis Data Li	tical Talks ist Port S	s Status To	t Num./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Ren	Show All SIM	Submit Submit Batch Dperation	Reset Collaps Reset
Statis)ata Li	tical Talks ist Port S 1A	s Status To	t Num./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Ren	Show All SIM	Submit	Reset Collaps Reset
Statis Data Li	tical Talks ist Port S 1A 2A	<mark>s</mark> Status To	t Num./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Ren	Show All SIM	Submit Batch Operation	Reset Collaps Reset
Statis Data Li	tical Talks ist Port S 1A 2A 3A	<mark>s</mark> Status To	t Num./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Ren	Show All SIM	Submit	Reset Collaps Reset
Statis Data Li	tical Talks ist Port S 1A 2A 3A 4A	<mark>s</mark> Status To	t Num./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Ren	Show All SIM	Submit	Reset Collaps Reset
Statis	tical Talks Port S 1A 2A 3A 4A 5A	<mark>s</mark> Status To	t Num./ Remain Num.	Daily Num./ Daily Rem Num.	Show Current Month Num/ Month Ren	Show All SIM	Batch Dperation	Reset Collaps Reset

Figure 3.4.15-1 Talk Number Settings

3.4.16 Call ctrl settings

Call control settings is for users to control the call in a short period, for example, 1 hour 50 calls, 30mins 10 connected calls.

Call Number Settings			🕒 Collapse
Data List			Add
Туре	Period(Min)	Max Val	Oper.
	No Data		
			Submit Cancel

Figure 3.4.16-1 Call ctrl Settings

3.5 SMS Settings

3.5.1 Port Settings

SMS p	ort settin	gs				 Collapse
				Enat	Disabled	Submit
	Port	Port Status	SMS Enabled	SMS Center Numb	er	
	1A		0			
	2A		0			
	ЗA		0			
	4A		0			
	5A					
	6A					

Figure 3.5.1-1 Port Settings

Items	Description
Port	Device channel
Port status	Display the sim status.
SMS Enabled	Enable or disable the sms feature.
SMS center	SMS center number, it is strongly recommended don't change the SMSC number

Table 3.5.1-1 Port Settings

3.5.2 SMS Send

Basic Settings



Figure 3.5.2-1 Basic Settings

Items	DesrIPtion
Sending Interval	The sms sending interval for every two sms, if don't set any
	value, after send a sms, the sim card will send the second

	1
	sms immediately, if set a value, the sim card will send the
	second sms after interval time.
Sms Send Timeout	The timeout for sending a sms
SMS Format	PDU and TXT.
	SMS status report. If it is enabled, after sending SMS
Status Report	successfully, it will get a status report from operator such as
	sending successfully.
Sms Send Max Lenth	Maximum lenth of long sms
Sms Send Max Count	Maximum counts of sms
Sana San d Orver Eleve Dree	Refuse: refuse to send the sms.
Sms Send Over Flow Proc	Truncated: truncate the long sms if it is over flow
	Frist place: count type, 0 is Byte, 1 is character.
	Second place: encoding algorithm, 0 means support 7bit,
	1means doesn't support 7 bit.
	Third place: single limit, maximum number of bytes or
Count rule	maximum number.
	Fourth place: multiple header lenth,udhi
	Charging rules: 0-0-140-6 representation: support 7bit, the
	maximum single 140 bytes, when sending long sms, the udhi
	header is 6 bytes.

Table 3.5.2-1 Basic Settings

Send SMS

You can select one or more ports to send SMS to different receiver. Successful and failed SMS records will be show below.

SMS										⊖ c
	_	01 00 09	02 10	03	04	05	06	07	08 16	
Please Select Port:		17	18	19	20	21	22	23	24	
		🗐 2 5	26	27	<mark>28</mark> 🗐	29	30	🗐 31	32	
Receiver List:	Receiver List:							* Semi-colon can be used to separate multiple receivers.		
SMS Content:	maximu characte	m 2400 A erl	SCII ch	aractor	s or max	kimum 8	00 loca	d.		Send
	0			Cle	ear					
Successful SMS:	0									



3.5.3 SMS Receive

You can check the latest SMS content and clean up all the SMS content on this page.

SMS Con	tent			 Collapse
SMS List			Ref	resh Clear
Port	Sender	Time	Content	Operations
<mark>1</mark> A				(Details0)
2A				(Details0)
3A				(Details0)
4A				(Details0)
5A				(Details0)



If you want to check more SIM content of this SIM, please click "Details" button.

Then you will see the page below. You can know the SMS details in different port and SIM, reply and delete SMS here.

MS Details				🙆 Colla
Please Select Por	: 1	•		
Please Select SIMCard	: C	•		
MS List			Back	Refresh Clear Del
Port Ser	ider	Time	Content	Operations
Total: 0 0/0 Pages	٠	10/Page 🔻		

Figure 3.5.3-2 SMS Details

3.5.4 SMS Forward

Emai to message

nail to messages		 Collaps
Email to messages:	Enabled •	
Sender:		* Email Account
Password:		* Email Password
Mail Sending Interval:	15 Minutes	
		Submit Reset

Figure 3.5.4-1 Email to message

Items	Description
Email to messages	Enabled, use email send to the email address which configured, the content will send by device sim card to destination mobile
Sender	Email address which device receive email
Password	Email password
Mail sending Interval	The device read email period.

Table 3.5.4-1 Email to message

Forward protocol: GSM

When sim card receive sms, will forward the sms to the destination mobile which is set in "forward number"

sic Settings		 Collapse
Forward Protocol	M	
		Submit Reset
ort Applicatioin Feature		 Collapse
Port No.	Forward Number	SMS Center
1		
2		
3		
4		

Figure 3.5.4-2 forward by GSM

Forward protocol: SIP

ic Settings				۲	Collapse
Forward Protocol	SIP	•			
Server IP:			* If set to empty, the SMS will be sent to SIP server.		
Content-Type:	text/plain		* the full content type of SIP MESSAGE body.		
Content Charset:	UTF-8	۲			
	A72			Submit	Reset

Figure 3.5.4-3 forward by SIP

Items	Description
Server ip	Sip server ip, If leave blank, sms will sent to sip server which set in sip settings.
Content-type	sip header, default is text/plain
Content Charset	utf-8 or Base64

Table 3.5.4-2 forward by SIP

Forward protocol: HTTP POST and GET

Forward Protocol	HTTP-POST V					
URL:				* The http:// protoc	col prefix can be omitted.	
User Name:	username	=		* Parameter name	e = value	
Password:	password	=				
Sender:	sender			* Parameter name	9	
Receiver:	receiver	=		Enable		
Device Port:	port					
Charset:	charset	=	TF-8 🔹			
					Submit	R

Figure 3.5.4-4 forward by HTTP

Items	Description
Forward protocol	GET: the sms content will be in request line
	POST: the sms content will be in request body
URL	The URL which the sms forward to.
User name	If destination url need username, can set here.
Password	If destination url need password, can set here.
Sender	The mobile number which send sms to sim card in gateway.
	If set value, the receiver will be this value, if leave blank and number
Receiver	settings has number, receiver will be sim card number, if leave blank and
	number settings no number, will don't have parameter recevier
Device Port	The device port
Charset	UTF-8 or BASE64

 Table 3.5.4-3
 forward by HTTP

Forward protocol: email

Forward Multi Po	ts		 Collapse
Forward Protocol (): Multiple Port: Sender (): Password:	Email Enabled	* Email Account * Email Password	Submit Reset
ic Settings			Collapse

Port No.	Recipient	Remarks
1		
2		
3		

Figure 3.5.4-5 forward by Email

Items	Description
Forward protocol	Email: when sim card receive sms, device will use sender email address send email to recipient.
Multiple Port	Disable: all sms send to one email address. Enabled: different port send to different email address.
Sender	Device use this email address send email.
Password	Email password
Recipient	The destination email address

Table 3.5.4-4 forward by Email

3.5.5 SMS Inter-Sending

Scheduled Sendi	ng			 Collapse
Content:	maximum 300 ASCII characto	rs!		
Recipients:	maximum 255 digits, includin	g the semi-colon!		* Semi-colon can be used to separate multiple receivers.
	Send To Local SIM			
	By Duration:	Minimum Minutes:	60	Maximum Minutes: 1440
<u> </u>	By Consecutive Failed Calls	Failure Count:	0	
<u> </u>	By Consecutive Calls	Call Count:	0	Ī.
	By Call Duration	Call Duration:	0	Minutes Submit Reset

Figure 3.5.5-1 Scheduled Sending

Items	Description
Content	SMS content. The length is limited to 300 ASCII characters.
Recipients	The phone number of receiver. Semi-colon can be used to separate multiple receivers.
Send To Local SIM	Enable this button. Gateway will do inter-port SMS sending (need set SIM number in every channel first), it's random and by the condition below. For example: channel 1 sends SMS to port 3.
By Duration	SMS sending by device online time, and the time between minimum minutes and maximum minutes.
By Consecutive Failed Calls	SMS sending by consecutive failed calls.
By Consecutive Calls	SMS sending by consecutive calls.
By Call Duration	SMS sending by SIM call duration.

Table 3.5.5-1 Scheduled Sending

3.5.6 SMS Control

SMS control is for users to control the SIM card SMS counts. And the data will not flush even you restart the device or pull off the SIM.

								Collaps		
SMS Ctrl	Mode:	FLASH	•							
Switc	h SIM:	Enabled	•	ximum.						
Only Successful SMS: Enabled Set by Each Port: Disabled Max SMS: 0 means disable		Enabled	•							
		Disabled	•	 * Using variable limitation for each port. 						
		means disabled	*	* to use this feature, please set the NTP server.						
Max SMS / Day: 0 means disabled			*	* to use this feature, please set the NTP server.						
Max SMS /	Month: 0	means disabled	*	to use this feature, plea	ase set the N	ITP server.				
							50	Cancer		
SMS Statistics								Collaps		
SMS Statistics Data List						Show Current	Show All SIM	Collapse Batch Reset		
SMS Statistics Data List Port	Status	5 Total SMS	Rema	ain Daily SMS	Remain	Show Current Monthly SMS	Show All SIM Remain	Collapse Batch Reset Operations		
SMS Statistics Data List Port 1A	Status	Total SMS	Rema	ain Daily SMS	Remain	Show Current Monthly SMS	Show All SIM Remain	Collapse Batch Reset Operations		
SMS Statistics Data List Port 1A 2A	Status	5 Total SMS	Rema	ain Daily SMS	Remain	Show Current Monthly SMS	Show All SIM Remain	Collapse Batch Reset Operations		
SMS Statistics Data List Port 1A 2A 3A	Status	s Total SMS	Rema	ain Daily SMS	Remain	Show Current Monthly SMS	Show All SIM Remain	Collapse Batch Reset Operations		

Items	Description
SMS ctrl Mode	Enable by flash
Switch SIM	Switch sim card or not when one sim card reaches the value which set
Only Successfully	Enabled: the failed sms will not count
SMS	Disabled: count failed sms
Set by Each Port	Enable: different port use different sms limit value.
Set by Each I off	Disable: all ports use same sms limit value.
Max SMS	The maximum sms which sim card can send.
Max SMS/Day	The maximum sms which sim card can send every day.
Max SMS/Month	The maximum sms which simcard can send every month.
Show current	Show active sim cards, default
Show ALL SIM	Show all sim cards(including unactive sim cards)
Batch Reset	Reset the sms count manually.

Table 3.5.6-1 Basic Settings

3.5.7 SMPP Settings

The Short Message Peer-to-Peer (SMPP) is a protocol used by the telecommunications industry for exchanging SMS messages between Short Message Service Centers (SMSC) and/or External Short Messaging Entities (ESME). The protocol is a level-7 TCP/IP protocol, which allows fast delivery of SMS messages.

EJOIN device support SMPP V3.4, it can works as SMPP client and server, but we usually used it as a SMPP server

BASIC settings

	SI	MPP 0:	SERV	ER		•			Port: 2	0040			* Add ':p	ort' to sp	ecify a	special por		
ata Lis	t													Add N	lew	Delete		
	Ac	count	Pas	sword	Yield	Code	Report	Code			Dest Ad	ldr		тс	N S	Status		
1	teslenkoserge2		teslenkoserge2 123		12345	6	AUTO	•	AUTO	•						6	Tra	nsceiver
	1 01	✓ 02	Ø 03	Ø 04	Ø 05	Ø 06	Ø 07	✓ 08	Ø 09	🗹 10	11	1 2	🗹 <u>1</u> 3	14	🕑 <u>15</u>	🕑 <u>16</u>		
	1 7	1 8	19	20	21	22	23	24	25	26	27	28	29	30	31	₹ 32		

Items	Description
	client: device work as smpp client
SMPP	server: device work as smpp server, if device is in NAT, need to forward
	the device smpp port first.
Port	Device smpp port
Account	Smpp account for smpp client register.
Password	Smpp account password
Yield Code	Device receive sms, will encoding by the code.
Report code	The code of delivery report.
Dest Adda	Destination address, when device receive sms, will send the sms to smpp
Dest Addr	client and the recipient address will be the dest addr.
TON	NPI and TON set to 0X01 if enabled.
Status	Smpp client registered in device, will show transceiver
Select ports	Select all ports means all ports with one smpp account.

Figure 3.5.7-1 Basic Settings

Advanced settings

Forward Sms:	Enabled		Sms Report Msg Type:	Deliver_SM	•		
Submit Response:	Submitted	•	Submit Timeout:	60		* Minutes	
Report Response:	Sent	•	Report Timeout:	60		* Minutes	
Auto Clip Routing:	Disabled	•					

Figure 3.5.7-2 Advanced Settings

Items	Description
Forward sms	Enabled: forward sms to smpp client.
Torward sins	Disabled: don't forward sms to smpp client.
Sms Report Msg Type	Sms report message type, default is Deliver_SM.
Submit response	Submitted: when device receive request, send back submit ok.
Sublint response	Sent: when device send sms to smsc successfully, send back submit

	ok.
	Delivered: when destination mobile receive sms, send back submit ok
Submit timeout	Submit ok timeout value, after 60mins, will timeout.
	Sent: when device send sms to smsc successfully, send back delivery
	report.
Report response	Delivered: when destination mobile receive sms, send back delivery
	report.
	No respond: don't send delivery report
Report Timeout	Report timeout value, default is 60mins.
	Send: the sms send from one port, next time, the same recipient
	number will also use that port
Auto Clip routing	Receive: smpp send a sms from device port, next time, this port
	receive the sms will forward to the destination address use the
	original address at the first time
Cache time	The auto clip routing cache time

Table 3.5.7-2 Advanced Settings

Translation list

This settings is used for remove country code, some country, sending sms with country will be failed

Translation L	IST			Collapse
Data List				Add New Delete
	Callee Prefix	Digits Stripped	Digits Added	Operation
		No I	Data	

Figure 3.5.7-3 Translation List

3.5.8 EIMS Settings

EIMS is a SMS server which connect with Ejoin device by private protocol. It also support HTTP, SMPP to connect the third-party SMS system to send and receive SMS.

Basic Settings

c Settings				۲	Collapse
Server Type 🛈 :	EIMS	۲]		
Server Address:	43.249.29.213		* Add ":port" to specify a special port.		
UDP/TCP:	TCP	۲			
User Name:	test				
Password:					
Registration Status:	ок				
				Submit	Reset

Figure 3.5.8-1 Basic Settings

Items	Description
Sorwor Tuno	EIMS: connect with EIMS server
Server Type	EMDA: this is for virtual COM port to send sms.
Server address	EIMS server ip, default port 20002
UDP/TCP	Connect protocol, we suggest TCP
User Name	The device account in EIMS
Password	Account's password
Registeration status	OK means register successfully

Table 3.5.8-1 Basic Settings

3.5.9 Prefix route

The SMS will be routed to the ports which match the prefix specified here. It's used for saving communication expense. There are two modes for prefix settings. One is operator prefix, the other one is port prefix.

The screenshot below shows operator prefix, one device insert different operator sim cards, just configure the operator prefix, when sms traffic send to this device, device will use same operator to send the sms.

Basic S	ettings				۲	Collaps
	Prefix Route:	Operator Prefix	•			
Data List	t				Add New	Delete
	Cou	ntry Code 🛈		Operator ID	Receive Number Prefix	
				No Data		
					Submit	Reset

Figure 3.5.9-1 operator prefix

The screenshot below shows port prefix, when sms traffic send to this device, device will route the sms by port prefix.

Basic	Settings				() Collapse
	Prefix	Route: Port Prefix	T			
					Submit	Reset
ort P	refix Setti	ngs			e) Collapse
Port P	Prefix Setti Port	ngs Port Status		Prefix	 6) Collapse
Port P	Prefix Setti Port 1B	ngs Port Status		Prefix	 ٩) Collapse
Port P	Prefix Setti Port 1B 2B	ngs Port Status		Prefix	٩	Collapse



3.5.10 SMS Filter

SMS filter is used for filtering the spam message, configure the sender number or sensitive word. When the receive sms match with sender or sensitive word, the receive sms will not show in page "SMS receive", it will shows in SMS Trash Box, and also these sms will not forward to third-party system.

SMS spam filter:	Enabled T	
	maximum 1024 digits, including the semi-colon!	
Number prefix blacklist:		* Multiple numbers separated by semicolor
	maximum 1024 digits, including the semi-colon!	* Multiple sensitive Word separated by
Sensitive Word:		semicolons
	19	//

SMS Trash Box						
SMS List				Refresh	Clear	
Port	Sender	Time	Content		Operations	
1B					(Details0)	
2B					(Details0)	
3B					(Details0)	

Figure 3.5.10-1 SMS spam filter



3.5.11 MMS Settings

The settings for sending MMS, need to setup MMSC, MMS proxy and port first.

Settings	iettings					
Operator ID	MMSC	MMS Proxy	MMS Port			
46001			0			
46000			0			

Figure 3.5.11-1 proxy settings

You can select one or more ports to send MMS to different receiver. Successful and failed SMS records will be show below.

Send MMS									🛞 Collapse
Please Select Port:	🗐 All	01 09 17 25	02 00 10 1 18 1 26 2	3 04 1 12 9 20 7 28	05 13 21 29	06 14 22 30	07 15 23 31	08 16 24 32	
Receiver List:									* Semi-colon can be used to separate multiple receivers.
Subject:								-	
Send MMS Content:	maximu characte	m 2400 ASC arl	II characto	ors or max	kimum 8	00 loca	1		Send
Send Successful MMS:	0			Clear					
Send Failed MMS:	0		(Clear					

Figure 3.5.11-2 Send MMS

3.6 Application Settings

3.6.1 Phone Book

When you need other SIP server to send traffic to this gateway, you can add server details in phone book. But make sure it's the point to point mode. Click "Add New" button, setting the server details here. You can also delete and edit phone book list.

		ejoin	119.81.127.122	5060	[Delete] [Edit]
	Remote	Gateway ID	Gateway IP	Gateway Port	Operation
Data List					Add New Delete
Gat	teway Port:	5060			Submit
G	ateway IP:	119.81.127.122			
Remote G	ateway ID:	eioin			
D	ata Status:	Edit	~		
Data Detail	ata Status:	Edit			

Figure 3.6.1-1 Phone Book List

3.6.2 Dial Plan

The dial pattern string is a normal regular expression. For example: The pattern 90[1-4] means the dialed number start with 90 and end with anyone of 1/2/3/4. So like the input 901,902,903 or 904 all can be accepted.

Dial Pattern Sett	ings	
Pattern List		 Collapse
Data Detail		
Data Status :	Add 🗸	
Pattern:		Submit
Data List		Add New Delete
	Pattern	Operation
	No Data	

Figure 3.6.2-1 Dial Pattern Settings

3.6.3 Translation settings

SIP->GSM Translation List

SIP->0	GSM Translation	List			۲) Collapse
Data D	etails					
	Data Status:	Edit	Ŧ			
	Ports 0:	*				
	Callee Prefix:	2567	* Asterisk means match	all digits		
	Digits Stripped:	3	* 0 means not stripping	prefix		
	Digits Added:	0	* Space means not add	ing prefix		Submit
Data Li	ist				Add New	Delete
	Ports	Callee Prefix	Digits Stripped	Digits Added	OI	peration
	×	2567	3	0		Del] [Edit]

Figure 3.6.3-1 SIP->GSM

Taking the figure above as an example, the callee number is 25670123456, it is with prefix 2567, the system will stripped 3 digits, then add 0, the callee number will be translated to 070123456. Ports set to * means apply for all ports.

GSM->SIP Translation List

Prefix Translation	List			闲 Collapse
Data Detail				
Data Status:	Edit	-		
Ports:	All	•		
Original Prefix:	[2-9]	xr	means all input number, [0-9] me	ans all digits
Translated Prefix:	07 <mark>5</mark> 5x	XI	means the corresponding digit of	orignal prefix from right to le Submit
Data List				Add New Delete
	Ports	Original Pro	efix Translated Prefix	Operation
		[2-9]	0755x	[Delete] [Edit]

Figure 3.6.3-2 GSM->SIP

Taking the figure above as an example, calling the SIM in gateway, you will hear an IVR: please dial a number, if you dial 85245166, it will be translated to 075585245166.

Caller ID Hidden

If you want to hide caller ID, just enabled caller id hidden. Some operators sim card also can hide caller id by add dial prefix.(Note: Need operators support with this function.)

erld Hidden		 Colla
CallerId Hidden:	Disabled 🗸	
Dial Prefix:		



3.6.4 Inward Black List

You can forbid some calls by incoming black list. Forbid caller number or callee number.

Black List			 Collapse
Data Details			
Data Status:	Add	*	
Callee number:	x	'x' represents any number of numbers	
Caller number:	×	*** any number of any length	Submit
Data List			Add New Delete
	Callee number	Caller number	Operation
		No Data	

Figure 3.6.4-1 Inward Black List Settings

3.6.5 Inward White List

Inward white list is base on black list.

White List				Collapse
Data Details				
Data Status:	Add	•		
Callee number:	x		'x' represents any number of numbers	
Caller number:	*		** any number of any length	Submit
Data List				Add New Delete
	Callee number		Caller number	Operation
			No Data	



3.6.6 SIM Pool Settings

When you want to manage SIM cards remotely or intensively, you can use this function.

•			Collapse
SIM Pool	Enabled	•	
Registration 0:	Enabled	Ŧ	* If connect directly to a SIM pool device, disable the registration.
Server Address:	192.168.1.55		* Add ":port" to specify a special port.
User Name:	532		
Password:			
Status:			
Status:	5		Submit Reset
status:	2		Submit Reset
ther Settings	Active	•	Submit Reset Collapse * Active means request to server and Passive means wait server's request.
ther Settings SIM Allocation Mode: Use Local Policy ① :	Active Disable	•	Submit Reset Collapse * Active means request to server and Passive means wait server's request. * If enabled, the policy of page Lock/Switch Card will be used.

Figure 3.6.6-1 SIM Pool Settings

Items	Description
SIM Pool	When you enable it, cards on gateway will be disabled, it can just use
	these cards on SIM Pool.
Registration	Registered in sim center.
Server Address	SIM center address.
Username	The gateway account in SIM center
Password	The password of gateway account in SIM center.
Status	Show the gateway registration status.
SIM allocation mode	Active means request to server, passive means wait server reply.
Use Local Policy	If it is enabled, the policy of page lock/switch card can be used in
	SIM Pool.
Time To Live	Keep alive time

Table 3.6.6-1 SIM Pool Settings

3.6.7 Auto Recharge

Auto recharge is based on billing system, if you want to do auto recharge, please configure billing system first. Recharge template #0 is connect with Ejoin auto recharge system, #1-#4 are third-party recharge system of Bangladesh.

Basic Settings			۲	Collapse
Auto Recharge:	Enabled •			
Recharge Platform:	Recharge Template #0 •			
Server Address:		* Add ":port" to specify a special port.		
User Name:				
Password:				
Status:				
2			Submit	Reset
Other Settings			۲	Collapse
Min Balance:	0.00	If balance reached to this value, the auto-recharge will be trigger.		
			Submit	Reset

Figure 3.6.7-1 template #0

Items	Description						
Server Address	The auto recharge server address. (the server with EJOIN ear system)						
Username	It is created in EJOIN ear system.						
password	It is created in EJOIN ear system.						
status	Show the registration status.						
Min balance	If the balance is lower than the value, the ear system will do auto						
	recharge.						

Table 3.6.7-1 template #0

Auto Recharge: Enabled Recharge Platform: Recharge Server Address: User Name: User Name: Disabled Password: Disabled Number Type: Pre-paid Amount: Access key: Repeat Time: 600 Confirmed Timeout: 300 Time recharge control 00:00	▼ e Template #3 ▼	Can't be less than Seconds	600 seconds	Submit
Recharge Platform: Recharge Server Address:	e Template #3	Can't be less than Seconds	600 seconds	Submit
Server Address: User Name: Password: Operator: Disabled Number Type: Pre-paid Amount: Access key: Repeat Time: 600 Confirmed Timeout: 300 Time recharge control Dther Settings Min Balance: 0.00	-24:00	Can't be less than Seconds	600 seconds	Submit
User Name: Password: Operator: Disabled Number Type: Pre-paid Amount: Access key: Repeat Time: 600 Confirmed Timeout: 300 Time recharge control : 00:00 Other Settings Min Balance: 0.00	-24:00]]] Can't be less than] Seconds	600 seconds	Submit
Password: Operator: Disabled Number Type: Pre-paid Amount: Access key: Repeat Time: 600 Confirmed Timeout: 300 Time recharge control : 00:00 Other Settings Min Balance: 0.00	-24:00	Can't be less than Seconds	600 seconds	Submit
Operator: Disabled Number Type: Pre-paid Amount: Access key: Repeat Time: 600 Confirmed Timeout: 300 Time recharge control : 00:00 Other Settings Min Balance: 0.00 Recharge Record	-24:00]]] Can't be less than] Seconds]	600 seconds	Submit
Number Type: Pre-paid Amount:	-24:00	Can't be less than Seconds	600 seconds	Submit
Amount: Access key: Repeat Time: 600 Confirmed Timeout: 300 Time recharge control : 00:00 Ther Settings Min Balance: 0.00 echarge Record	-24:00	Can't be less than Seconds	600 seconds	Submit
Access key: Repeat Time: 600 Confirmed Timeout: 300 Time recharge control : 00:00 Pther Settings Min Balance: 0.00 echarge Record	-24:00	Can't be less than Seconds	600 seconds	Submit
Repeat Time: 600 Confirmed Timeout: 300 Time recharge control 00:00 Other Settings Min Balance: 0.00 Min Balance: 0.00	-24:00	Can't be less than Seconds	600 seconds	Submit
Confirmed Timeout: 300 Time recharge control (1): 00:00 Other Settings Min Balance: 0.00 Secharge Record	-24:00	Seconds		Submit
Time recharge control (1): 00:00 Other Settings Min Balance: 0.00 Recharge Record	-24:00			Submit
Other Settings Min Balance: 0.00		4		Submit Re
Other Settings Min Balance: 0.00				
Min Balance: 0.00				Colli
Recharge Record		If balance reached	to this value, the auto-rech	narge will be trigger.
Recharge Record				Submit
Recharge Record				
				🕒 Colli
				Export Reco
Port Phone Number	Amount	Time	Status	Description
		No Da	ata	
otal: undefined undefined/NaNPage	es	•		

Figure 3.6.7-2 template #1-4

Items	Description
Server Address	The third-party recharge system address
Username	It is created in recharge system
password	It is created in recharge system.
Operator	The operator ID
Number Type	Prepaid or Postpaid sim card
Amount	Amount to be refilled
Access key	It is created in recharge system
Repeat time	If the sim card is recharged, can't recharge again in repeat time
Confirmed timeout	Query balance time
Time recharge control	Recharge is enabled during the time.

Recharge record	It shows the recharge record in this page

Table 3.6.7-2 template #1-4

3.6.8 State Notification

Device send report to the URL which configured, the report include CDR, SMS, call duration data, SMS counts, traffic counts. It's based on HTTP, please check the API document for reference.

Basic Settings			🕒 Collapse
Enable:	Enabled T		
URL:			
Interval time:	60 * 5	Secs	
			Submit Reset
CDR:	Enabled •		
D i olio	Linabled		
Receive SMS:	Disabled v		
Sent SMS:	Disabled		
Receive SMS: Sent SMS: Call Control:	Disabled Disabled		
Receive SMS: Sent SMS: Call Control: SMS Control:	Disabled Disabled Enabled Disabled T		
Receive SMS: Sent SMS: Call Control: SMS Control: Traffic Control:	Disabled ▼ Disabled ▼ Enabled ▼ Disabled ▼ Disabled ▼		

Figure 3.6.8-1 Basic Settings

Items	Description
URL	The http report send to this url
Interval time	The period of sending report
CDR	The call detail records
Receive SMS	The receive sms of device
Sent SMS	The sms which send from device by http, smpp and web
Call control	Call duration data, sim cards' call duration time and remain time
SMS control	SMS counts, sim cards' sms count and remain sms count
Traffic control	The sim card data usage

Table 3.6.8-1 Basic Settings

3.7 Advanced Setting

3.7.1 Network settings

VPN settings

A virtual private network (VPN) extends a private network across a public network, such as the Internet. It enables a computer or network-enabled device to send and receive data across shared or public networks as if it were directly connected to the private network, while benefiting from the functionality, security and management policies of the private network. This device works as VPN(PPTP and openvpn) client mode only, if you want to use VPN function, please input the VPN parameter on the VPN settings page.

VPN Settings			 Collapse
VPN Support : Server Address: User Name:		▼ 	
Password: CHAP:	AUTO	T	
MPPE:	Require-MPPE		
Local IP:	0.0.0.0		
Remote IP:	0.0.0.0		
			Submit Reset

Figure 3.7.1-1 VPN Settings

Network Settings

There are three ways to access the device: web, telnet and serial. web default port is 80, telnet is 23 and serial is the com port you insert. Web configuration is widely used in this device.

Web Port:	80		
Telnet Port:	0		
System Telnet Port:	0	* Open (> 0) Risk of attack, please use caution	
HTTP API Port:	80		

Figure 3.7.1-2 Network Management Settings

Items	Description
Web Port	Device web management port
Telnet Port	Device telnet port, 0 means disabled
System telnet port	Device system shell by telnet, 0 means disabled

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HTTP API port	http api port, default same with web port

Table 3.7.1-1 Network Management Settings

3.7.2 Port Settings

Port	Туре	Disable Port	RTP	Hot-line	Unconditional Forward	No Answer Forward	Busy Forward
1	LTE		1				
2	LTE		1				
3	LTE		1				
4	LTE		4				
5	LTE		1				
6	LTE		(v)				
7	LTE						
8	LTE		1				
9	LTE		1				
10	LTE		1				

Figure 3.7.2-1 Port Settings

Items	Description				
Туре	Indicates the current type of network GSM/CDMA/WCDMA/LTE				
Disable	If it is disabled, this channel will be locked by gateway.				
	When GSM part client call to this channel, gateway will auto forward to				
Hot-line	the hot-line (Mobile to VoIP). Leave it blank if you don't need this				
	function.				
Unconditional	When GSM part client call to this channel, gateway will forward the call				
Forward	to another mobile unconditionally.				
No Answer	When GSM part client calls to this channel, if this channel is no answer,				
Forward	gateway will forward the call to another mobile.				
Busy Forward	When GSM part client call to this channel, if this channel is busy,				
Dusy 1 01 ward	gateway will forward the call to another mobile.				

Table 3.7.2-1 Port Settings

3.7.3 Voice and Codec

Voice and Codec Settings

Voice Settings				۲	Collaps
Voice Volume:					
Input Volume	•••••••••••••••••••••••••••••••••••••••	Output Volume	• 15		
DTMF Volume:	 15 				
Dial <mark>To</mark> ne					
High Frequency:	0	Low Frequency:	450		
On Duration:	5000	Off Duration:	0		
Ringback Tone					
High Frequency:	0	Low Frequency:	450		
On Duration:	1000	Off Duration:	4000		
Busy Tone					
High Frequency:	0	Low Frequency:	450		
On Duration:	350	Off Duration:	350		
On Duration:	350	Off Duration:	350	Submit	Re

Figure 3.7.3-1 Voice and Codec Settings

Items	Description
Voice Volume	The DSP volume. the value range is 10-40. Input volume is on IP side and
voice voiume	output volume is on GSM side. You can adjust volume here.
	The dial tone is sent to a customer or operator to indicate that the receiving
Dial Tone	end is ready to receive dial pulses or DTMF signals. It is used in all types of
	dial offices when the customer's or operator's dials produce dial pulses.
	Usually adopt the default settings.
	The ring back tone(or ringing tone) is an audible indication that can be heard
Ringback	on caller side while the callee side phone is ringing. Normally, it is a
Tone	repeated tone, designed to assure the caller that the callee side phone is
	ringing. Usually adopt the default settings.
	The busy tone indicates that the called customer's line has been reached but
	that it is busy, being wrong, or on permanent signal. When an operator
Busy Tone	applies a busy signal, it is sometimes called a busy-back tone. Line Busy
	Tone is a low tone that is on and off every 0.5 second. Usually adopt the
	default settings.

Table 3.7.3-1 Voice and Codec Settings

Voice Codec Priority

You can click "Up" or "Down" to adjust the codec priority

	Disabled Codecs			Enabled Codecs			
Codec Settings:	ilbc	*	-> <-	G729 G.723 G722 G726-32 PCMA PCMU	*	↑	
		T			T		

Figure 3.7.3-2 Voice Codec Priority

3.7.4 LED Settings

Every sim slot has a led to show the sim card status, if the sim card has issue, led will flash.

LED Setting		🙆 Collapse
Lock Card Flash Frequency		
Carrier Lock Card: Slow	100	
Profile Lock Card: Slow	100	
No Balance: Slow	500	
Registered Failed: SlowO Fas	1000	
Other Settings		
Port Light Indication: 🔲 Disable		
		Submit Reset

Figure 3.7.4-1 LED Settings

Items	Description
Carrier lock Card	The sim card blocked by carrier, 😣
Profile lock Card	The sim card locked by device, Θ
No Balance	Balance lower than invalid balance, 💛
Registered failed	Sim card registered failed,
Port Light Indication	If disabled, the led will not flash even sim card locked or calling

Table 3.7.4-1 LED Settings

3.7.5 Callback Settings

Callback function, when you dial the SIM in gateway with mobile phone, it will hang up soon and send a call back to you, after you pick up the call, you can dial a VoIP extension or another phone number. If you want to use this function, please enable it and set the callback numbers.

Callback S	ettings	 Collapse
Port	Enable	Callback Numbers 🛈
1		
2		
3		
4		
5		
6		

Figure 3.7.5-1 Callback Settings

3.7.6 Callwait Settings

Call waiting is a feature supported by SIM carrier, when there is a second call dialing into this SIM card, there will be waiting tone instead of hang up. You can enable it when you need this feature.

Call Wait	ing Settings	 Collaps
Port	SIM Status Enabled	Status
1		
2		Deactived
3		Deactived
4		
5		Deactived
6		
7		
8		



3.7.7 Other Settings

Application Feature					۲	Collaps
Caller ID Display:	Enable		Silence Suppression:	Enable		
Adaptive JitterBuffer:	Enable		IP TOS:	Enable		
Don't send # to PSTN:	Enable		Append # to PSTN:	Enable Enable		
Carry PSTN Caller ID	Enable					
Forbid PLMN Call	Enable			* excluding white list nun	nbers	
White Number List 🛈 :				* Seperated by comma		
DTMF Pre-Act Time:	1					
DTMF Activity Time:	3					
First DTMF Wait Time 🛈 :	12		* Seconds			
Max Alerting Time 🛈 :	120		* Seconds			
Max Ringback Time 🛈 :	120		* Seconds			
RTP Inactivity Time	60		* Seconds			
Auto Alerting Time Range	0 - 0		* Seconds			
Auto Alerting Type 🛈:	183	۲	Providence Constraints			
Stop Pseudo Alert	Enable		* Stop the pseudo alert when callee is ale	erting.		
GSM Auto Answer	Enable		Auto Answer Time Range:	0 - 0	* Secs	5
VoIP Auto Answer	Enable		Auto Answer Time:	0	* Secs	s
Call interval Model:	Refuse	•	Call interval Time Range 4	0 - 0	* Seco	onds
Auto Redial Times:	0	•	Call Wait Settings Times	0	* Secs	5
DTMF Mode:	RFC2833	Ŧ	RFC2833 Pavload Type:	101		
RTP Ptime:	20	Ŧ	RTP Start Port	16868		
Hotline Number Dial Delay	0		* Secs BTP End Port	16996		
Network Compatible Count:	2		Network Compatible Dur :	180	* Secs	
Check Balance TimeOut	60		* Secs	100		
Auto Reply:	Enable	-				
Busy Tone Det	Enable					
TE Char Set	GSM					
Wireless Mod Heartheat Det	48					
SIM Card Init Judge	Enable					
SMS Failed Retries	5					
Echo Canceller	16ms	•				
Lono Ganceller.	- One					
					Submit	Reset

Figure 3.7.7-1 Application Feature

Items	Description
Caller ID Display	If it is disabled, caller ID will not show on "call status" page.
Silence Suppression	If it is enabled, half of the bandwidth will be saved.

	A jitter buffer is a shared data area where voice packets can be
Adaptive Jitter Buffer	collected, stored, and sent to the voice processor in evenly spaced
	intervals.
IP TOS	TOS of IP packets.
Don't send # to PSTN	If it is enabled, the last digit # of callee number will be removed.
Append # to PSTN	If it is enabled, # will be appended in the callee number
Commy DSTN Coller ID	SIP extension will show the mobile number when you call the SIM
Carry PSTN Caller ID	in gateway.
Forbid PLMN call	Calls will be rejected when calling the SIM in gateway.
	The numbers in white list will not be rejected if forbid GSM call is
white Number List	enabled.
DTMF Pre-Act time	The prepare time until DTMF tone is detected.
DTMF Activity time	The minimum of DTMF activity time.
	Send a call to the sim card in device, after the call connected, if
First DTMF wait time	don't dial number, the call will be hangup after 12 seconds.
Max Alerting Time	The maximum time of alerting.
Max Ringback Time	The maximum time of ring back.
DTD In a stivity Time	The maximum duration of silence from gateway. System will hang
KIP macuvity Time	up the call automatically if the silence duration reaches this value
Auto Alertino Tino	Fake ring back time, gateway will do fake ring back when reaches
Auto Alerting Time	this value.
Stop Pseudo Time	Stopping fake ring back when the callee is alerting.
CSM Auto Anomor	Applying to calls from GSM network. The gateway will answer the
USIVI Auto Aliswei	incoming calls automatically when reaches the value.
VolD Coll Auto Anouver	Applying to calls from IP network. The gateway will answer the
Voir Can Auto Answei	calls automatically when reaches the value.
Call Internal Mada	Refuse: in interval time, the call will be reject by 503 code
Can interval Mode	Keep: in interval time, the call will hold, then send out by this sim.
Call Interval Time	The cell interval time value, can get time many
Range	The call interval time value, can set time range
Auto Redial Time	GSM redial time
	Example: if set to 3 seconds, when sim card A in device is calling
Call Wait Settings	mobile B, then mobile C call A, A will connected C, and hold the
Times	call with B, after 3 seconds, A disconnect C, talk with B again. This
	settings is used for sim blocking.

DTMF Mode	RFC2833, SIP INFO and IN-BAND. The default one is RFC2833.
RFC2833 Payload Type	RTP Payload for DTMF, the default is 101.
RTP Ptime	The interval of RTP packages.
RTP Start Port	The initial port when RTP voice stream transmit the IP network.
RTP End Port	The maximum rtp port
Hotline Number Dial Delay	Incoming call delay to send to sip server
Network Compatible Count	Sim card registered two times, after failed, shows registered failed
Network Compatible Dur	Sim card registered time period, every time 180s
Check Balance Timeout	The time of query balance
Auto reply	One caller send call from one port to a mobile, next time, this mobile call back, the call will forward to the caller and ignore hotline number settings.
Busy Tone Det	Detect the busy tone, then hangup the call, need to confirm the busy tone frequency first.
TE Char Set	Set character for USSD response.
Wireless mod Heartbeat Det	The module heartbeat detect time
SIM Card Init Judge	If enabled, the sim card need to read phone before registered
SMS failed Retries	Sms send failed, will retry 5 times
Echo Canceller	Echo canceller parameter setting

Table 3.7.7-1 Application Feature

Auto Drop				 Collapse
	Enable Enable Enable	Drop After Start 10 Drop After Alert 1 Drop After Talk 1	Seconds Seconds Seconds	
				Submit Reset

Figure 3.7.7-2 Auto Drop

Items	Description
Drop after start	The call drop automatically after the call start value
Drop after alert	The call drop automatically after the call ringing value
Drop after talk	The call drop automatically after the call connected value

Table 3.7.7-2 Auto Drop

3.8 System Settings

3.8.1 User Mgmt

The default username/password of gateway are root/root. You are allowed to change the password and add new users on this page. Every account has a role, different roles have different right of permissions. Role "admin" has the highest right of permission, role can be added in page "role mgmt".

User List		۷) Collapse
Data Detail			
Data Status	Edit]	
Account:	root]	
Password:		The password must be composed of 6~15 English letters, numbers or special syn	nbols.
Confirmed Pwd:			
Role:	Admin 🔻		Submit
Data List		Add Nev	v Del
	Account	Role O	p <mark>eration</mark>
	root	Admin	[Edit]

Figure 3.8.1-1 User List

Follow the screenshot below, you can set the "allowed IP" or "not allowed IP" for web and telnet access.
Web and Telnet Access	Collapse
Allowed IP Addresses	Seperated by comma or CRLF. (Max to 1023 characters)
Not Allowed IP Addresses	Seperated by comma or CRLF. (Max to 1023 characters)
	Submit Reset

Figure 3.8.1-2 Allowed IP settings

3.8.2 Role Mgmt

Add new role here, and choose the page the role need to control.

Data List						A	dd New
Role Name	Home			Permit		C	peration
Admin	System Stati 🔻			All Permit			
		Gateway Settings	Talk Num Settings	Call Ctrl Settings			
		SMS Settings	EIMS Settings	Prefix Route	SMS Filter		
		App Settings	State Notification				
User	System Stati 🔻	Advanced Settings	LED Settings				
		System Settings	System Warn				
		Running	Port Status	Call Status	System Status		
		Status	Call Statistics	Inter-Call Stats			
						Submit	Reset

Figure 3.8.2-1 Role List

3.8.3 Device Mgmt

Basic Settings

You are allowed to set an alias for device. You can also manage your gateway to reboot automatically as you like. There are two types for you to choose, one is after gateway running specified time, and the other one is scheduled reboot.

sic Settings			Collapse
Device Alias:	0	* After running energified times/hours)	
Scheduled Reboot:	Disabled	Alter running specified times(nours)	

Figure 3.8.3-1 Basic Settings

Date and Time

You can choose your time zone or change the NTP server address here. There are three method to get time, manual means set the time manually, NTP means get the time from time server, base station means get the time by wireless module.

Date And Time			Collapse
Time Zone:	+8:00		
Get time mode:	NTP	•	
Time Server:	time.windows.com	* NTP Server's host or IP address.	
			Submit Reset

Figure 3.8.3-2 Date And Time

Temperature Settings

When the temperature lower than the value, Fan stop working. This function need the device has temperature sensor.

FAN Working Temp:	30.0		°C Stops when fall below this value minus 2 degrees.	
Warning Temp:	30.0		°C	
Temp. Notify Period:	0		Seconds	
Send Warning SMS:	Disabled	۲	* Send a SMS when reached to warning value.	
Send Notify SMS:	Disabled	•	* Send a notification SMS every period.	
SMS Receipients:	seperated by con	nma or sen	nicoloni	

Figure 3.8.3-3 Temperature Settings

Network Management System

We can't access in device web interface with other network if the device is behind NAT, ERM and ETMS are the remote system which can help us access in the device with other network.

letwork Management	System		۲	Collapse
Server Type:	ERMS	•		
Server IP:	www.ejoinerm.com			
Server Port:	50000			
Account:	ip101.user	No account? Register now!		
Password:				
Status:	ок			
Status Dur. time:	07:15:54			
			Submit	Reset

Figure 3.8.3-4 network management system

Items	Description
Server type	ERMS and ETMS, default ERM web http://www.ejoinerm.com:8080/erm
ERM Server IP	ERM or ETMS server ip
ERM Server Port	The port of ERM or ETMS service. Default is 50000
Account	ERM account. You can also click "Register" to create a new account.
Password	Password of ERM account.
status	The Registration status of gateway with ERM or ETMS server.
Status dur. time	The time elapsed since registered.

 Table 3.8.3-4
 network management system

SNMP

Simple Network Management Protocol (SNMP) is an application–layer protocol defined by the Internet Architecture Board (IAB) in RFC1157 for exchanging management information between network devices. It is a part of Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite.

Ejoin SNMP management include SIM card ICCID, IMSI, IMEI, Register status, CDR and SMS.

Data List					
				Add New	Delete
SNMP Trap Server Li	st			۲) Collaps
				Submit	Reset
Enterprise:	0			0.5-11	Deret
RwCommunity:	private	* Community name for S	NMP access		
Ro Community:	public	* Read community name	ofor SNMP access		
Listener Port:	161	* SNMP listening port			
SNMP:	Enabled	•			
SNMP:	Enabled	•		۲	Collap

Figure 3.8.3-5 SNMP Settings

3.8.4 File Management

File management is used for debugging the device. It has gdb, dying message and call statistics files. You can export or delete the logs from this page.

List							 Col
Index	Dirname	Filename	Modification Time	Туре	Size	Ope	rations
1	/opt/ejoin/var/log	sysmsg.log	2019-10-12 10:52:22	log	12558	Del	Export
2	/opt/ejoin/var/log	messages.log	2019-10-12 10:52:29	log	313650	Del	Export
3	/opt/ejoin/var/log	tcpdump.cap1	2019-10-12 10:52:29	cap1	4825263	Del	Export
4	/tffs/var	1004-1028.gdb.tgz	2019-10-04 18:28:53	tgz	5933	Del	Export
5	/tffs/var	dyingmsg.tgz	2019-10-09 09:14:50	tgz	57108	Del	Export

Figure 3.8.4-1 File List

3.8.5 System Update

Import File

On this page, you can update the firmware for device, you can also update other files like kernel, ramfs etc.

Import File		 Collapse
File Type:	Firmware	
File Name:	浏览… 未选择文件。	Submit Cancel



Export Configuration

Click "Export" button to export the configuration files.

		 Collapse
nfiguration Type	Configuration •	Export Configuration
	nfiguration Type	nfiguration Type: Configuration 🔻

Figure 3.8.5-2 Export Configuration

Service Data

Click "Export data" button to export the call duration and sms counts data

Service Data	 Collapse
Click 'Export' button to export the service data	Service Data Type: Call Duration V Export Data

Figure 3.8.5-3 Service Data

Restore To Factory

Sometimes there is something wrong with your gateway that you don't know how to solve it, mostly you will reset it. Just click "restore" button, your gateway will be reset to the factory settings.(IP will not change).

Restore To Factory	🔶 Collapse
Click 'Restore' button will restore system to factory settings.	Restore

Figure 3.8.5-4 Restore To Factory

3.8.6 Test Network

Maual Ping

It's used to test the reachability of the destination server

anual Ping			🕞 Collaps
IP Address:	203.186.75.167		
Packet Size:		* Default is 56 bytes	
Packet Count:		* Default is 4, 0 means always ping	
lesult			Start
64 bytes from 203.1 64 bytes from 203.1 203.186.75.167 2 packets transmitte round-trip min/avg/r	86.75.167: seq=0 ttl=50 tim .86.75.167: seq=1 ttl=50 tim ping statistics ed, 2 packets received, 0% p nax = 14.916/15.754/16.592	ne=16.592 ms ne=14.916 ms packet loss 2 ms	



Capture

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Capture					Collapse
Auto Capture:	Disabled	•	* capture automatically when system booting.		
IP or Host:			* blank means do not limit the ip address.		
Port:	0		* Default is 0,0 means all ports		
File Size:	5M*2	•			
				Submit	Stop

Capture the tcpdump log of device, the log will show in "file management"

Figure 3.8.6-2 Manual Ping

3.8.7 Monitor System

Log Settings

You can enable the specific progress module running logs to monitor the device working status, and set the log file counts. Device will save 5 logs as default

You can back to File management page to download these log files.

						6) Collaps
Log File Count:	5	T	* The size of	single logfile is 1M	IB.		
UTL Log Level: INFO 🔹							
SIP Log Level:	INFO	Y					
Log Server:	www.ejoine	rm.com:8088					
Send Log To Server:	Disabled	Ŧ					
						Submit	Cancel
Log Modules	3 💌	ссм	SIP	SIP Msg	SIP Route	۲) Collaps
Log Modules POTS WIRE	s 🗹	CCM		SIP Msg	SIP Route	۲) Collaps
Log Modules POTS WIRE ETM	3 🗹	CCM B DSP B RC B	SIP ESP LED	SIP Msg SPC EAR	SIP Route	۲) Collaps

Figure 3.8.7-1 Log System

CPU&Memory

This page is used to show all the running processes of the device, CPU&Memory useage.

CPU & Memory Mon:	Enabled v		
Memory Threshold(MB):	0 *1	When the memory below this valu	e,Sends monitoring information to log server.
CPU Usage:100%	Memory U	sed:93320KB	Memory Free: 25316KB
PID	%Mem	%CPU	Process Name
1067	32%	50%	tLoadFile0
1029	17%	25%	/sbin/gdb
4524	1%	19%	top
1074	32%	0%	tHttpWeb3
2041	32%	0%	tHttpWeb8
2042	32%	0%	tHttpWeb9
1071	32%	0%	tHttpWeb1
1042	32%	0%	tUtiLog
1084	32%	0%	tHttpWeb4
1070	32%	0%	tHttpWeb0



3.8.8 System Warn

It's used to show the system security tips.

A System Warn

System Warn	Collapse
License	Device License Normal
Account Risk	Device account no risk
Receive All Call	Receive all call close



3.9 Running Status

3.9.1 Port Status

There are two ways to show port status, panel mode and list mode, click the menu to select the mode.

t Mode	

Panel mode

Port LED display every SIM card status on device. if the sim card is locked, can reset in this page.

Port LED	0			Show Balance	All Locke	d Sim Bat	tch Reset Locked Sim	Collaps
	1	2	3	4	5	6	7	8
A								
в								
С								
D								
	9	10	11	12	13	14	15	16
А								
В								
С								
D								
	17	18	19	20	21	22	23	24
A								
В								
С								
D								
	25	26	27	28	29	30	31	32
А								
В								
С								
D								
Note:	Card Det	tected	O Card Inserted	ORegisterir	ng Card	Register	ок 🔵 с	alling
	😑 Inter-Call	ling	😂 Inter-Calling holding	Access M	lobile Network	No Balar	ice 🔴 Ri	e <mark>gister F</mark> ailed
	O Locked		🛞 Locked By Operator	O Locked B	y User			

Figure 3.9.1-1 Port LED

Items	Description
	SIM card is detected, but it is not active.
0	SIM card inserted, but the module not read the card.
0	SIM card inserted, and module already read the card.
	SIM card is registered.
	SIM card is calling.

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9	SIM card inter-calling
9	SIM card is preparing inter-calling
	SIM card is using data
	Low balance(lower than the invalid balance when enable billing system)
•	SIM card register failed
θ	SIM card is lock by device.
\otimes	SIM card is locked by operator.
Θ	SIM card is locked by user

Table 3.9.1-1

Port Status

Port status display every wireless module detect status, and register operator information, signal value for channels.

Po	ort Stat	us List							
ort St	tatus								🕑 Collap
Port	SIM	SIM Status	SIM Number	Balance	Module	Operator	Network	Signal	Description
1	В			0.00	Yes				SIM not inserted
2	В			0.00	Yes				SIM not inserted
3	В			0.00	Yes				SIM not inserted
4	В			0.00	Yes				SIM not inserted
5	В			0.00	Yes				SIM not inserted
6	В			0.00	Yes				SIM not inserted
7	В			0.00	Yes				SIM not inserted
8	В			0.00	Yes				SIM not inserted

Figure 3.9.1-2 Port Status

Items	Description
Port	Number of GSM/CDMA/WCDMA/LTE ports.
SIM	The SIM slot number

SIM Status	Indicates whether SIM is registered or not
SIM Number	SIM card number
Balance	SIM card balance, need to enable billing settings first.
Module	Indicates whether module is detected or not.
Operator	Displays the sim card operator ID
Network	Displays the network 2G/3G/4G
Signal	Displays the signal strength of current SIM card
Description	Display the SIM card status and caller, callee ID.

Table 3.9.1-2

3.9.2 Call Status

On this page you can monitor every current call on device.

Call Status List						 Collapse
Port SIM Status	Туре	State	Duration	RIsRsn	Balance	Description
1B	LTE	HANGUP		0;0	0.00	SIM not inserted
2B	LTE	HANGUP		0;0	0.00	SIM not inserted
3B	LTE	HANGUP		0,0	0.00	SIM not inserted
4B	LTE	HANGUP		0;0	0.00	SIM not inserted
5B	LTE	HANGUP		0;0	0.00	SIM not inserted
6B	LTE	HANGUP		0;0	0.00	SIM not inserted
7B	LTE	HANGUP		0;0	0.00	SIM not inserted
8B	LTE	HANGUP		0;0	0.00	SIM not inserted

Figure 3.9.2-1 Call Status

Items	Description
Port	Number of GSM/CDMA/WCDMA/LTE ports.
SIM Status	Indicates whether SIM is registered or not
Туре	Indicates the current type of network. GSM/CDMA/WCDMA/LTE
State	call status, it can be hangup, dialing, alerting, connected etc.
Duration	The duration this channel stay in current status.
RlsRsn	Sip release cause and module release cause
Balance	The SIM card balance, need to enable billing settings first
Description	Display the SIM card status and caller, callee ID.

Table 3.9.2-1 Call status

3.9.3 System Status

Device information shows the hardware, software version and wireless module type etc.

WAN status shows the wan port network parameters and MAC address.

License information shows voice, sms and IMEI modify enable or not and so on.

Device Info				🙆 Collapse
Device ID	13f74c44-5500c707	Net Management Status	ОК	
Current Time	2019-10-12 13:32:42 +8:00	Running Time	49 Hr 31 Min 26 Sec	
Module Type	LTE	Current Temperature	N/A	
Hardware Version	21.1.0.1.13	Firmware Version 🛈	0.7.15	
Software Version	532-605-916-041-100-000	Released Time	Sep 3 2019 09:58:38 r6454	
WAN Status				 Collapse
Connection Mode	Static IP	Connection Status	Connected	
IP	192.168.0.157	Default Gateway	192.168.1.1	
DNS Server IP	192.168.1.1	MAC Address	00-30-f1-00-c7-07	
_icense Info				Collapse
License File ID	yceFhUaXEs95VJyBqDGx	Status	ок	
Create Time	2019-06-20 15:55	Birth Time	1970-01-01 00:23	
Max Rem Time	No limit	Remain time	No limit	
Voice	Enable	SMS	Enable	
IMEI Modify	Enable	Max call dur.	No limit	
Allow ICCID		Deny ICCID		
Allow IMSI		Deny IMSI		
Allow Operator		Deny Operator		

Figure 3.9.3-1 System Status

3.9.4 Call Statistics

all Stati	stics List					Show Cur	Show All	Clear	Last hour •	Collapse
Port	Calls	Alerted	Connected	Con Fails	NC	PDD	ACD	ASR	Tot Call Dur(min)	Actual Time
Total	0	0	0	0	0/0	0	0	0%	0	00:00:00
1A	0	0	0	0	0/0	0	0	0%	0	00:00:00
1 B	0	0	0	0	0/0	0	0	0%	0	00:00:00
1C	0	0	0	0	0/0	0	0	0%	0	00:00:00
1D	0	0	0	0	0/0	0	0	0%	0	00:00:00
2A	0	0	0	0	0/0	0	0	0%	0	00:00:00
2B	0	0	0	0	0/0	0	0	0%	0	00:00:00
2C	0	0	0	0	0/0	0	0	0%	0	00:00:00
2D	0	0	0	0	0/0	0	0	0%	0	00:00:00

Figure 3.9.4-1 Call Statistics

Items	Description
Show Cur	Shows current active sim cards call statistics.
Show ALL	Shows all sim cards call statistics.
Clear	Clear all ports call statistics. The data will be clear after rebooting.
Time period	Last hour, last two hours, last day and total call statistics for selecting.
Port No.	Number of GSM/CDMA/WCDMA/LTE ports.
Calls	The total number of calls that send out from this SIM card.
Alerted	The total calls which is responded alerting message.
Connected	The total answered calls
Consecutive	The consecutive failed calls
Fails	
NC	No Carriers times and trying times.
	Post Dial Delay (PDD) is experienced by the originating customer as the
	time from the sending of the final dialed digit to the point at which they
ססק	hear ring tone or other in-band information. Where the originating
	network is required to play an announcement before completing the call
	then this definition of PDD excludes the duration of such announcements.
	The Average Call Duration(ACD) is calculated by taking the sum of
ACD	billable seconds(billsec) of answered calls and dividing it by the number
	of these answered calls.

	Answer Seizure Ratio is a measure of network quality. It's calculated by
	taking the number of successfully answered calls and dividing by the total
ASR	number of calls attempted. Since busy signals and other rejections by the
	called number count as call failures, the ASR value can vary depending
	on user behavior.
	The sim card call duration, count by minute(60s), that means if it has two
Tot Call Dur(min)	calls, one call is 67 seconds, the other call is 10 seconds, the total duration
	will be 3 mins.
	The sim card call duration, count by seconds(1s), that means if it has two
Actual Time	calls, one call is 67 seconds, the other call is 10 seconds, the total duration
	will be 77 seconds, shows 00:01:17
1	

Table 3.9.4-1 Call Statistics

3.9.5 Media Statistics

Media statistics shows the RTP information when send calls.

Media Statistics									
Data List						Show Cur Show	All Clear Data		
Port	Codec	Remote IP:Port	Local Port	Txp kts/Bytes	Tx Rate/Bytes	Rx pkts/Bytes	Rx Rate/Bytes		
🔲 1B		0.0.0.0:0	0	0/0	0 / 0B/s	0/0	0 / 0B/s		
🗆 2B		0.0.0.0.0	0	0/0	0 / 0B/s	0/0	0 / 0B/s		
🔟 3B		0.0.0.0	0	0/0	0 / 0B/s	0/0	0 / 0B/s		
□ 4B		0.0.0.0	0	0/0	0 / 0B/s	0/0	0 / 0B/s		
5B		0.0.0.0:0	0	0/0	0 / 0B/s	0/0	0 / 0B/s		
□ 6B		0.0.0.0	0	0/0	0 / 0B/s	0/0	0 / 0B/s		

Figure 3.9.5-1 Media Statistics

Items	Description
Port	Number of GSM/CDMA/WCDMA/LTE ports.
Codec	The voice codec of current call use, g729, g723, g711 etc.
Remote IP:Port	The remote server rtp ip and rtp port
Local Port	Device rtp port
Txp kts/Bytes	Device->>server rtp packets
Tx Rate/Bytes	Device->>server rtp sending rate

Rxp kts/Bytes	Server->>device rtp packets
Rx Rate/Bytes	Server->>device rtp sending rate, 0 means mobile side can't hear voice.

Figure 3.9.5-1 Media Statistics

3.9.6 SMS Statistics

SMS S	SMS Statistics Collapse									
Data Li	st						Show Cur S	Show All C	lear Data	ast hour 🔻
Port	SIM Status	Received	Filtered Out	Sent	Sent OK	Send Failed	Con. Failed	Don't Sent	Sending	Success Rate
Total		0	0	0	0	0	0	0	0	
1B										
2B										
ЗB										
4B										
5B										
6B										

Figure 3.9.5-1 SMS Statistics

Items	Description
Show Cur	Shows current active sim cards sms statistics.
Show ALL	Shows all sim cards sms statistics.
Clear	Clear all ports sms statistics. The data will be clear after rebooting
Time period	Last hour, last two hours, last day and total call statistics for selecting.
Port No.	Number of GSM/CDMA/WCDMA/LTE ports.
SIM status	Indicates whether SIM is registered or not
Received	The sim card received sms counts.
Sent	The sent sms counts.
Sent OK	The successful sms counts.
Sent failed	The failed sms counts.
Con.failed	The consecutive failed sms counts.
Don't send	The cache sms in queue
Sending	The sending sms
Success rate	Success rate

Table 3.9.5-1 SMS Statistics

3.9.6 Traffic Statistics

Traffic statistics shows the sim card data usage, includes total/day/last day/last hour data usage information.

Traffic Statistics									
Data	List						Show Cur	Show All	Clear Data
	Port	Total Flow(MB)	Day Flow(MB)	Last 24 hour traffic(MB)	Last Hour Traffic(MB)	Recent Internet Traffic(MB)		Last Visit UI	RL
	1B	0	0	0	0	0			
	2B	0	0	0	0	0			
	3B	0	0	0	0	0			
	4B	0	0	0	0	0			
	5B	0	0	0	0	0			
	6B	0	0	0	0	0			
	7B	0	0	0	0	0			
	8B	0	0	0	0	0			

Figure 3.9.6-1 Traffic Statistics

3.9.7 Inter-Call Status

When you enable the inter-calling or inter-SMS, you can monitor the executing details on this page.

Inter-Calling Statistics										 Collapse 	
Data	List								Show Cur	Show All	Clear Data
	Port	State	Duration	Inc. Calls	Out. Calls	Success	Failed	Sent SMS	Rcvd SMS	Descri	ptions
	1B	IDLE		0	0	0	0	0	0		
	2B	IDLE		0	0	0	0	0	0		
	3B	IDLE		0	0	0	0	0	0		
	4B	IDLE		0	0	0	0	0	0		
	5B	IDLE		0	0	0	0	0	0		
0	6B	IDLE		0	0	0	0	0	0		
	7B	IDLE		0	0	0	0	0	0		
	8B	IDLE		0	0	0	0	0	0		

Figure 5.9.7-1 Inter-Can Statistics	Figure 3.9.7-1	Inter-Call	Statistics
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3.9.8 CDR Query

CDR is call detail record, the device doesn't save cdr data, the data will be saved in etms

				No Data Re	cord!			
Port 🗘	Slot	Begin time	End time	🗘 тур	e Caller	ି Cal	lee	Dur(s)
						Q Statistics	Q Search	ී Reset
Caller	Caller: Please input Caller		Callee: P	Please input	Callee	State:	Please select state	
Mir duration	n Pleas	se input min duratior	Max duration:	Please input	max duratio	Type:	Please select ty	ie ~
Time limit	: Plea	se select time $$	Begin time:	2019-10-12	14:28:53	End time:	2019-10-12 14:28:53	
CON				Bibetun	Borrete	LAPOIT	Sching	G Scarci

server. If you need to query cdr, the first step is connect with etms server.

Figure 3.9.8-1 CDR Query

3.9.9 SMS Query

the device only save 50 receive sms for each port and don't save sent sms record. If you need to save all sms records and query the records, need to connect with eims server first.

Ports	\$	ICCID	0	Sender	ି No E	Receiver Data Record!	C Receive ti	me	0	Sms Content	0. -
ICCID:	Plea	se input ICCID							0	Search DR	eset
Time limit:	Plea	ise select time	~	Begin time:	201	9-10-12 14:39:04	End	time:	2019	-10-12 14:39:04	

Figure 3.9.5-1 SMS Query

3.10 Save and Reboot

Modification will be applied after you saving and rebooting gateway.(All calls will break off when rebooting.)

	Collapse
Save	
	Save

Figure 3.10-1 Save and Reboot

Chapter IV Typical Used Scenario

4.1 Landing from IP network to Mobile network



Figure 4.1-1 IP to Mobile

4.2 Accessing from Mobile network to IP network



Figure 4.2-2 Mobile to IP

Chapter V FAQ

1. What is the default IP, username and password of the device?

Default IP: 192.168.1.67, both username and password are root.

2. How to reset the device to factory settings?

Push the "RST" button near power button 10s then it will reset to factory settings.

3. SIM card registered failed

- 1) Check the SIM card in mobile first
- 2) Check if install the antenna
- 3) Check if the SIM card insert correctly

4. How to update the new firmware?

System settings>>system update>>import file, just upload the firmware file then submit, the file will upload and save, after that, the device will reboot automatically, 2-3 minutes later, refresh the browser, relogin.

5. How to set call duration time?

Gateway settings>>call duration control

6. Why it doesn't work when I change the settings?

Please save and reboot the device, then the configuration will work