

# SK GolP User Manual V1.6





#### http://www.chinaskyline.net

Tel/Fax: 86-755-82435955

Office Address: Floor 6, Building 4, No.7 Lipu Street | Dafapu Community, Bantian Road | Longgang District, shenzhen city | Guangdong, China



Content	t	2
About		. 4
•	Intro	. 4
•	TECHNICAL PARAMETER	5
•	View	. 7
Quick St	tart	. 8
•	Insert SIM cards	. 9
•	Connect Device	. 9
•	Check Device IP	9
•	Log Into The Management Web	. 9
•	Connect To Network	10
•	Connect To SIP Server	11
How To		11
<ul> <li>Ho</li> </ul>	ow to change GoIP WAN default IP?	11
<ul> <li>Ho</li> </ul>	ow to Insert SIM cards?	13
■ Ho	ow to make test VOIP calls?	14
■ Ho	ow to activate the SIMs locked?	15
GoIP De	etails	16
*	Status Information	16
•	Call status	16
•	Device status	17
•	System status	18
	SMS statistics	19
	InterCall Statistics	19
*	Gateway Settings	20



	<ul> <li>Network Setting</li> </ul>	20
•	<ul> <li>SIP Setting</li> </ul>	20
•	Port Setting	22
•	<ul> <li>Base Station</li> </ul>	23
•	<ul> <li>Rules Setting</li> </ul>	25
•	Mobile Setting	
•	<ul> <li>SMS Setting</li> </ul>	29
•	Automation	31
•	Simpool Setting	33
•	InterCall Setting	
•	Callback Setting	
•	CallWait Setting	
•	Call Dur Setting	
•	<ul> <li>Auto Recharge</li> </ul>	
•	Status Notification	
*	System Settings	41
•	Codec	
•	Network Debug	42
•	Log System	42
•	<ul> <li>File Management</li> </ul>	43
•	User & Device	
•	Update & Restore	
•	Module Update	45
•	Save & Reboot	
-	<ul> <li>Initialization</li> </ul>	



About

# • Intro

SKYLINE INTERNATIONAL COMMUNICATION Co., Ltd. was founded in 2002.We have 70 employees, 15 departments and more than 10 production lines. More than 200 companies have established business with us, and they are from 40 different countries.

Our company is a manufacturer of VoIP Gateways, GSM VoIP gateways, with wellequipped testing equipment and strong technical force. With a wide range, good quality, reasonable prices and stylish designs, our products are extensively used in communication industry and other industries. Our products are widely recognized and trusted by users and can meet continuously developing economic and social needs.

We welcome new and old customers from all walks of life to contact us for future business relationships and achieving mutual success!

And we set up a new team for voice wholesale business two years ago. Currently there are five departments with professional teammates for voice business--Carriers Relations Dep, NOC Dep, Rate Dep, Billing & Finance Dep, customer Care Dep.

We are carrying more than Twenty Million minutes international outbound and inbound traffic monthly and owning 200+ interconnections with Tier1 and Tier2 carriers. We mainly focus on Asia and Africa destinations and have more than 20 direct routes such as Pakistan, Vietnam ect.

We treat every partner as our best friend because we insist on sincerity, trust and open-minded will be the key to the success for both parties. We sincerely welcome all VOIP interconnection.

SK-GoIP Gateway is a multi-functional and high performance product, which is designed with advanced embedded technology. SK-GoIP is able to process traditional voice call service and internet data service. It adapt new hardware and software structure, which supports up to 32/128 concurrent calls and perfectly support G729a/b/e, G723.1, G.711 A/U law and iLBC codecs at the same time.



# TECHNICAL PARAMETER

**Features:** Relay Encryption Solution(Fix IP Blocking)/Bandwidth Optimization/SIM Rotating Automatically(Fix SIM Blocking)/Base Station Switch/SIM Hot Plugging/Remote Control(Manage Device Anywhere)/Muti-Codec Support)/SMS Receive & Send

#### **Human Behavior**

Channels: 32/128 SIP V2.0 RFC3261 RTP/RTCP RFC3551 Echo/Silence control Caller Anonymous Codecs: G729 a/b/e, G723, G711 A/U law, iLBC SIP account: Management with Authentication VOL control PIN Code Management AT, SMS, USSD

#### **GSM PARAMETERS**

GSM channels: 32 Channels Network types: 850 / 900 / 1800 / 1900 MHz (quad-band) Transmitter power: +33dBm (2W) 850/900MHz, +30dBm (1W) 1800/1900M SIM card: 1 SIM per channel, Small plug-in, 3V Antenna connector: SMA (female), Impedance 50  $\Omega$ 

#### INTERFACES

**Channel**: 1 SIM per Channel **WAN**: RJ-45 **USB**: Serial Port, Baud rate: 115200, 8, n, 1, n

#### ADMINISTRATION

User Management program via USB interface Includes version update capabilities for firmware or management Software Remote Control Telnet, Console Echo

#### WCDMA PARAMETERS

Channels: 128 Channels Network types: 850/1900 & 900/2100MHz Antenna connector: SMA (female), Impedance 50  $\Omega$ 



GolP User Manual CDMA PARAMETERS CDMA channels: 128 Channels Network types: 450/800/1900MHz Antenna connector: SMA (female), Impedance 50  $\Omega$ 

MAIN POWER Power Input: 100-240V~50-60Hz 1.2A MAX Power Output: 12V/5A

**Internet** DHCP, DNS, PPPoE IPv4, TCP, UDP HTTP, FTP, TFTP, ARP, NTP

OTHER Working Temperature:  $0 \sim +50^{\circ}$ Working Moisture:  $10 \sim 90 \%$  RH 32/128 Channel 128 SIM cards/32/128 Channel 32/128 SIM cards



• View



**1**, SIM slots: The 32/128 GoIP device can read 128 SIMs totally. It means the gateway can support 32/128 calls concurrently (32/128 channels), and each channel can read 4 SIMs named A,B,C,D (This SIMs will rotate to avoid blocking).

#### 2, Channel number.

**3**, Channel LED: One channel include 4 LEDs for ABCD SIMs.

ACT	LED Status
Startup(Rebooting)	All ON
Fail mobile connection	Blink
Calling	ON
Idle or No SIM	Off

4, Power LED.



GoIP User Manual

#### **5**, RESET: Restore the factory default (Press the button and hold on for more than 5s).

#### 6, Power connector.

Input power: 100-240V ~ 50-60Hz 1.2A MAX

Output power: 12V/5A

#### 7, LAN: Ethernet port.

100M/10M Adaptive

#### **8**, WAN: Ethernet port.

100M/10M Adaptive

The default WAN IP is **192.32/1288.1.10**.

#### **9**, CONSOLE: USB serial port.

Baud rate: 115200, 8.n.1.n

#### **10**, Antenna connector.

**11**, Cooling fans: Support 2 mode – ON & Automatic (When Control center detect the CPU too hot, fans will be ON, otherwise it will OFF).

Working Temperature: 0 ~ +50  $^\circ C$ 

Working Moisture: 10 ~ 90 % RH

# **Quick Start**



#### Insert SIM cards



A/C: The chip side towards up. B/D: The chip side towards down.

# Connect Device

Connect the power adapter to keep power on, connect a RJ45 network cable from GoIP WAN port to a router (1) LAN port (The router should be connected to internet).

(1) router: A device used for visiting internet, such as TP-Link, Tenda, D-Link

# Check Device IP

The GoIP WAN default IP is <u>192.32/1288.1.10</u>.

1, If the router LAN IP is <u>192.32/1288.1.1</u>, the GoIP default IP will be OK.

2, If the router LAN IP is not <u>192.32/1288.1.1</u>, for example <u>192.32/1288.0.1</u>, the GoIP default IP should be corrected. <u>How to change it?</u>

#### Log Into The Management Web

After retrieving the IP address, open browser (IE, Chrome, FireFox, Opera ...), input the IP address and the login web will return. The username & password will be needed to log into. *Default Account is root, password is root.* 

GoIP User Manual	
🧭 http://192.168.2.188/login_en.html	
Input IP address here	Web Language
	Account Password Submit Reast
	China STVLINE

When login successfully, the "Initial Setting" guide page will be help to make gateway working more easily.

Actually, only IP address and SIP info are needed then the GoIP gateway can start to transfer VOIP calls.

# Connect To Network

O Dynamic IP		
Static IP		
WAN IP:	192.168.2.188	
IP Mask:	255.255.255.0	
Default Gateway:	192.168.2.1	
DNS Server:	192.168.1.1	
User Name:		
Password:		
MTU:	1492	
Service Name:		

Dynamic IP:  $\mathsf{DHCP}\ensuremath{\textcircled{O}}$  mode, get an IP address from the network router automatically.

② DHCP: Dynamic host configuration protocol.

#### Static IP: set IP address manually.

1, The WAN IP should be in the segment of the router.



- 2, The WAN IP should be unique or it will conflict with other network devices.
- 3, Check the IP Mask and Default Gateway in your router configuration.

The WAN IP segment will be same with the router which gateway connect to. For example, the router LAN IP is <u>192.32/1288.10.1</u>, and the gateway WAN IP should be <u>192.32/1288.10.xxx</u>.

PPPoE<sup>3</sup>: User account and password are needed from your ISP<sup>4</sup>.

- ③ PPPoE: Point-to-Point Protocol over Ethernet.
- 4 <code>ISP: Internet Service Provider.</code>

For VoIP to work correctly, you must have a strong and consistent Internet connection. The quality of VoIP calls depends on the speed of your internet connection. The faster your Internet connection is, the better your calls will sound.

#### Connect To SIP Server

P Running Parame	ers	
Protocol Mode:	Registration	
Account:	TEST	
Password:	•••••	
SIP Server:	110.34.227.60	
SIP Server Port:	5060	Submit Re

Phone Number: (same with SIP id or keep it empty)

Account: (The SIP id created in the SIP server)

Password: (The SIP password created in the SIP server)

SIP Server: (The SIP server IP address or domain name)

SIP Sever Port: (The SIP server SIP port, default port is 5060)



How to change GoIP WAN default IP?



If the router's LAN IP segment is not same with GoIP WAN segment (192.32/1288.1.10), need modify GoIP default IP.

First, connect a computer to the same router with GoIP, add the GoIP IP segment in the computer.

単 以太网 Status	× 🔋 以太网 Properties 🗙
General	Networking Sharing
Connection IPv4 Connectivity: Internet	Connect using:
IPv6 Connectivity: No Internet access Media State: Enabled	Configure This connection uses the following items:
Activity	✓       QoS Packet Scheduler       ▲         ▲       Microsoft Network Adapter Multiplexor Protocol       ▲         ▲       Microsoft LLDP Protocol Driver       ▲         ▲       Link-Layer Topology Discovery Mapper I/O Driver       ▲         ▲       Link-Layer Topology Discovery Responder       ▲         ▲       Internet Protocol Version 6 (TCP/IPv6)       ▼
Sent — 💭 — Received	Install Uninstall Properties
Bytes: 18,614,025 540,647,054	Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Close	OK Cancel



neral	
'ou can get IP settings assigned his capability. Otherwise, you ne or the appropriate IP settings.	automatically if your network supports and to ask your network administrator
Obtain an IP address autom	atically
• Use the following IP address	s:
IP address:	192.168.1.11
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	
Obtain DNS server address	automatically
Use the following DNS serve	er addresses:
Preferred DNS server:	
Alternate DNS server:	• •
Validate settings upon exit	Advanced

Save it, then input "192.32/1288.1.10" in the browser, log into the page and change the WAN IP to be compatible with the router. How to change WAN IP?

• How to Insert SIM cards?

Refer to "Insert SIM cards".



**GolP User Manual** 

#### How to make test VOIP calls?

After Preparation Work is done, insert cards & network connected, a test call is necessary.

1, Download a softphone, like x-lite, install and run it.

Enabled	Domain	Username	Display Name	Add
<b>v</b>				Remove
				Properties
				Make Defaul

2, Connect this softphone with GoIP peer to peer.

-User [	etails		
Display	/ Name		100
User n	ame		100
Passw	ord		•••••
Author	rization user	name	100
Domair	n	6	192.168.1.10
Send o	outbound via domain	:	
0	domain proxy target doma	Address	
Dialing	1		#11a1a Timatek_1ureetris_7.
Cianing F	Arcan 1		# 1 /2 /2 · 1 /110/01 = 1/Dicsoff = 2/

Display Name, User name, Password can be anything.



#### Domain: Input GoIP WAN IP.

Unchecking the "Register with domain and receive incoming calls".

#### 3, Dial a phone number and test.

Call S	all Status								
Port	Call Status	Duration	Balance	SIM Led	Provider	Signal Intensity	ASR	ACD	IMEI
1D	CONNECTED 10010	00:00:09	0.00	•	46001	ed.	66%	00:00:40	111111111111812

# • How to activate the SIMs locked?

When the SIMs are locked temporarily, SIM status will be  $\Theta$ . There are 3 ways to unlock them.

- 1, Reload them. Take out the SIMs and reinsert.
- 2, Or reboot the gateway device.
- 3, Reboot the PORTS. Path: Gateway Settings->Port Setting.

Un-checking the corresponding SIM slots and save, then check them and save.

PortNo.	Type	Disable	Bind SIM Card	InputVol	OutputVol		Opera	tions	
1	GSM		ABBCD	0	4	Restart	Close	Start	More>>
2	GSM		ABBCD	0	4	Restart	Close	Start	More>>
3	GSM		✓ A < B < C < D	0	4	Restart	Close	Start	More>>
4	GSM		✓ A Ø B Ø C Ø D	0	4	Restart	Close	Start	More>>
5	GSM		ACD	0	4	Restart	Close	Start	More>>
6	GSM		✓ A < B < C < D	0	4	Restart	Close	Start	More>>
7	GSM		ABBCD	0	4	Restart	Close	Start	More>>
8	GSM		ABBCD	0	4	Restart	Close	Start	More>>
9	GSM		🖉 A 🖉 B 🖉 C 🖉 D	0	4	Restart	Close	Start	More>>
10	GSM		APBCPD	0	4	Restart	Close	Start	More>>
11	GSM		ABBCD	0	4	Restart	Close	Start	More>>
12	GSM		ABBCD	0	4	Restart	Close	Start	More>>
13	GSM		ACD	0	4	Restart	Close	Start	More>>
14	GSM		🖉 A 🖉 B 🖉 C 🖉 D	0	4	Restart	Close	Start	More>>
15	GSM		ABBCD	0	4	Restart	Close	Start	More>>
16	GSM		ABBCDD	0	4	Restart	Close	Start	More>>



**GolP Details** 

# Status Information

Show the device status.

# Call status

all Stat	us							Clear Data
Port	SIM	Call Status	Duration	Balance	SIM Led	Provider	Signal	Description
1	A	IDLE	00:26:18	0.00	0			Register SIM FAILED!
2	D	IDLE	00:26:06	0.00				Register SIM FAILED!
3	D	IDLE	00:20:33	0.00		46001	8 <b>41</b> 1	
4	A	IDLE	00:25:55	0.00	θ			SIM is disabled
5	A	IDLE		0.00				No SIM Card
6	A	IDLE		0.00				No SIM Card

Port: The current SIM port.

Call Status: IDLE/INVITE/Alerting/Connected/DSC.

SIM Led: SIM mobile network status.



5 MCC: Mobile Country Code.

MNC: Mobile Network Code.

#### **Call Statistics**



all Statis	stics							C	Clear Data
Port	Calls	Alerted	Connected	Con Fails	NC	PDD	ACD	ASR	Tot CallDu
Total	0	0	0	0	0/0				
1A	0	0	0	0	0/0				
1B	0	0	0	0	0/0				
1C	0	0	0	0	0/0				
1D	0	0	0	0	0/0				
2A	0	0	0	0	0/0				
2B	0	0	0	0	0/0				
2C	0	0	0	0	0/0				
2D	0	0	0	0	0/0				

Show the call data.

PortNo.: SIM No..

Calls: Received calls need to be sent out.

Alerted: Sent out calls number.

Connected: Calls connected successfully.

Consecutive Fails: Calls sent out with aborted consecutively.

No Carriers: Calls disconnected with No Carriers.

PDD: Delay time of returning calls info.

ACD: Show the ports ACD

ASR:Show the ports ASR

This Call Statistics data is temporary, disappear after rebooting. Of course, the user can clear it manually with clicking the "clear Data" button.

#### Device status

IP Status						
PortNo.	Registration Status	Module Status	IMEI			
1		Yes	234321165885169			
2		Yes	532448578093617			
3		Yes	234532319882163			
4		Yes	234591653502316			
5		Yes	353633011541472			
6		Yes	353633011540722			



**GolP User Manual** Show the SIP status.

PortNo.: The channel No.

Registration Status: The status of connecting to SIP server.

Module Status: ON/OFF.

# System status

#### Network status: WAN and LAN port.

WAN is used to connect to network, LAN is used to connect to computer if necessary.

Connection Mode:	Static	Connection Status:	Connected	
IP:	192.168.2.188	Default Gateway	192.168.2.1	
DNS Server IP:	192.168.1.1	MAC Address:	00-30-f1-00-01-b7	

LAN Status				
IP:	10.10.10.1	IP Mask:	255.255.255.0	
DHCP Server Status:	Enabled			

#### System status

Other Status				
Current Time:	2014-05-05 14:48:14 UTC+8	Running Time:	3 Hr 51 Min 13 Sec	
Current Version:	516-451-768-041-100-000	Released Time:	May 2 2014 13:08:00	

Current Time: (The device will proofread time with NTP server)

Set the Time Zone in "System Settings->User & Device" page.

Running Time: (Show the gateway uptime)

Current Version: (The current firmware version)

Released Time: (The current firmware version release time)





#### SMS statistics

On this page, you can scan the SMS statistics include the total SMS numbers re ceived from wireless network, the total numbers of SMS send out to phone user, the total number of send successfully for every SIM card.

Port								
	SIM Status	Received	Sent	Sent OK	Send Failed	Con. Failed	Sending	Success Rate
Total		0	0	0	0	0	0	
1B	0	0	0	0	0	0	0	
2C	0	0	0	0	0	0	0	
3D	•	0	0	0	0	0	0	
1A	θ	0	0	0	0	0	0	
1	otal B C D A	otal B O C O D O A O	otal         0           B         O         0           C         O         0           D         O         0           A         O         0	otal 0 0 B ○ 0 0 C ○ 0 0 D ● 0 0 A ⊖ 0 0	otal     0     0     0       B     O     0     0       C     O     0     0       D     O     0     0       A     O     0     0	otal         0         0         0         0         0           B         O         0         0         0         0         0           C         O         0         0         0         0         0         0           D         O         0         0         0         0         0         0           A         O         0         0         0         0         0         0	otal     0     0     0     0     0       B     0     0     0     0     0       C     0     0     0     0     0       D     0     0     0     0     0       A     0     0     0     0     0	otal     0     0     0     0     0     0       B     0     0     0     0     0     0       C     0     0     0     0     0     0       D     0     0     0     0     0     0       A     0     0     0     0     0     0

# InterCall Statistics

When you enable the port-inter calling, you can monitor the executing details on this page. State column show inter calling status, duration display the time stay in related status. Incoming calls count the total calls this SIM card received while outgoing call display the total number of calls that send out from this SIM card. Descriptions show the caller and callee number in a inter call.

ter-Calling	Statistics				8
Port No.	Status	Duration	Inbound Calls	Outbound Calls	Description
1D	IDLE		0	0	
2C	IDLE		0	0	
3D	IDLE		0	0	
4D	IDLE		0	0	

What's Inter Call?

**GolP User Manual** 





#### Network Setting

Refer to "Connect To Network".

If the IP parameters changed, need to reboot to make it active.

#### SIP Setting

IP Running Parame	ters	
Protocol Mode:	Registration 🗸	
Encryption Method:	NONE	
Phone Number:		
Account:	TEST	
Password:	••••	
SIP Server:	110.34.227.50	
SIP Server Port:	5060	
Primary Proxy IP:	118.193.48.150	
Proxy Port:	21080	
Secondary Proxy IP:		
Proxy Port:	5060	
Expiration Period:	180	
Local Port:	5060	
Use Phone Number:	Disabled      Disabled	* If the username is not the same with userid, enable it.
Receive All Call:	$\odot$ Disabled $\bigcirc$ Enabled	* If enabled, all call will be accepted.
Drop Account Prefix:	O Disabled	* Remove the account prefix presented in callee number.
Auto Resp 183:	O Disabled	* Send 183-Session-Progress immediately for a incoming INVITE.
		Submit Res

#### Encryption Method: NONE/Security/VOS2000

NONE: No Encryption

Security: Transfer calls with proxy server in a security way.

SIP parameters: Refer to "Connect to SIP Server".

Primary Proxy IP: The security relay proxy server IP address.

Proxy Port: Relay proxy port.

Contact the SKYLINE tech support to install proxy server software.



STUN				
STUN Support:	$\odot$ Disabled $\bigcirc$ Enable	d * If enabled, support the media traversal for non-syr	netric NAT.	
			Submit	Reset
Proxy Encryption				-
Proxy Encryption:	Isabled O Enable	d * If enabled, system will automatically disable comm	non encrypti	ion.
			Submit	Reset
Advanced Setting				
Caller ID Display:	✓ Enable			
Silence Suppression:	✓ Enable			
Adaptive Jitter Buffer:	✓ Enable			
IP TOS:	Enable			
Don't send # to PSTN:	Enable			
Append # to PSTN:	Enable			
Carry PSTN Caller ID:	Enable			
Forbid GSM Call:	Enable	* Excluding white list numbers.		
White Number List:				
	* Seperated by comma	,		
DTMF Pre-Act Time:	5			
DTMF Activity Time:	7			
Max Alerting Time:	120	* Secs		
Max Ringback Time:	120	* Secs		
Max Call Duration:	0	* Secs. 0 means no limit		
RTP Inactivity Time:	60	* Secs		
Auto Alerting Time:	0	* Secs		
GSM AutoAnswer:	Enable			
AutoAnswer Time:	0			
VoIP AutoAnswer:	Enable			
AutoAnswer Time:	0	* Secs		
DTMF Mode:	RFC2833			
2833 Payload Type:	101			
RTP Ptime:	20			
RTP Start Port:	16868			
No Line Code:	503 Service Unavailabl 🗸	* Responce this SIP code when no availabe line.		
			Submit	Reset

We suggest that keep this advanced setting default, any problems, please contact SKYLINE tech support online.



#### **GoIP User Manual**

#### Port Setting

Basic Config			<u>.</u>
Frequency Band: Lock The Operator:	850-900-1800-1900 V MHz		
Unnormal SIM Supp:	Enable	Submit	Reset

The SIM cards mobile network jump among different frequency to search base station. Some SIMs only support one frequency or dual band, to save the mobile registration time, select the correct *Frequency Band* and *Lock The Operator*.

lardware Properties									
Port	Туре	Disable	Bind SIM Card	InVol	OutVol	Balance	Opera	ations	
1	GSM		✓ A < B < C < D	0	12	0.00	Restart	More>>	
2	GSM		✓ A  ✓ B  ✓ C  ✓ D	0	12	0.00	Restart	More>>	
3	GSM		ABBCD	0	12	0.00	Restart	More>>	
4	GSM		🖉 A 🖉 <mark>B</mark> 🖉 C 🖉 D	0	12	0.00	Restart	More>>	
5	GSM		✓ A < B < C < D	0	12	0.00	Restart	More>>	
6	GSM		✓ A  ✓ B  ✓ C  ✓ D	0	12	0.00	Restart	More>>	
7	GSM		A B C D	0	12	0.00	Restart	More>>	

Plagas Salast Part		01 02	03 04 0	05 06	07 08	
Flease Select Full.		09 🗆 10	□ 11 □ 12 [	13 🗌 14	15 16	
AT Command:			Send			
USSD Command:			Query	Query All	Query All After Hanup	
Time Interval(min):	0		Save			
Manually Call:			Start			

The gateway hardware modules are controlled by "AT Command", and the SIM can get extend service by sending USSD Command from SIM operator. Checking frequency is supported to limit in "Time Interval". And calls can happen directly in "Manually Call" to callee number typed, it's easy to check SIMs inside if they are working, no need to take out SIM and insert it to mobile phone anymore.



# Base Station

Basic Settings			-21
Max Channels:	4	]	
Lowest Valid Signal:	-90	dbm	
Switch Period:	60	Minutes	
Base Balancing:	O Disable $\bigcirc$ Enable		Submit Reset

#### Base Stations Settings/Operations

Port No	Base Se	lection	Base Station	White List	Black List	Operations	
1	Poll	$\checkmark$	115			Refresh	
2	Auto	$\checkmark$	0			Refresh	
3	Auto	$\checkmark$	0			Refresh	
4	Auto	~	0			Refresh	
5	Auto	~	0			Refresh	
6	Auto	~	0		· · · · · · · · · · · · · · · · · · ·	Refresh	
7	Auto	$\checkmark$	0			Refresh	
8	Auto	~	0			Refresh	
9	Auto	$\sim$	0			Refresh	
10	Auto	~	0		· · · · · · · · · · · · · · · · · · ·	Refresh	
11	Auto	$\sim$	0			Refresh	
12	Auto	~	0			Refresh	
13	Auto	$\checkmark$	0			Refresh	
14	Auto	~	0			Refresh	
15	Auto	~	0			Refresh	
16	Auto	$\checkmark$	0			Refresh	
						Submit	R

User can limit the base station numbers and time allowed to connect, then the SIMs won't jump among them too frequent to get poor calling quality. Surely, the optimization and binding are both supported in "Base Station Setting/Operations" panel.

Max channels<sup>®</sup>: The max base station numbers detected allowed.

⑧ The top x base station with best signal included.

Lowest valid signal: A reference digit.

The signal is more and more weak when the dbm is lower than -90. Switch Period: The time allow SIMs how long to switch base station.

#### GoIP User Manual



Base Balancing: This will take active in Auto mode. When its enable, SIM cards in this gateway will connect to base stations allowed evenly, or there may be offline problem.

Auto: SIMs register to the base station with best signal.

Poll: SIMs register to the base station in the list in turn.

And user can select a specific station code to bind it, then SIM won't jump and keep working without switch to re-register.

If some base stations are unsatisfactory, add them to black list;

If some base stations are stable and good, add them to white list.

Refresh: Update the current station status.

#### IMEI Setting

Some mobile operators detect SIM cards working with unconventional use, not only block SIM cards but also device IMEI, if IMEI can't be modified, GoIP gateways active one-time.

Port	IMEI	A	B	С	D
1	234321165885169				
2	532448578093617				
3	234532319882163				
4	234591653502316				
5	353633011541472				
6	353633011540722				
7	353633011541209				
8	353633011541019				
9	353633011541373				
10	353633011541688				
11	353633011541084				
12	563456456572786				
13	094460953518753				
14	070563944129875				
15	890987654567891				

Input IMEI number for each ports Manually.



Specify IMEI Prefix	Customize Range		
Dynamic IMEI List			-
Data Detail			
Data Status:	Edit		
IMEI Start:	1111123452333		
IMEI Size:	100		Submit
Data List			Add New Delete
	IMEI Start	IMEI Size	Operation
	1111123452333	100	[Delete] [Edit

Input a Start IMEI number with 15 digits;

Input the IMEI database capacity around size.

A new IMEI number will be active after rebooting or changing SIMs.

# Rules Setting

Dialing Plan		
Data List		Add New Dele
	Pattern	Operation
	No Data	

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.



	GolP	User	Manual
--	------	------	--------

Prefix						a A
Outbound Prefix	Detail					
Data Status:	Port:	Original Prefix:	Translated Pref	ix:		
Add	All	923	03	×		Submit
Dutbound Prefix	List				Add New	Delete
	Ports	Original Prefix	Translated Prefix		c	peration
		No	Data			
Inbound Prefix Li	st				Add New	Delete
	Callee Prefix	Digits Stripped	Digits Added		C	peration
		No	Data			
Callerld Hidden						
CallerId Hid	den: Disabled	~				
Dial Pr	efix:				Submit	Rese

Outbound Prefix: The rule take effect when GoIP is used for terminal.

Original Prefix: The called number prefix reach GoIP from SIP server.

Translated Prefix: Another number which GoIP rewrite the Original prefix to.

Callerid Hidden: Hide the SIMs number in GoIP when Callee 's phone receive the VOIP calls.

This option take effect only when the SIM support it.

Black List			- e
Black List			Add New Delete
	Callee Prefix	Callee Length	Operation
		No Data	
White List			Add New Delete
	Callee Prefix	Callee Length	Operation
		No Data	



# Mobile Setting

PIN Unblock:	Disabled O Ena	abled		
Port:	1	•		
PIN:				

When SIMs inside need PIN code to unlock, user can type those code in this ABCD option in advanced.

Billing Setting		-
Billing: Hangup The Call:	Disbaled Crabled Disbaled Crabled	* When the balance is not enough.
USSD Check:	Disbaled      Enabled	a na managana kana kana kana kana kana kana ka
Auto Query Balance:	0	* Minutes, the period of sending USSD query command.
Auto query balance.	<u> </u>	
When balance	warning send SMS to	
		Subn

Billing: Specify whether enable GoIP billing or not. If set to Enabled, system will bill the outbound calls for the port which has been assigned with billing tariffs.

Hangup The Call: Specify whether enable hangup the call when balance is ont enough. When select enable, the call will be hang up immediately when run out of balance. But when you select disable the call will not be hangup.

USSD Check: Specify whether enable to get balance through USSD check or not. This field takes effect only when GoIP Billing is set to Enabled.

Auto Query Balance: You can set the minutes how long check the simcards balance auto.

When balance warning send SMS to : when you set the balance warning ,if the simcards balance less that the warning ,it will send SMS to the number which you input.

ovider List -					
Index	Provider ID	Name	Query Method	Caution Balances	Invalid Balances
1	46001	CHINA UNICOM GSM	USSD V	0.00	0.00
			USSD SMS		Submit

SD Que	ery Keyword I	List						
Index	Provider ID	Query Comm	and	Balance Keyw	ords	walid Balance Keywords	Invalid SIM K	eyword
1	46001							
							Inquiry Now	Sub
IS Que	ry Keyword Li	ist						

Fields are specified as following:

Name: Specify the provider name.

Query Method : Choose USSD or SMS Method to query

Caution Balances: Specify four balances separated by semi-colon. Each balance corresponds to one Keyword from left International Keys to right Other Keys in Keyword List table. Each caution balance is a threshold for system to get card balance through USSD if current balance is less than this threshold. However, the final card balance is based on only one type which is specified by field Billing Type in the part of Basic Settings.

Invalid Balances: like Caution Balances, it specifies the threshold for system to disable the card if current balance is less than this threshold.

Query Command: Specify the query command

Balance Keywords: Specify keywords for system to analyze the balance data after sending USSD command to carrier mobile network.

Invalid Balance Keywords: Specify the invalid balance keywords

Invalid SIM keywords: Specify the invalid sim keywords.

Service Num: Specify the service number.

And other option are the same as the USSD Query Keyword List.



# SMS Setting

 100	 100
<b>M S</b>	In c
	<b>D</b> U

Port	Sender	Time	Content	Operations
1D	10010	05-05 20:06	你好,我是广东联通在线客服机器人沃宝,很高兴认识你。	Details(1)
2A				Details(0)
3A				Details(0)
4D				Details(0)
5A				Details(0)

Operations: Click "Details" button to jump to "SMS Details" page.

50	ocuno.									Conta
Please Select Port: 1		1		~						
Ple	ase Sele	ct SIM:	D		$\checkmark$					
ta L	ist						Back	Refresh	Batch	Delete
	Port	Sende	r	Time		Conten	ıt		Oper	ations
	1D	10010	6 G	05-05 20:06	你好,我是广东 你。	联通在线客服机	,器人沃宝,	很高兴认识	Reply	Delete

Choose different port and different SIM to check SMS received.

Settings of Sending	SMS		
SMS Format	● PDU ○ TXT		
Forward Protocol:	GSM SIP	Submit	Reset
	НТТР		

GoIP User Manua	I			
Scheduled Sending Content:	maximum 300 ASCII characto	ors!		
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
	By Consecutive Failed Calls	Failure Count:	0	
	By Consecutive Calls	Call Count:	0	
	By Call Duration	Call Duration:	0	Minutes Submit Reset

Recipients: Specify the recipients. Semi-colon can be used to separate multiple receivers.

Content: Specify the sms content.

Send To Local SIM: Enable this feature and set the local SIM's number, the inter port will send sms.

By Duration: Gateway will start sms sending by the device online time, and the time between minimum minutes and maximum minutes.

By Consecutive Failed Calls: Gateway will start sms sending by consecutive failed calls.

By Consecutive Calls: Gateway will start sms sending by consecutive calls.

By Call Duration: Gateway will start sms sending by call duration.

请选择端口:	□全部	□01 □0 □09 □1	2 🗆 03 🗆 0 0 🗆 11 🗆 1	4 □05 2 □13	□ 06 □ 14	□07 □08 □15 □16	
Receiver List:	10010					$\widehat{}$	* Semi-colon can be use to separate multiple receivers.
SMS Content:	Hi, it's a	test SMS.				0	Send
Successful SMS:	1		Clear			Tri-	
Failed SMS:	0		Clear				

Select a single port or ALL ports to send single/bulk SMS.



# Automation

This section is being designed to be personate to avoid SIM blocking automatically. Even so, more information about local mobile operator, such as SIM blocking rule or law, then a safe schedule setting will be helpful and effective.

Periodic Sending:	O Disable 🖲 Enable	
Minimum Period:	60	* minutes
Maximum Period:	1440	* minutes
Recipients:	92301111111111;92301111123231;9230112121112	* Semi-colon can be used to separate multiple receivers.
Content:	Scheduled sending	0
SMS Warning:	Enable	
SMS Receiver for Warning:	923012345678	

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

SMS Warning: A SMS warn the gateway manager to check the SIMs when they are locked 6.

6 locked: Not mobile operator blocking, it's the politic schedule to limit the SIM use time, use frequency to avoid blocking. *It doesn't mean this SIM can't be used anymore, just sleep temporarily*. <u>How to lock?</u>

	Heen	Manager and
GOIP	User	Manuai



Conditions for Locking Ca	ard	
SIM Online Time Checking		
Enable or Not:	🗹 Enable	
Drop Call:	Enable	* Drop the active call when online time expired.
Online Time:	120	* Minutes
Locking Duration:	0	* Seconds, 0 means no lock and -1 means forever.
Accumulated Call Duration	Checking	
Enable or Not:	Enable	
Accumulated Connected Co	alls Checking	
Enable or Not:	Enable	
Accumulated Calls Checkir	ng	
Enable or Not:	Enable	
Consecutive Failed Calls Cl	hecking	
Enable or Not:	Enable	
Consecutive No-Alert Calls	Checking	
Enable or Not:	Enable	
Consecutive No-Answer Ca	alls Checking	
Enable or Not:	Enable	
Consecutive No Carrier Ca	lls Checking	

User can limit each SIM total call duration, OK calls amount, failed calls, no carrier calls, no ring calls, no answer calls and short duration calls. This option will help to improve the ASR, ACD.

Every condition takes effective, the current SIM will be locked, the next one in this channel is working  $\hat{\mathbb{C}}$ .

⑦There are 4 SIMs ABCD in each channel. A locked, B works; B locked, C works; C locked, D works; D locked, A works and so on.



# Simpool Setting

SIM Poll:	Enable	•	
Use Local Policy:	Disable	•	* If enabled, the policy of page Lock/Switch Card will be used.
Registration:	Enable	•	* If connect directly to a SIM pool device, disable the registration.
Server Address:			* Add ":port" to specify a special port.
Username:			
Password <sup>*</sup>			

SIM Poll: When you enable it, cards on gateway will be disabled, it can just use these cards on SIM Pool.

Use Local Policy: If it is enabled, the policy of page Automation can be used in SIM Pool.

Registration: Enable: connect to SIM center. Disable: connect directly to SIM pool.

Server Address: SIM center or SIM pool address.

Username: The GOIP account in SIM center

Password: The password of GOIP account in SIM center.

Status: Show the gateway registration status.



GoIP User Manual

## InterCall Setting

rt Inter-Calling		
Port Inter-Calling	O Disabled      Enabled	* If enabled, device will enable the feature by following conditions.
Min Call Duration:	60	* seconds
Max Call Duration:	120	* seconds
		Submit Res
nditions Settings		
By Device Online Time:	Enable	
Min Interval:	3600	seconds
Max Interval:	7200	seconds
Consecutive Failed Calls:	Enable	
Failed Calls:	5	]
By Consecutive Calls:	L' Ellable	
By Consecutive Calls: Consecutive Calls:	20	]
By Consecutive Calls: Consecutive Calls: Total Call Durations:	20 ☑ Enable	]

This panel allow SIMs in the gateway to call each other randomly. Consider that SIMs inside only call out all the time, so it's easy to be judged as an illegal use. When enable "Port Inter-Calling", every SIM can receive income call in period which is custom option in "Conditions Settings".

erCall		5. <del>2</del>
Auto-Get LocNum:	Disabled <b>•</b>	
	Disabled	Submit
	USSD SMS	Outring

SIM phone numbers are needed when they are used to call or send SMS to each other.

1, Input SIM numbers for each channel manually.

- 2, Send USSD to get the SIM number automatically.
- 3, Send SMS to get the SIM number automatically..



InterCall				-
Auto-Get Lo	ocNum: Disabled	T		Submit
Set LocNum N	Mannually			<u>19</u> 2
Port	A	В	С	D
1				
2				
3				
4				
5				
6				
7				
8				
0				





GoIP User Manual

Callback Setting

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.

Port	Enable	Callback Numbers ( * means all, supports up to 32 numbers seperated by comma)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		



# CallWait Setting

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.

l Waiti	ng Settings	
Port	SIM Status Enabled	Status
1		Deactived
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
AII		Submit Res



GoIP User Manual

# Call Dur Setting

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.

Use Global Settings:	Enabled	•	All Channels use the same call duration control.
Total Max Duration:	0 means no limit		Minutes
Daily Max Duration:	0 means no limit		Minutes, to use this feature, please set the NTP server.
Min Duration Unit:	60		Seconds
DropCall If Expired:	Enabled	•	Drop the call if the MCD expired.
			Submit Reset

Use Global Setting: Enable: all channels use same call duration limitation. Disable: you can set different call duration limitation for single channel.

Total Max Duration: The value of limitation. After the call duration excesses this value, the SIM will be locked by device. 0 means no limit.

Daily Max Duration: The value of limitation. After the daily call duration excesses this value, the SIM will be locked by device. 0 means no limit.

Min Duration Unit: Operator charging time, when the call is over this time, operator will collect fees. For example: china mobile charge per minute, the min duration unit will be 60 seconds.

DropCall If Expired: Enabled: calls will be dropped after the SIM excesses call duration time. Disabled: calls will not drop.

You can scan more details about the call duration control on the page below. Once the SIM is used up, it will be locked by gateway. If you still want to use it, you need to click "Reset".

Call Du	uration St	atistics					
Data L	ist				Show Current	Show All SIM	Batch Reset
	Port	Status	Total Duration	Remain Duration	Daily Duration	Daily Rem Dur.	Operations
	1D	٠	00:00:00	;	00:00:00	;	Reset
	2A						
	3A						
	4A						
	5A						
	6A						



# Auto Recharge

Auto Recharge:	Enable	T			
Server Address:			* Add ":port" to specify a special port.		
Username:					
Password:					
Status:				Outwit	Deast

Other Settings			Collapse
Min Balance:	0.00	* If balance reached to this value, the auto-recharge will be trig	iger.
		Submit	Reset

Auto Recharge: Auto recharge will work when enable it.

Server Address: The auto recharge server address.

Username: It is created in ear system.

Password: It is created in ear system.

Status: Show the registration status.

Min Balance: If the balance is lower than the value, the ear system will do auto recharge.

Note: contact the chinaskyline tech support to install the recharge server .



GoIP User Manual

#### Status Notification

With this function, device will send state notification which includes registration status, SIM status and CDR to the server

Basic Settings				-
State Notification:	Enabled	T		
Server Address:			* Add ":port" to specify a special port.	
Username:	-			
Password:				
Registration Status:	di -			Submit Reset

State Notification: If it is enabled, device will send state notification to the server.

Server Address: The server which can get state notification.

Username: The device account in ein system.

Password: The password of account in ein system.

Registration Status: Show the registeration status.

Note:contact chinaskyline tech Support to install ein system





#### Codec

PCMU priority.	Voice Codec Priority:	G729 G.723 iLBC AMR PCMA PCMU	Up Down	* Choose one coding, click "Up" or "Down" to adjust priority. The highest codec has the first priority.
----------------	-----------------------	--	------------	---

G729, G.723, G.711, iLBC and AMR are supported.

Voice Setings					
Voice Volume:					
Input Volume:	15	Output Volume:	15		
DTMF Volume:	15				
Dial Tone					
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		
				Submit	Reset

Option about voice include volume, ring type. We suggest users to keep them default when this parameters are not understood well.



GoIP User Manual

#### Network Debug

			SUDMIT
ig Manually			
IP: Package Size:	110.34.227.60	* 56 bytes by default.	
Package Count: esult:		* 4 by default. 0 means pinging all the time.	Stop Ping
PING 110.34.227.60 64 bytes from 110.3 64 bytes from 110.3 64 bytes from 110.3	) (110.34.227.60): 56 data bytes 4.227.60: seq=0 ttl=115 time=186 4.227.60: seq=1 ttl=115 time=186 4.227.60: seq=2 ttl=115 time=187	6.931 ms 6.621 ms 7.699 ms	
50.			

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

# Log System

You can enable the specific progress module running logs to monitor the device working status, and set the log file size. Device will save 5 logs defaultly , 20 is the maximum of logs num that device can saved in memory.

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

Logfile Count:	5	•	* The size	of single logfile i	s 1MB.		
Dying Msg Size:	32KB	•	<ul> <li>* The dying message(dyingmsg.log) size in KB.</li> </ul>				
GDB File Count:	10	•				Submit	Can
Modules							
Modules	s 🗍 DSP	₹ F	POTS	🖉 ссм	SIP		
Modules	S DSP	<ul> <li>✓ F</li> <li>□ E</li> </ul>	POTS	CCM	<ul> <li>SIP</li> <li>SIP Message</li> </ul>		



# File Management

le List						
Seq.	Filename	Modification Time	Туре	Size	Opera	ations
1	messages.log	2015-08-05 06:46:07	log	39873	Delete	Export

Administrator can export the system info to debug device.

## User & Device

Jser List				
Data Detail				
Data Status:	Account:	Password	Privilege:	
Add 🗸	test	•••••	User 🗸	Submit
Data List			[	Add New Delete
	Account		Privilege	Operation
	root		Admin	[Edit

Support different Account level to log into this gateway management web page.

evice Settings			- 2 <u>-</u> 2
Device Alias:			
Auto Reboot:	0	* After running specified times(hours)	
Scheduled Reboot:	01:00		Submit Reset

Device Alisa: Give this gateway a new name.

Time Zone: Set device time to different location.

Auto reboot at specified time is supported. Set the reboot in option "Scheduled Reboot".

oIP User Manual			
emote Management	t in the second s		
Enable ERM: ERM Server IP:	O disabled  enabled www.tyhtech.net		
ERM Server Port: Account: Password:	50000	No account? Register now!	
Status:			Submit Res

Most of the time, GoIP gateways don't have public static IP, so can't be logged into in other network. But if there is a server, ERM remote software installed in, remote access will be possible. *Contact SKYLINE tech support to install this ERM remote software in your server.* 

#### Update & Restore

Import File			
File Type File Name	Firmware	Browse	Submit Cancel
Export Configuration	n		
Click 'Export' button to	export the configuration.		Export
Restore To Factory			-
Click 'Restore' button v	vill restore system to factory settings.		Restore

Import upgrade firmware, configuration files in "Import File".

Save your configuration setting and export it, then restore in "Import File" option.

Restore to factory will remove all your current settings and set to factory default.

This reset won't remove IP parameters, after this action, user can log into the web page with input the old IP. <u>How to reset IP with restore to factory default?</u>



# Module Update

On this page, you can update the  $\mathsf{GSM}/\mathsf{CDMA}/\mathsf{WCDMA}$  module software for every channel.

Mod	ule Upgra	ding				-
	Port	Туре	Version	State	Progress	Description
	01	M10				
	02	M10				
	03	M10				
	04	M10				
	05	M10				
	06	M10				
	07	M10				
	08	M10				
	09	M10				
	10	M10				
	11	M10				
	12	M10				
	13	M10				
	14	M10				
	15	M10				
	16	M10				
	Port	Select File:	选择文件 未选择付	E何文件		Upgrade

# Save & Reboot

Operations					
Select Operation:	Save Reboot				

Save settings and reboot.



GoIP User Manual

#### Initialization

Initial Setting page is used to be easy starting for gateway user at the first time. When SIP info are empty, this welcome page show in the browser when user log into it, otherwise, "System Status" is the default page. <u>How to set this page?</u>