

This document applies to OpenVox VS-GW2120 Series GSM Gateway. There are 3 RJ45 Network ports, ETH1/ETH2/ETH3. If you choose ETH1, you can access Board 1. If you choose ETH2/ETH3, you can access different Boards with different IP addresses.

VoxStack provides 2 working modes: Stand-alone and Cluster.

 \Rightarrow Stand-alone: A single IP address manages one GSM modules (4 ports).

Stack Num	IP	Username	Password
1	172.16.99.1	admin	admin
2	172.16.99.2	admin	admin
3	172.16.99.3	admin	admin
11	172.16.99.11	admin	admin

 \Rightarrow Cluster: A single IP address manages up to 5 GSM modules (up to 44 ports).

Default IP: 172.16.99.1 User Name: admin Password: admin



Step 1. Set Network Parameters in Web

If your system topology like the figure described, please enter the gateway default IP address In your browser to login web, and click "NETWORK—>LAN Settings" to set network parameters such as IP.

LAN IPv4	
Interface	eth0
Connection Type:	Static 👻
MAC:	00:56:64:75:7a:52
IPv4 Settings	
Address	172.16.99.5
Netmask	255.255.0.0
Default gateway	172.16.0.1

Save your changes. Please type in your DNS server in "DNS Server Address".

Step 2. Create a SIP Endpoint in Web

Please select "SIP—>SIP Endpoints—>Add New SIP Endpoint" to set SIP trunk. The following figure shows detail information about how to set it.

▼ Main Endpoint Settings	
Name:	10001
Username:	10001
Password:	10001
Registration:	This gateway registers with the endpoint 🝷
Hostname or IP Address:	172.16.8.119
Transport:	UDP -
NAT Traversal:	Yes 🔹

About other parameters in SIP, please set by your requirements for there is no need to set them in simple calls.

Step 3. Set Routing Rules in Web

Click "ROUTING—> Call Routing Rules—> New Call Routing Rule" to set outbound and inbound routing rules like the following:

Call Routing Rule	
Routing Name:	inbound
Call Comes in From:	gsm-1(13428690093_555) -
Send Call Through:	10001 -

Save the inbound call routing rules, please set the outbound rules as introduced. In order to make all calls successfully, please enable and set failover function in advanced routing rule like that:

Call Routing Rule	
Routing Name:	outbound
Call Comes in From:	10001 -
Send Call Through:	gsm-1(13428690093_555) -

V Advance Routing Rule

Please save all your changes to make effect.

Step4. Create Gateways in VOS3000 Client

There are 2 kinds of Gateway in VOS3000 Operation Platform: Routing Gateway and Mapping Gateway. Routing Gateway is for VOS3000 to PSTN while Mapping Gateway is opposite. If you need both outbound and inbound calls from GSM gateway, then you need create both Routing Gateway and Maping Gateway to make it happen.

Section 1: Add a Routing Gateway in register mode:

Please select "Operation Management---> Gateway Operation----> Routing Gateway" to create a Routing Gateway:

System Operation	Management A	udio Manage	ment Data G	Query Data Rep	oort CDR A	nalysis (Cards Ma	inagement Sy	stem Management	Numbe	er Managerni	ent		
🔘 Open l 🚱 F	ilter 👩 Copy	Paste	合 Add	🚺 Delete 【	Apply	Export	💽 limp	ort 101000						
Navigation Filter		Shortcut	Routing Ga	iteway ×										
R.S.A. ID		GatewayID 1001	Gateway Pref 9	îx ∧ Prefix Mode Extension	Lock Type No Lock	Capacit 30	y Priority 1	y His SoftSwitch All	Additional Settings Edit	IP	Password 1001	Memo connect VoxStac	Routing Settlement Account ID k 20130410	Routing Settle 20130410
GatewayID	1001													
IP														
Lock Type	Dynamic 🗌													
No Lock	Bar All Calls													
- Total Gateway Number of Gatewa Capacit	y 1 y 30													

Gateway ID:1001 ------Username of SIP trunk which GSM gateway registers to Password:1001 -----Password of SIP trunk which GSM gateway registers to Gateway Prefix:9 ------Specify calleeID 9+number goes out from GSM gateway Additonal Settings:

•Normal---->Gateway Type---->Dynamic

Gateway<1001>Additional Settings	×
Normal Routing Prefix Period Control Routing Settings Advanced Register	
Gateway Type Static (Dynamic) Protocol H323	$11 \\ 10($
IP Signaling Port 1720	$110 \\ 111$
	000
- Signaling Length	
Setup 5 CallProceeding 20 Alerting 120	
CallProceeding(RTP) 20 🔲 Stop Switch Gateway when RTP Start	ăĞ
Number Length Limit	
Caller Number Allowable Length	
Callee Number Allowable Length	
Black and White List	
🗖 Caller List 💿 Allow 🔿 Forbidden	110
Callee List 💿 Allow 💿 Forbidden	
Callee Transform	000
$0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$	
OK Cancel	

VOS3000 here acts as a SIP server, OpenVox GSM Gateway as a SIP client registers to it.

• Routing Prefix---->Routing Callee Rewrite

Add a Routing callee Rewrite Rule to remove the prefix '9' of CalleeID, then send it to GSM gateway.



Gateway≤1001>Add	litiona F	Routing Callee Rev	rrite Rule	×	×
Normal Routing F	refix	Initial Prefix	Destination Prefix	Add	
- Routing Caller Pre Allow Forbid	fix Ma den		$\begin{smallmatrix} 0&1&1&1&0&1&1&0&0&0&1&0&1&0\\ 0&1&0&1&1&0&0&0&0&1&0&1&0\\ 1&0&1&0&1&0&1&0&1&1&1&1&1&1\\ 0&0&0&1&1&0&0&0&1&1&1&1&1&0&0&0\\ 1&0&0&0&0&1&1&1&1&1&1&0&0&0&0\\ 1&0&0&0&0&0&1&1&1&1&1&0&0&0&0\\ 1&0&0&0&0&0&0&0&0&0&0&0\\ 1&0&0&0&0&0&0&0&0&0&0&0\\ 0&0&0&0&0&0&0&0&$	O Copy	
Routing Callee Pro	efix Ma den			$\begin{array}{c} 0111110\\ 0101100\\ 1010111\\ 0010000\\ 0100100\\ 0000001 \end{array}$	
Call Restriction on Allow Forbid	Calle den			$\begin{array}{c} 0010111\\ 0101101\\ 0010100\\ 0011011\\ 0011101\\ 1000001 \end{array}$	
Routing Caller Rev	write F			1101101 0000111 1101111 1010000	
Routing Callee Re 9:	write			$\begin{array}{c} 1 \\ 1 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 1 \\ 0 \\ 0$	
100101010100			Selected0Row(s) Total:1Row(s)		
	1885		OK Cancel		

• Advanced---->SIP------Authentication User & Password

Sateway<1001>Additional Settings ×
Normal Routing Prefix Period Control Routing Settings Advanced Register
H323
Q.931 NumberingPlan Default
Q.931 NumberType Default
G729 Negotiation Mode Auto
🗹 FastStart 🗹 H245Tunneling 🗹 H245InSetup 🗹 Allow T38
-SIP
Reply Address Via Port 🛛 🚽 Request Address Contact Port 🔄
G729 Negotiation Mode G729 🛛 G729 annexb Auto
G723 annexa Auto
🗹 Enable Timer Protocol 🔲 Enable 100rel 🗹 Allow T38
Authentication User 1001 Authentication Password 1001
DTMF
DTMF Receive All 🔤 🗖 Payload 101
DTMF Send(H323) Auto
DTMF Send(SIP) Auto
OK Cancel

When Register enabled, Authentication Uaser and Password must be filled in.

•Register---->On

Normal	Routing Prefix	Period Control	Routing Settings	Advanced	Register	
00	O Off	$101000111 \\ 011000001$	$10000100010\\10001111011$	010001	110100010	1010011111101111
Register	Period 💿 Auto		🔵 Customize			
	60		(S)			
	lf you wan	t to use the name	e of registered user	as Caller ID	, please set the	Caller Rewrite Rule of gatewa
	Set Cal	ler Rewrite Rule	010110110			

This option is to choose register mode or ungister mode for GSM gateway.

Section 2: Add a Mapping Gateway in register mode:

Please select "Operation Management---> Gateway Operation----> Mapping Gateway" to create a Mapping Gateway:

			mappe	ing Gateway A	0010011101	100110111010	101011	101110101	1101010010	00100100	10000	0111100100
Agent ID Account ID	GatewayID 1001	Lock Type No Lock	Authorization National	Type 🔨 Capac 30	ity His SoftSwitch All	Additional Settings Edit	IP	Account ID 20130409	Account Name 20130409	Password 1001	Priority 1	Memo /oxStack2VOS3000
Account Name												
GatewayID 1001												
Static 🔲 Dynamic ck Type	$ \begin{array}{c} 01110110\\ 10110000\\ 1000101\\ 1000101 \end{array} $											
No Lock 🔲 Bar All Calls												
teway Authorization Net Local												
National International												

Gateway ID:1001------Username of SIP trunk which GSM gateway registers toPassword:1001-----Password of SIP trunk which GSM gateway registers to

Additonal Settings:

•Normal---->Gateway Type---->Dynamic

Gateway<1001>Additional Settings	×
Normal Mapping Prefix Period Control Routing Settings Advanced	89
Gateway Type	
Process TimeOut 0 (s) Encryption Key	
Media Proxy Auto Billing Method for Callee Call Transfer By Callee Number Length Limit Caller Number Allowable Length	
Callee Number Allowable Length	
Black and White List Caller List Allow Forbidden Callee List Allow Forbidden	
Allow Phone Number Billing Enable Phone Settings	011 100 110 011 001 011 011
OF Cancel	



• Mapping Prefix---->Mapping Callee Rewrite

Add a RMapping callee Rewrite Rule to match all calls from GSM gateway, then send it to extension 4001.

Jormal M	apping Prefix	Period Control	Routing Settings	Advanced	$011010000 \\ 10011110$
000011	Mapping Callee Rewrite Rule				×
100001 011101 010110 011101 011101	Initial Pret *	Initial Prefix Destination Prefix 4001			te y
Mapping C Allow (1000110 0010001 1011111 0101110 1100111				
Mapping C • Allow C	1101100 0111011 1100111 0110100 00001100			$\begin{array}{c} 1 & 0 & 0 & 0 & 0 & 1 & 0 \\ 1 & 0 & 1 & 0 & 1 & 0 & 0 \\ 1 & 1 & 1 & 0 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 1 & 1 & 0 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 & 0 & 0 & 1 \\ \end{array}$	
Mapping C	1101010 0100100 01001000 00000111			$\begin{array}{c} 1 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$	
Mapping C				100111011 1100101000	
*:4001	$ \begin{array}{c} 1110001\\ 00111000\\ 1100100\\ 01100000 \end{array} $			$\begin{array}{c} 101111110\\ 100010000\\ 000000011\\ 00000000$	
$111000 \\ 100010 \\ 011111 \\ 100010 \\ 011111 \\ 100010 \\ 00010 \\ 000000 \\ 000000 \\ 000000 \\ 000000 \\ 000000$		Selecte	d0Row(s) Total:1R	ow(s)	00110010 11111101 1111110 01111011
	11111000	ОК	Cancel		

Step5. Call Test

Apply all changes on VOS3000 and GSM gateway, then you can try to make calls.

Taking advantage of SIP software such as Xlite, eyeBeam to register a SIP extension(4001) on VOS3000 server.

• Test call from VOS3000 to GSM geteway

Use Extension 4001 to call 9+number, then you will reach the number you want through GSM gateway, you can check it on GSM gateway.

• Test call from GSM geteway to VOS3000

Use your mobile to call numbers of SIM cards on GSM gateway, then Extension 4001will be ringing.