

UC2000 Basic Configuration Practice Guide

Dinstar Corporation



Foreword



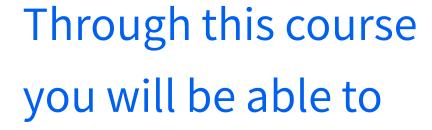
• This document is used to introduce the basic functions of UC2000, application scenarios, basic configuration, basic maintenance.

Course Objective





Understanding UC2000 models and interfaces





Understand the principle and scenarios of UC2000



Understanding the basic configuration of UC2000

Contents



1 Web Access to UC2000

2 UC2000 Basic Configuration

3 UC2000 Basic Maintenance

Chapter One Course Introduce

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1.1 Dinstar UC2000 Hardware Interface Description



1.2 UC2000 Interface Connection Cases



1.3 Introduction to UC2000 Login Page





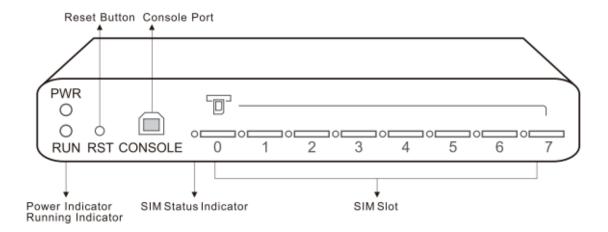
1. UC2000 Series Technical Specifications

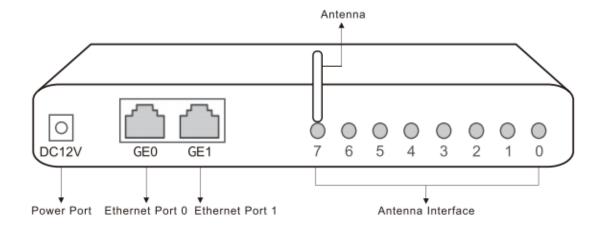
	Network Port	Model
UC2000-VE	GE0/1	4/8 G/T
UC2000-VF	GE0/1	8/16 G/T Multi-SIM
UC2000-VG	GE0/1	16/32 G/T Multi-SIM



2. Indicators and Ports(UC2000-VE)

▶ UC2000-VE

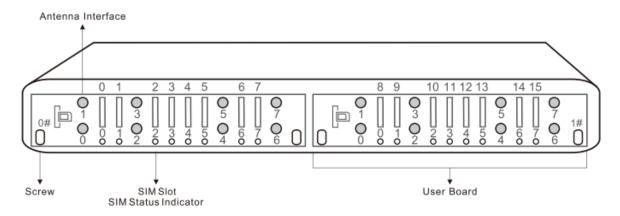


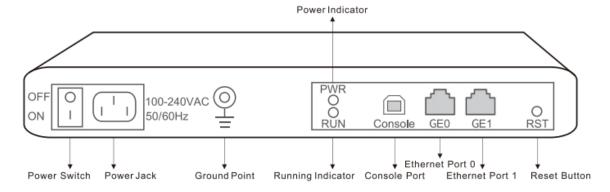




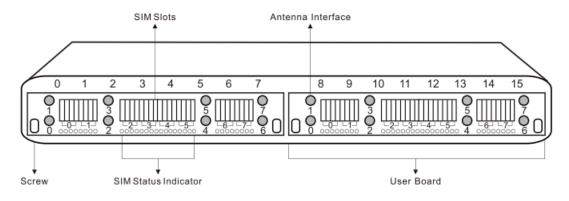
3. Indicators and Ports(UC2000-VF)

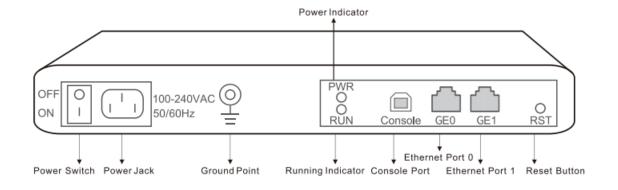
▶ UC2000-VF





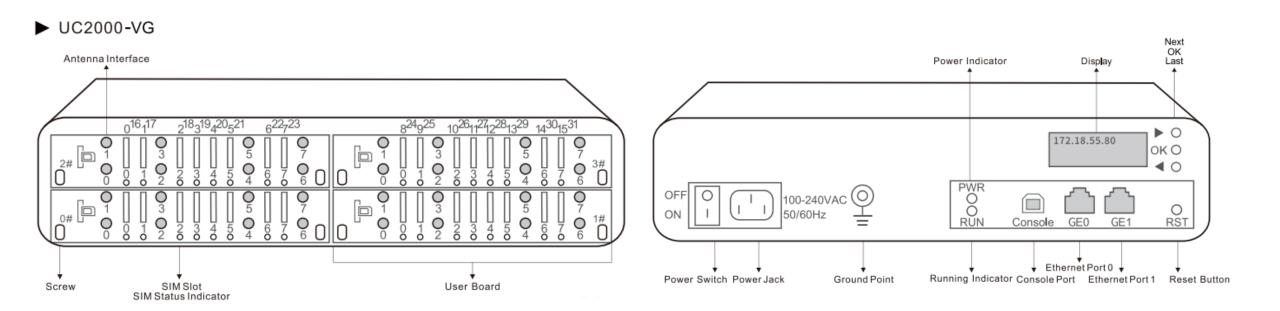
► UC2000-VF(Multi-SIM)







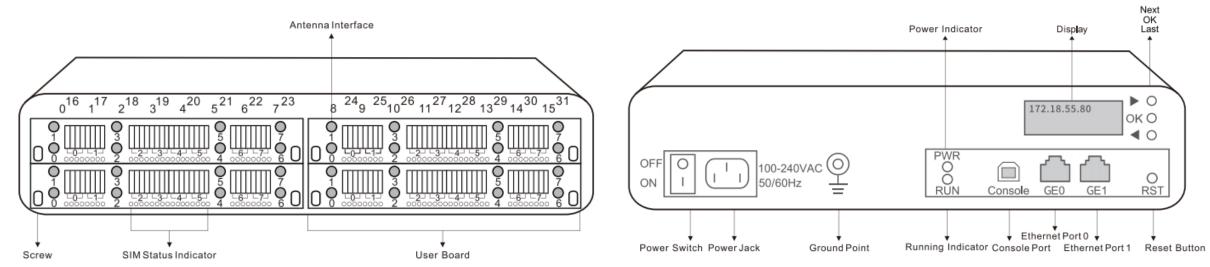
4. Indicators and Ports(UC2000-VG)





5. Indicators and Ports(UC2000-VG Multi-SIM)

▶ UC2000-VG(Multi-SIM)





1. Installation Attentions

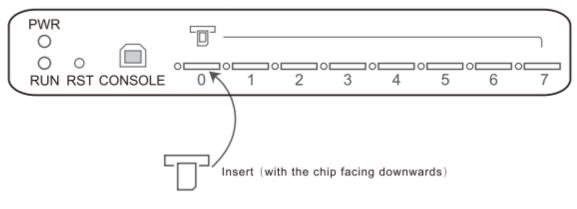
- UC2000-VE is equipped with 12V DC power adapter, while UC2000-VF, UC2000-VG and UC2000-VH accept AC input voltage of 100-240V. Please ensure safe and stable power supply.
- Before you put the gateway into use, please ensure SIM card has been inserted into the gateway, antennas are wellconnected to the gateway and network connection is proper.
- To avoid poor signal strength, please place the gateway away from those objects that can shield signals.
- Please prevent water from seeping in the gateway during transportation, storage or working time.
- It's highly advised to horizontally place the gateway on a flat surface or a cabinet.



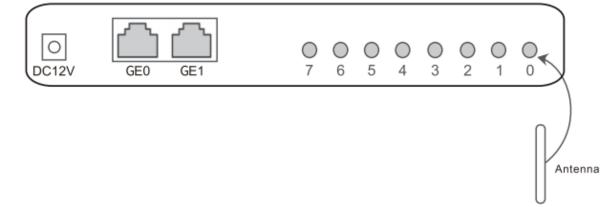
2. Installation Instructions

Here we use the UC2000-VE connection as a case study.

- ▶ Connection Diagram for UC2000-VE
- Insert SIM Card into Gateway



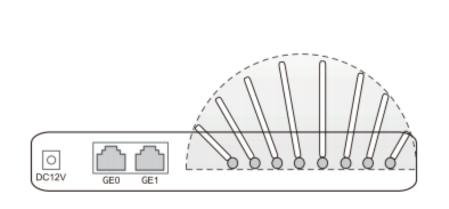
Connect Antennas to Gateway

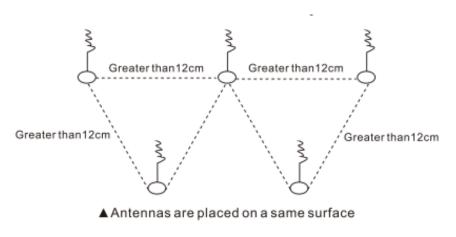


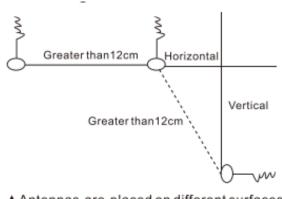


3. Antenna Installation Tips

- It's highly suggested that antennas of UC2000-VE be placed into a fan shape as shown in the following figure, so as to strengthen wireless signal.
- When you install antennas to UC2000-VF, UC2000-VG and UC2000-VH, please note that the distance of every two antennas should be greater than 12cm.







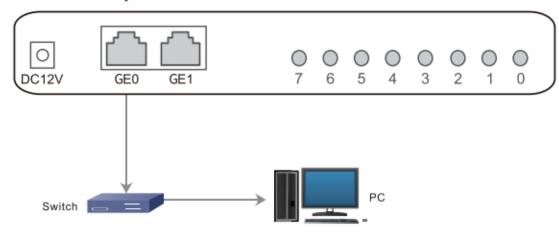
▲ Antennas are placed on different surfaces



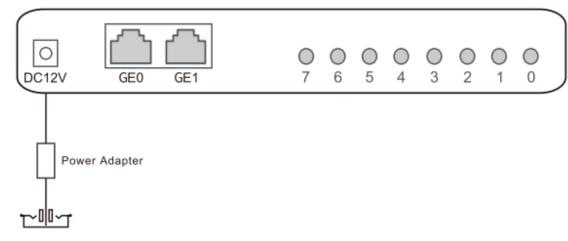
4. Connect to the network port and power supply of the UC2000-VE

- The deafult IP addresses of the UC2000's series management port are all 192.168.11.1. so set the PC's IP to 192.168.11.x, e.g. 192.168.11.3.
- UC2000-VE is equipped with 12V DC power adapter.

· Connect Gateway to Network



Connect DC Power Adapter to Power Port of Gateway



1.3 Introduction to UC2000 Login Page



1. Log in Web Interface

- Web access to the default IP 192.168.11.1 of the UC2000 using HTTP/HTTPS.
- Default username: admin password: admin

UserNa	mo	
OSCIIVO	ine	_
Passwo	ord	
	Lania	
	Login	

1.3 Introduction to UC2000 Login Page



2. Web view system information



The default password has not been changed!

Please change the password to protect your device!

	Please change the password	to protect your device:	
Information			
MAC Address	F8-A0-3D-49-15-37		
Network	172.27.10.66	255.255.0.0	Static
DNS Server	8.8.8.8	0.0.0.0	
Device SN	db51-0120-2036-0004		
Hardware ID	b818-4739-2737		
Cloud Register Status	Not Registered		
License	Basic Function	Enable	
	Valid Port	8	
System Up Duration	2 h 51 m 46 s		
System Time	2025-5-05 12:16:31		
Network Traffic Statistics	Received 7705216 Bytes	Sent 2445547 Bytes	
Version Information	Device Model	UC2000-VE Business	
	Package Version	04240221 2025-02-21 16:59:11 official	
	Software Version	04240221 2025-02-21 16:58:15	
	Web Version	04240221	
	Hardware Version	PCB 3	
	Logic Version	LOGIC 2	
	Boot Version	23	
	Kernel Version	38	
	DSP Version	ARM_32_10 Aug 26 2019 16:21:07	
	Userboard 0 Version	B3.11.19.11L4	

Refresh

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Web Access to UC2000

2 UC2000 Basic Configuration

3 UC2000 Basic Maintenance

Chapter Two Course Introduce

02



2.1 Setting up network information



2.2 Setting SIP calls



2.3 Setting SMS/USSD

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2.1 Setting up network information



1. Setting Up Network Configuration

After visiting a web page, it is recommended to set the network information first. Support DHCP mode and static IP mode



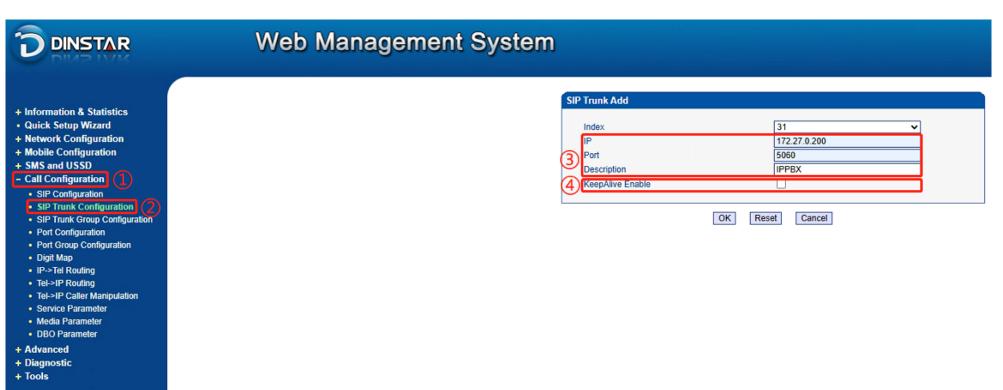
Network Configuration Obtain IP address automatically		
Temporary IP address	192.168.11.1	
Temporary Subnet Mask	255.255.255.0	
Use the following IP address		
IP Address	172.27.10.66	
Subnet Mask	255.255.0.0	
Default Gateway	172.27.1.1	
O PPPoE	10	
Account		
Password		
Service Name		
MTU	1400	
ONS Server		
Obtain DNS server address automa	tically	
 Use the following DNS server addre 	sses	
Primary DNS Server	8.8.8.8	
Secondary DNS Server	0.0.0.0	
Note: If you don't check "Take Effect Imm	nediately", you need to restart the device to take e	effect.



1. SIP Trunk mode

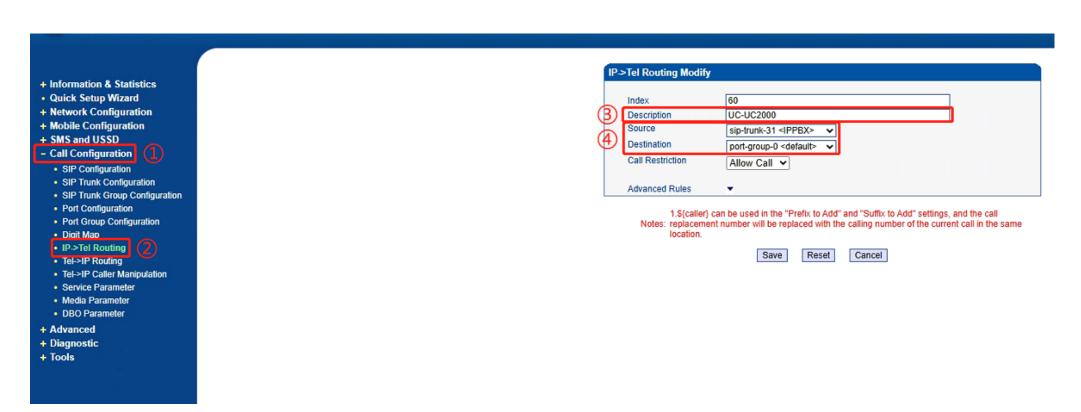
1 Set SIP trunk to UC2000

The SIP Trunk mode is designed to connect via SIP trunk between the UC2000 and the UC2000 with other clients/applications or IPPBX/softswtich on the same or different network segments via SIP trunks without registering to the server side.



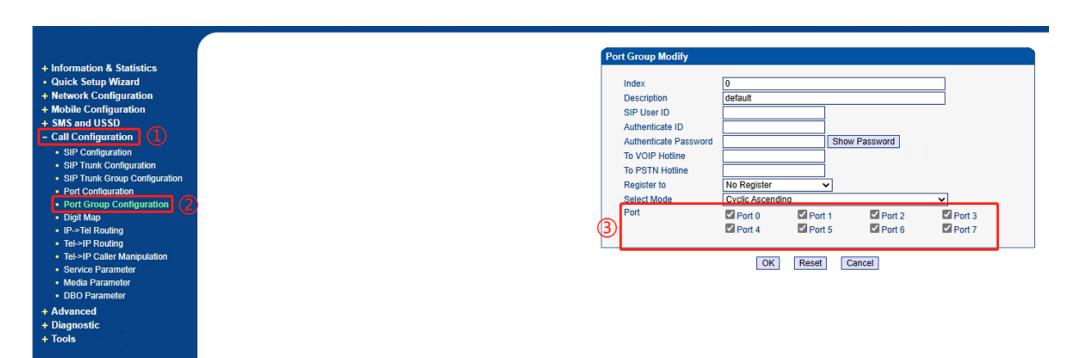


- 1. SIP Trunk mode
- 2 Set Outbound Call in UC2000(A route to all ports or some ports)





- 1. SIP Trunk mode
- 3 Set Port Group Configuration in Outbound Call

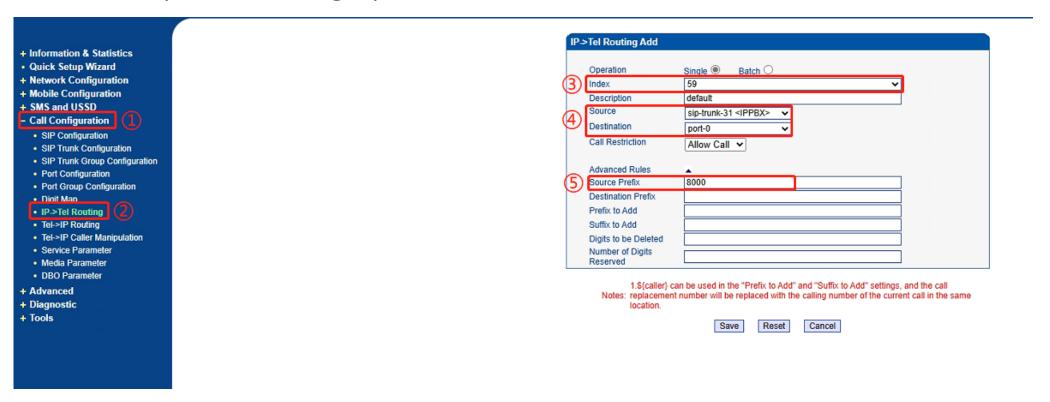




1. SIP Trunk mode

4 Set Outbound Call in UC2000(A route to a specific port)

If you want to specific call with specific port, like P2P. You can match the prefix of caller number and map the call to target port.



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- 1. SIP Trunk mode
- 5 Set Inbound Call to UC2000

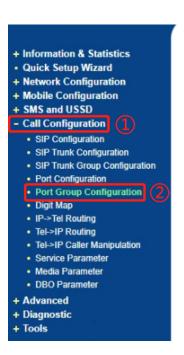


Tel-	>IP Routing Modify	
3	Index Description Source Destination Call Restriction Advanced Rules Source Prefix Destination Prefix Prefix to Add Suffix to Add Digits to be Deleted Number of Digits Reserved	63 default port-group-0 <default> sip-trunk-31 <ippbx> Allow Call</ippbx></default>



- 1. SIP Trunk mode
- 6 Set VoIP Hotline number on Port Group Configuration

All channels use same hotline number



Index	0			
Description	default			
SIP User ID				
Authenticate ID				
Authenticate Password			Show Password	
To VOIP Hotline	8000			
To PSTN Hotline				
Register to	No Register	~]	
Select Mode	Cyclic Ascend	ing		~
Port	Port 0	✓ Port *	Port 2	Port 3
	Port 4	Port 9	Port 6	Port 7



- 1. SIP Trunk mode
- 7 Set VoIP Hotline number on port or port group configuration

different channels use different hotline Number



	Port I	List									
		Port	SIP User ID	Authenticate ID	Authenticate Password	Local SIP Port	Register to	Tx Gain	Rx Gain	To VOIP Hotline	To PSTN Hotline
3	✓	0					No Register ✓	+2dB ∨	+6dB v 4	8000	
		1					No Register ✓	+2dB ∨	+6dB ∨	8001	
		2					No Register ✓	+2dB ∨	+6dB ∨	8002	
		3					No Register ✓	+2dB ∨	+6dB ∨	8003	
	✓	4					No Register ✓	+2dB ∨	+6dB ∨	8004	
		5					No Register ✓	+2dB ∨	+6dB ∨	8005	
	✓	6					No Register ✓	+2dB ∨	+6dB ∨	8006	
		7					No Register ✓	+2dB ∨	+6dB ∨	8007	
	☑	All	1 Increment	1 Increment	0 Increment	1 Increment	сору	сору	сору	1 сору	1 copy
	۳						No Register ✓	+2dB ∨	+6dB ∨		

Save

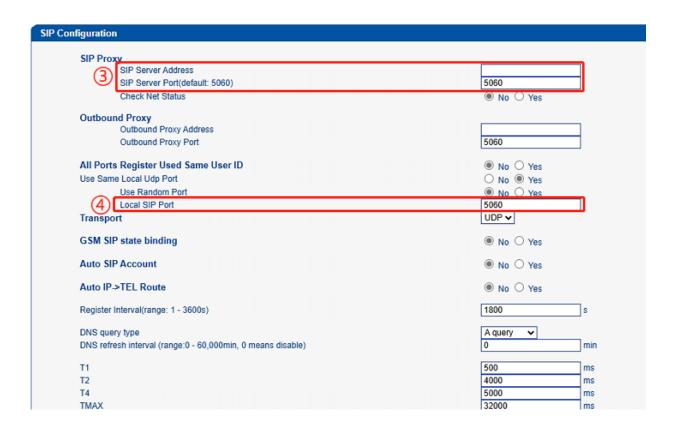


2. Register mode

1 Set SIP Configuration

In some cases, the UC2000 will use registration mode. For example, the UC2000 gateway is a private IP and the sip server is public IP. The UC2000 should register to the sip server. So that the SIP server is easy to send calls to UC2000

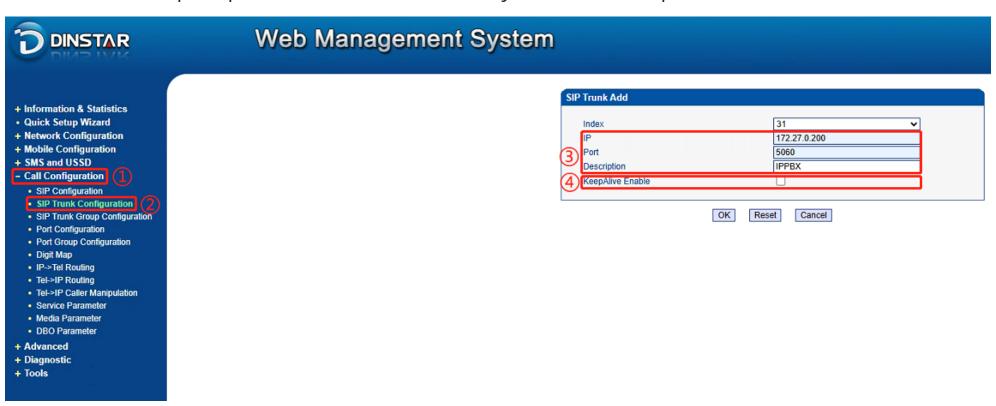






- 2. Register mode
- 2 Set multiple SIP SrversConfiguration

If you want to use multiple sip servers at the same time, you can add a sip trunk.





- 2. Register mode
- ③ Set Port Group (Whole device use one sip account)



Index	0				
Description	default				
SIP User ID					
Authenticate ID					
Authenticate Password			Show Password		
o VOIP Hotline					
o PSTN Hotline					
Register to	Sip Proxy	·			
elect Mode	Cyclic Ascending	1	•	~	
Port	Port 0	☑ Port	Port 2	☑ Por	t 3
	Port 4	Port 8	Port 6	Por	t 7



2. Register mode

4 Set Port Group (Split devices use several sip accounts)

If you want to split the device ports registered to two different sip servers, you can add two port groups and one port group choose register to SIP Proxy and the other register to the sip trunk.



Index	0			
Description	default			
SIP User ID				
Authenticate ID				
Authenticate Password			Show Password	
To VOIP Hotline				
To PSTN Hotline				
Register to	Sip Proxy	~)	
Select Mode	Cyclic Ascendi	nq		~
Port	Port 0	Port 1	Port 2	Port 3
	Port 4	Port 5	Port 6	Port 7

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- 2. Register mode
- **⑤** Check the register status



formation							
Port	SIP User ID	Register Status		Port	SIP User ID	Register Status	
0		Unregistered		1		Unregistered	
2		Unregistered		3		Unregistered	
4		Unregistered		5		Unregistered	
6		Unregistered		7		Unregistered	
Port Group	SIP User ID	Register Status	Port List	Port Group	SIP User ID	Register Status	Port List
0		Unregistered	0,1,2,3,4,5,6,7,	61		Unregistered	4,5,6,
63		Unregistered	0,1,2,				

Refresh



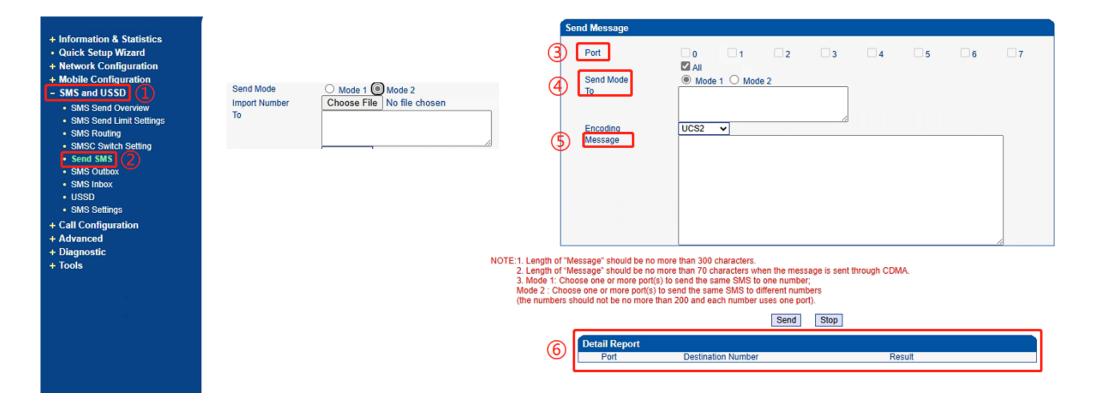
- 2. Register mode
- 6 Set Outbound/Inbound Route in UC2000

The steps are the same as those for setting up inbound and outbound routes for SIP trunks.

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3. Send SMS

1 Local send SMS

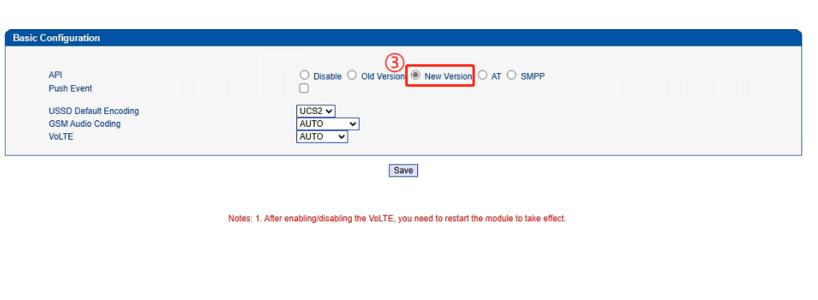


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3. Send SMS

2 Send SMS via HTTP API





Internet

Internet

Gateway

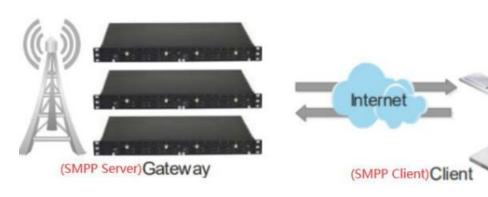
SMS Server

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- 3. Send SMS
- ③ Send SMS via SMPP



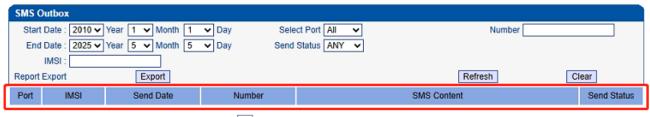
Basic Configuration	
API SMPP Listen Port SMPP User Password	O Disable O Old Version New Version AT Show Password Show Password
SMPP Inactivity Timer Message ID mode Destination Address in Deliver_sm Cache the SMPP Requests	10 min(s) Note: "0" means disable. UUID ✓ Address of SME ✓ Enable ✓
SMPP States Config Message is received by peer Message is sent Message be deleted Message in a rejected state Message undeliverable	ACCEPTD V 006 DELIVRD V 002 DELETED V 004 REJECTD V 008 UNDELIV V 005
USSD Default Encoding GSM Audio Coding VoLTE	UCS2 V AUTO V AUTO V



4. Check SMS sent status







Total: 0 entries 16 entries/page 1/0 page 🔻

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5. Send USSD

+ Information & Statistics
Quick Setup Wizard
+ Network Configuration
+ Mobile Configuration
- SMS and USSD
SMS Send Overview
55 555 5755
SMS Send Limit Settings
SMS Routing
SMSC Switch Setting
Send SMS
SMS Outbox
SMS Inhox
• USSD (2)
SMS Settings
+ Call Configuration
+ Advanced
+ Diagnostic
+ Tools

- 1	USSD						
		Port	USSD Request	USSD Reply			
3[0 4		not registered			
		1		not registered			
		2		not registered			
		3		not registered			
		4		not registered			
		5		not registered			
		6		not registered			
		7		not registered			
l							
[Reset	~		Copy To Select Clear Select Clear Reply			
				Send Exit Auto Refresh Stop Refresh			

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Chapter Three Course Introduce

03



3.1 Getting network capture



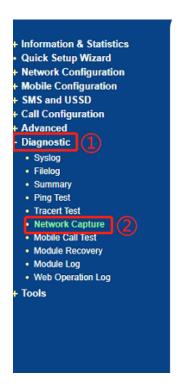
3.2 Getting the log

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3 SBC Basic Maintenance

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• 3.1 getting network capture





Notes: If you want get the PCM packets, please select a port.

3 SBC Basic Maintenance



• 3.2 getting the log

+ Information & Statistics • Quick Setup Wizard + Network Configuration + Mobile Configuration + SMS and USSD + Call Configuration + Advanced + Diagnostic - Tools Software Upgrade & File Upload Config Restore and Backup Management Parameter NMS Configuation Remote Server Email Account Setting Username & Password Access Control Factory Reset	Management Parameter NTP Parameter NTP Enable Primary NTP Server Address Secondary NTP Server Address Time Zone Local Time WEB Parameter HTTP Port HTTPS port HTTP Enable WEB Auto Logout Time Telnet Parameter Telnet Port Telnet Enable SSH SSH Enable	 	
NMS Configuation Remote Server Email Account Setting Username & Password Access Control	Telnet Parameter Telnet Port Telnet Enable SSH	23	
Restart	Notes:The d	Save evice must restart to take effect.	

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1 Web Access to UC2000

2 UC2000 Basic Configuration

3 UC2000 Basic Maintenance

Summary



- This course we already learn:
 - Understanding the UC2000 interface
 - Understand the basic connection of UC2000
 - Understand the application scenarios of UC2000
 - Understand the basic configuration of UC2000

Abbreviation



- SIP: Session Initiation Protocol
- UC2000: Wireless Gateway

















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