Quick Installation Guide

- ☑ SBC300
- ☑ SBC1000
- ☑ SBC3000
- ☑ SBC3000 Pro

Thanks for Choosing Dinstar's Session Border Controller!

Please read this guide carefully before installing the device. If you need any technical support, please contact us.

Tel: +86 755 61919966
Email: support@dinstar.com
Web: www.dinstar.com

Note: This guide is for all hardware SBC series devices

1 SBC Series Technical Specifications

SPEC / Model	Network Port for Service	Network Port for Management	Max Concurrent	Max Registration
SBC300	GE0/1/2/3	Admin	300	1,000
SBC1000	GE0/1/2/3	Admin	500	5,000
SBC3000	GE0/GE1(MCU) GE0/GE1(MFU)	GE1(MCU)	2,000	10,000
SBC3000 Pro	GE0/1/2/3 4/5/6/7	GE 0	5,000	20,000

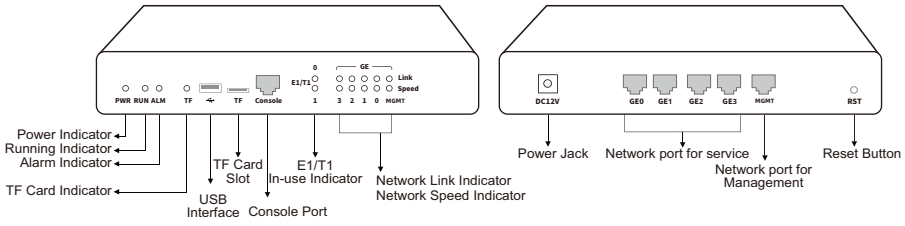
Note: The default management port for the SBC3000 Pro is GE0, but you can configure any other port as the management port after logging into the Web GUI.

2 SBC Series Technical Specifications

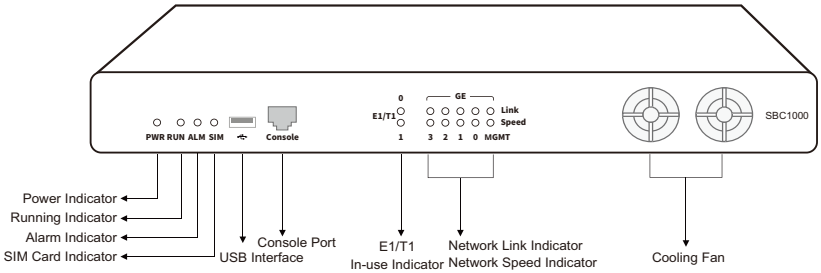
Indicator	Definition	Status	Description
PWR	Power Indicator	ON	The device is switched on
		OFF	The power is switched off or there is no power supply
RUN	Running Indicator	Blinking slowly	The device is running properly
		ON/OFF	The device goes wrong
ALM	Alarm Indicator	OFF	The system is working properly
		ON	The system is down
GE	Network Link Indicator	Blinking quickly	The device is properly connected to network
		OFF	The device is not connected to network or network connection is improper
	Network Speed Indicator	ON	Work at 1,000Mbps
		OFF	Network speed lower than 1,000Mbps

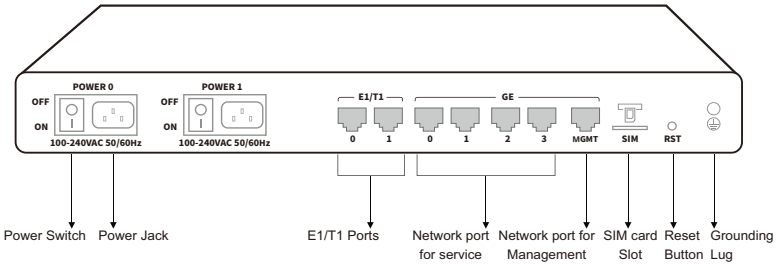
3 Indicators and Ports

▶ SBC300

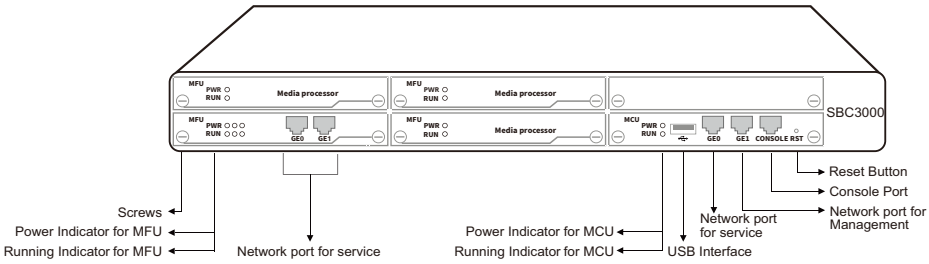


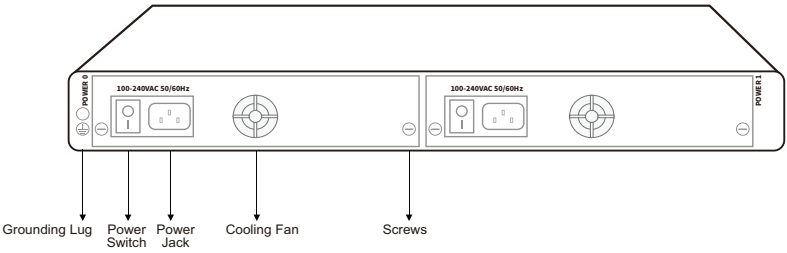
▶ SBC1000



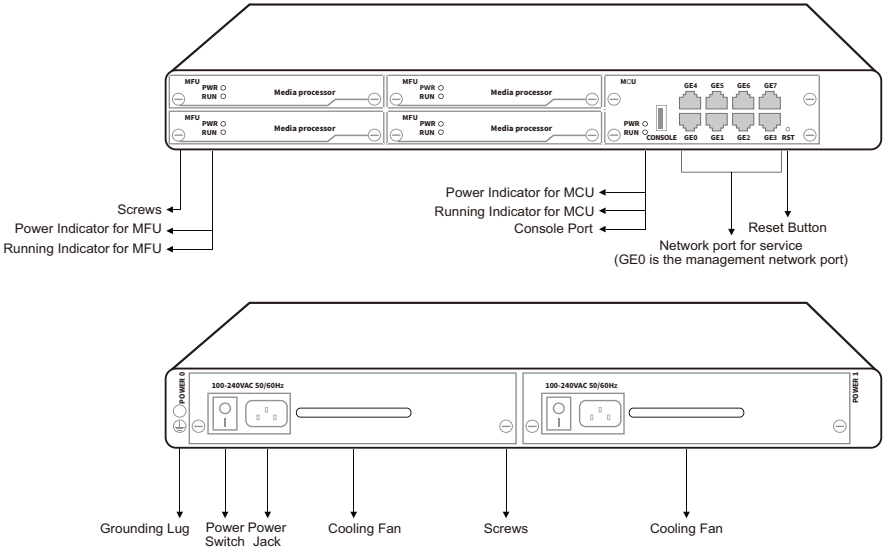


▶ SBC3000





▶ **SBC3000 Pro**



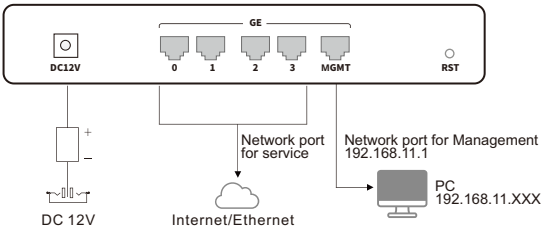
4 Attentions before Installing

- The SBC1000/SBC3000/SBC3000 Pro mounting cabinets should be 19 inches in width and 550 mm or more in depth (Dinstar provides the required brackets for installation);
- To guarantee device works normally and to lengthen the service life of the device, the humidity of the equipment room where device is installed should be maintained at 10%-90% (non-condensing), and temperature should be 0 ℃ ~ 45 ℃;
- It's suggested that personnel who has experience or who has received related training be responsible for installing and maintaining device;
- Power supply of SBC300 should be 12V DC, and power supply of SBC1000/ SBC3000/ SBC3000 Pro should be 100~240V AC;
- It's advised to adopt uninterruptible power supply (UPS);
- Please wear ESD wrist strap when installing device;
- Please do not hot plug cables;
- Ensure the equipment room is well-ventilated and clean.

5 Installation Instruction

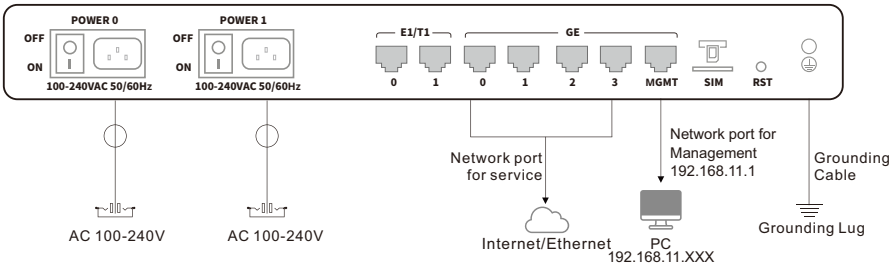
▶ Connection Diagram for SBC300

- Connect to the network, and connect to the power supply



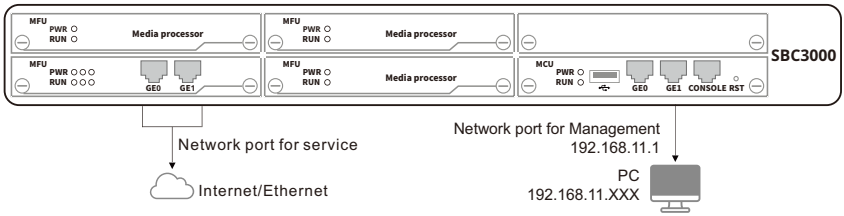
▶ Connection Diagram for SBC1000

- Connect to the network, and connect with power input and grounding lug

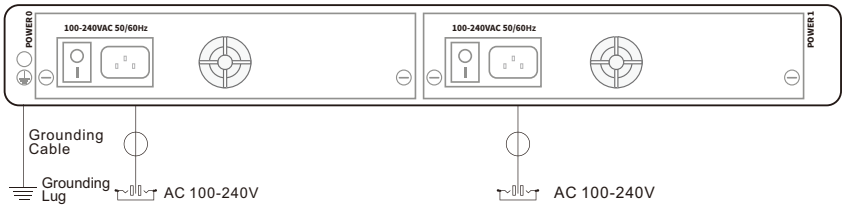


▶ Connection Diagram for SBC3000

- Connect to the network

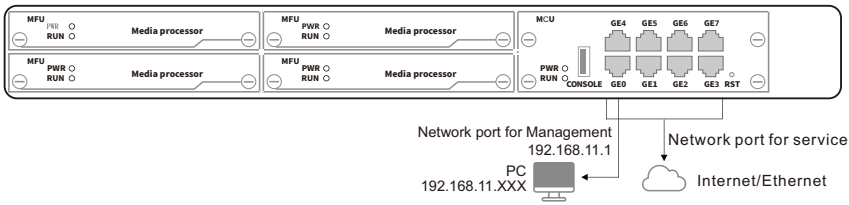


- Connect with power input and grounding lug

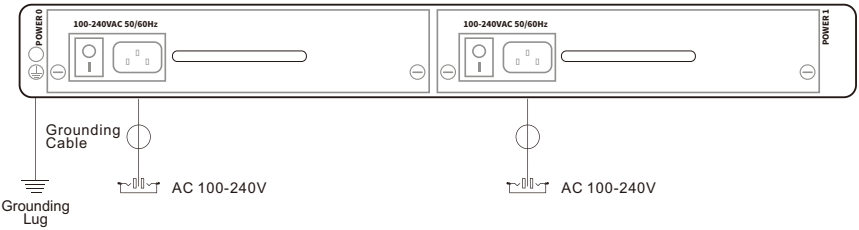


▶ Connection Diagram for SBC3000 Pro

- Connect to the network



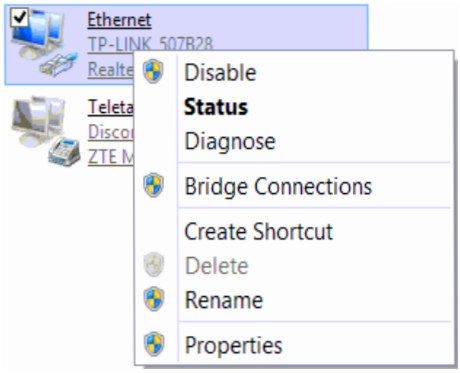
- Connect with power input and grounding lug



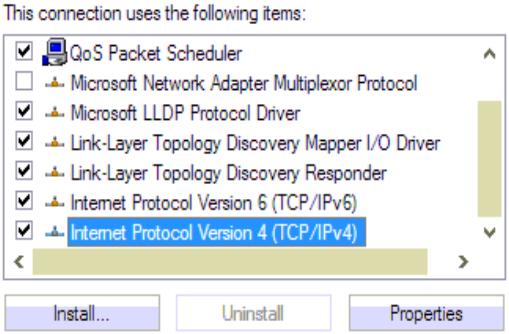
6 Modify PC's IP Address

To log in the Web Management System of the SBC, you need to modify the IP address of PC first to make it at the same network segment with the SBC. Connect PC with the SBC, and then add an IP address of 192.168.11.XXX on the PC.

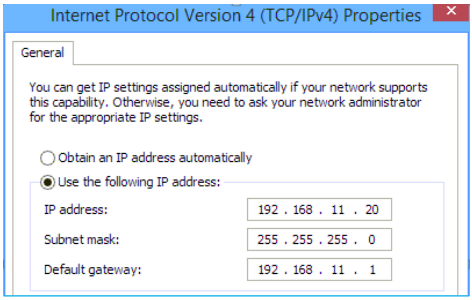
❶ On the PC, click '**Network (or Ethernet)** → **Properties**'.



❷ Double-click '**Internet Protocol Version 4 (TCP/IPv4)**'.



❸ Select '**Use the following IP address**', and then enter an available IP address '192.168.11.XXX' .



7 Log in Web Management System

Connect the computer to the GE1(MCU) port of SBC3000 (or the MGMT port of SBC300/SBC1000, the GE0 port of SBC3000 Pro), then open the browser, enter the IP address https://192.168.11.1(SBC300/1000/3000) or https://192.168.11.1:1081 (SBC3000 Pro) in the address bar, press enter, and the login GUI will be displayed.

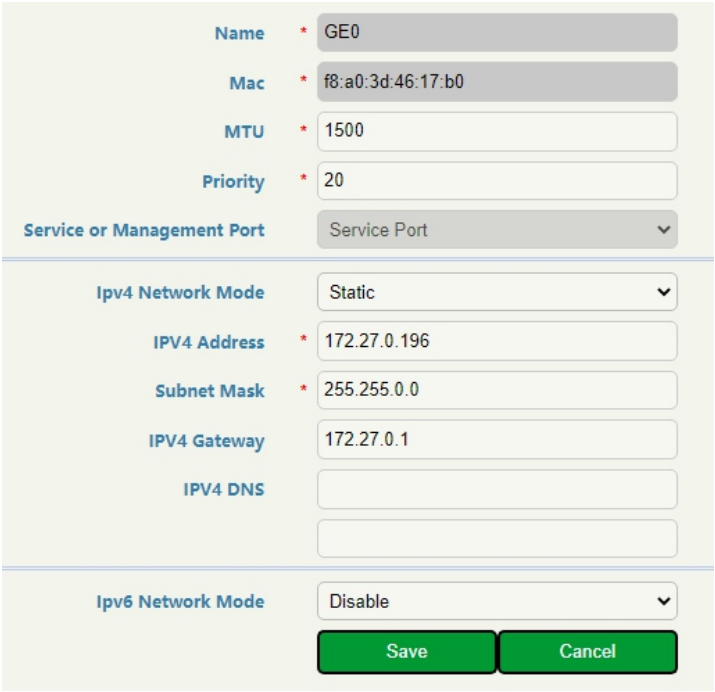
Model	Network port for Management	IP Address
SBC300	Admin	192.168.11.1
SBC1000	Admin	192.168.11.1
SBC3000	GE1(MCU)	192.168.11.1
SBC3000 Pro	GE0	192.168.11.1

Enter username and password in the displayed login GUI. The default username is admin, while the default password is admin@123#.

8 Modify IP Address of Network Port for Service

After logging in the SBC, user needs to modify the IP address of the network port for service. After that, please restart the device for the configurations to take effect.

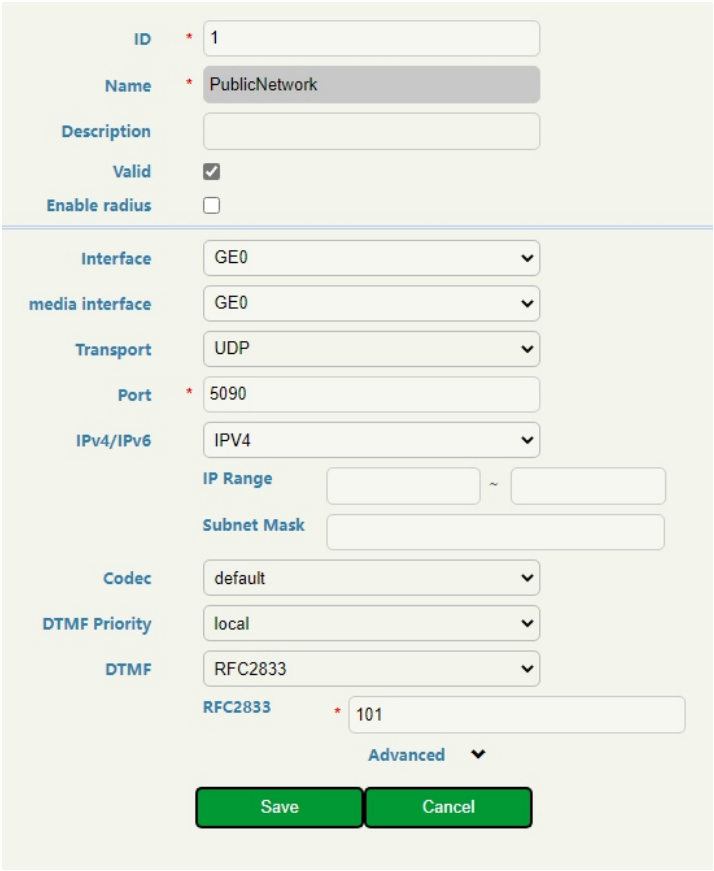
Note: The GE1(MCU) port of SBC3000 (When in a single-device license mode), GE0 port of SBC3000 Pro also can be used as a network port for service, but the Admin port of SBC300/SBC1000 is only used for local management and maintenance.



9 Configure Access Network

On the **'Service - Access Network'** page, users can configure the Access Network to use SBC for proxy registration

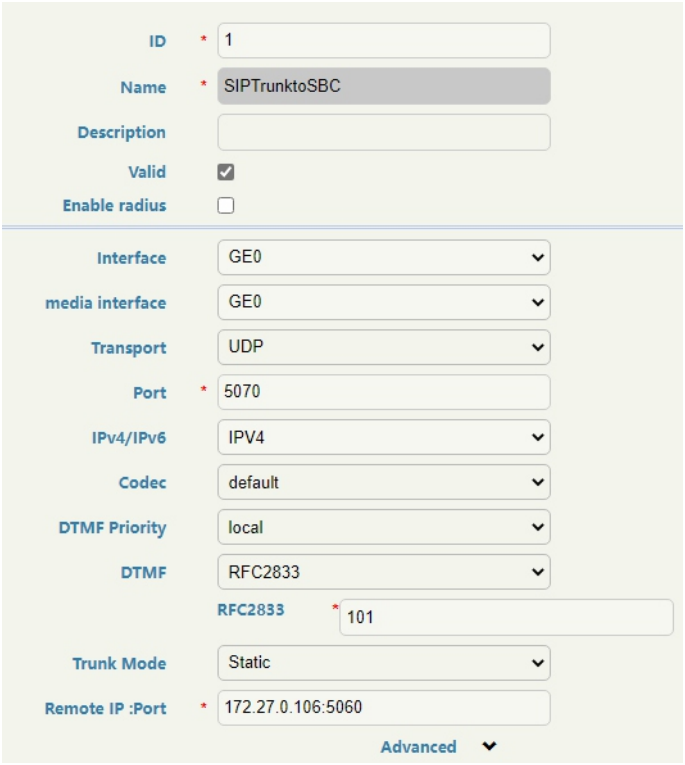
The signaling and media interfaces are the same as the corresponding network port for service. The local SIP listening port is 5090(customizable), and other configuration items keep the default.



10 Configure Access SIP Trunk

On the **'Service - Access Network'** page, users can configure the Access SIP Trunk to connect SBC with service provider or third-party SIP line provider.

The signaling and media interfaces are the same as the corresponding network port for service. The local SIP listening port is 5070 (customizable), and the Remote IP: Port is the server IP and port provided by the Service Provider.

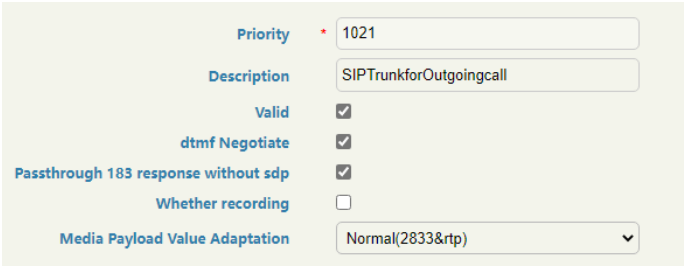


11 Configure Call Routing

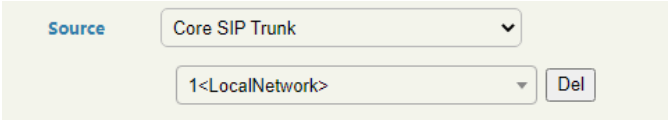
(1) Configure Call Routing(Core SIP Trunk→ Access SIP Trunk)

On **'Service - Routing Profile – Call Routing'** page, add an outbound route, select Core SIP Trunk as the source and Access SIP Trunk as the destination, and keep the other configuration items as default.

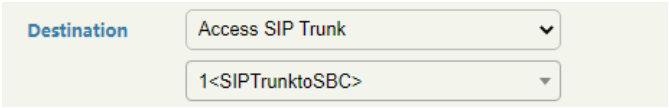
Set the priority (the smaller the number, the higher the priority) and the description:



Select Core SIP Trunk as the source:



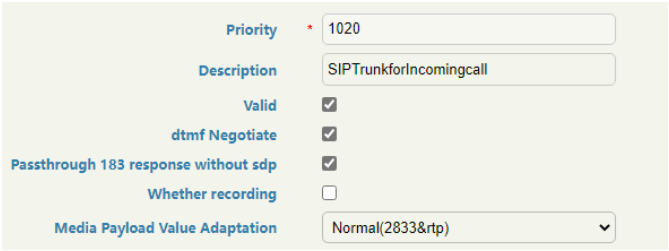
Select Access SIP Trunk as the destination:



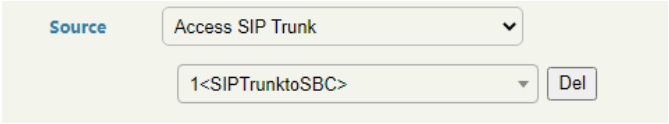
(2) Configure Call Routing(Access SIP Trunk → Core SIP Trunk)

On 'Service - Routing Profile – Call Routing' page, add an inbound route, select Access SIP Trunk as the source and Core SIP Trunk as the destination, and keep the other configuration items as default.

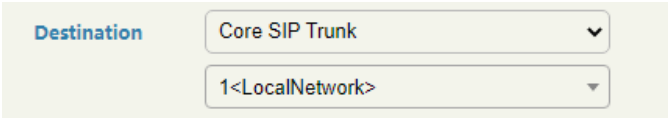
Set the priority (the smaller the number, the higher the priority) and the description:



Select Access SIP Trunk as the source:



Select Core SIP Trunk as the destination:



Note: Based on the above steps, users can configure the call routing in the direction of Access Network → Core SIP Trunk or Core SIP Trunk → Access Network.

12 Trouble Shooting

(1) Unable to access the device WEB GUI.

① First, check whether the access network port is the Network Port for management, the Network Port for service is not allowed to access the Web GUI by default;

② To access the WEB GUI of SBC, you need to use HTTPS method, default port 443;

③ Using **Ping** to check whether the network works normally. If the network is not accessible, you need to check whether the IP address of the device is correct and whether the indicator of the network port is normal.

(2) Why the extension fails to register through the access network?

① First, check the basic configuration of the SBC, such as whether the network port, SIP listening port and Call Routing are correct;

② Then check that the Server IP and port of the end device are the same as the IP and port of the SBC Access Network;

③ Capture the network packets (on the Maintenance page), and check whether the SBC has received the registered packets and whether they have been successfully forwarded to the Core SIP Trunk.

(3) Why the call through SBC is failed?

① First, check whether the Access Network registration is successful and whether the status of the Access SIP Trunk and Core SIP Trunk is True;

② Checking that Call Routing is configured correctly;

③ Capture the network packets (on the Maintenance page), and check that the SBC has received the Call Request message;

④ Log in to SSH command line to capture call logs and provide them to technical support.

(4) Forget the management port IP address of the device.

① If other service ports can access the device, you can try to use the IP access of the service ports;

② Prepare an RS232 Console cable and a computer with a COM interface, then connect the device's Console port to access the device Command line interface, enter the command "show int" in ROS# mode to get the IP address of the device.

13 Tips for security settings

To protect the system service security, please configure the security rules according to the specific service requirements. For example: IP anti-attack policy, SIP anti-attack policy, system security, access control, black and white list, IP address whitelist, etc. If you have any questions about the configuration and parameters, please contact technical support.