Quick Installation Guide

- ☑ DAG1000-4O
- ☑ DAG1000-8O
- ☑ DAG2000-16O
- ☑ DAG3000-32O
- ☑ DAG3000-128O

Thanks for Choosing Dinstar's VoIP Gateway!

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

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

v2.0 2021

1 Product Model & Number of Ports

Port Type / Model	WAN	LAN	RJ11	RJ45
DAG1000-4O	1	3	4	0
DAG1000-8O	1	3	8	0
DAG2000-16O	0	4	16	0
DAG3000-32O	0	2	0	8
DAG3000-128O	0	2	0	32

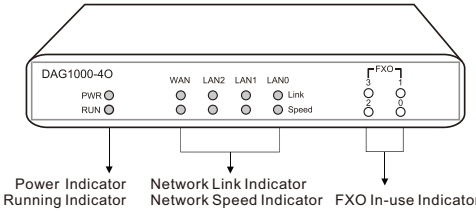
- Dinstar's VoIP gateways have two types of FXO ports, namely RJ11 and RJ45. For the number of ports of each model,please refer to the table above.
- Please check the model of your gateway before installation,and then refer to corresponding installation instructions.

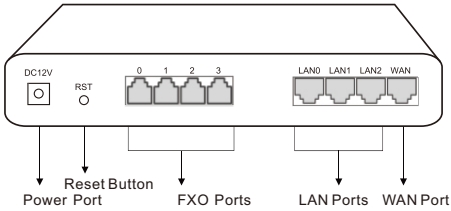
2 Description of Indicators

Indicator	Definition	Status	Description
PWR	Power Indicator	On	The gateway is powered on
		Off	The gateway has no power input or power supply is abnormal
RUN	Running Indicator	Slow Flashing	The gateway is running properly
		Fast Flashing	SIP account is registered successfully
		Off	The gateway is running improperly
FXO	FXO In-use Indicator	On	FXO port is currently occupied
		Off	FXO port is idle or faulty
WAN/LAN	Link (Green)	Flashing	The gateway is properly connected to network
		Off	The gateway is not connected to network or network connection is improper
	Speed	On	Work at 100Mbps
		Off	Work at 10Mbps
GE0/GE1	Link (Green)	Flashing	The gateway is properly connected to network
		Off	The gateway is not connected to network or network connection is improper
	Speed	On	Work at 1000Mbps
		Off	Work at 100Mbps

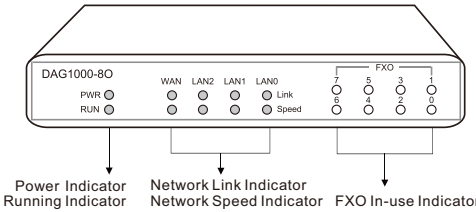
3 Indicators & Interfaces

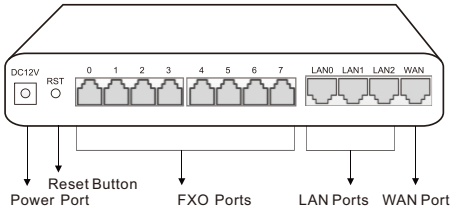
▶ DAG1000-4O



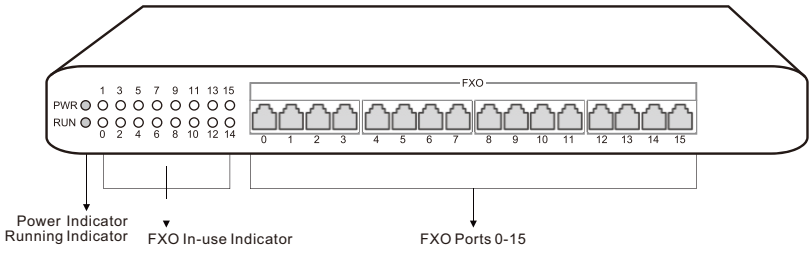


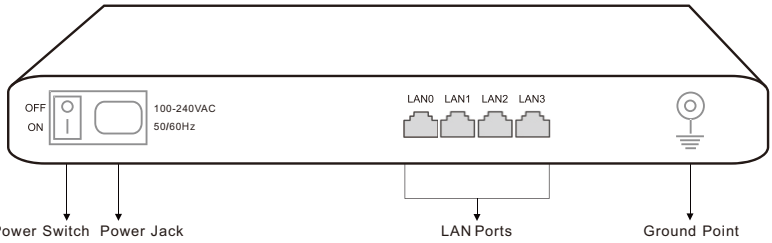
▶ DAG1000-8O



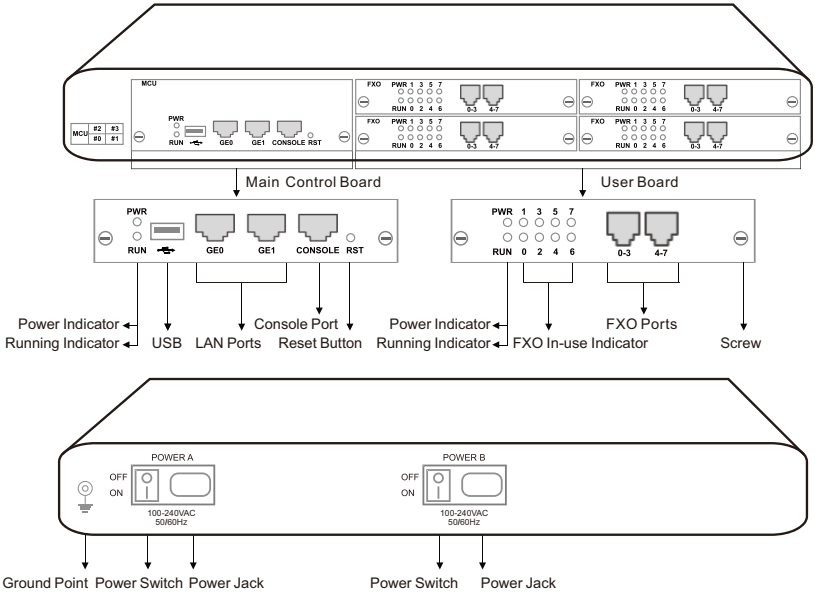


▶ DAG2000-16O

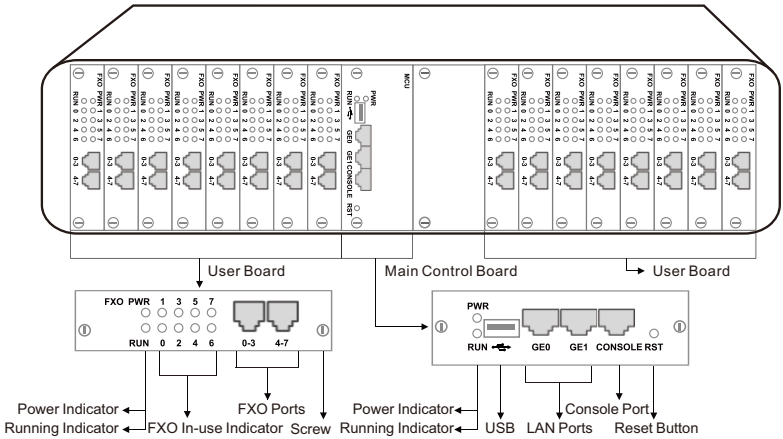


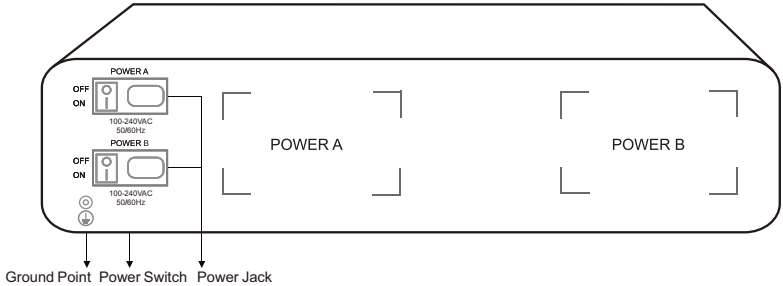


▶ DAG3000-32O



▶ DAG3000-128O





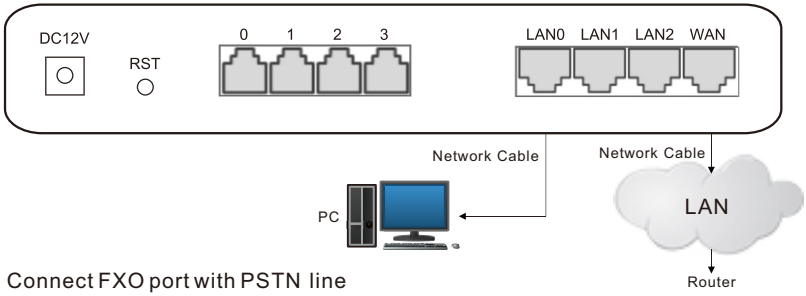
4 Installation Attentions

- Product model: please check the model of your gateway before installation;
- Anti-jamming: to reduce the interference with PSTN lines, it's highly recommended that PSTN lines connected to the gateway should be placed away from power cables;
- Power supply: DAG1000-4O and DAG1000-8O are equipped with 12VDC power adapter, while DAG2000-16O, DAG3000-32O and DAG3000-128O accepts AC input voltage of 100-240V. Please ensure safe and stable power supply;
- Network bandwidth: please ensure there is enough network bandwidth so as to guarantee stabilized running of the gateway;
- Ventilation: to avoid overheating, please do not pile up the gateway with other devices and make sure the gateway has good ventilation around;
- Temperature and humidity: to avoid any accident that might cause malfunction,it's advised to install the gateway in an equipment room where temperature and humidity are appropriate;
- Mechanical load: please make sure the gateway is placed steadily to avoid damage.It's highly advised to horizontally place the gateway on a flat surface or a cabinet.

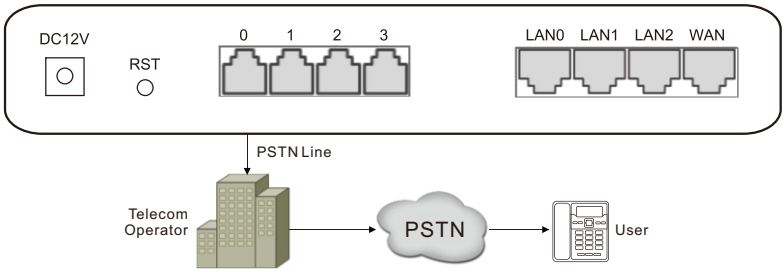
5 Installation Instructions

▶ Connection Diagram for DAG1000-4O

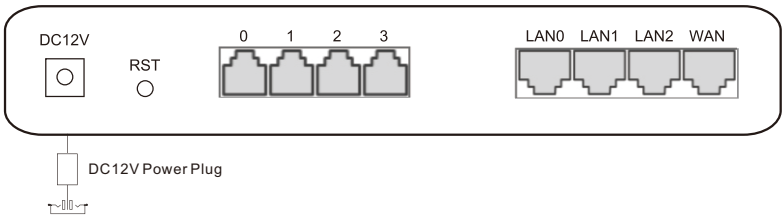
- Connect gateway with network



- Connect FXO port with PSTN line

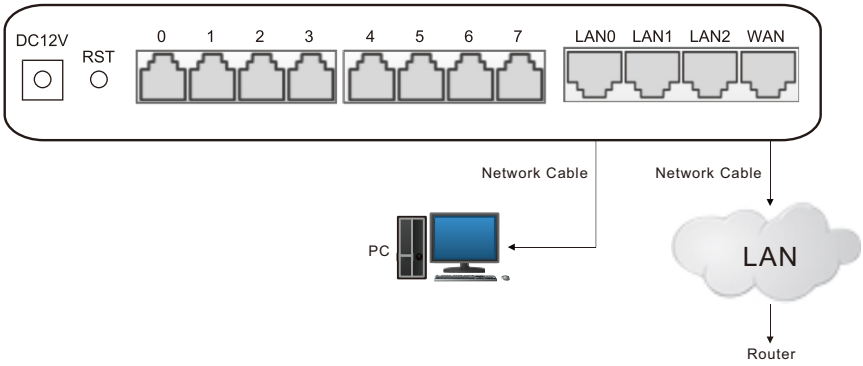


- Connect gateway with power input

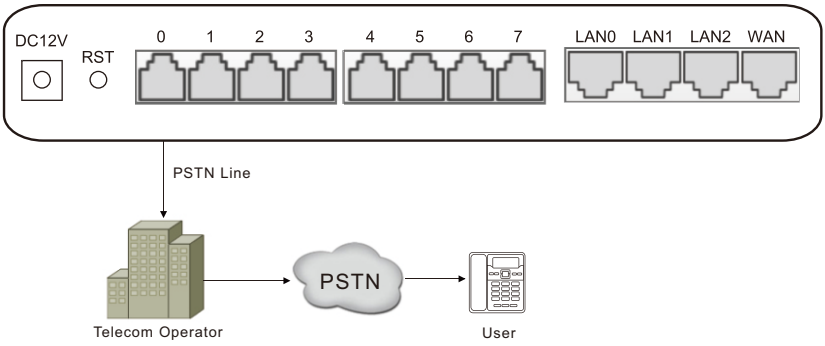


▶ Connection Diagram for DAG1000-8O

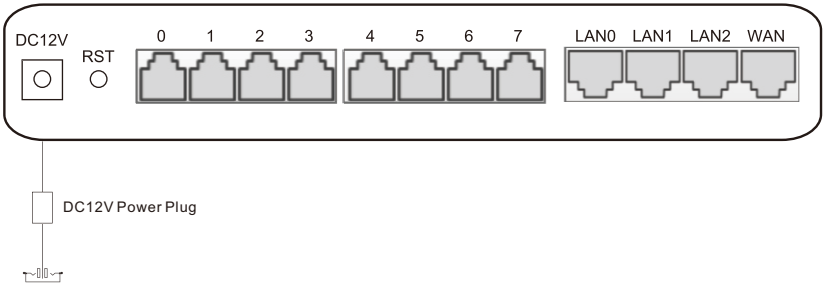
- Connect gateway with network



- Connect FXO port with PSTN line

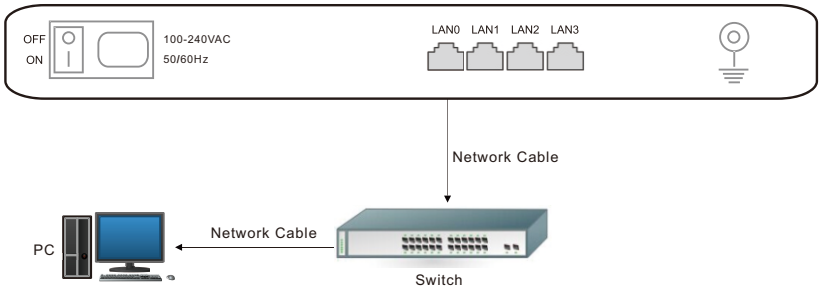


- Connect gateway with power input

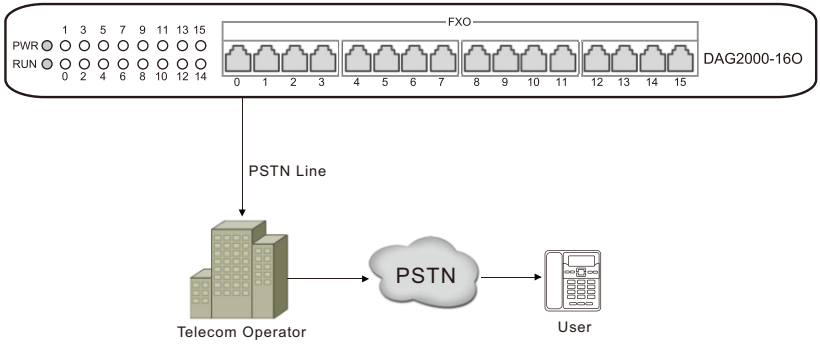


▶ Connection Diagram for DAG2000-16O

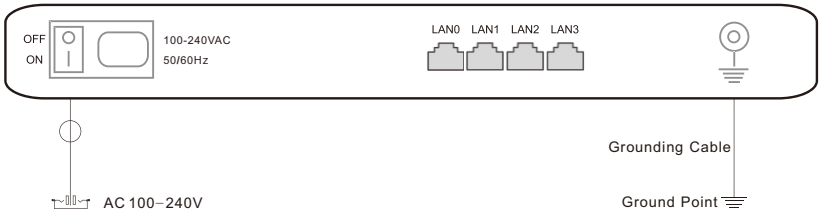
- Connect gateway with network



- Connect FXO port with PSTN line

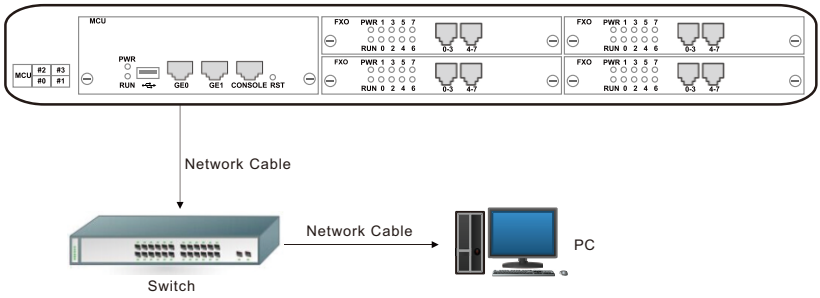


- Connect gateway with power input

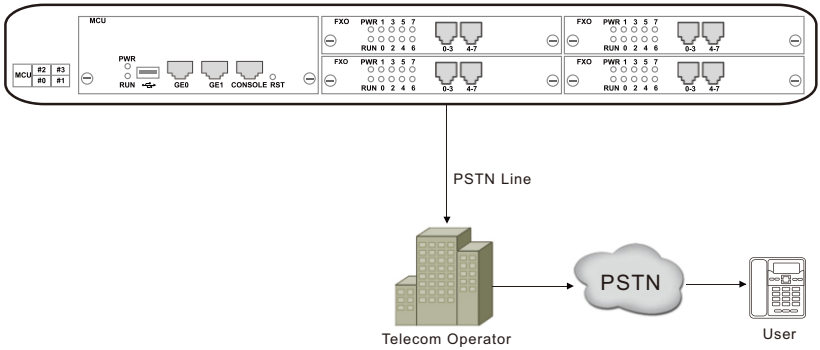


▶ Connection Diagram for DAG3000-32O

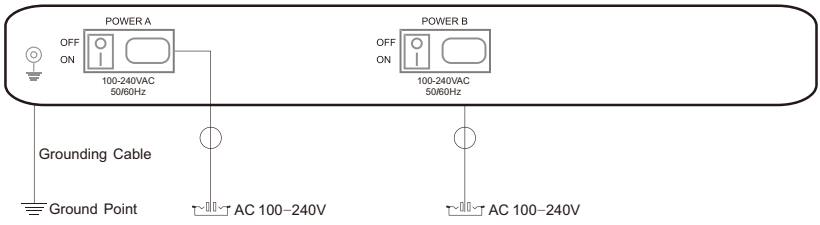
- Connect gateway with network



- Connect FXO port with PSTN line

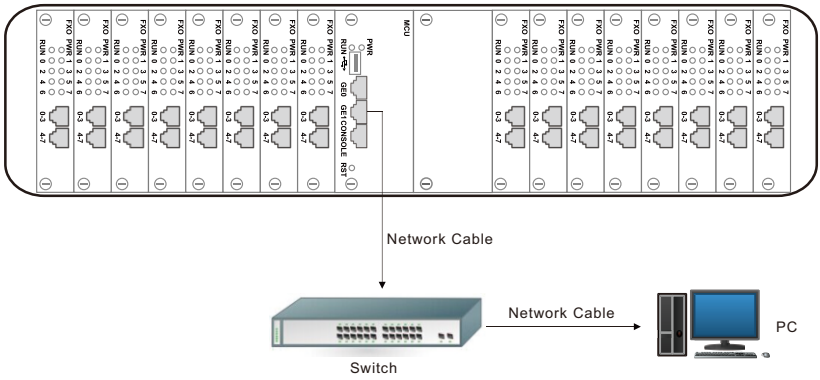


- Connect gateway with power input

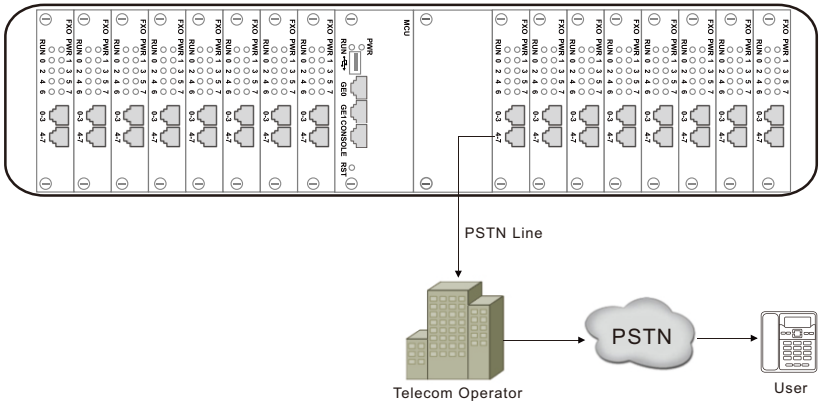


▶ Connection Diagram for DAG3000-128O

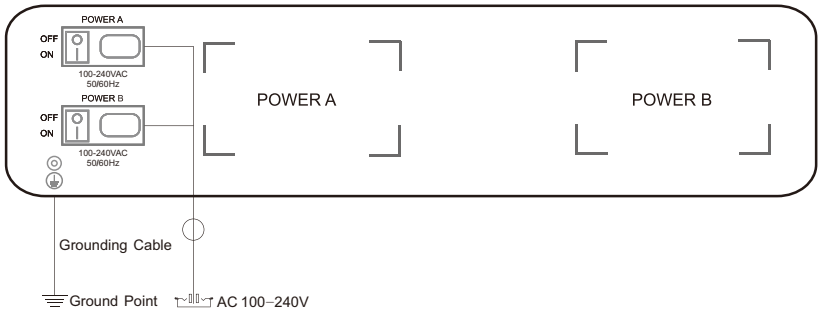
- Connect gateway with network



- Connect FXO port with PSTN line



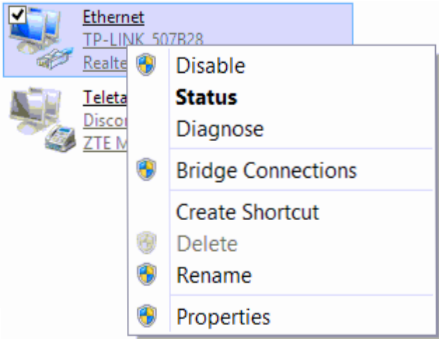
- Connect gateway with power input



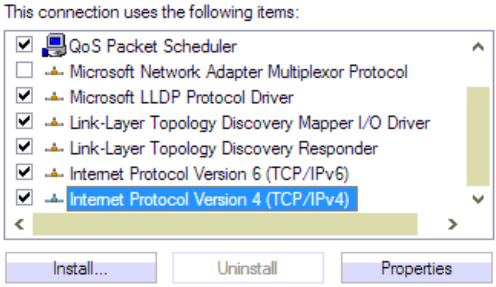
6 Modify PC's IP Address

To log in the Web Management System of the gateway, you need to modify the IP address of PC first to make it at the same network segment with the gateway.

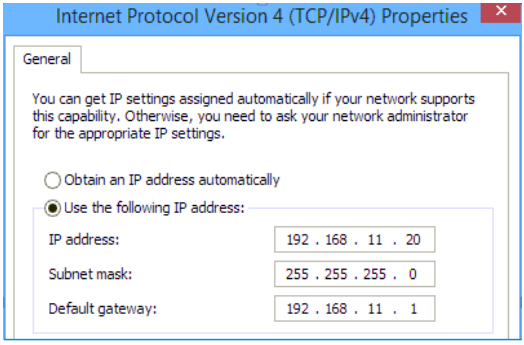
❶ On the PC, click '**Network (or Ethernet) → Properties**'.



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' which is at the same network segment with '192.168.11.1'.



7 Log in Web Management System

Open a web browser and enter the gateway's IP address (default IP is 192.168.11.1). Then input username and password in the displayed login GUI. Both the default username and password are admin.

8 Modify Gateway's IP Address

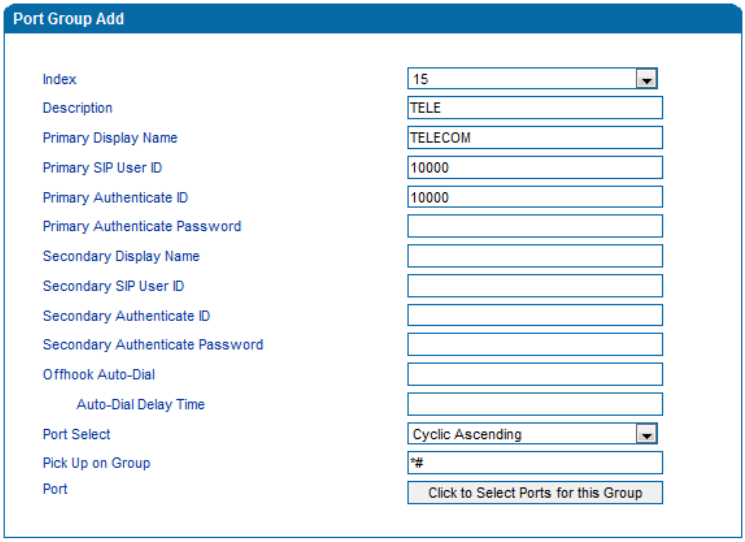
If you want to modify the IP address of the DAG gateway, please click '**Network → Local Network**' in the navigation tree on the left of the Web Management System, and then input new IP address and DNS server address on the displayed interface.

9 Basic Configurations

(1) Create Port Group

You are advised to divide PSTN lines into several groups and then distribute them to different port groups. Generally, PSTN lines belonging to a same telecom operator are distributed to a same port group.

Click Call&Routing →Port Group, and then click **Add** on the displayed interface.

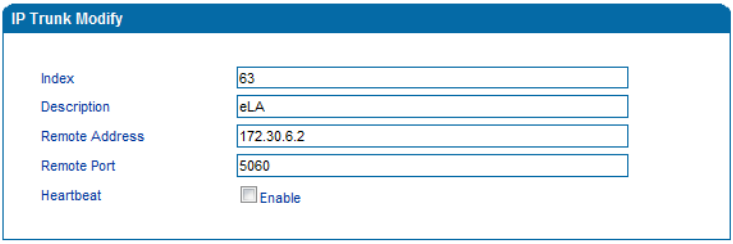


When calls come from PSTN to the gateway, the offhook auto-dial number is generally regarded as the DID (Direct-inward-dial) number or destination number of the SIP server.

Assuming the SIP server has an DID of an extension, an IVR number, or a ring group number '2695222',the offhook auto-dial number must be '2695222'.

(2) Create IP Trunk

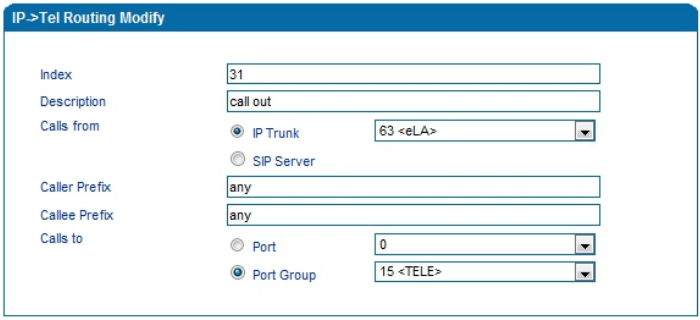
On the Call & Routing→IP Trunk interface, click **Add** to create an IP trunk which connects to a peer SIP server.



(3) Create Outbound Route

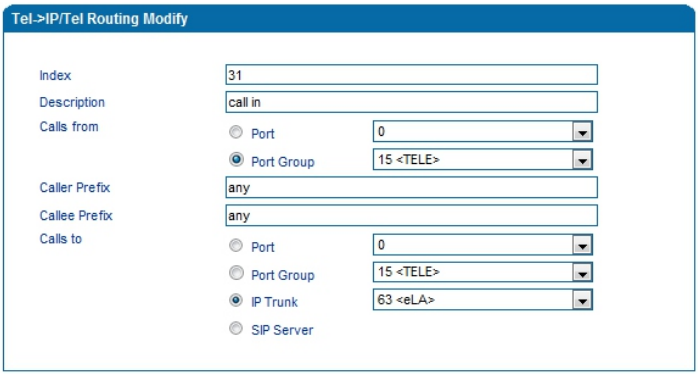
On the Call & Routing→<IP→Tel Routing> interface, click **Add** to create an outbound route for the IP trunk.

As shown in the following figure, Caller/Callee Prefix is set as 'any' and calls from IP trunk 63<eLA> are routed to port group 15<TELE>.



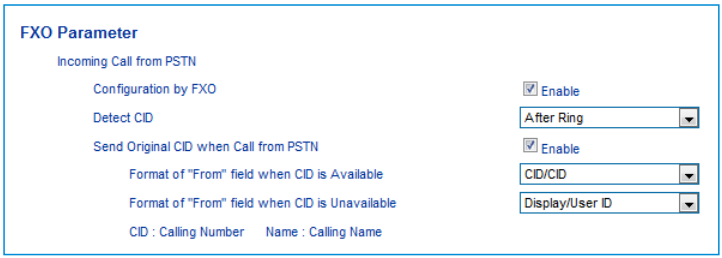
(4) Create Inbound Route

On the Call & Routing→<Tel→IP/Tel Routing> interface, click **Add** to create an inbound route for the IP trunk. As shown in the following figure, Caller Prefix is set as 'any' and calls from port group 15<TELE> are routed to IP trunk 63<eLA>.



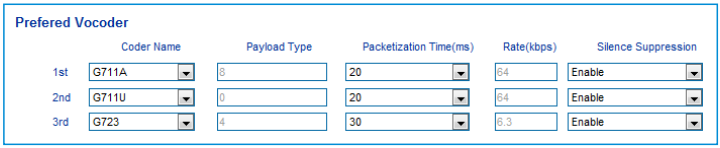
10 Configure FXO Parameters

On the Advanced →FXS/FXO interface,configure the gateway to detect CID after ring or before ring,and enable 'Send Original CID when call from PSTN'.Format of "from" field is set as 'CID/CID' when CID is available,while format of "from" field is set as 'Display/User ID' when CID is unavailable.



11 Configure Priority of Codecs

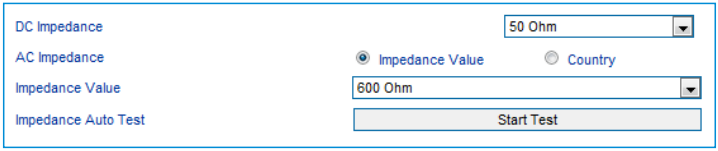
On the Advanced→Media Parameter interface,configure the priority of preferred codecs. The gateway supports G729,G723,G711U and G711A.



12 Configure Impedance Value

To improve the compatibility of FXO ports,the gateway provides auto test to get the most matched impedance value.

On the Advanced→FXS/FXO interface,click **Start Test** and then the gateway will automatically detect the best impedance for FXO lines. After the test is complete,save the impedance value.



13 More Details

This document only provides instructions for quick installation and basic configuration, For detailed configuration and parameter explanation, please make reference to user manual or ask for online technical support.

14 FAQ

(1) What if the caller number is not displayed when a call comes from PSTN ?

A. Consult the telecom operator about whether the CID function has been enabled, or connect the PSTN line with a telephone to check it;

B. On the Advanced→FXS/FXO interface, check the gateway is configured to detect CID before ring or after ring, and then check whether “Send Original CID when Call from PSTN” is enabled or not.

(2) Can the gateway be connected with PSTN lines from different telecom operators ?

Yes, it can be realized by creating port groups to manage PSTN lines belonging to different telecom operators.

(3) What if the gateway’s IP address is forgotten ?

Dial the number of PSTN line first, and then dial *158# to query the IP address of LAN port of the gateway.

(4) How to restore factory default settings ?

A. Press the **RST** button for 7 seconds;

B. Dial the number of PSTN line first, and then dial *166*000000#. After that, restart the gateway.

C. Log in the gateway and then click **Tools** → **Factory Reset**, then click **Apply** and restart the gateway.

Honest, Concentrated, Innovative, Open

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