

N-Series



N-Series SIP IP PBX

User Configuration Guide

N-20 IP PBX
N-30 IP PBX
N-50 IP PBX

neron
I N F O R M A T I C S P V T . L T D .

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Overview



NO.	Name	Description
1	Power LED	Indicate Power Status ON/OFF
2	Status LED	Indicate Device Status
		A. Power Status
		B. Running Status Of Device
		C. ETH 0 WAN LED Status [UP/DOWN]
D. ETH 1 LAN LED Status [UP/DOWN]		
3	RESET	To reset device on factory default
4	LCD Display	To check status of FXO/FXS Port or LAN/WAN
5	SIM Slot	To use SIM card
6	COM Port	Console port [For L3 Tech use only]
7	Power Socket	For external Power Supply Adaptor 12V-2A/ 12V-3A
8	ETH 1	RJ45 - 10/100 Ethernet Port [LAN]
9	ETH 0	RJ45 - 10/100 Ethernet Port [WAN]
10	USB	USB A Type for Storage device [For Recording]
11	FXS/FXO Port	To use analog phone or PSTN Line
12	Anteena Port	Anteena used for Signal

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Login GUI

Name	Description
ETH 0 WAN	Default IP address [DHCP]
ETH 1 LAN	Default IP address - 10.91.8.1 Protocol - DHCP Server Subnet - 255.255.255.0
Login User ID	admin
Login Password	admin

GUI Login with PC/Desktop



- Connect Cat5/Cat6 LAN Cable to **PBX** ETH 1 port and Laptop/Desktop Ethernet port back to back
- Go to Network setting in PC and select DHCP in IPV4 Network Address
- **PBX** DHCP server will allocate IP for PC
- Open Google Chrome / Mozilla Firefox to Brows ip address 10.91.8.1 or <https://10.91.8.1>
- If DHCP server failed to allocate IP address for PC , configure manually network IP address in network setting > ETH port > IPV4 [IP address for PC 10.91.8.11 Subnet 255.255.255.0]
- Ping **PBX** IP address 10.91.8.1 using terminal or command prompt
- If Ping request is OK , Brows **PBX** default IP Address

Ping Request Status

Request Timeout (Sample)

```
PING 10.91.8.11 (10.91.8.11): 56 data bytes
Request timeout for icmp_seq 0
Request timeout for icmp_seq 1
Request timeout for icmp_seq 2
Request timeout for icmp_seq 3
```

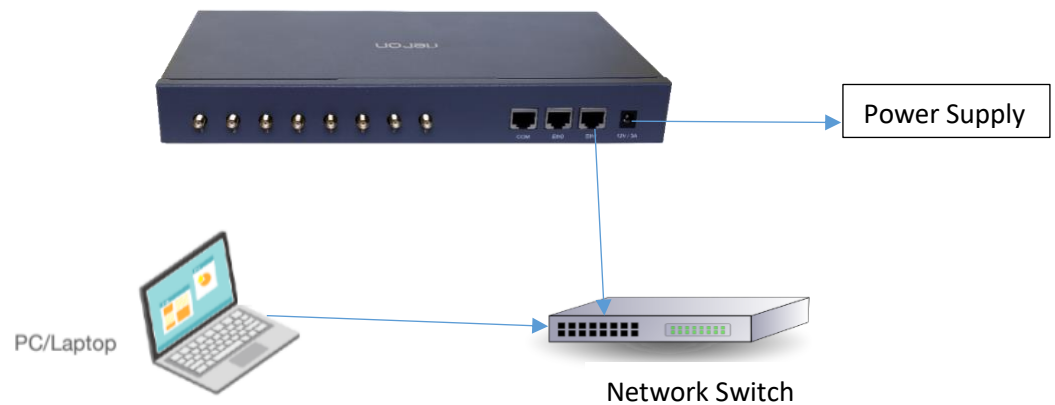
Network Response (Sample)

```
PING 192.168.1.199 (192.168.1.199): 56 data bytes
64 bytes from 192.168.1.199: icmp_seq=0 ttl=64 time=2.159 ms
64 bytes from 192.168.1.199: icmp_seq=1 ttl=64 time=2.134 ms
64 bytes from 192.168.1.199: icmp_seq=2 ttl=64 time=2.127 ms
64 bytes from 192.168.1.199: icmp_seq=3 ttl=64 time=2.619 ms
```

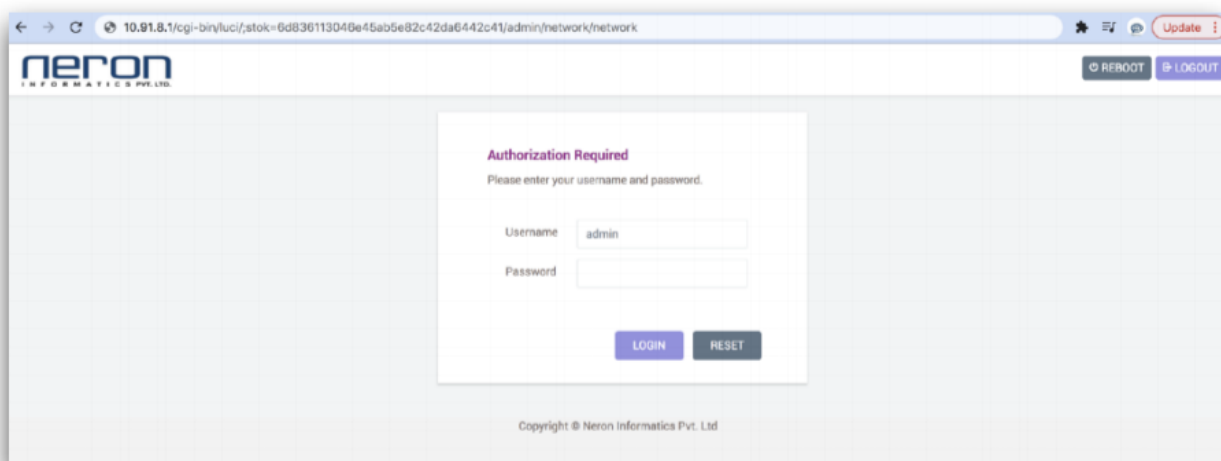
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GUI Login with Network Switch

Name	Description
ETH 0 WAN	Default IP address [DHCP]
ETH 1 LAN	Default IP address - 10.91.8.1 Protocol - DHCP Server Subnet - 255.255.255.0
Login User ID	admin
Login Password	admin



- Connect LAN Cable to **PBX** ETH 1 port and Network Switch Ethernet
- Connect PC/Laptop Ethernet Port to Network Switch
- Go to Network setting in PC and select DHCP in IPV4 Network Address
- **PBX** DHCP server will allocate IP for PC
- If DHCP server failed to allocate IP address for PC , configure manually network IP address in network setting > Eth port > IPV4 [IP address for PC 10.91.8.11 Subnet 255.255.255.0]
- Open Google Chrome / Mozilla Firefox to Brows ip address 10.91.8.1 or <https://10.91.8.1>

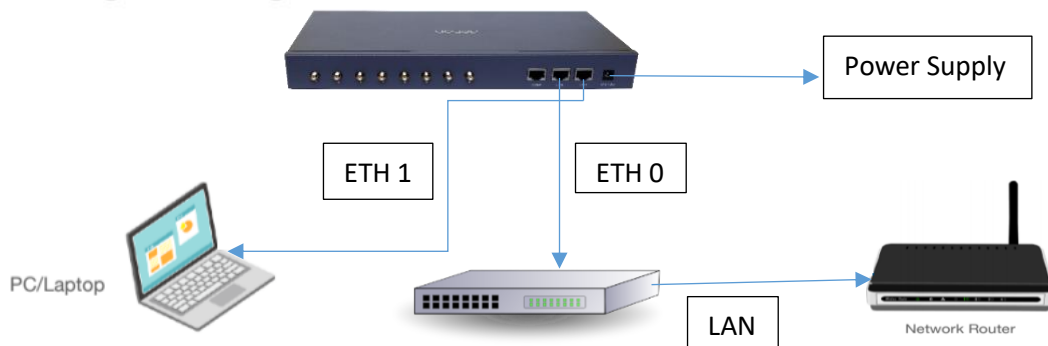


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Login PBX GUI

Name	Description
ETH 0 WAN	Default IP address [DHCP]
ETH 1 LAN	Default IP address - 10.91.8.1 Protocol - DHCP Server Subnet - 255.255.255.0
Login User ID	admin
Login Password	admin

GUI Login in Managed Network Environment



- Connect LAN Cable to **PBX** ETH 0 port and Network Switch Ethernet port
- Connect PC/Laptop Ethernet Port to **PBX** ETH 1
- Go to Network setting in PC and select DHCP in IPV4 Network Address
- **PBX** DHCP server will allocate IP for PC
- If DHCP server failed to allocate IP address for PC , configure manually network IP address in network setting > Eth port > IPV4 [IP address for PC 10.91.8.11 Subnet 255.255.255.0]
- Change ETH 0 Network IP address according to Network IP address series
- Open Google Chrome / Mozilla Firefox to Brows ip address 10.91.8.1 or <https://10.91.8.1>

Note :

- Recommended not to use only one Router inbuilt Ethernet port for **PBX** or PC connectivity
- Check Ethernet cable using Loop Test or LED status on device
- Disable Firewall in PC during Back to Back connectivity
- Double check IP address in PC
- Before allocation of IP address in **PBX** device make sure same ip address is not assigned to any other device or system

Network Setting

WAN LAN IMS

Interface Overview

Network	Status	Actions
eth0	Uptime: 0h 0m 0s MAC-Address: C4:98:94:AE:02:BE RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)	CONNECT STOP EDIT DELETE
br-lan	Uptime: 0h 3m 32s MAC-Address: C4:98:94:AE:02:BE RX: 121.15 KB (894 Pkts.) TX: 256.86 KB (381 Pkts.) IPv4: 10.91.8.1/24	CONNECT STOP EDIT DELETE
eth1.2	Uptime: 0h 2m 29s MAC-Address: C4:98:94:AE:02:BF RX: 156.63 KB (1489 Pkts.) TX: 787.51 KB (756 Pkts.) IPv4: 192.168.1.19/24	CONNECT STOP EDIT DELETE

ADD NEW INTERFACE

Name	Description
Eth0 LAN	Recommend to use default setting (10.91.8.1) for IP address recovery or local monitoring
Eth1 WAN	Configure IP address according to network IP address series (DHCP or Static). Recommended to use static IP address

Network >> Interface >> WAN Edit >> General Setup

WAN LAN IMS

On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and enter the names of several network interfaces separated by spaces. You can

Common Configuration

General Setup Advanced Settings

Status Uptime: 0h 26m 39s
eth1.2 MAC-Address: C4:98:94:AE:02:BF
RX: 1.36 MB (12281 Pkts.)
TX: 1.17 MB (1693 Pkts.)
IPv4: 192.168.1.19/24

Protocol Static address

IPv4 address 192.168.1.19 → IPv4 address

IPv4 netmask 255.255.255.0 → Subnet mask

IPv4 gateway 192.168.1.1 → Gateway

IPv4 broadcast

Use custom DNS servers → DNS

Note :

- Recommended to keep default setting for " Advance Settings " and " Firewall Settings " or apply changes under Technical Support Engineer supervision.

SIP Trunk Configuration

Contents	Description
SIP Trunk	SIP Trunk connectivity and configuration for 3rd Party IP-PBX, Contact Center Dialer or SIP Server
SIP Trunk Group	Group of Trunk for multiple SIP Server connectivity and call routing
Call Routing Table	Call Routing configuration for incoming and outgoing calls
CODEC	To match codec with remote party

Trunk >> SIP Trunk >> Add >> Save & Apply

General Settings
Advanced Settings
Codec Settings

Trunk Name	<input type="text" value="SIP_hqbiXS"/>	
Trunk Status	<input type="text" value="Enabled"/>	
DID	<input type="text"/>	
Trunk Type	<input type="text" value="Register Trunk"/>	Trunk Type register or Peer
SIP Address	<input type="text"/>	SIP Server IP Address
	<small>Example: 192.168.8.100 or 192.168.8.100:5060 or www.voip.com:5060</small>	
Transport	<input type="text" value="UDP"/>	Transport UDP/TCP according to SIP Server
Domain	<input type="text"/>	
	<small>VoIP provider's server domain name. If the provider has no domain name, fill in the IP address instead.</small>	
Username	<input type="text"/>	Only for Register Trunk
	<small>The username used to register to the trunk from the VoIP provider.</small>	
Authentication Name	<input type="text"/>	Only for Register Trunk
	<small>Used for SIP authentication. In most cases, it is the same with the username.</small>	
Password	<input type="password"/>	Only for Register Trunk
	<small>The password to register to the trunk from the VoIP provider.</small>	
From User	<input type="text"/>	
	<small>All outgoing calls from this SIP Trunk will use the From User (in this case the account name for SIP Registration) in From Header of the SIP Invite package. Keep this field blank if not needed.</small>	
Realm	<input type="text"/>	
	<small>VoIP provider's server realm name. If the provider has no realm name, leave the field blank.</small>	
Outbound Proxy	<input type="text"/>	

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SIP Trunk

Register SIP Trunk

Query Parameters

[Add](#)
[Import](#)
[Export](#)
[Delete](#)

Show entries

<input type="checkbox"/>	Name	Trunk Status	SIP Address	Trunk Type	Register Status	Delay	Status	DID	EDIT	DELETE
<input type="checkbox"/>	NXG32	Enabled	192.168.1.2	Register Trunk	n/a	3.512	Idle		EDIT	DELETE

Showing 1 to 1 of 1 entries [Previous](#) [1](#) [Next](#)

Peer SIP Trunk

Query Parameters

[Add](#)
[Import](#)
[Export](#)
[Delete](#)

Show entries

<input type="checkbox"/>	Name	Trunk Status	SIP Address	Trunk Type	Register Status	Delay	Status	DID	EDIT	DELETE
<input type="checkbox"/>	NXG32	Enabled	sip:192.168.1.2	Peer Trunk	Avail	5.185	Idle		EDIT	DELETE

Showing 1 to 1 of 1 entries [Previous](#) [1](#) [Next](#)

Mobile Trunk Status

ID	SIM	COPS	Signal	CCID	IMEI	Caller/Called	Status
1		IND_airtel_airte				n/a	Idle
2		IND_airtel_airte				n/a	Idle
3		n/a		n/a	n/a	n/a	NoSIM
4		n/a		n/a	n/a	n/a	NoSIM
5		n/a		n/a	n/a	n/a	NoSIM
6		n/a		n/a	n/a	n/a	NoSIM
7		n/a		n/a	n/a	n/a	NoSIM
8		n/a		n/a	n/a	n/a	NoSIM

FXO/FXS Status

FXO Trunk

Trunk Name	FXO Number	Port	Trunk Group	Input Gain	Output Gain	Caller ID Start	Caller ID Signaling	Hangup Detection Method	EDIT	DELETE
FXO_2	057188970001	2	n/a	0dB	0dB	After Ring	FSK	Busy Tone	EDIT	DELETE

[ADD](#)

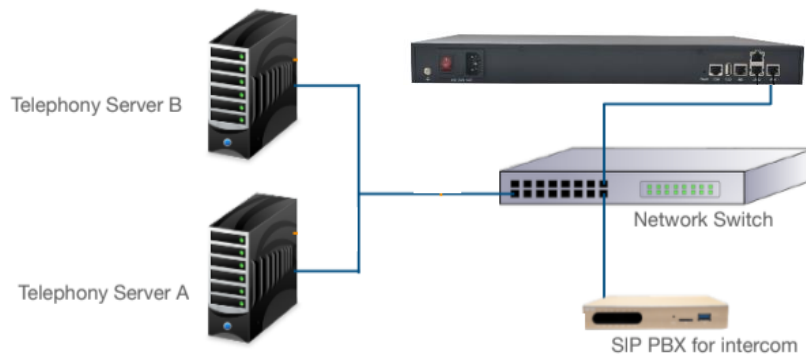
FXS Extension

Port	Extension Number	Display Name	Input Gain	Output Gain	Send Polarity Reversal	Unconditional Transfer	Busy Transfer	NoAnswer Transfer	Do Not Disturb	Voicemail
1	2000	n/a	0dB	0dB	No	Off	Off	Off	Off	Off

[ADD](#)

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SIP Trunk Group



SIP Trunk Example : Multiple server Sip Trunk Group | Call Out

Server A SIP Trunk >> Call Out From SIP Trunk Group (Trunk_grp)

Server B SIP Trunk >> Call Out From SIP Trunk Group (Trunk_grp)

SIP PBX SIP Trunk >> Call Out From SIP Trunk Group (Trunk_grp01)

Trunk >> Trunk Group >> Add

The screenshot shows a web interface for configuring a SIP Trunk Group. The form includes the following fields and options:

- Name:** Trunk_grp
- Type:** SIP
- Description:** (empty)
- Strategy:** rmemory (with a dropdown menu showing options: rmemory, linear)
- Members:** A selection interface with two search boxes. The left search box contains 'NXG32' and is checked. The right search box is empty. Navigation buttons '>>' and '<<' are between the boxes. Below the boxes are checkboxes for 'selected 1/1 items' and 'selected 0/0 items'.
- Call Inuse SIP Trunk:** (checkbox, unchecked)

At the bottom of the interface, there are buttons for 'BACK TO OVERVIEW', 'SAVE & APPLY', and 'RESET'.

Note:

- > Each SIP Trunk may work individual or part of group.
- > Call Routing can be Configured according to individual SIP Trunk or Trunk Group.

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SIP Trunk Codec

Trunk >> Sip Trunk >> Codec Settings

General Settings	Advanced Settings	Codec Settings
Codecs		
	Available	Selected
	Please entry for search	Please entry for search
	<input type="checkbox"/> gsm	<input type="checkbox"/> alaw
	<input type="checkbox"/> opus	<input type="checkbox"/> ulaw
	<input type="checkbox"/> g726	<input type="checkbox"/> g729
	<input type="checkbox"/> g722	<input type="checkbox"/> h264
	<input type="checkbox"/> ilbc	
	<input type="checkbox"/> vp8	
	<input type="checkbox"/> selected 0/6 items	<input type="checkbox"/> selected 0/4 items

Recommended to confirm CODEC setting of SIP Server and use the same in trunk setting to avoid voice and connectivity related issue.

SIP Trunk Channel

Trunk >> SIP Trunk >> Advanced Settings

General Settings	Advanced Settings	Codec Settings
Qualify	<input checked="" type="checkbox"/>	<small>☛ Check the box to send SIP OPTIONS regularly to the device to check if the device is still online.</small>
NAT	<input checked="" type="checkbox"/>	
DTMF Mode	rfc2833	
Enable SRTP	<input type="checkbox"/>	<small>☛ Enable SRTP for voice encryption.</small>
T.38 Support	<input type="checkbox"/>	<small>☛ Decide whether to enable T.38 fax for this trunk. When enabled, there will be performance cost. So if the s</small>
Maximum Channels	Unlimited	
Keepalive	30	<small>☛ In seconds</small>

To avoid call conjunction and channel allocation allow Max channel on SIP Trunk.

Call Routing

Incoming Call Routing for SIP Server

Query Parameters

[Add](#) [Import](#) [Export](#) [Delete](#)

Show entries

<input type="checkbox"/>	Name	Description	Priority	Time Profile	Source	Destination	Caller Number Pattern	Called Number Pattern		
<input type="checkbox"/>	default		1		NXG32	123	*	*	EDIT	DELETE
<input type="checkbox"/>	in_working		1		NXG32	NXG32	*	*	EDIT	DELETE

Showing 1 to 2 of 2 entries [Previous](#) [1](#) [Next](#)

Call Control >> Inbound Routers >> Add

General Settings | Number Transform Settings | Advanced Settings

Name: → **Route Display Name**

Description:

Priority: (Priority of route matching. The higher the value, the higher the priority. The range is 1-99)

Time Profile:

Source: → **Incoming SIP/GSM port/FXO/Group**

Caller Number Pattern: → **For Agent Prefix Based Routing**

Called Number Pattern: → **Routing by Called number**

Destination: → **Incoming Server SIP Trunk /Extension/Any**

dropdown menu: Trunk, Hangup, Internal Extension, Extension, IVR, Playback, **Trunk**

[BACK TO OVERVIEW](#) [SAVE & APPLY](#) [RESET](#)

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Call Routing

Outgoing Call Routing for SIP Server

Query Parameters

[Add](#) [Import](#) [Export](#) [Delete](#)

Show entries

<input type="checkbox"/>	Name	Description	Permission	Priority	Time Profile	Source	Destination	Caller Number Pattern	Called Number Pattern	EDIT	DELETE
<input type="checkbox"/>	Out		Enterprise	1		9	NXG32	*	*		

Showing 1 to 1 of 1 entries [Previous](#) [1](#) [Next](#)

Call Control >> Outbound Routers >> Add

General Settings | Number Transform Settings

Name: → **Route Display Name**

Description:

Permission:

Priority: Priority of route matching. The higher the value, the higher the priority. The range is 1-99

Time Profile:

Source: → **SIP Server Trunk/ Extension/ Any**

Caller Number Pattern: → **For Agent Prefix Based Routing**

Called Number Pattern: → **Routing by Called number**

Destination: → **Dialout Destination SIP/ GSM port/ FXO/ Group**

[BACK TO OVERVIEW](#) [SAVE & APPLY](#) [RESET](#)

SIP Extension Status

Extension >> SIP Extension

Query Parameters

[Add](#) [Bulk Add](#) [Edit](#) [Import](#) [Export](#) [Delete](#)

Show entries

<input type="checkbox"/>	Number	Display Name	Secret	Department	Permission	Client Address	Delay	Status	DOD	
<input type="checkbox"/>	8001	8001	****	default	National Long Distance	n/a	n/a	Unregistered		EDIT DELETE
<input type="checkbox"/>	9	9	****	default	National Long Distance	sip:9@192.168.1.34:2976	130.947	Idle		EDIT DELETE
<input type="checkbox"/>	10	10	****	default	National Long Distance	sip:10@192.168.1.34:6596	131.231	Idle		EDIT DELETE

Showing 1 to 3 of 3 entries [Previous](#) [1](#) [Next](#)

Call CDR and Recordings

CDR:

Advanced Feature >> CDR and Recording >> CDR

CDR Record

CDRs

CDRs Query Param

Start Date: End Date:
 Caller: Called:
 Min Duration: Max Duration:

[QUERY](#) [EXPORT](#) [RESET](#)

CDRs List [EMPTY](#)

Index	Caller	Source	Called	Destination	DTMF	Start Time	End Time	Duration	CallType	Hangup Cause	Recording Options	FILTER
1		SIP/NXG32	123	IVR/123	t	2023-08-02 11:57:46	2023-08-02 11:57:56	00:00:09	Inbound	ANSWERED		
2		SIP/NXG32	123	IVR/123	111	2023-08-02 11:36:11	2023-08-02 11:36:33	00:00:21	Inbound	ANSWERED		
3		SIP/NXG32	123	IVR/123	t	2023-08-02 11:35:30	2023-08-02 11:35:47	00:00:16	Inbound	ANSWERED		
4		SIP/NXG32	123	IVR/123	t	2023-08-02 11:34:51	2023-08-02 11:35:16	00:00:24	Inbound	ANSWERED		
5	9	SIP/9		SIP/NXG32		2023-08-02 11:32:40	2023-08-02 11:32:57	00:00:00	Outbound	NO ANSWER		
6	9	SIP/9		n/a		2023-08-02 11:31:57	2023-08-02 11:31:57	00:00:00	Outbound	FAILED		
7	9	SIP/9		n/a		2023-08-02 11:31:00	2023-08-02 11:31:00	00:00:00	Outbound	FAILED		
8	9	SIP/9		n/a		2023-08-02 11:30:57	2023-08-02 11:30:57	00:00:00	Outbound	FAILED		
9	8001	SIP/8001		SIP/NXG32		2023-08-02 11:29:00	2023-08-02 11:29:00	00:00:00	Outbound	NO ANSWER		
10	8001	SIP/8001		SIP/NXG32		2023-08-02 11:28:38	2023-08-02 11:28:38	00:00:00	Outbound	NO ANSWER		
11	8001	SIP/8001		SIP/NXG32		2023-08-02 11:28:07	2023-08-02 11:28:07	00:00:00	Outbound	NO ANSWER		
12	8001	SIP/8001		SIP/NXG32		2023-08-02 11:27:26	2023-08-02 11:27:26	00:00:00	Outbound	NO ANSWER		
13	8001	SIP/8001		n/a		2023-08-02 11:27:06	2023-08-02 11:27:06	00:00:00	Outbound	FAILED		
14	8001	SIP/8001		n/a		2023-08-02 11:26:00	2023-08-02 11:26:00	00:00:00	Outbound	FAILED		

The End

Recording:

Advanced Feature >> CDR and Recording >> Recording

CDR **Record**

Recording

Enable Recording of Internal Calls

Record The Entire Process

ⓘ This option will record ringing, IVR voice and queue music into the recording file. If there is no special need, this option does not need to be checked.

CDR **Record**

Recording

Enable Recording of Internal Calls

Record The Entire Process

ⓘ This option will record ringing, IVR voice and queue music into the recording file. If there is no special need, this option does not need to be checked.

Select the Location

Record Trunks

Select Trunk or Extension

Record Extensions

Available	Selected
<input type="text" value="Please entry for search"/> <input type="checkbox"/> NXG32 (SIP)	<input type="text" value="Please entry for search"/>
<input type="checkbox"/> selected 0/1 items	<input type="checkbox"/> selected 0/0 items

Available	Selected
<input type="text" value="Please entry for search"/> <input type="checkbox"/> 8001 - 8001 (default) <input type="checkbox"/> 9 - 9 (default)	<input type="text" value="Please entry for search"/>
<input type="checkbox"/> selected 0/1 items	<input type="checkbox"/> selected 0/0 items

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VoIP FXO/FXS and GSM Gateway | SIP IP PBX

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Email Helpdesk : support@nerontech.com
support@voicnetworks.com

Customer HelpDesk No. : +91.9999.121.666
Partner HelpDesk No. : +91.8587.000.818
Sales Desk No. : +91.7777.022.022

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