ZYCOO
We Focus·We Deliver

We Focus·We Deliver

CooVox V2 Series Expansion Box -- EX16S User Manual

Contents

Overview

Product Introduction

CooVox V2 series Expansion Box EX16S is an FXS port expansion box especially designed for ZYCOO CooVox V2 series IPPBX systems. Each box provides 16 FXS channels for connecting analog phones and fax machines to your CooVox V2 IPPBX system as extensions through your LAN.

EX16S Front Panel View

FXS Port Indicator 1 -16

PHONE

Power Indicator   System Indicator   WAN Indicator   LAN Indicator

EX16S Rear Panel View

Power Slot   Power Switch

FXS Port 1 -16

LAN   Reset Button

Ground

Console   WAN

www.nprovit.com　　NPROVIT　　info@nprovit.com

China Add. Chengdu, China. Tel. +86 2885337096	**UAE** Add. Dubai , UAE. Tel. +971 43552755	**UK** Add. Doncaster, UK. Tel. +44(0)1302773162
ZYCOO | Zycoo Co., Ltd.		E-mail. zycoo@zycoo.com
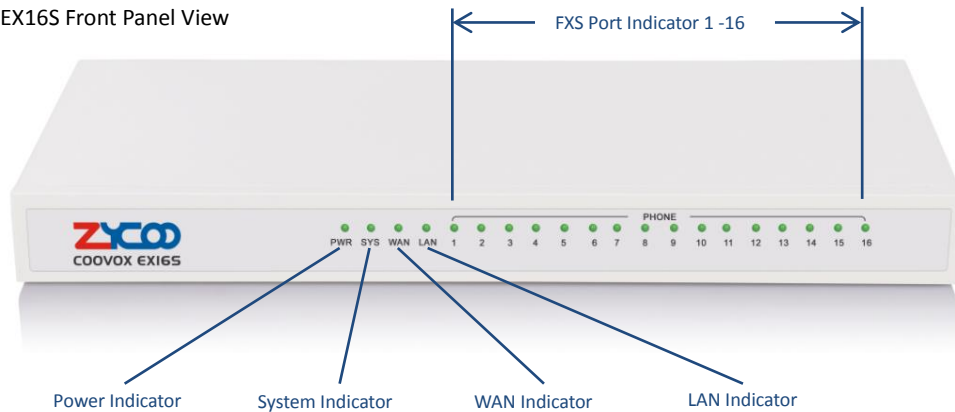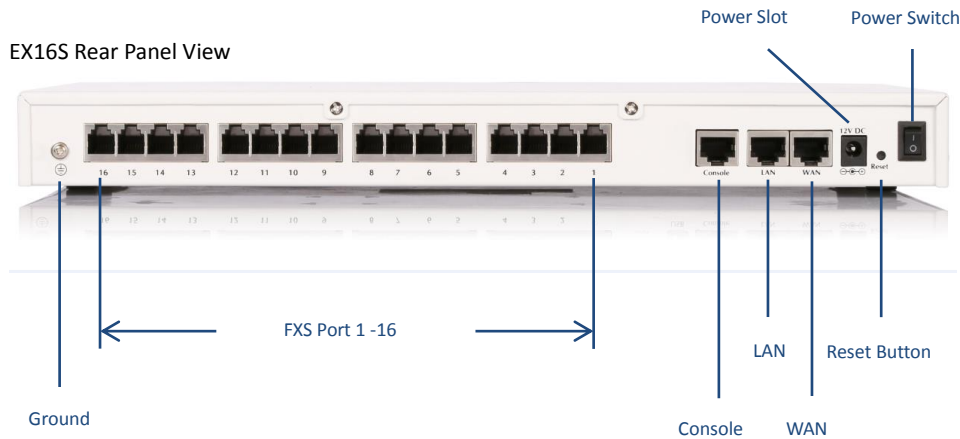
Specifications

EX16S Specification Table

Processor	1GHz dual-core A7 processor
Memory	512MB DDR3 SDRAM
Storage	8GB SD card
Lines	16 x RJ11 FXS
Console	1 x Console port (Baud rate 115200)
Network	2 x 10/100Mbps
Signaling	SIP(RFC3261)
Audio Codecs	G.722/G.711-Ulaw/G.711-Alaw/G.726/G.729/GSM/SPEEX
Dimension	280 x 150 x 65mm
Weight	1.58KG (3.48lb)
Mounting	Desktop and rack-mountable
Power	DC 12V/3.5A

Main Features

- Zero-config: Zero configurations required on the EX16S boxes, they are all auto-provisioned and managed by ZYCOO CooVox V2 series IPPBXs.
- Feature rich and ease of use: Inherits nearly all innovative VoIP call features from the CooVox V2 series IPPBX system.
- Robust and reliable: 1GHz A7 processor on board guarantees superior user experience.
- Expandable: Each EX16S connects to CooVox V2 system through your LAN, you can expand FXS ports by deploy several EX16S boxes in your LAN till fulfill all analog phones and Fax machines you have.

Compatible IP PBX Models

EX16S is specially designed for ZYCOO CooVox V2 series IPPBX's. It is compatible with the below IPPBX models:

- CooVox-U20 V2 (U20-2BRI included)
- CooVox-U50 V2
- CooVox-U60 V2
- CooVox-U80
- CooVox-U100 V2

For a fully loaded deployment, each FXS port on the EX16S requires an extension number from the CooVox V2 IPPBX system, so how many EX16S boxes can be used with the CooVox V2 IPPBX depending on the extension numbers the IPPBX can support. Recommended deployment as

www.nprovit.com NPROVIT info@nprovit.com

China
Add. Chengdu, China. Tel. +86 2885337096

UAE
Add. Dubai , UAE. Tel. +971 43552755

UK
Add. Doncaster, UK. Tel. +44(0)1302773162

ZYCOO Zycoo Co., Ltd.
E-mail. zycoo@zycoo.com

below:

- CooVox-U20 V2 recommended EX16S deployment: 1 unit
- CooVox-U50 V2 recommended EX16S deployment: 1 to 6 units
- CooVox-U60 V2 recommended EX16S deployment: 1 to 12 units
- CooVox-U80 recommended EX16S deployment: 1 to 12 units
- CooVox-U100 V2 recommended EX16S deployment: 1 to 31 units

Notice

The CooVox V2 IPPBX firmware should be upgraded to v2.1.6 in order to cooperate with the EX16S expansion boxes.

Installation

Hardware Installation

Open the packaging of the EX16S box and find the Quick Installation Guide, follow the instructions to install the EX16S box properly in your local network.

Once the EX16S device has been installed in the LAN and powered up, you may check if it's ready for configurations by the LED indicators, please refer to the LED indication table below:

LED Indication Reference Table

LED Label	Function	Status	Indication
PWR	Power status	Green	Power on
		Off	Power off
SYS	System status	Wink	System is running
		Off	System booting or failed
WAN/LAN	WAN/LAN interface status	Wink	Data transmitting
		Off	No data transmitting
Phone(1-16)	FXS interface status	Green	Channel loading succeed
		Off	Channel loading failure


Notice

1. *Please do not use a third party power adaptor to power EX16S.*
2. *You may install the EX16S device on desktop or mount it on to the rack.*
3. *If you don't have a DHCP server in your local network, you may use an analog phone to first change the WAN port to static IP mode by feature code **14 and then assign an available IP to the WAN port of the device by feature code **15.*
4. *If you are installing 2 or more units of EX16S in your local network please do not use LAN port, as LAN port has a static IP "192.168.10.100" which may cause IP conflict.*

EX16S Discovery

Once you have connected the EX16S box to your local network, you may discover it from the CooVox V2 series IPPBX Web GUI.

Please open the CooVox V2 IPPBX Web GUI and navigate to Advanced -> EX-Box Provision page.

List of EX-Boxes	Manual Add	Discover	Delete Selected	Activate Config
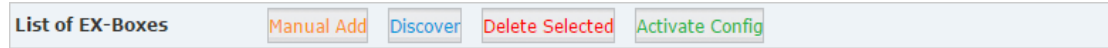
Click on the "Discover" button to start discovering all the EX16S boxes in you LAN. You may also click on "Manual Add" button to add one EX16S at a time by specifying its IP address.

The discovered devices will be listed on this page.

EX-Box provisioning ↻

List of EX-Boxes	Manual Add	Discover	Delete Selected	Activate Config			
	MAC	IP Address	Model	Name	Status		Options
☐	68:69:2E:06:06:06	192.168.1.68	EX16S	EX16S	Unconfigured		Edit Delete

In the above diagram, you can see a newly discovered EX16S box and its detailed information.

Notice

Only by deploying the CooVox V2 IPPBX and EX16S expansion boxes in the same local network, and configured with IP addresses within the same network segment, so they can work together.

Auto Provisioning

Each EX16S box can be configured with in a minute. Please click on the "Edit" button of a newly discovered EX16S device to configure it.

Edit---68:69:2e:0a:71:9a			X
Fill Exten	Name:EX16S	Send Key: # ▾	
☐ Port No.	Extension-Name		Call Waiting
☐ 1	800---800 ▾		Yes ▾
☐ 2			
☐ 3			
☐ 4			
☐ 5			
☐ 6			
☐ 7			
☐ 8			
☐ 9			
☐ 10			
☐ 11			
☐ 12			
☐ 13			
☐ 14			
	Save Cancel		

Step 1: In the "Name" field, specify a name for this EX16S device for identification.

Step 2: You may select a key from '#' and '*' as send key, so that after dialing each number, you can press this key to send out the number immediately.

Step 3: Select all 16 ports or only some ports that you want to use.

Step 4: Click on "Fill Exten" button to assign extension numbers to the selected FXS ports.
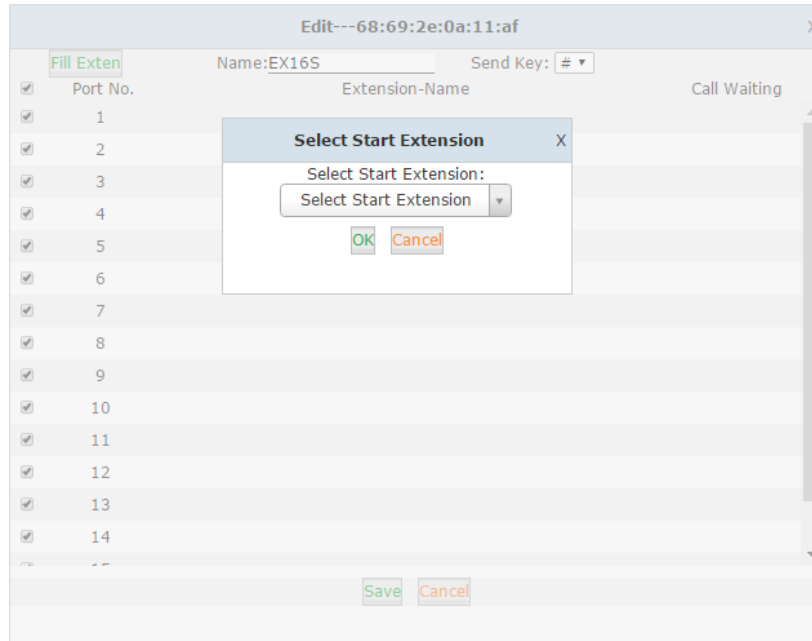
You only have to specify a start extension number and click on "OK" button to automatically assign extension numbers to the selected ports from the first port that you have selected. For each number call waiting had been enabled, you may disable it if it's not required.
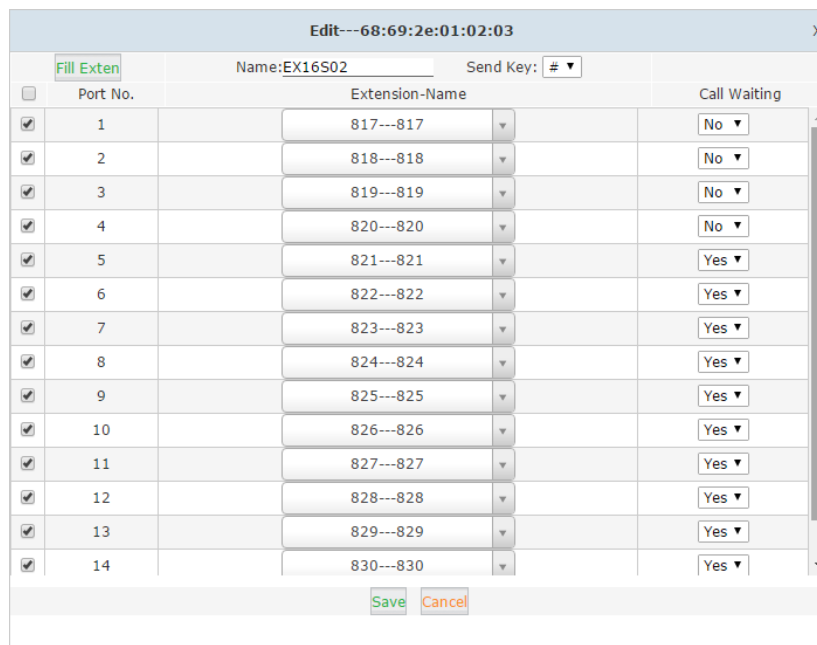
Please ensure there's enough available extension numbers that can be assigned to the FXS ports you have selected, or you will have to create some more extensions from Basic->Extensions page. After assigning extensions to the EX16S device, please click on "Save" button.

Step 5: Once new configurations submitted, you'll the EX16S status as "Pending".

China	UAE	UK
Add. Chengdu, China. Tel. +86 2885337096	Add. Dubai , UAE. Tel. +971 43552755	Add. Doncaster, UK. Tel. +44(0)1302773162

ZYCOO | Zycoo Co., Ltd.　　　　　　　　　　　　　　　　E-mail. zycoo@zycoo.com

EX-Box provisioning ↻

List of EX-Boxes	Manual Add	Discover	Delete Selected	Activate Config		
☐　　MAC	IP Address	Model	Name	Status		Options
☐　68:69:2E:06:06:06	192.168.1.68	EX16S	EX16S	Pending		Edit Delete

Now click on "Activate Config" button to deliver configurations to the EX16S device and make it effective. Once done the box is ready for phone calls.

Notice

The following settings are inherited from the CooVox V2 IPPBX system that you don't have to configure.

- *Feature codes*
- *System voice prompts language*
- *Tone zone*
- *Time zone*

Status Monitoring on CooVox V2

On the CooVox V2 IPPBX "Home" page, in the "Device Info" section, besides the IPPBX you will also see the connected EX16S displaying here.

Expansion Box

Name	Model	IP	MAC
EX16S	EX16S	192.168.1.195	68:69:2E:0A:C4:9A

The IP address is clickable and can be used to access the Web GUI of the EX16S device. Different displaying color stands for different status.

- Orange: Device has been discovered but not configured yet.
- Green: Connected and configurations effective.
- Red: Connected with new configurations pending.
- Grey: Disconnected.

EX16S connects to the CooVox V2 IPPBX system by SIP registration. So the extension register status of the EX16S system can be monitored on the IPPBX "Operator" page.

Operator ↻

		Extensions		
● Idle	● Ringing	● InUse	● Hold	● UnAvailable
● 800 800(SIP)	● 801 801(SIP)	● 802 802(SIP)	● 803 803(SIP)	● 804 804(SIP)
● 805 805(SIP)	● 806 806(SIP)	● 807 807(SIP)	● 808 808(SIP)	● 809 809(SIP)
● 810 810(SIP)	● 811 811(SIP)	● 812 812(SIP)	● 813 813(SIP)	● 814 814(SIP)
● 815 815(SIP)	● 816 816(SIP)	● 817 817(SIP)	● 818 818(SIP)	● 819 819(SIP)
● 820 820(SIP)	● 821 821(SIP)	● 822 822(SIP)	● 823 823(SIP)	● 824 824(SIP)
● 825 825(SIP)	● 826 826(SIP)	● 827 827(SIP)	● 828 828(SIP)	● 829 829(SIP)
● 680 680(WebRTC)				

Total:31　　　　　　　　Online:29　　　　　　　　Current Call(s):1

Extension status also can be monitored on the EX16S Web GUI. It will be introduced in chapter

FXS Port Status.

Maintenance

Access Web GUI

As mentioned previously from the CooVox V2 IPPBX "Home" page, by clicking on the IP address of the EX16S device, you can open the Web GUI of the EX16S for maintenance.

You may also access the EX16S Web GUI by specifying its IP address in the browser address bar. For example, the IP of EX16S is 192.168.1.195, you may enter IP "192.168.1.195" directly or full URL "https://192.168.1.195:9999" to access.

Default login credentials are:

- Username: admin
- Password: admin

The login page as below diagram, please enter username and password and then click on the "Sign In" button to login in.

www.nprovit.com   NPROVIT   info@nprovit.com

China   UAE   UK
Add. Chengdu, China. Tel. +86 2885337096   Add. Dubai , UAE. Tel. +971 43552755   Add. Doncaster, UK. Tel. +44(0)1302773162
                                                                        E-mail. zycoo@zycoo.com
ZYCOO | Zycoo Co., Ltd.

System Status and Port Status

Once logged in, you'll first be directed to the Status->System Status page. Here on this page you can see detailed system, network and resources information.

System Information

| System Status

Name:	EX16S01
Model:	EX16S
Software Version:	2.1.6rc2
Current Time:	01/18/17 10:59
Run Time:	1 Days, 20:13
Discovered ?:	Yes(coovox-u20v2, 192.168.1.189, 2017-01-17)

- Name: This is the name that you have defined for identifying this EX16S box from the IPPBX EX-Box Provision page.
- Model: The device model.
- Software Version: The version number of the software running on this device.
- Current Time: The real-time system time of this device.
- Run Time: The time of how long the system has been running.
- Discovered: Indicates if the device has been discovered by any CooVox V2 IPPB system or not. If yes, it will also indicate which IPPBX model and on what time it's been discovered.

Notice

Once the EX16S has been discovered by a CooVox V2 IPPBX system, this box will be marked as "discovered" and cannot be discovered by any other CooVox V2 IPPBX system. Unless the EX16S is reset or it will only be able to work with the only IPPBX system.

Network Info

Network Info

WAN Port

IP Address: 192.168.1.195

Mac: 68:69:2E:0A:C4:9A

LAN Port

IP Address: 192.168.10.100

Mac: 68:69:2F:0A:06:AF

Indicates the IP address and MAC ID of both WAN and LAN interface of the EX16S device.

System Resources

System Resources

Storage

Total: 5.3G

Used: 1.8G

Memory

Total: 495M

Used: 214M

In "System Resources" section, it monitors the SD card and memory usage.

FXS Port Status

Click on "FXS Port Status" submenu, on this page you can have a detailed view of the FXS port status of the EX16S device.

FXS Port Status						
Port No.	Extension	User Name	Voicemail	DND	Call Waiting	Status
1	801	801	0/0	No	Yes	Online/On Hook
2	802	802	0/0	No	Yes	Online/On Hook
3	803	803	0/0	No	Yes	Online/On Hook
4	804	804	0/0	No	Yes	Online/On Hook
5	805	802	0/0	No	Yes	Online/On Hook
6	806	806	0/0	No	Yes	Online/On Hook
7	807	807	0/0	No	Yes	Online/On Hook
8	808	808	0/0	No	Yes	Online/On Hook
9	809	809	0/1	Yes	Yes	Online/On Hook
10	810	810	0/0	No	Yes	Online/On Hook
11	811	811	0/0	No	Yes	Online/On Hook
12	812	812	0/0	No	Yes	Online/On Hook
13	813	813	0/0	No	Yes	Online/On Hook
14	814	814	0/0	No	Yes	Online/On Hook
15						
16						

- Port No.: FXS port from port 1 to port 16.
- Extension: The extension numbers that have been assigned to the FXS ports.
- User Name: The extension user name that have been defined on the IPPBX system.
- Voicemail: Indicates how many new(unread)/old(read) voice messages the extension users have got.
- DND: Indicates the DND(Do Not Disturb) states, if DND states is "Yes", then this extension will only be able to make but not receive phone calls.
- Call Waiting: Indicates the call waiting states, if call waiting states is "Yes", the extensions will be able to have an additional phone call come in, users can use to "Hook Flash" to switch between these 2 calls.
- Status: Indicates the port register status and analog phone on-hook and off-hook status.
  Status on the left side of the slash symbol indicates the SIP register status, either "Online" or "Offline".
    Online: Extension number registered and ready for phone calls.
    Offline: Extension number has not been registered and cannot be used for phone calls.
  Status on the right side of the slash symbol indicates the analog phone status, could be On-Hook, Off-Hook and Ringing.
    On Hook: On-hook state means the extension is idle.
    Off Hook: Off-hook means the extension is in-use.
    Ringing: The phone has got an inbound call and is ringing now.

Reports

Call Logs

On Reports->Call Logs page you will be able to check all call logs that are related to the extension numbers of this EX16S box.

| Call Logs

From Date:	2017-01-18	To Date:	2017-01-18
Search By:	Caller ID ▼	Number:	
Type:	All ▼		Search

You may search call logs by specifying a time duration and caller/callee number. If the "Number" field was left blank, you will search all call logs within the specified time duration but irrelevant to any numbers.

					Download
Call Start	Call From	Call To	Duration	Type	Disposition
2017-01-18 11:15:02	809	**13	4	Internal	Answered
2017-01-18 11:13:38	809	**13	7	Internal	Answered
2017-01-18 10:59:52	809	809	7	Outbound	No Answer
2017-01-18 10:59:56	809	810	3	Inbound	No Answer
2017-01-18 10:55:09	809	809	4	Outbound	Answered

Total Records: 5   Current Page:1/1   Goto [1]   << < > >>

In the search results, each row is a call history. The title of each column describes the detailed information of the call history.

- Call Start: When this call took place.
- Call From: The caller number.
- Call To: The callee number.
- Duration: How long the call conversation lasts.
- Type: The direction of the calls internal, Outbound or Inbound.
- Disposition: Indicates how the calls were handled.
- Download: By clicking on the download button you can download the call logs search results.

System Logs

System logs are traces that can be used for troubleshooting. There are 2 types of logs in EX16S system, they are system logging and access logging. The system logging, if turned on, it logs the system activities and system events; the access logging, if turned on, it logs the system access incidents, including Web access and SSH access.

| System Logs |

Enable System Logging❓ 🟢   Enable Access Logging❓ 🟢

[Download] [Delete]

☐ Logging File Name	Type	Options
☐ login201701.log	SignIn Log	⬇ 🗑
☐ sys20170116.log	System Log	⬇ 🗑
☐ sys20170117.log	System Log	⬇ 🗑
☐ sys20170118.log	System Log	⬇ 🗑

- Enable System Logging: If enabled, it will generate a log file each day and named by a prefix "sys" and followed by the date of when it's created.
- Enable Access Logging: If enabled, it will generate a log file each month and name by a prefix "login" and followed by the year and month when it's created.

Feature Codes

Global Feature Codes

The global feature codes on Feature Codes->Global Feature Codes are inherited from the CooVox V2 IPPBX system, which guarantees the same usage throughout the CooVox V2 IPPBX system. Below are the telephony features and the feature codes can be used on EX16S system.

Call Queue

Function	Code	Description
Pause Queue Member	*95	By dialing this code a call queue agent can stop the call queue/queues from sending inbound calls to this extension.
Unpause Queue Member	*095	Paused queue member can dial this code to continue answering inbound calls from call queue/queues.

DND

Function	Code	Description
DND Activate	*74	Puts an extension into Do Not Disturb state. All calls to the extension will return a busy signal, or send the call to voicemail.
DND Deactivate	*074	Takes an extension out of Do Not Disturb State.

Voicemail

Function	Code	Description
Dial Voicemail	*60	Used to check voicemail box of any extension on the IP phone system.

My Voicemail	*61	Used to check the voicemail box assigned to the extension itself.

Call Transfer

Function	Code	Description
Blind Transfer	#	In an active phone call press this code and enter the destination number to initiate a direct transfer and the initiator will be disconnect immediately.
Attended Transfer	*2	In an active phone call press this code and enter the destination number to first introduce this call to the destination number then hangup to complete transfer or press * to disconnect with the destination number and resume the original call
Disconnect Call	*	In an attended transfer press this code to disconnect with the destination number and resume the original call.

Conferences

Function	Code	Description
Invite Participant	0	In an active conference, the conference admin can dial this code to invite new participants.
Return With Participant	**	Dial this code to return to conference with the invited party.
Return without Participant	*#	Dial this code to return to conference without the invited party.
3-way Conference Call	*0	In an active phone call, by dialing this code to put the other party on hold and dial tone will be presented, now dial a third party number, after the call is answered, dial this code again to establish a 3-way conference call.

Call Forward

Function	Code	Description
Forward All Activate	*71	Forward all incoming calls to another number by dialing this code followed by the number to be forwarded to.
Forward All Deactivate	*071	Deactivate call forward of all incoming calls by dialing this code directly.
Forward Busy Activate	*72	By dialing this code and followed by the number to be forwarded to. It will cause forwarding when the extension is busy.
Forward Busy Deactivate	*072	Deactivate call forward on busy by dialing this code directly.
Forward Unavailable Activate	*73	By dialing this code followed by the number to be forwarded to. It will cause forwarding when no one answers the inbound calls.

Forward Unavailable Deactivate	*073	Deactivate call forward on no answer by dialing this code directly.

Call Waiting

Function	Code	Description
Call Waiting Activate	*31	By dialing this code to activate call waiting. Call waiting allows an additional call to come in even if the extension is on an active phone call. User can use hook flash to switch between two calls.
Call Waiting Deactivate	*031	By dialing this code to deactivate call waiting.

Pickup Call

Function	Code	Description
General Call Pickup	*8	By dialing this code users can pick-up an incoming call on a ringing extension in the same pick-up group.
Direct Call Pickup	**	By dialing this code followed by the number of the ringing extension, users can pick-up the incoming call directly even if they are in different pick-up groups.

Blacklist

Function	Code	Description
Blacklist a number	*75	By dialing this code followed by the number to be blacklisted to add a number to blacklist.
Whitelist a number	*075	By dialing this code followed by the number to remove a number from blacklist.

Call Parking

Function	Code	Description
Call Parking Number	700	By using the transfer codes to transfer a call to the parking number this call will be parked, before the whole process is completed the IP phone system will announce where the call has been parked.
Call Retrieve Extensions	701-720	IP phone system will announce one of these numbers that the call is parked on and by dialing this number on any of the extensions can retrieve the parked call.

Call Spy

Function	Code	Description
General Spy	*90	By dialing this code followed by the extension number to listen to the phone call conversation only.
Whisper Spy	*91	By dialing this code followed by an extension number to listen to the phone call conversation and whisper with the extension user.

Barge Spy	*92	By dialing this code followed by an extension number to barge in the phone call conversation and talk to both of the callers.

Wakeup Call

Function	Code	Description
Wakeup Call Main Menu	*55	Advanced wakeup call menu for adding, viewing and canceling wakeup calls.
Direct Wakeup Call Request	*55*	Add a wakeup call directly by dialing this feature code followed by a specific date and time in 8-digit number format, for example, feature code is *55*, you can dial *55*08010730 to add a wakeup call of 7:30am on August 1st.
Cancel All Wakeup Call	*055	By dialing this code to cancel all requested wakeup calls.

Others

Function	Code	Description
Once Touch Recording	*1	On an active phone call by dialing this code the call will start to be recorded.
Intercom	*50	By dialing this code followed by an extension number (this extension must be an IP phone) to intercom an extension user.
Paging	*51	By dialing this code followed by an extension number (this extension must be an IP phone) to page an extension user.
Directory	*3	By dialing this code and following the voice prompts to enter the first 3 letters of the extension user's first or last name, you can call the extension without knowing its number.

Notice

These global feature codes are synchronized from the CooVox V2 series IPPBX system which the EX16S boxes are connected to, if the codes are changed on the IPPBX side, it will automatically change on the EX16S side as well.

EX16S Administration Codes

EX16S administration codes can be used to manage the EX16S from an analog phone attached on any FXS port, no matter the EX16S is configured or not.

Function	Code	Description
Check WAN Port IP	**11	By dialing this code you'll hear the system announce the IP address of the EX16S WAN interface.

Check LAN Port IP	**12	By dialing this code you'll hear the system announce the IP address of the EX16S LAN interface.
Check Account Number	**13	By dialing this code you can check the extension number of the analog phone.
Set Network Mode	**14	By dialing this code and following the voice prompts you can set the WAN port network mode to be static IP or DHCP.
Set IP Address	**15	By dialing this code and follow the voice prompts you can set an IP address to the WAN interface.

Notice

These EX16S administration codes are fixed codes which are unchangeable. You can use these codes to manage the EX16S box even the EX16S is fresh new with nothing configured.

Administration

Network Settings

The EX16S box has 2 network interfaces, WAN port can be configured as DHCP or static IP mode, while LAN port can only be used in static IP mode.

To configure its network profiles please navigate to Administration->Network Settings page.

| Network Settings

WAN Port

Network Mode: Static IP ▾

IP Address: 192.168.1.195

Net Mask: 255.255.255.0

Gateway: 192.168.1.1

Primary DNS: 8.8.8.8

Alternative DNS: 4.4.4.4

Save

LAN Port

IP Address: 192.168.10.100

Net Mask: 255.255.255.0

Save

By default, WAN was on DHCP mode, so it requires a DHCP server in you LAN. If not, you'll have to use an analog phone to change its network mode to static IP and manually assign an IP address to it on the phone by feature codes.

www.nprovit.com NPROVIT info@nprovit.com

China
Add. Chengdu, China. Tel. +86 2885337096
UAE
Add. Dubai , UAE. Tel. +971 43552755
UK
Add. Doncaster, UK. Tel. +44(0)1302773162
Zycoo Co., Ltd.
E-mail. zycoo@zycoo.com

It's not recommended to use LAN port to connect the EX16S boxes in your LAN, cause it might cause IP conflict.

Services

On Administration->Services page, you may change the EX16S Web GUI port number. And for SSH access, you may enable or disable from this page as well. But it's not recommended to enable SSH access to the EX16S system, as SSH access can be used only for advanced troubleshooting.

Services

Web Access

Access Port: 9999

Save

SSH Access

Enable SSH Access:

Access Port: 22

Save

Default Web GUI access port is 9999, if needed you may change to some other available port number.
And for SSH access, by default it's been disabled. And it's recommended to keep it that way. If advanced troubleshooting is required to access the EX16S system by SSH, please disable it after troubleshooting process.

Change Password

It is always recommended that you can change the default admin user password of the EX16S system for security precautions.
Please navigate to Administration->Change Password page to change it.

Change Password

Change Web Admin Password

Old Password: ••••• ✓

New Password: ••••••••• Strong

Retype New Password: ••••••••• ✓

Save

New admin user password should be at least 6 characters long and contain a combination of numbers, letters and symbols.
For the SSH root password, if needed you can change it from this page as well.

www.nprovit.com   NPROVIT   info@nprovit.com

China
Add. Chengdu, China. Tel. +86 2885337096

UAE
Add. Dubai , UAE. Tel. +971 43552755

UK
Add. Doncaster, UK. Tel. +44(0)1302773162

ZYCOO | Zycoo Co., Ltd.
E-mail. zycoo@zycoo.com

Reset & Reboot

To reboot or reset the EX16S, please navigate to Administration->Reset & Reboot page.

| Reset & Reboot

Reboot EX16S system

Warning: Reboot will cause EX16S system terminating all active phone calls!

[Reboot]

Reset EX16S system

Warning: Reset will cause the EX16S system terminating all active phone calls and losing of all configurations!

☐ Keep the current network settings

[Reset]

As it already elaborated on this page, a reboot will cause EX16S system terminating all active phone calls, so please ensure there's no phone call going on in the system then reboot the system. And reset the EX16S system will not only terminate all active phone calls but also remove all configurations. So you will have to discover this EX16S box again from the CooVox V2 IPPBX Web GUI. If you'd like to keep the network settings then "Keep the current network settings" option might help.

Upgrade

Zycoo will update the EX16S firmware at regular intervals for new features and bug fixes. You can visit our official website www.zycoo.com to check the updates for EX16S box.

The downloaded firmware package should be in .rar or .zip format, please extract the package first and use the uImage-md5.xxx file to upgrade your IPPBX system. Please navigate to EX16S Web GUI Administration->Upgrade page.

| Upgrade

Current Firmware version: 2.1.6rc2

Factory Reset: ☐ Reset factory defaults after upgrading

Choose File: [_____] [Browse]

[Upload]

Warning
- Firmware upgrade will cause the EX16S system reboot and terminate all active phone calls.
- Only in the new firmware changelog requested a factory reset then you enable "Factory Reset" option.

Click on "Browse" button to locate the firmware package and click on "Upload" button to start upgrading the EX16S firmware.

As elaborated on this page, firmware upgrading will cause the EX16S system reboot and terminate all active phone calls, please ensure there's no phone call going on in the system and perform firmware upgrading.

The option "Factory Reset" which allows you to reset the EX16S system after upgrading, please be noted that only in the new firmware changelog says a factory reset is needed then you enable this option before upload new firmware, otherwise do not reset.

Diagnostics

On EX16S Administration->Diagnostics page, users can use PING, Traceroute and Ethernet Capture tools for troubleshooting.

The PING command is a very common method for troubleshooting the accessibility of devices. It uses a series of Internet Control Message Protocol (ICMP) Echo messages to determine:

- Whether a remote host is active or inactive.
- The round-trip delay in communicating with the host.
- Packet loss.

In the "Tool" section select "Ping", in the "IP Address/Domain Name" blank enter the IP or domain name, specify the "Ping Count" and then click on "Start" button to start PING command, the results will be displayed in the "Result" field.

| Diagnostics

```
Tool:  ⦿ Ping
       ◯ Traceroute
       ◯ Ethernet Capture

IP Address/Domain Name:   192.168.1.2

Ping Count:   3   ▾  (3-10)

              Start

Result:   PING 192.168.1.2 (192.168.1.2) 56(84) bytes of data.
          64 bytes from 192.168.1.2: icmp_req=1 ttl=128 time=1.53 ms
          64 bytes from 192.168.1.2: icmp_req=2 ttl=128 time=0.791 ms
          64 bytes from 192.168.1.2: icmp_req=3 ttl=128 time=0.824 ms

          --- 192.168.1.2 ping statistics ---
          3 packets transmitted, 3 received, 0% packet loss, time 2003ms
          rtt min/avg/max/mdev = 0.791/1.050/1.535/0.343 ms
```

The Traceroute command is used to discover the routes that the packets actually take when traveling to their destination.

In the "Tool" section select "Traceroute", and specify the domain or IP address that you want to lookup and then click on "Start" button to start the process.

| Diagnostics

Tool: ○ Ping
◉ Traceroute
○ Ethernet Capture

IP Address/Domain Name: `8.8.8.8`

[Stop]

Result:
```
traceroute to 8.8.8.8 (8.8.8.8), 30 hops max, 60 byte packets
1  192.168.1.253 (192.168.1.253)  0.761 ms  1.026 ms  1.416 ms
2  100.64.0.1 (100.64.0.1)  26.596 ms  9.798 ms 117.176.159.129 (117.176.1
3  221.182.42.125 (221.182.42.125)  6.944 ms 182.138.108.105 (182.138.108.
4  171.208.199.105 (171.208.199.105)  28.709 ms 171.208.203.85 (171.208.20
```

The "Ethernet Capture" tool allows users to capture TCP/IP and other packets being transmitted or received over a network to which the EX16S is attached. The captured packets can be downloaded from the EX16S system and been analyzed on your Windows PC to display the SIP traffic details. It can be used to debug a VoIP call problem.

In the "Tool" section select "Ethernet Capture", and select the network interface the EX16S is using, and then click on "Start" button to start the process. Now you make phone calls which may reproduce the problem, once done, click on "Stop" button, the captured packet will be automatically downloaded to your desktop.
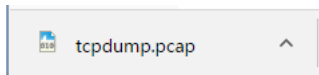
tcpdump.pcap   ∧

The downloaded file name would be "tcpdump.pcap", you may open it with Wireshark or some other packet analyzer on your Windows PC.