

Zycoo IPPBX with PABX Integration

Introduction

The migration from analog phone system (PABX) to VoIP phone system (IPPBX) is now in play. Many companies found their PABX infrastructure is still functioning well, and some of the analog endpoints may already been integrated with existing systems that cannot be easily replaced. But on the other hand they cannot resist the innovative VoIP telephony experience that an IPPBX system could bring.

The solution to this paradoxical fact would be integrating the existing PABX with ZYCOO IPPBX system.

Benefits:

- PABX and analog endpoints work the same way as they used to be
- Extension to extension calls can be made among the IP extensions of ZYCOO IPPBX and PABX extensions
- PABX extensions can make calls through the ZYCOO IPPBX SIP trunks to take the advantages of low-rate long-distance calling

Demonstration equipment:

- ZYCOO IPPBX – CooVox-U60
 - 12 FXO
 - 12 FXS
 - Extensions 400-499 (Max. 200)
- Panasonic PABX – KX-TES824BX
 - 8 CO lines (8 FXO)
 - 24 extensions (24 FXS)
 - Extensions 301-324

Connection

To integrate U60 with Panasonic, you need to do direct FXO to FXS port connection.

For making phone calls from Panasonic extensions to U60 extensions and trunks the connection should be:

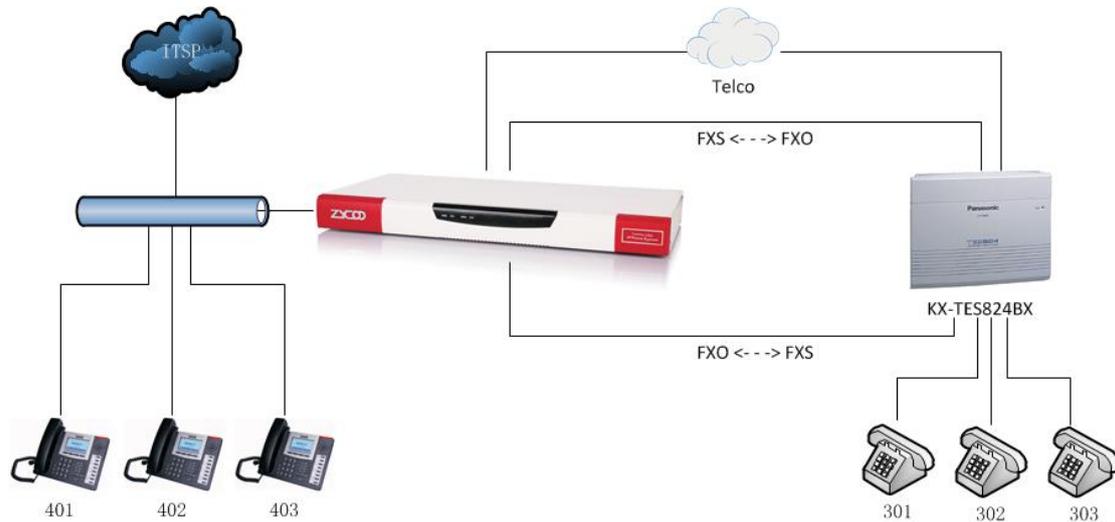
FXO on Panasonic <--> FXS on U60

For making phone calls from U60 extensions to Panasonic extensions the connection should be:

FXS on Panasonic <--> FXO on U60

Each connected line can only carry 1 call at the same time, so how many lines you have to connect, depending on how many concurrent calls there will be.

The connection diagram as shown below:



Configurations on U60

Configurations of U60 extensions calling Panasonic extensions

For IP extensions 4xx being able to call extensions 3xx, you have to create FXO trunk on the CooVox-U60, and define a dial rule for dialing extensions 3xx.

Please navigate to U60 Web menu *Basic->Trunks* page, and click on "FXO Trunks" tab.

Suppose that you have connected FXO ports 9, 10, 11, 12 to the Panasonic FXS ports, so you should click on "New FXO Trunk" button to create a trunk with port number 9, 10, 11, 12 selected, like the diagram shown below:

Notice:

If any of these 4 ports had been used by other trunk, you have to edit that trunk and deselect that port for being able to select on this new trunk.

After the trunk was created, please navigate to *Basic->Outbound Routes* page, click on the “Dial Rules” tab.

Here you need to define a dial rule for call extensions 3xx, please click on the “New Dial Rule” button, and create a dial rule like below diagram:

All you have to do is specifying a name for this dial rule, select the FXO trunk which connects to the Panasonic, and define a pattern. In this example, the Panasonic extensions are 3xx, in the Custom Pattern field you need to write exactly “3XX” without quote. If the Panasonic extensions are 1xx, the pattern should be “1XX”, if 2xxx, the pattern should be “2XXX”.

Save this new dial rule and click on “DailPlans” tab, and click on “Edit” button of the dial plan which is being using by U60 extensions.

Edit X

DialPlan Name: DialPlan1

Include External Calling Rules

- Call-Panasonic

Include Internal Calling Rules

- Ring Groups
- Call Queues
- Paging and Intercom
- External Paging
- IVR
- Conferences
- Extensions
- DISA
- Directory
- Spy

Save Cancel

In the “Include External Calling Rules” field please select the “Call-Panasonic” dial rule and click on save.

Finally click on “Activate Changes” button to make these configurations effective.

Configurations of Panasonic extensions calling U60 extensions and calling outbound

The above settings are for Coovox-U60 extensions to make phone calls to the Panasonic extensions. For the Panasonic extensions to make phone calls to U60 extensions please follow the below instructions.

On the *Outbound Routes* page, beneath “DialPlans” tab, please click on “New DialPlan” button to create a dial plan for the Panasonic extensions to make outbound calls through U60.

New DialPlan X

DialPlan Name: Panasonic

Include External Calling Rules

- Call-Panasonic
- Call-VoIP-Trunk
- Call-PSTN

Include Internal Calling Rules

- Ring Groups
- Call Queues
- Paging and Intercom
- External Paging
- IVR
- Conferences
- Extensions
- DISA
- Directory
- Spy

Save Cancel

In the “Include External Calling Rules” field, select the dial rules you want the Panasonic extensions to use only, the “Call-Panasonic” rule is not needed to be selected, as it’s for the U60 extensions only. Click on “Save” and please navigate to *Basic->Extensions* page.

In the extension list, you have to create extensions for the FXS ports which have connected to the Panasonic FXO ports.

General

SIP:	<input type="checkbox"/>	IAX2:	<input type="checkbox"/>
Name:	<input type="text" value="424"/>	Extension:	<input type="text" value="424"/>
Password:	<input type="text" value="GT53Zz0XUY"/>	Outbound CID:	<input type="text"/>
DialPlan:	<input type="text" value="Panasonic"/>	Analog Phone:	<input type="text" value="Port 24"/>

In “DialPlan” field you should select “Panasonic” dial plan, and in the “Analog Phone” field you should select the FXS port which have been connected to the Panasonic FXO port. If you have connected 2 FXS ports of U60 to Panasonic FXO, you have to create 2 extensions like this, if 3 you create 3, and so on.

Now the configurations for making phone calls have been done.

Making Phone Calls

U60 extensions calling Panasonic extensions

Pickup an U60 extension and dial 301 directly you can call the Panasonic extension 301, and 302 to call extension 302, and so on.

Panasonic extensions calling U60 extensions

Pickup a Panasonic extension, press the CO line button or dial the automatic line access number to seize the CO line, when you hear the dial tone, you dial an U60 extension number directly.

Panasonic extension calling external number through U60 VoIP/FXO trunk

Pickup a Panasonic extension, press the CO line button or dial the automatic line access number to seize the CO line, when you hear the dial tone, you dial an external number with the prefix of calling through VoIP trunk or FXO trunk.

For example, on the U60, prefix 0 is used to make phone calls through VoIP trunk, and prefix 9 is used to call the FXO trunk. And the number you want to dial is 12345678, you dial 012345678 it will call this number through the VoIP trunk, you dial 912345678, it will call this number through the FXO trunk. Just like you use extensions on U60 to make calls, only thing is that you have to seize the CO line first and the Panasonic extension before you actually make the call.