

# Yeastar TA FXO Gateway Integration Guide

Yeastar P-Series Appliance Edition

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# Contents

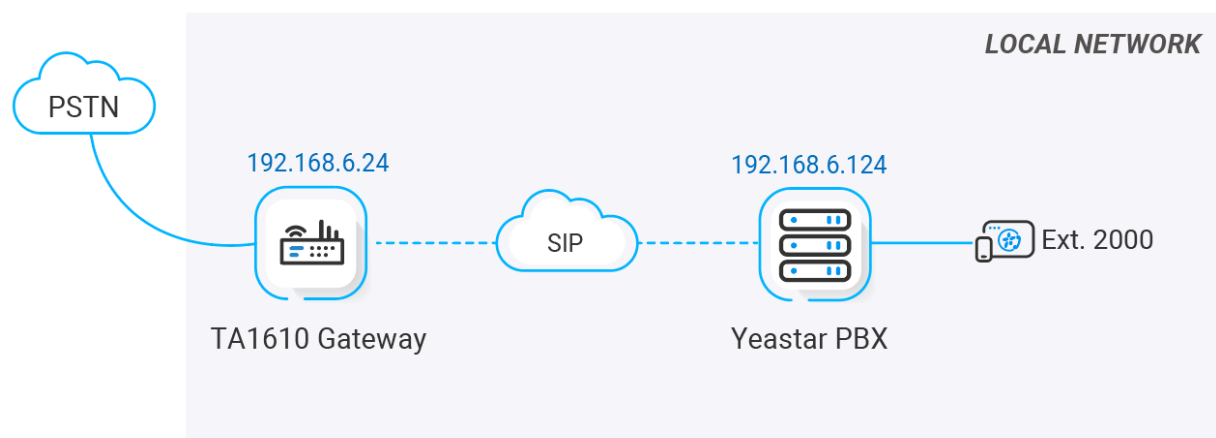
<b>Yeastar TA FXO Gateway Integration Guide.....</b>	<b>1</b>
Connect Yeastar P-Series PBX System and Yeastar TA1610 Gateway.....	2
Make Outbound Calls through the Extended FXO Trunks.....	4
Receive Inbound Calls through the Extended FXO trunks.....	7

# Yeastar TA FXO Gateway Integration Guide

This guide provides a configuration example to describe how to extend analog FXO trunks for Yeastar P-Series PBX System.

## Background information

The instructions provided in this guide are based on the following test environment:



Equipment	Firmware Version	IP Address
Yeastar P560 VoIP PBX	37.2.0.32	192.168.6.124
Yeastar TA1610 FXO Gateway	48.0.0.18	192.168.6.24

## Objectives

This guide provides instructions based on the above scenario to help you achieve following objectives:

- [Connect Yeastar P-Series PBX System and Yeastar TA1610 Gateway](#)
- [Make Outbound Calls through the Extended FXO Trunks](#)
- [Receive Inbound Calls through the Extended FXO trunks](#)

# Connect Yeastar P-Series PBX System and Yeastar TA1610 Gateway

This topic describes how to connect Yeastar P-Series PBX System and Yeastar TA1610 gateway, so as to extend 16 FXO trunks on the PBX.

## Procedure

- [Step 1. Create a SIP peer trunk on Yeastar PBX system](#)
- [Step 2. Create a SIP peer trunk on Yeastar TA1610 gateway](#)

### Step 1. Create a SIP peer trunk on Yeastar PBX system

1. Log in to PBX web portal, go to **Extension and Trunk > Trunk**, click **Add**.
2. Configure the trunk settings.

The screenshot shows the configuration interface for a new SIP peer trunk. It is divided into two main sections: 'Basic' and 'Detailed Configuration'.

**Basic Section:**

- Name:** A text input field containing 'Connect-to-TA1610-Gateway'.
- Trunk Status:** A dropdown menu set to 'Enabled'.
- Select ITSP Template:** A dropdown menu set to 'General'.

**Detailed Configuration Section:**

- Trunk Type:** A dropdown menu set to 'Peer Trunk'.
- Transport:** A dropdown menu set to 'UDP'.
- Hostname/IP:** A text input field containing '192.168.6.24'.
- Port:** A text input field containing '5060'.
- Domain:** A text input field containing '192.168.6.24'.

- **Name:** Enter a name to help you identify it. For example, Connect-to-TA1610-Gateway.
- **Trunk Status:** Select **Enabled**.
- **Select ITSP Template:** Select **General**.
- **Trunk Type:** Select **Peer Trunk**.
- **Transport:** Select **UDP**.
- **Hostname/IP:** Enter the IP address of Yeastar TA1610 gateway. In this example, enter 192.168.6.24.
- **Port:** Enter the SIP port of Yeastar TA1610 gateway. In this example, enter the default port 5060.
- **Domain:** Enter the IP address of Yeastar TA1610 gateway. In this example, enter 192.168.6.24.

3. Click **Save** and **Apply**.

## Step 2. Create a SIP peer trunk on Yeastar TA1610 gateway

1. Log in to gateway web interface, go to **Gateway > VoIP Settings > VoIP Trunk**, click **Add New Trunk**.
2. In the pop-up window, configure the following settings:

**Add New VoipTrunk**

**General** **Advanced**

Server ID: 5

Trunk Type: Service Provider

Type: SIP

Provider Name: P560

Hostname/IP: 192.168.6.124 : 5060

Save Cancel

- **Trunk Type:** Select **Service Provider**.
  - **Type:** Select **SIP**.
  - **Provider Name:** Enter a name to help you identify it.
  - **Hostname/IP:** Enter the IP address of Yeastar PBX system and the SIP port. In this example, enter 192.168.6.124 and the default SIP port 5060.
3. Click **Save** and **Apply Changes**.

## Result

- On the PBX web portal, go to **Extension and Trunk > Trunk** to check the trunk status. If the connection is successful, the trunk status displays .

Status	Name	Type	Hostname/Port	Username	Outbound Caller ID	Operations
	Connect-to-TA1610-...	Peer Trunk	192.168.6.24:5060			

- On the gateway web interface, go to **Status > System Status > Port/Trunk Status** to check the trunk status. If the connection is successful, the trunk status displays "OK".

Status	Trunk Name	Type	User Name	Hostname/IP	Reachability
OK (3 ms)	P580	SP-SIP	--	192.168.6.124	OK

It is concluded that Yeastar PBX system is connected to Yeastar TA1610 gateway; 16 FXO trunks are extended on Yeastar PBX system.

## What to do next

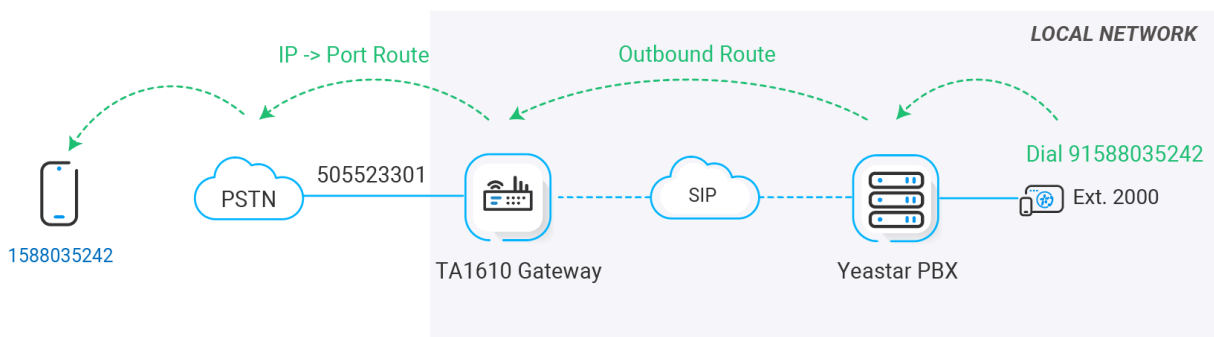
- To make outbound calls through the extended FXO trunk, see [Make Outbound Calls through the Extended FXO Trunks](#).
- To receive inbound calls through the extended FXO trunk, see [Receive Inbound Calls through the Extended FXO trunks](#).

## Make Outbound Calls through the Extended FXO Trunks

After connecting Yeastar P-Series PBX System and Yeastar TA FXO gateway, you need to set up routes, so as to make outbound calls through the extended FXO trunks.

### Scenario

The application scenario is shown as the following figure.



### Procedure

- [Step 1. Create an outbound route on Yeastar PBX system](#)
- [Step 2. Create an 'IP->Port' route on Yeastar TA1610 gateway](#)

- [Step 3. Make a test call from Yeastar PBX system](#)

## Step 1. Create an outbound route on Yeastar PBX system

On Yeastar P-Series PBX System, create an outbound route to allow users to reach the Yeastar TA1610 gateway.

1. Log in to PBX web portal, go to **Call Control > Outbound Route**, click **Add**.
2. Configure the following settings for the outbound route and leave other settings as default.

- **Name:** Specify a name to help you identify it.
- **Dial Pattern:** Set the dial patterns according to your needs.

In this example, set **Pattern** to 9., and set **Strip** to 1. Users should dial prefix 9 before the target number. For example, to call number 123456, users should dial 9123456.

* Pattern	Strip	Prepend
9.	1	

- **Trunk:** Select the SIP peer trunk that is connected to Yeastar TA1610 gateway. In this example, select the trunk **Connect-to-TA1610-Gateway**.

Trunk																						
<div>4 items Available</div> <div>Search here</div> <table border="1"> <thead> <tr> <th><input type="checkbox"/></th> <th>Name</th> <th>Trunk Type</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>BRI1-1</td> <td>BRI</td> </tr> <tr> <td><input type="checkbox"/></td> <td>BRI1-2</td> <td>BRI</td> </tr> <tr> <td><input type="checkbox"/></td> <td>FX01-7</td> <td>FXO</td> </tr> <tr> <td><input type="checkbox"/></td> <td>FX01-8</td> <td>FXO</td> </tr> </tbody> </table>	<input type="checkbox"/>	Name	Trunk Type	<input type="checkbox"/>	BRI1-1	BRI	<input type="checkbox"/>	BRI1-2	BRI	<input type="checkbox"/>	FX01-7	FXO	<input type="checkbox"/>	FX01-8	FXO	<div>1 item Selected</div> <div>Search here</div> <table border="1"> <thead> <tr> <th><input type="checkbox"/></th> <th>Name</th> <th>Trunk Type</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>Connect-to-TA1610-G...</td> <td>Peer Trunk</td> </tr> </tbody> </table>	<input type="checkbox"/>	Name	Trunk Type	<input type="checkbox"/>	Connect-to-TA1610-G...	Peer Trunk
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<input type="checkbox"/>	FX01-8	FXO																				
<input type="checkbox"/>	Name	Trunk Type																				
<input type="checkbox"/>	Connect-to-TA1610-G...	Peer Trunk																				

- **Extension/Extension Group:** Select the extensions that are allowed to make calls through this outbound route. In this example, select all extensions.

13 items Available		1 item Selected	
Number	Name	Number	Name
<input type="checkbox"/>	Extension Group Sales	<input type="checkbox"/>	Extension Group ALL
<input type="checkbox"/>	Extension Group Support		
<input type="checkbox"/>	2000 Leo Ball		
<input type="checkbox"/>	2001 Phillip Huff		
<input type="checkbox"/>	2002 Terrell Smith		
<input type="checkbox"/>	2003 Kristin Hale		

3. Click **Save and Apply**.

## Step 2. Create an 'IP->Port' route on Yeastar TA1610 gateway

On Yeastar TA1610 gateway, create an **IP->Port** route to allow PBX users to make out-bound calls through FXO trunk.

1. Log in to gateway web interface, go to **Gateway > Route Settings > IP->Port**, click **Add IP->Port Route**.
2. In the pop-up window, configure the route.

Route ID: 2

Simple Mode: Yes

Route Name: From-P560

Match Incoming Calls:

Call Source: SPS -- P560

Incoming Calls Processing:

Call Destination: Port Group4 -- All

Hotline:

Save Cancel

- **Simple Mode:** Select **Yes**.
- **Route Name:** Enter a name to help you identify it.



- **Call Source:** Select the SIP trunk that is connected to Yeastar P-Series PBX System. In this example, select the trunk **SPS – P560**.
  - **Call Destination:** Select the FXO trunks that will be used to call out. In this example, select all FXO trunks.
3. Click **Save** and **Apply Changes**.

### Step 3. Make a test call from Yeastar PBX system

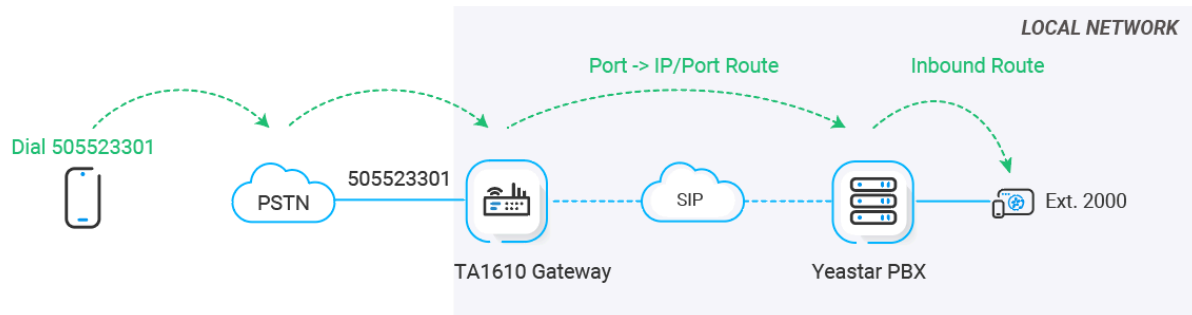
For example, the outbound caller ID of the extended FXO trunk is 505523301, when extension 2000 dials 91588035242, the user 1588035242 will ring, and caller ID "505523301" is displayed.

## Receive Inbound Calls through the Extended FXO trunks

After connecting Yeastar P-Series PBX System and Yeastar TA FXO gateway, you need to set up routes, so as to receive inbound calls through the extended FXO trunks.

### Scenario

The application scenario is shown as the following figure.



### Procedure

- [Step 1. Create a 'Port->IP' route on Yeastar TA1610 gateway](#)
- [Step 2. Create an inbound route on Yeastar PBX system](#)
- [Step 3. Make a test call to the FXO trunk](#)

## Step 1. Create a 'Port->IP' route on Yeastar TA1610 gateway

On Yeastar TA1610 gateway, create a **Port->IP** route to route incoming calls to Yeastar P-Series PBX System.

1. Log in to gateway web interface, go to **Gateway > Route Settings > Port->IP/Port**, click **Add Port->IP/Port Route**.
2. In the pop-up window, configure the route.

**Add Port->IP/Port Route**

Route ID: 4

Simple Mode: Yes

Route Name: To-P560

Match Incoming Calls:

Call Source: Port Group4 -- All

Incoming Calls Processing:

Call Destination: SPS -- P560

Hotline: 123456

Save Cancel

- **Simple Mode:** Select **Yes**.
- **Route Name:** Enter a name to help you identify it.
- **Call Source:** Select the desired FXO trunk. In this example, select all FXO trunks.
- **Call Destination:** Select the SIP trunk that is connected to Yeastar P-Series PBX System. In this example, select the trunk **SPS - P560**.
- **Hotline:** Enter a hotline number. In this example, enter 123456.



### Note:

The hotline number will be sent to the PBX as a DID number. In this way, incoming calls on the route will be sent to the PBX directly, eliminating the need of two-stage dialing.

3. Click **Save** and **Apply Changes**.

## Step 2. Create an inbound route on Yeastar PBX system

On Yeastar P-Series PBX System, create an inbound route to accept incoming calls from Yeastar TA1610 gateway.

1. Log in to PBX web portal, go to **Call Control > Inbound Route**, click **Add**.
2. Configure the following settings for the inbound route and leave other settings as default.
  - **Name:** Enter a name to help you identify it.
  - **DID Pattern:** Set up the DID pattern.
    - **DID Matching Mode:** Select **DID Pattern**.
    - **Pattern:** Enter the hotline number set on the TA1610 gateway, which is used to match the incoming calls from the gateway. In this example, enter 123456.

**DID Pattern**

\* DID Matching Mode

DID Pattern

Pattern	Operations
123456	

- **Trunk:** Select the SIP peer trunk that is connected to the Yeastar TA1610 gateway. In this example, select the trunk **Connect-to-TA1610-Gateway**.

**Trunk**

5 items Available

Search here

Name	Trunk Type
<input type="checkbox"/> BRI1-1	BRI
<input type="checkbox"/> BRI1-2	BRI
<input type="checkbox"/> FX01-7	FXO
<input type="checkbox"/> FX01-8	FXO
<input type="checkbox"/> Peer6.210	Peer Trunk

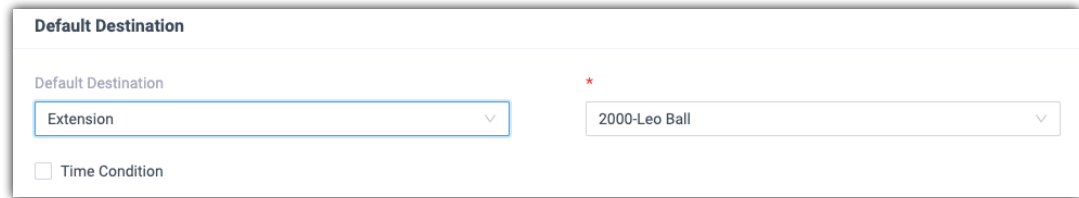
1 item Selected

Search here

Name	Trunk Type
<input type="checkbox"/> Connect-to-TA1610...	Peer Trunk

- **Default Destination:** Select a destination for the inbound route.

In this example, set the **Destination** to extension 2000. When incoming calls from TA1610 gateway reach the PBX, the calls will be routed to extension 2000.



The image shows a web form titled "Default Destination". It contains two dropdown menus. The first dropdown menu is labeled "Default Destination" and has "Extension" selected. The second dropdown menu is labeled "2000-Leo Ball" and has "2000-Leo Ball" selected. There is a red asterisk icon between the two dropdown menus. At the bottom left, there is a checkbox labeled "Time Condition" which is currently unchecked.

3. Click **Save** and **Apply**.

### Step 3. Make a test call to the FXO trunk

For example, the extended FXO trunk's number is 505523301, when users dial 505523301, the call will be routed to extension 2000 on the PBX.