



Solution & Interoperability

Yeastar S-Series VoIP PBX

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Contents

- Solution & Interoperability..... 3**
- Yeastar Cloud PBX..... 3
- Interconnect Yeastar Cloud PBX and S-Series VoIP PBX.....3
- Yeastar TA FXS Gateway..... 14
- Interconnect Yeastar S-Series VoIP PBX and TA FXS Gateway..... 14
- Yeastar TG Gateway.....17
- Interconnect Yeastar S-Series VoIP PBX and TG Gateway..... 17
- Yeastar TE Gateway.....23
- Interconnect Yeastar S-Series VoIP PBX and TE Gateway.....23

Solution & Interoperability

Integrate or interconnect the Yeastar S-Series VoIP PBX with other devices or applications.

Yeastar Cloud PBX

Interconnect Yeastar Cloud PBX and S-Series VoIP PBX

Interconnect Yeastar Cloud PBX with Yeastar S-Series VoIP PBX to make free calls between the two PBXs and share trunks.

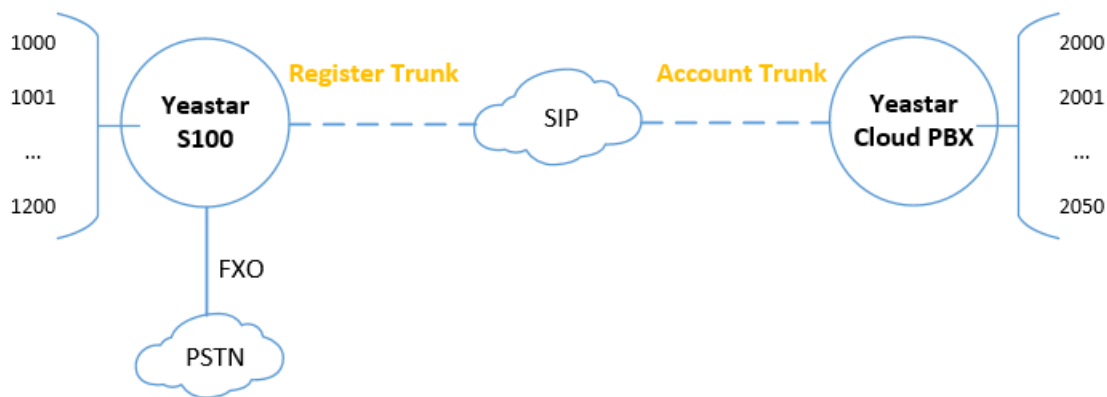
In this topic, we tested Yeastar Cloud PBX and Yeastar S300.

Table 1:

Yeastar Cloud PBX	Yeastar S300
Firmware: v81.5.0.7	Firmware: v30.8.0.8
Extension: 2000-2050	Extension: 1000-1200



Note: The two PBXs should not have the same extension number, or the calls between the two PBXs will fail.



Step1. Connect Yeastar Cloud PBX and S300

1. On Yeastar Cloud PBX, create an Account Trunk.
 - a. Go to **Settings**→**Trunks**, click **Add**.
 - b. Set the trunk as an Account trunk.

- **Name:** Set a name to help you identify it.
- **Trunk Status:** Choose **Enabled**.
- **Protocol:** Choose **SIP**.
- **Trunk Type:** Choose **Account Trunk**.
- **Transport:** Choose **UDP**.
- **Username:** Use the default or change the number.
- **Password:** Use the default or change the password.
- **Authentication Name:** Set to the same as the **Username**.

c. Click **Save and Apply**.

2. On Yeastar S300, create a Register Trunk.

- Go to **Settings**→**Trunks**, click **Add**.
- Set the trunk to a Register trunk.


- **Name:** Set a name to help you identify it.
- **Trunk Status:** Enabled.
- **Protocol:** SIP.




- **Trunk Type:** Register Trunk.
- **Template:** General
- **Transport:** UDP
- **Hostname/IP:** Enter the domain or IP address of the Yeastar Cloud PBX, and SIP port of Yeastar Cloud PBX.
- **Domain:** Enter the domain or IP address of the Yeastar Cloud PBX.
- **Username:** Enter the **Username** of Account Trunk that is created on Yeastar Cloud PBX.
- **Password:** Enter the **Password** of Account Trunk that is created on Yeastar Cloud PBX.
- **Authentication Name:** Enter the **Authentication Name** of Account Trunk that is created on Yeastar Cloud PBX.

c. Click **Save** and **Apply**.


3. Check the connection status.


a. On the Yeastar S300, go to **PBX Monitor** to check the trunk status.

If the connection is successful, the status will show .

Trunk Status	Name	Type	Hostname/IP/Port
	RegisterTrunkTo7170	SIP-Register	192.168.7.170
	Connect_CloudPBX	SIP-Register	eve.isbc.yeastarcloud.com
	RegisterTrunkToInaCloud	SIP-Register	ina.cn1.yeastarcloud.com

b. On the Yeastar Cloud PBX, go to **PBX Monitor** to check the trunk status.

If the connection is successful, the status will show .

Trunk Status	Name	Type	Hostname/IP
	For_S300	SIP-Account	192.168.7.170

Step2. Intercommunication between Yeastar Cloud PBX and S300

Make Internal Calls from Yeastar Cloud PBX to S300

1. On Yeastar Cloud PBX, create an outbound route to allow users call to S300.
 - a. Go to **Settings**→**PBX**→**Call Control**→**Outbound Route**, click **Add**.
 - b. Configure the outbound route.

- **Name:** Set a name to help you identify it.
- **Dial Patterns:** Set **Patterns** to the extension format of Yeastar S300.
In this scenario, set to 1XXX.
- **Member Trunks:** Select the Account Trunk that is created for Yeastar S300.
- **Member Extensions:** Select all the extensions to allow the users call to Yeastar S300.

c. Click **Save** and **Apply**.

2. On Yeastar S300, create an inbound route to receive incoming calls from Yeastar Cloud PBX.

- a. Go to **Settings**→**PBX**→**Call Control**→**Inbound Route**, click **Add**.
- b. Configure the inbound route.

- **Name:** Set a name to help you identify it.
- **DID Pattern:** Enter the extension range of the Yeastar S300.
In this scenario, set to 1000-1200.
- **Member Trunks:** Choose the Register trunk that is registered to Yeastar Cloud PBX.
- **Destination:** Choose **Extension Range**, and enter the extension range of Yeastar S300.
In this scenario, set to 1000-1200.

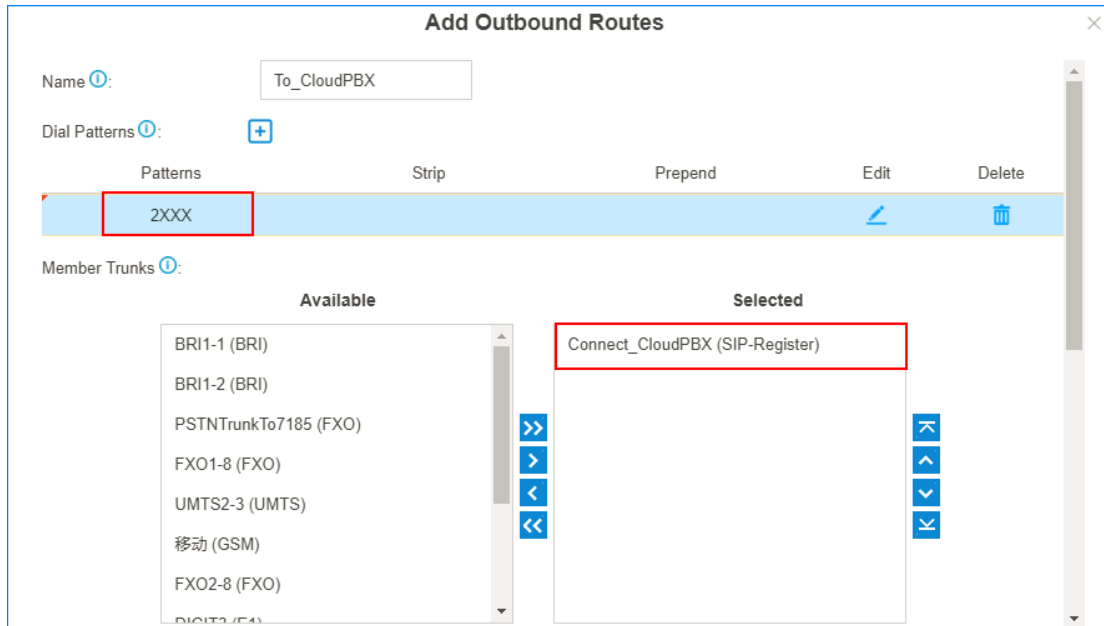
c. Click **Save** and **Apply**.

3. Make a call to test.

For example, Extension user 2000 dial 1000, the extension 1000 will ring.

Make Internal Calls From S300 to Yeastar Cloud PBX

1. On Yeastar S300, create an outbound route to allow users call to Yeastar Cloud PBX.
 - a. Go to **Settings**→**PBX**→**Call Control**→**Outbound Route**, click **Add**.
 - b. Configure the outbound route.



- **Name:** Set a name to help you identify it.
 - **Dial Patterns:** Set **Patterns** to the extension format of Yeastar Cloud PBX.
In this scenario, set to 2XXX.
 - **Member Trunks:** Select the Register Trunk that is registered to Yeastar Cloud PBX.
 - **Member Extensions:** Select all the extensions to allow the users call to Yeastar Cloud PBX.
- c. Click **Save** and **Apply**.
2. On Yeastar Cloud PBX, create an inbound route to receive incoming calls from Yeastar S300.
- a. Go to **Settings**→**PBX**→**Call Control**→**Inbound Route**, click **Add**.
 - b. Configure the inbound route.

- **Name:** Set a name to help you identify it.
- **DID Pattern:** Enter the extension range of the Yeastar Cloud PBX.
In this scenario, set to 2000-2050.
- **Member Trunks:** Choose the Account Trunk that is created for S300.
- **Destination:** Choose **Extension Range**, and enter the extension range of Yeastar Cloud PBX.
In this scenario, set to 2000-2050.

c. Click **Save** and **Apply**.

3. Make a call to test.

For example, Extension user 1000 dial 2000, the extension 2000 will ring.

Step3. Share Trunk of Yeastar S300

Share a trunk of Yeastar S300, the users of Yeastar Cloud PBX can make outbound calls and receive inbound calls through the shared trunk.

In our scenario, Yeastar S300 has an FXO trunk, the number of the FXO trunk is 5503301.

We will describe how to share the FXO trunk to the Yeastar Cloud PBX users.

Make outbound calls from Cloud PBX through S300's trunk

1. On Yeastar S300, create an outbound for the shared FXO trunk.
 - a. Go to **Settings**→**PBX**→**Call Control**→**Outbound Routes**, click **Add**.
 - b. Configure the outbound route.

Add Outbound Routes

Name: pstn_out

Dial Patterns: +

Patterns	Strip	Prepend	Edit	Delete
9.	1			

Member Trunks:

Available	Selected
BRI1-1 (BRI)	5503301 (FXO)
BRI1-2 (BRI)	
PSTNTrunkTo7185 (FXO)	
UMTS2-3 (UMTS)	
移动 (GSM)	
FXO2-8 (FXO)	
DIGIT3 (E1)	

- **Name:** Set a name to help you identify it.
- **Dial Patterns:** Set the dial patterns according to your needs.
In our scenario, set **Patterns** to 9., set **Strip** to 1; users should dial prefix 9 before the target number. For example, to call number 123456, you should dial 9123456.
- **Member Trunks:** Select the FXO trunk.

c. Click **Save** and **Apply**.

2. On Yeastar S300, create an inbound route to allow users from Yeastar Cloud PBX make outbound calls through the shared trunk.
 - a. Go to **Settings**→**PBX**→**Call Control**→**Inbound Routes**, click **Add**.
 - b. Configure the inbound route.

Add Inbound Route

Name ?:

DID Pattern ?:

Caller ID Pattern ?:

Member Trunks ?:

Available		Selected
<div style="border: 1px solid gray; padding: 5px; min-height: 100px;"> BRI1-1 (BRI) BRI1-2 (BRI) PSTNTrunkTo7185 (FXO) UMTS2-3 (UMTS) 移动 (GSM) FXO2-8 (FXO) DIGIT3 (E1) ... </div>	>> > < <<	<div style="border: 1px solid gray; padding: 5px; min-height: 100px; border: 1px solid red;"> Connect_CloudPBX (SIP-Register) </div>

Enable Time Condition ?

Destination ?:

- **Name:** Set a name to help you identify it.
- **DID Pattern:** Set to the same pattern of the FXO trunk's outbound route.
- **Member Trunks:** Select the trunk that is registered to Yeastar Cloud PBX.
- **Destination:** Set to **Outbound Route**, and chose the outbound route for the FXO trunk.

c. Click **Save** and **Apply**.

3. On Yeastar Cloud PBX, create an outbound route to allow users make outbound calls through the shared trunk.

- a. Go to **Settings**→**PBX**→**Call Control**→**Outbound Routes**, click **Add**.
- b. Configure the outbound route.

Add Outbound Routes

Name: shared_pstn_out

Dial Patterns: +

Patterns	Strip	Prepend	Edit	Delete
9.				

Member Trunks:

Available	Selected
account (SIP-Account)	For_S300 (SIP-Account)
100account (SIP-Account)	
to_eve_cn1 (SIP-Register)	
connectS (SIP-Account)	

- **Name:** Set a name to help you identify it.
- **Dial Patterns:** Set **Patterns** to the same pattern of the FXO trunk's outbound route.
- **Member Trunks:** Select the Account Trunk that is created for Yeastar S300.
- **Member Extensions:** Select the extensions that are allowed to make outbound calls through the shared trunk.

c. Click **Save** and **Apply**.

4. Test an outbound call from Yeastar Cloud PBX.

For example, to call number 1588035242, you need to dial 91588035242.

Receive Inbound Calls at Cloud PBX through S300's trunk

1. On Yeastar S300, create an inbound route for the shared FXO trunk.
 - a. Go to **Settings**→**PBX**→**Call Control**→**Inbound Routes**, click **Add**.
 - b. Configure the inbound route.

Edit Inbound Route (pstn_in)

Name: pstn_in

DID Pattern:

Caller ID Pattern:

Member Trunks:

Available	Selected
BRI1-1 (BRI)	5503301 (FXO)
BRI1-2 (BRI)	
PSTNTrunkTo7185 (FXO)	
UMTS2-3 (UMTS)	
FXO2-8 (FXO)	
DIGIT3 (E1)	
RegisterTrunkTo7170 (SIP-Register)	

Enable Time Condition

Destination: IVR | Welcome

Save Cancel

- **Name:** Set a name to help you identify it.
- **Member Trunks:** Select the shared FXO trunk.
- **Destination:** Set to **IVR**.

c. Click **Save** and **Apply**.

2. On Yeastar S300, set the IVR to allow external callers to dial Cloud PBX's extension numbers.

- Go to **Settings**→**PBX**→**Call Features**→**IVR**, edit the IVR that is selected in the inbound route for the shared trunk.
- Check the options **Dial Extensions** and **Dial Outbound Routes**.
- Choose the outbound route that allows external callers to dial Cloud PBX's extension numbers.

Edit IVR (Welcome)

Basic Key Press Event

Number: 8000

Name: Welcome

Prompt: [Default]

Prompt Repeat Count: 3

Response Timeout (s): 3

Digit Timeout (s): 3

Dial Extensions

Dial Outbound Routes

Member Trunks:

Available	Selected
BRI1-1 (BRI)	Connect_CloudPBX (SIP-Register)

Available: pstn_out | Selected: To_CloudPBX

Callout Box:

Name: To_CloudPBX

Dial Patterns: 2XXX

Member Trunks: BRI1-1 (BRI), Connect_CloudPBX (SIP-Register)

d. Click **Save** and **Apply**.

3. Make a call to the shared FXO trunk, you can hear the IVR prompt, and dial not only the extension number of S300, but also the extension number of the Cloud PBX.

Yeastar TA FXS Gateway

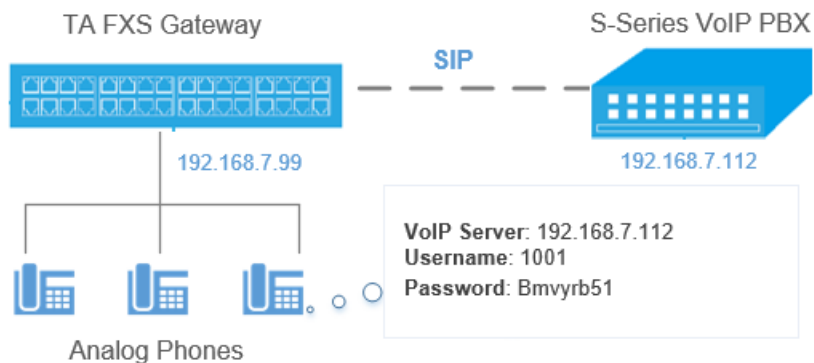
Interconnect Yeastar S-Series VoIP PBX and TA FXS Gateway

Interconnect S-Series VoIP PBX and Yeastar TA FXS gateway to extend analog phones.

In the topic, we tested with Yeastar S-Series VoIP PBX version 30.7.0.35 and Yeastar TA3200 version 40.19.0.30.

After connecting the Yeastar S-Series VoIP PBX and the Yeastar TA FXS gateway, you can achieve the followings:

- Make calls between the analog phones and the SIP extensions of the PBX
- Receive inbound calls on the analog phones
- Use the PBX's trunk to make outbound calls from the analog phones
- Make calls between analog phones



1. Create an extension on the PBX

Log in the PBX web interface, go to **Settings**→**PBX**→**Extensions**, create one extension.

You will use this extension to register on the FXS port of TA3200 later.

Add Extension ×

Basic | Features | Advanced | Call Permission

General

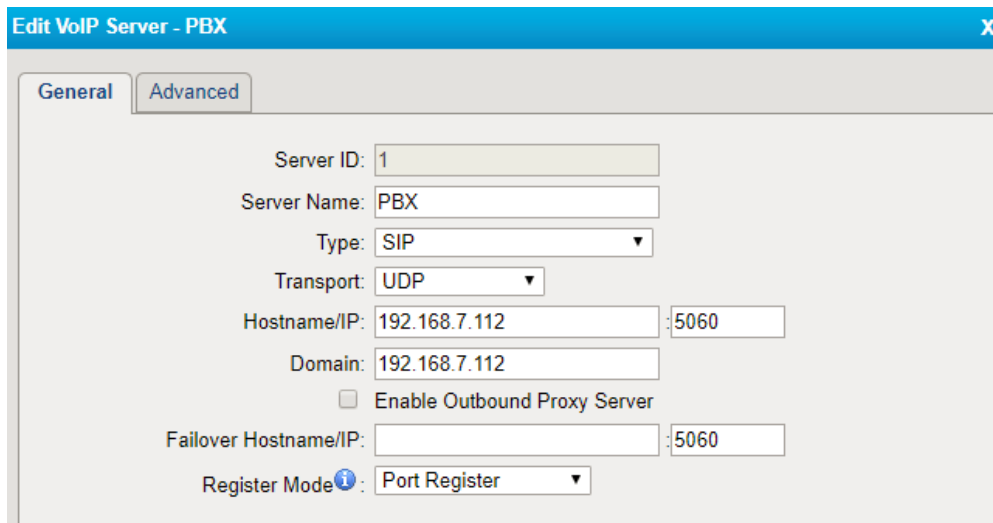
Extension: Caller ID:

Registration Name: Registration Password: 👁

Concurrent Registrations:

2. Configure a VoIP Server on TA3200

Log in the TA3200 web interface, go to **Gateway**→**VoIP Settings**→**VoIP Server Settings**, set a VoIP Server.



Edit VoIP Server - PBX

General | Advanced

Server ID: 1

Server Name: PBX

Type: SIP

Transport: UDP

Hostname/IP: 192.168.7.112 :5060

Domain: 192.168.7.112

Enable Outbound Proxy Server

Failover Hostname/IP: :5060

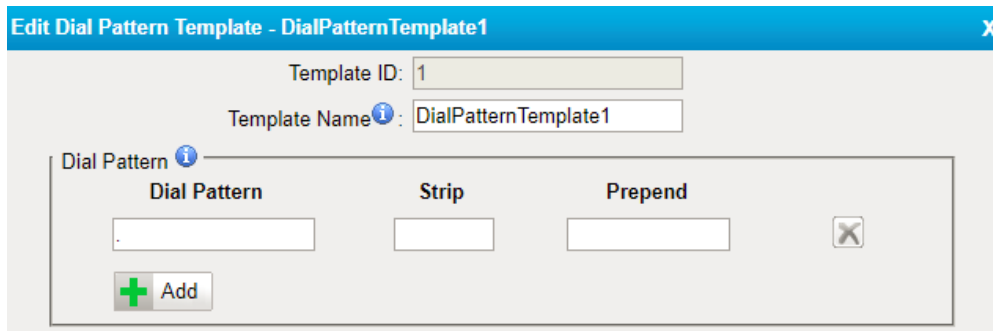
Register Mode: Port Register

- **Server Name:** Set a name to help you identify the VoIP server.
- **Type:** Choose `SIP`.
- **Transport:** Choose `UDP`.
- **Hostname/IP:** Enter the IP address of your PBX and the SIP registration port.
- **Domain:** Enter the IP address of your PBX.
- **Register Mode:** Choose `Port Register`.

3. Set a Dial Pattern Template on TA3200

Go to **Gateway**→**VoIP Settings**→**Dial Pattern Template**, edit one template according to your needs.

The default dial pattern allows you to call any number.



Edit Dial Pattern Template - DialPatternTemplate1

Template ID: 1

Template Name: DialPatternTemplate1

Dial Pattern

Dial Pattern	Strip	Prepend
.		

+ Add

4. Edit FXS port of TA3200

Go to **Gateway**→**Port List**→**Port List**, register one FXS port as the SIP extension of the PBX.

- **Caller ID Name:** Set a name to help you identify the FXS port.
- **Caller ID Number:** Enter the SIP extension number.
- **VoIP Server:** Choose the VoIP server that is for the PBX.
- **User Name:** Enter the SIP extension number.
- **Authentication Name:** Enter the registration name of the SIP extension.
- **Password:** Enter the registration password of the SIP extension.
- **Dial Pattern Template:** Choose the dial pattern template that will be applied to the FXS port.
- **DID Number:** Enter the SIP extension number.

5. Check the status of the FXS port

Go to **Status**→**System Status**→**FXS Port Status** to check the status of the FXS port.


If the **Status** shows "OK", the FXS port is registered as the SIP extension of the PBX.

You can make internal calls between the analog phones and the extensions of the PBX now.

Port	UP/Down/Break	Name	Status	Voice Mail(New/Old)	Off-hook/On-hook	Phone Status
1	Up	1001	OK	--	On Hook	Connected

6. Set outbound call permission for the FXS port

To make outbound calls from the analog phone, you need to set call permission for the SIP extension that is registered on the FXS port of TA3200.

 **Note:** To make outbound calls from the analog phone of TA3200, you need to follow by the dial pattern rule of TA3200 and dial pattern rule of the PBX.

1. Log in the PBX web interface, go to **Settings**→**PBX**→**Call Control**→**Outbound Route**, edit your outbound route or add a new outbound route for the FXS port.
2. Select the SIP extension that is registered on the FXS port to the **Selected** box.

Edit Outbound Routes (Routeout)

Member Extensions ⓘ:

Available	Selected
	1000 - Nancy 1001 - Willy 2000 - Eric

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7. Set inbound call permission for the FXS port

To receive inbound calls on the analog phone of TA3200, you need to check if the SIP extension that is registered to the FXS port is reachable through an inbound route.

You can set the destination to the SIP extension, IVR, ring group, or queue that contains the SIP extension.

Edit Inbound Route (Routein)

	SIP Trunk1 (SIP-Register) - SLA SIP Trunk2 (SIP-Register)
--	--

>>
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Enable Time Condition ⓘ

Destination ⓘ:	Extension	1001 - Willy
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Yeastar TG Gateway

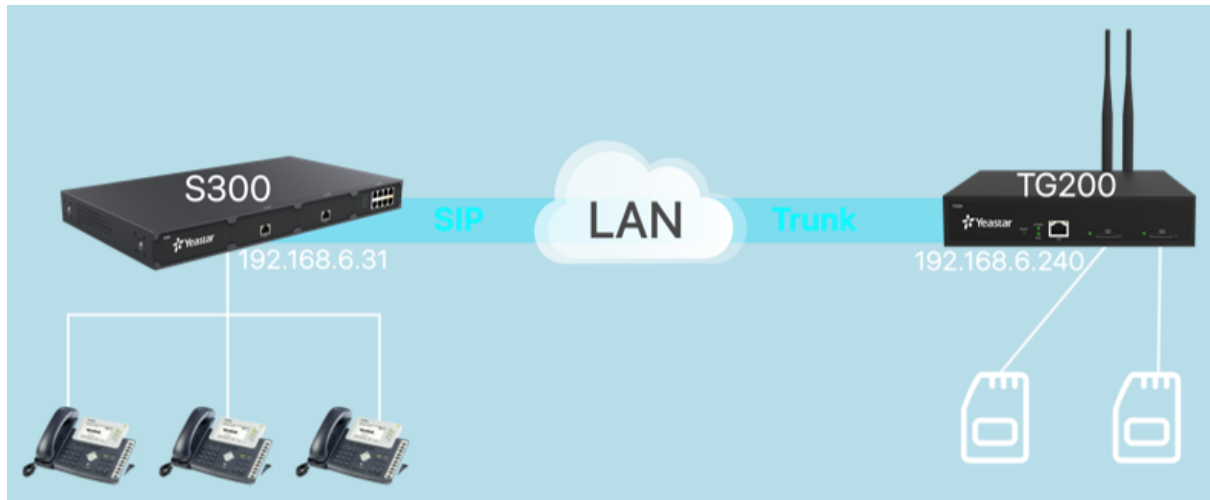
Interconnect Yeastar S-Series VoIP PBX and TG Gateway

Connect Yeastar S-Series VoIP PBX and Yeastar TG gateway to extend GSM/3G/4G trunks.

In the following instruction, we tested with Yeastar S300 v30.10.0.28 and Yeastar TG200 v91.2.0.4, the two devices are in the same local network.

After connecting the Yeastar S300 and the Yeastar TG200, the Yeastar S300 users can achieve the followings:

- Make outbound calls through GSM/3G/4G trunks of TG400
- Receive inbound calls from GSM/3G/4G trunks of TG400




1. Connect Yeastar S300 and TG400

1. On the Yeastar S300, create a SIP Peer Trunk, connecting to TG400.
 - a. Go to **Settings**→**Trunks**, click **Add**.
 - b. Set the trunk as a Peer Trunk.

Basic	Codec	Advanced	DOD	Adapt Caller ID
Name:	to_TG200		Trunk Status:	Enabled
Select Country:	General			
Trunk Type:	Peer Trunk			
Protocol:	SIP		Transport:	UDP
Hostname/IP:	192.168.6.240	:	5060	
Domain:	192.168.6.240			
Caller ID Number:			Caller ID Name:	
<input type="checkbox"/> Enable SLA <small>If enabled, this trunk will not be available in routes or other channels.</small>				

- **Name:** Set a name to help you identify it.
 - **Trunk Status:** Select **Enabled**.
 - **Select Country:** Select **General**.
 - **Trunk Type:** Select **Peer Trunk**.
 - **Protocol:** Select **SIP**.
 - **Transport:** Select **UDP**.
 - **Hostname/IP:** Enter the IP address of TG200 and use the default SIP port 5060.
 - **Domain:** Enter the IP address of TG200.
 - **Caller ID Number:** Leave it blank.
 - **Caller ID Name:** Leave it blank.
- c. Click **Save** and **Apply**.
 - d. Go to **Status**→**System Status**→**Trunk Status** to check the trunk status.

If the connection is successful, the status will show .

Trunk Status	Name	Type	Hostname/IP/Port
	to_TG200	SIP-Peer	192.168.6.240

2. On the TG400, create a SIP Peer Trunk, connecting to Yeastar S300.
 - a. Go to **Gateway**→**VoIP Settings**→**VoIP Trunk**, click **Add VoIP Trunk**.
 - b. Configure the VoIP trunk.

Add Peer Trunk
✕

General

Advanced

Trunk Type:

Type:

Provider Name:

Hostname/IP: :

- **Trunk Type:** Select **Peer Trunk**.
 - **Type:** Select **SIP**.
 - **Provider Name:** Set the trunk name.
 - **Hostname/IP:** Enter the IP address of S300 and use the default SIP port 5060.
- c. Click **Save** and **Apply Changes**.
 - d. Go to **Status**→**System Status**→**Trunk Status** to check the trunk status.
- If the connection is successful, the status will show "OK".

Status	Trunk Name	Type	User Name	Hostname/IP	Reachability
OK (2 ms)	from_S300	SP-SIP		192.168.6.31	OK (2 ms)

2. Make Outbound Calls Through GSM/3G/4G Trunks

1. On Yeastar S300, create an outbound route to allow users make outbound calls through TG200.
 - a. Go to **Settings**→**PBX**→**Call Control**→**Outbound Routes**, click **Add**.
 - b. Configure the outbound route.

Edit Outbound Routes (to_TG200)

Name ⓘ:

Dial Patterns ⓘ: +

Patterns	Strip	Prepend	Edit	Delete
9.	1			

Member Trunks ⓘ:

Available		Selected
FXO1-1 (FXO) FXO1-2 (FXO) BRI1-3 (BRI) BRI1-4 (BRI) CDMA1-7 (CDMA) DIGIT2 (E1)	>> > < <<	to_TG200 (SIP-Peer)

Member Extensions ⓘ:

Available	Selected
606 - Carol	600 - 600 601 - 601

- **Name:** Set the outbound route name.
- **Dial Patterns:** Set the dial patterns according to your needs.
 In our scenario, set **Patterns** to 9., set **Strip** to 1; users should dial prefix 9 before the target number. For example, to call number 123456, you should dial 9123456.
- **Member Trunks:** Select the SIP trunk that is connected to TG200 to **Selected** box.
- **Member Extensions:** Select extensions to **Selected** box. The selected extensions can make outbound calls through TG200.

c. Click **Save** and **Apply**.

2. On TG200, set an **IP to Mobile** route to allow the PBX users make outbound calls through the GSM/3G/4G trunks.

- a. Go to **Gateway**→**Route Settings**→**IP to Mobile**, click **Add IP to Mobile Route**.
- b. Configure the **IP to Mobile** route.

Edit Route
X

Simple Mode ⓘ :

Route Name ⓘ :

Match Incoming Calls:

Call Source

Incoming Calls Processing:

Call Destination:

Hotline:

- **Simple Mode:** Select **Yes**.
- **Route Name:** Set the route name.
- **Call Source:** Select the SIP trunk that is connected to the S300.
- **Call Destination:** Select a Mobile trunk or a Mobile trunk group.

c. Click **Save** and **Apply Changes**.

3. Make a call to test.

For example, the PBX extension 1000 dials 91588035242, the user 1588035242 will ring.

3. Receive Inbound Calls From GSM/3G/4G Trunks

1. On Yeastar S300, create an inbound route to accept incoming calls from TG200.
 - a. Go to **Settings**→**PBX**→**Call Control**→**Inbound Routes**, click **Add**.
 - b. Configure the inbound route.

Edit Inbound Route (Routein)

Name ⓘ:

DID Pattern ⓘ:

Caller ID Pattern ⓘ:

Member Trunks ⓘ:

Available	Selected
	For_TG400 (SIP-Account)

Enable Time Condition ⓘ

Destination ⓘ:

- **Name:** Set the inbound route name.
- **DID Pattern:** Set a DID number. This DID number will be used to match the incoming calls from TG200.
- **Member Trunks:** Select the SIP trunk that is connected to TG200 to **Selected** box.
- **Destination:** Set a destination for the inbound route.
In our scenario, set the **Destination** to an IVR. The PBX will route incoming calls of TG200 to the IVR.

c. Click **Save** and **Apply**.

2. On TG200, create a **Mobile to IP** route to route incoming calls to the PBX.

- a. Go to **Gateway**→**Route Settings**→**Mobile to IP**, click **Add Mobile to IP Route**.
- b. Configure the **Mobile to IP** route.

New RouteX

Simple Mode ⓘ :

Route Name ⓘ :

Match Incoming Calls:

Call Source

Incoming Calls Processing:

Call Destination:

Hotline ⓘ :

- **Simple Mode:** Select **Yes**.
- **Route Name:** Set the route name.
- **Call Source:** Select a Mobile trunk or a Mobile trunk group.
- **Call Destination:** Choose the SIP trunk that is connected to the S300.
- **Hotline:** Enter the DID number that is set on the inbound route of S300.

c. Click **Save** and **Apply Changes**.

3. Make a call to test.

For example, the GSM trunk number is 17283733; use your mobile phone to call 17283733, you will hear the IVR prompt.

Yeastar TE Gateway

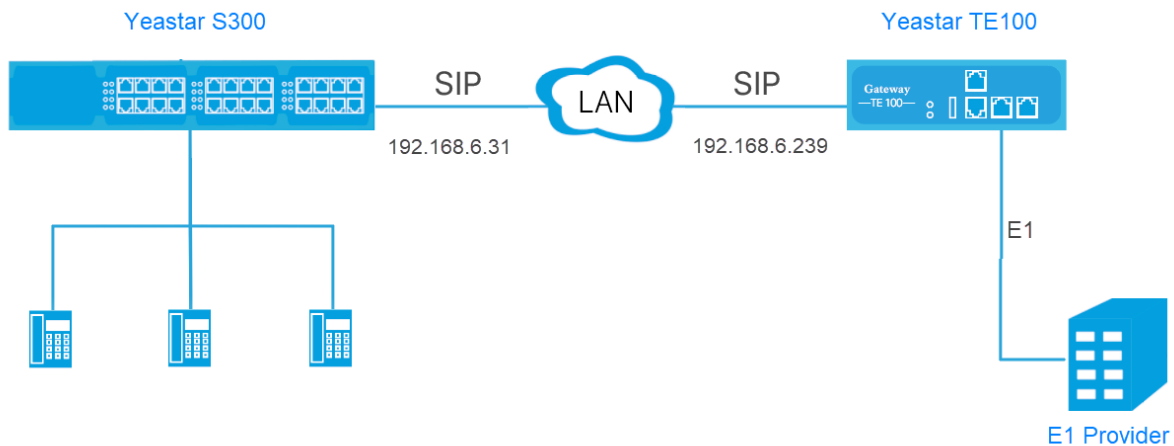
Interconnect Yeastar S-Series VoIP PBX and TE Gateway

Connect Yeastar S-Series VoIP PBX and Yeastar TE gateway to extend E1/T1 trunk.

In the following instruction, we tested with Yeastar S300 v30.10.0.28 and Yeastar TE100 v16.18.0.7, the two devices are in the same local network.

After connecting the Yeastar S300 and the Yeastar TE100, the Yeastar S300 users can achieve the followings:

- Make outbound calls through E1 trunk of TE100.
- Receive inbound calls from E1 trunk of TE100.



1. Connect Yeastar S300 and TE100

1. On the Yeastar S300, create a SIP Peer Trunk, connecting to TE100.
 - a. Go to **Settings**→**Trunks**, click **Add**.
 - b. Set the trunk as a Peer Trunk.

Add VoIP Trunk


Basic
Codec
Advanced
DOD
Adapt Caller ID


Name:	<input type="text" value="To_TE100"/>	Trunk Status:	<input type="text" value="Enabled"/>
Select Country:	<input type="text" value="General"/>		
Trunk Type:	<input type="text" value="Peer Trunk"/>		
Protocol:	<input type="text" value="SIP"/>	Transport:	<input type="text" value="UDP"/>
Hostname/IP:	<input type="text" value="192.168.6.239"/> : <input type="text" value="5060"/>		
Domain:	<input type="text" value="192.168.6.239"/>		
Caller ID Number:	<input type="text"/>	Caller ID Name:	<input type="text"/>

Enable SLA If enabled, this trunk will not be available in routes or other channels.

- **Name:** Set a name to help you identify it.
- **Trunk Status:** Select **Enabled**.
- **Select Country:** Select **General**.
- **Trunk Type:** Select **Peer Trunk**.
- **Protocol:** Select **SIP**.
- **Transport:** Select **UDP**.
- **Hostname/IP:** Enter the IP address of TE100 and use the default SIP port 5060.
- **Domain:** Enter the IP address of TE100.
- **Caller ID Number:** Leave it blank.
- **Caller ID Name:** Leave it blank.

- c. Click **Save** and **Apply**.
- d. Go to **Status**→**System Status**→**Trunk Status** to check the trunk status.

If the connection is successful, the status will show .

Trunk Status	Name	Type	Hostname/IP/Port
	To_TE100	SIP-Peer	192.168.6.239

2. On the TE100, create a SIP Peer Trunk, connecting to Yeastar S300.
 - a. Go to **Gateway**→**VoIP Settings**→**VoIP Trunk**, click **Add VoIP Trunk**.
 - b. Configure the VoIP trunk.

Add Service Provider
X

General

Advanced

Trunk Type: Service Provider

Provider Name: S300

Hostname/IP: 192.168.6.31 : 5060

✔ Save

✘ Cancel

- **Trunk Type:** Select **Service Provider**.
 - **Provider Name:** Set the trunk name.
 - **Hostname/IP:** Enter the IP address of S300 and use the default SIP port 5060.
- c. Click **Save** and **Apply Changes**.
 - d. Go to **Status**→**System Status**→**IP Trunk Status** to check the trunk status.

If the connection is successful, the status will show "OK".

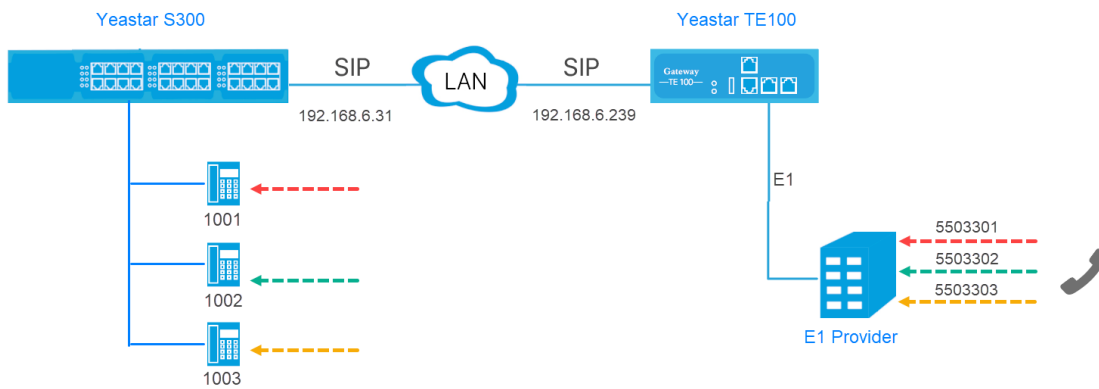
Status	Trunk Name	Type	User Name	Hostname/IP	Reachability
OK (2 ms)	S300	SP-SIP		192.168.6.31	OK (2 ms)

2. Receive Inbound Calls From E1 Trunk

Assume that you have applied three DID numbers (5503301-5503303) from the E1 service provider. You can assign the DID numbers to extension 1001-1003 respectively. When an outside user dials a DID number, the user will reach the specific extension directly.



Note: The DID configuration is optional. In our scenario, the DID numbers should be continuous DID numbers. For more information of DID routing, refer to Route Inbound Calls Based on DID.



1. On Yeastar S300, create an inbound route to accept incoming calls from TE100.
 - a. Go to **Settings**→**PBX**→**Call Control**→**Inbound Routes**, click **Add**.
 - b. Configure the inbound route.

The screenshot shows the 'Edit Inbound Route (from_TE100)' configuration window. The 'Name' field is set to 'from_TE100'. The 'DID Pattern' field is set to '5503301-5503303'. The 'Caller ID Pattern' field is empty. The 'Member Trunks' section has two columns: 'Available' and 'Selected'. The 'Available' column lists: FXO1-1 (FXO), FXO1-2 (FXO), BRI1-3 (BRI), BRI1-4 (BRI), CDMA1-7 (CDMA), DIGIT2 (E1), and MexicanOffice (SIP-Peer). The 'Selected' column contains 'To_TE100 (SIP-Peer)'. Below the trunks, there is a checkbox for 'Enable Time Condition' which is unchecked. The 'Destination' field is set to 'Extension Range' with a value of '1001-1003'.

- **Name:** Set the inbound route name.
 - **DID Pattern:** Enter the DID range of E1 trunk, 5503301-5503303.
 - **Member Trunks:** Select the SIP trunk that is connected to TE100 to **Selected** box.
 - **Destination:** Set to **Extension Range** and enter the extension range 1001-1003.
- c. Click **Save** and **Apply**.
 2. On TE100, create a Route to forward incoming calls to the PBX.
 - a. Go to **Gateway**→**Route Settings**→**Route List**, click **Add New Route**.
 - b. Configure a "E1 to S300" Route.

The screenshot shows a 'New Route' configuration window. The 'Simple Mode' is set to 'Yes'. The 'Route name' is 'E1_to_S300'. Under 'Match Incoming Calls', 'Call Comes in From' is set to 'Trunk -- E1Trunk1'. Under 'Handle Matched Incoming Calls', 'Send Call Through' is set to 'ServiceProvider -- S300'. There are 'Save' and 'Cancel' buttons at the bottom.

- **Simple Mode:** Select **Yes**.
- **Route Name:** Set the route name to help you identify it.
- **Call Source:** Select the E1 trunk.
- **Call Destination:** Choose the SIP trunk that is connected to the S300.

c. Click **Save** and **Apply Changes**.

3. Make a call to test.

For example, making a call to 5503301, the extension 1001 will ring.

2. Make Outbound Calls Through E1 Trunk

1. On Yeastar S300, create an outbound route to allow users make outbound calls through TE100.

- a. Go to **Settings**→**PBX**→**Call Control**→**Outbound Routes**, click **Add**.
- b. Configure the outbound route.

Edit Outbound Routes (to_TE100)

Name: to_TE100

Dial Patterns:

Patterns	Strip	Prepend	Edit	Delete
X.				

Member Trunks:

Available	Selected
FXO1-1 (FXO)	To_TE100 (SIP-Peer)
FXO1-2 (FXO)	
BRI1-3 (BRI)	
BRI1-4 (BRI)	
CDMA1-7 (CDMA)	
DIGIT2 (E1)	
MexicanOffice (SIP-Peer)	

Member Extensions:


Available	Selected
	1002 - 1002
	1003 - 1003

- **Name:** Set the outbound route name.
- **Dial Patterns:** Set the dial patterns according to your needs.
In our scenario, set **Patterns** to x., users can dial the target numbers directly as they normally do.
- **Member Trunks:** Select the SIP trunk that is connected to TE100 to **Selected** box.
- **Member Extensions:** Select extensions to **Selected** box. The selected extensions can make outbound calls through TE100.

c. Click **Save** and **Apply**.

2. Bind extension numbers with DOD numbers.

When the extension calls to an external number, the bound DOD number will be displayed on the called party.

 **Note:** DOD is often used together with DID. In our scenario, we should bind extensions 1001-1003 with DOD numbers 5503301-5503303 respectively.

- On TE100, go to **Gateway**→**Digital Trunk**→**E1/T1**, edit E1 trunk.
- Bind the PBX extensions to DOD numbers.

DOD Settings

Global DOD:

- DOD : 5503301 Associated Account : 1001
- DOD : 5503302 Associated Account : 1002
- DOD : 5503303 Associated Account : 1003

DOD: Associated Account:

- c. Click **Save** and **Apply**.
3. On TE100, create a Route to allow the PBX users make outbound calls through the E1 trunk.
 - a. Go to **Gateway**→**Route Settings**→**IP to Mobile**, click **Add New Route**.
 - b. Configure a "S300 to E1" Route.

New Route

Simple Mode: Yes

Route name: S300_to_E1

Match Incoming Calls:

Call Comes in From: ServiceProvider -- S300

Handle Matched Incoming Calls:

Send Call Through: Trunk -- E1Trunk1

- **Simple Mode:** Select **Yes**.
 - **Route Name:** Set the route name.
 - **Call Source:** Select the SIP trunk that is connected to the S300.
 - **Call Destination:** Select the E1 trunk.
- c. Click **Save** and **Apply Changes**.
4. Make a call to test.
For example, the PBX extension 1001 calls to 1588035242, the user 1588035242 will ring.