

How to configure IAX Connection

Question or Case description

This article explains how to configure an IAX connection between a CoCoS environment and an external PBX system.

An IAX connection allows calls to be exchanged between CoCoS and another telephone system. This makes it possible for intercoms, SIP devices, and other connected endpoints to communicate between both platforms.

Typical situations where this configuration is used:

- An intercom from an external PBX must be reachable from CoCoS
- Calls from CoCoS must be routed to another PBX
- An existing PBX environment must be integrated with CoCoS
- CoCoS call handling features must be made available to another system

Possible symptoms when the connection is not configured correctly:

- Intercom devices are unreachable
- Calls do not arrive
- Calls disconnect immediately
- The trunk registration fails
- Audio communication is not established

Application

This configuration is commonly used when a CoCoS environment needs to communicate with another PBX using the Inter Asterisk eXchange (IAX) protocol.

Examples include:

- Connecting two PBX systems
- Migrating an existing intercom environment to CoCoS
- Integrating external SIP intercom devices

- Connecting multiple locations through IAX

How To

Requirements

Before starting, verify that the following components are available:

- A working CoCoS environment
- A properly configured CoCoS Asterisk/PBX server
- An external PBX with IAX support
- Network connectivity between both systems
- IAX authentication credentials

Step 1 - Prepare the External PBX

First, configure an IAX trunk on the external PBX.

The exact configuration depends on the PBX vendor, but the following settings are typically required:

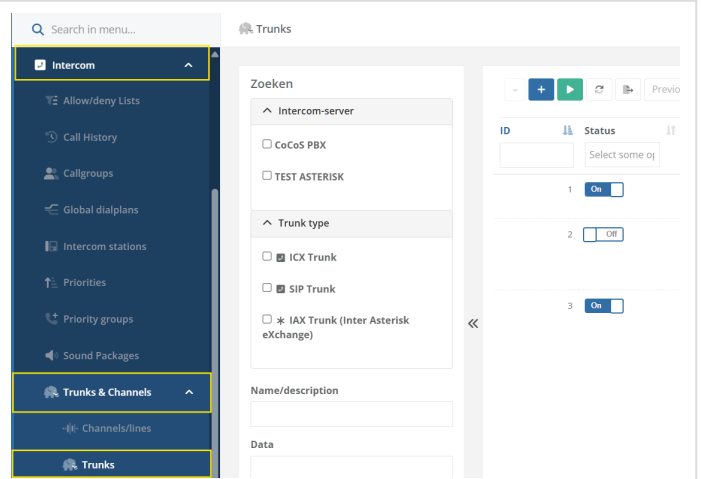
Setting	Value
Username	IAX authentication username
Password	IAX authentication password
Host / IP Address	IP address of the CoCoS environment
Port	4569

Important: The username and password must match exactly on both systems.

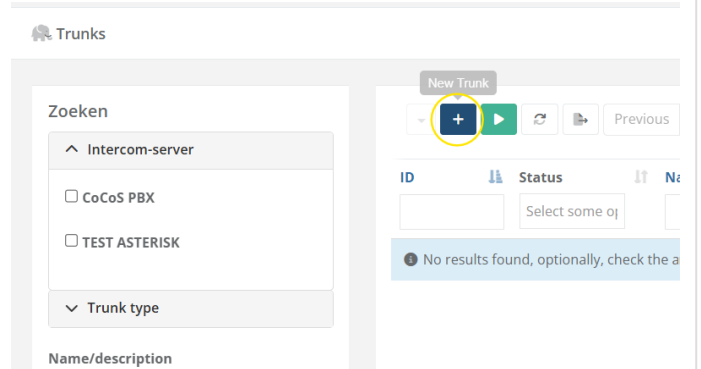
Step 2 - Create a New IAX Trunk in CoCoS

Open the CoCoS Management environment, and navigate to:

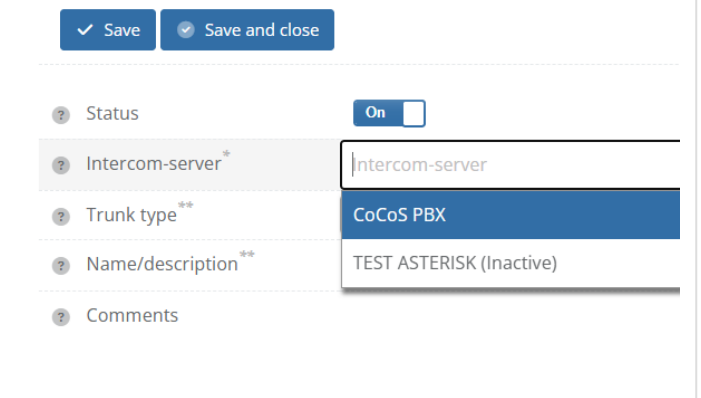
Intercom → Trunks and Channels → Trunks



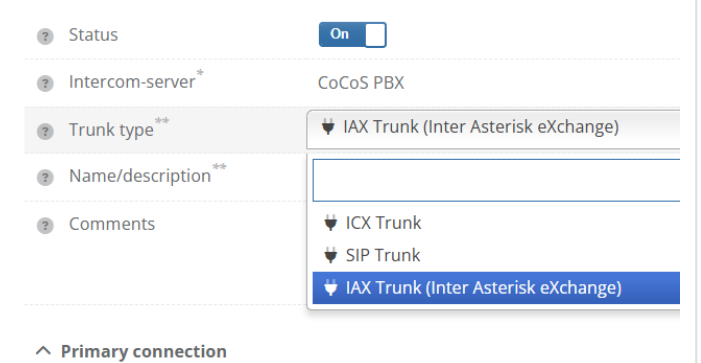
Click the plus icon to create a new trunk.



Select the appropriate Asterisk/PBX server in the **Intercom Server** field.



Select the trunk type: **Inter Asterisk eXchange Trunk**.



<p>Enter a clear and recognizable name in Name / Description.</p>	<div style="border: 1px solid #ccc; padding: 5px;"> <p>? Status On <input type="checkbox"/></p> <hr/> <p>? Intercom-server* CoCoS PBX</p> <hr/> <p>? Trunk type** IAX Trunk (Inter Asterisk eXchange)</p> <hr/> <p>? Name/description** IAX - Name of the location</p> <hr/> <p>? Comments</p> <hr/> <p>^ Primary connection</p> </div>
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Step 3 - Configure the Basic Trunk Settings

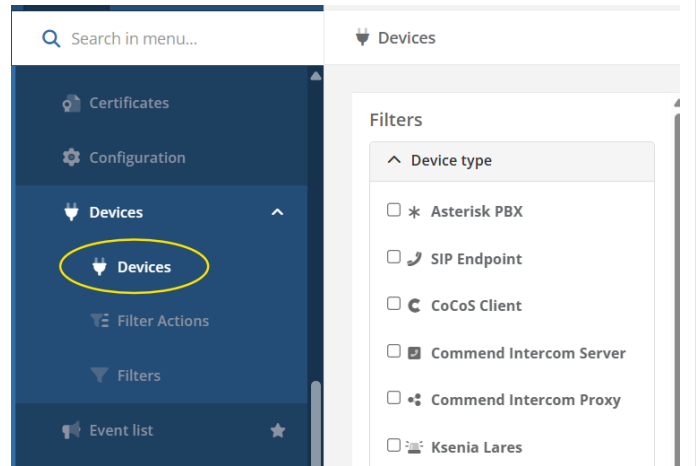
<p>Enable Use Dynamic Host only when a dynamic host configuration is required.</p> <p>Use this when the external PBX is going to connect to CoCoS, which is the case for most use cases currently)</p>	<div style="border: 1px solid #ccc; padding: 5px;"> <p>^ Primary connection</p> <hr/> <p>? Use dynamic host <input checked="" type="checkbox"/></p> <hr/> <p>^ Registration</p> </div>
<p>If not using Dynamic Host:</p> <p>Enter the IP address or domain name of the external PBX in IP Address / Domain, and enter the correct port number. IAX normally uses port 4569.</p>	<div style="border: 1px solid #ccc; padding: 5px;"> <p>^ Primary connection</p> <hr/> <p>? Use dynamic host <input type="checkbox"/></p> <hr/> <p>? IP address/domain 192.168.200.219</p> <hr/> <p>? Port number 4569</p> <hr/> <p>? Network ping possible <input checked="" type="checkbox"/></p> </div>
<p>Enter the IAX username in the Username field.</p>	
<p>Enter the correct password in the Password field.</p>	<div style="border: 1px solid #ccc; padding: 5px;"> <p>^ Registration</p> <hr/> <p>? Username myuser</p> <hr/> <p>? Password</p> <hr/> <p style="text-align: right; background-color: #f96; padding: 2px;">Medium</p> </div>
<p>Click Save and Close to store the trunk configuration.</p>	

Step 4 - Link SIP/Intercom Devices to the Trunk

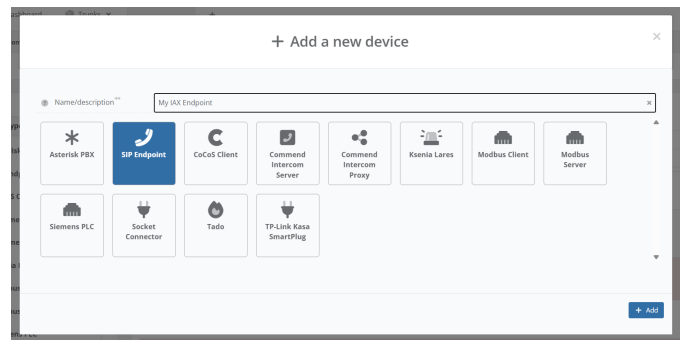
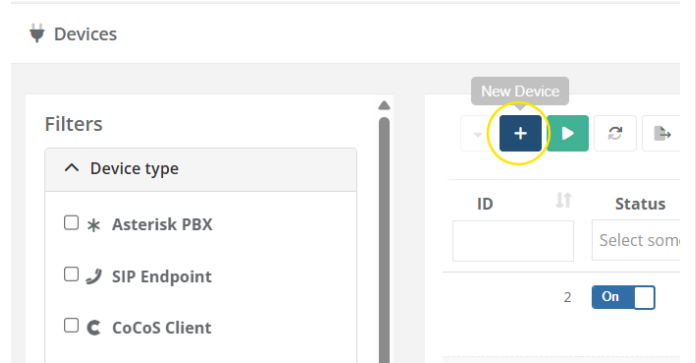
After creating the trunk, the external devices must also be created in CoCoS.

This allows CoCoS to know which calls should be routed through the IAX connection.

Navigate to:
System → Devices



Create a new **SIP endpoint** device.



Enter the **extension number** of the external device.

Save Save and close Save as new

? Status On

? Device type** SIP Endpoint

? Name/description** My IAX Endpoint

? Caller number 1001

Link the device to the previously created IAX trunk.

? (SIP) User ID (SIP) User ID

? Authentication ID CoCoS-FycwG28lWWECx1

? Password Password

? Confirm Password Confirm Password

? Trunk for this device Trunk for this device

IAX - Name of the location

▼ **Connectivity**

(Optional) You may need to change SIP transport protocol to UDP.

^ **Intercom**

? CallQueue enabled for intercom station

? SIP transport protocol Secure (TLS)

? Priority groups -

? Call recording Secure (TLS)

Insecure (UDP)

WebRTC

Off

Disable registration monitoring since there is no registration to monitor.

^ **Advanced**

? Monitor lost and gone Monitor lost and gone for this device

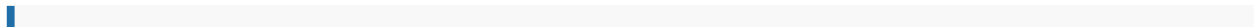
No monitoring

? Start tracing conversations

? Monitor Registration

^ **Maintenance**

Click **Save and Close** to store the device configuration.



Repeat these steps for every device that must be reachable through the IAX connection.

Validation

The configuration is considered successful when:

- The trunk registers successfully
- Both systems can reach each other
- Calls work in both directions
- Audio communication functions correctly
- No authentication or other errors appear in the logs

Test Scenario 1 - External PBX to CoCoS

Test	Expected Result
Call a CoCoS intercom from a device on the external PBX.	The CoCoS intercom rings and a call can be established.

Test Scenario 2 - CoCoS to External PBX

Test	Expected Result
Call a device on the external PBX from a CoCoS intercom.	The external device rings and a call can be established.

Common Causes of Issues

Problem	Likely Cause
Trunk registration fails	Incorrect username or password
No connection possible	Firewall or network restriction
Calls fail immediately	Incorrect IP address or port number
One-way audio	NAT or firewall configuration
Devices unreachable	Endpoint not linked to the trunk

References

Describe where to find external answers or extra information's

Revision #5

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