Speech-to-Text API Integration Guide

Yeastar P-Series Appliance Edition

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Contents

Speech to Text API Integration Overview

Speech to Text, also known as speech recognition, enables transcription of audio messages into texts. Yeastar P-Series PBX System allows you to use a third-party transcription service to implement the audio transcription.

Supported Service Platform

Yeastar P-Series PBX System supports the following third-party transcription service:

> **Note:**
> The **Speech to Text** feature on Yeastar P-Series PBX System is free. However, you will need to pay for the Speech-to-Text service of the third-party platforms.

- **Google Cloud Speech-to-Text API**

  For more information about the integrations, see Integrate Yeastar P-Series PBX System with Google Cloud Speech-to-Text Service.

Applications

After STT integration is set up on the PBX, the speech recognition can be applied to Voicemail Transcription. Users can receive voicemails in the form of text on different platform:

Linkus UC Clients

Users can check the transcribed text for each voicemail on Linkus Web Client, Linkus Desktop Client, and Linkus Mobile Client.

Email Client

If Voicemail to Email feature is enabled, the transcribed text will be displayed in the email content for received voicemails.

Related information

Enable or Disable Voicemail Transcription

Integrate with Speech-to-Text API

Integrate Yeastar P-Series PBX System with Google Cloud Speech-to-Text Service

Before using Voicemail Transcription feature, you need to integrate Yeastar P-Series PBX System with a third-party Speech-to-Text service. This topic describes how to configure the integration of Google Cloud Speech-to-Text (STT) service with Yeastar P-Series PBX System.

Limitations

Audio length: 1 minute

The integration of Yeastar P-Series PBX System with Google Cloud Speech-to-Text service uses the Synchronous Recognition method for speech recognition, which can process up to 1 minute of speech audio data.

Service cost

Google Cloud Speech-to-Text service provides a free amount of 60 minutes per month, you will be charged if the minutes of audio processed per month exceeds the free amount. For more information about the pricing, see Google Cloud Speech-to-Text Pricing.

Prerequisites

- You need to create a Google Cloud billing account.
- Make sure the Yeastar P-Series PBX System can access Google services.
    1. Log in to PBX web portal, go to **Maintenance > Troubleshooting > IP Ping**.
    2. In the **Target Host** field, enter `www.google.com`.
    3. Click **Start**.
    4. Check the **Result** box to see if the packet transmission is normal.

        > ✏️ **Note:**
        > If the PBX can not access Google service, go to **System > Network > Basic Settings** to check and configure the PBX network.

    5. Click **Stop** to stop pinging.

Procedure

1. Get the API key from Google Cloud Platform
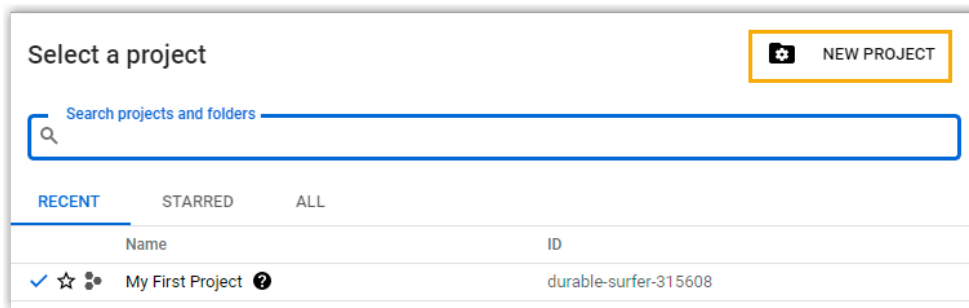2. Enable Speech to Text (STT) integration on Yeastar P-Series PBX System

Get the API key from Google Cloud Platform

Step1. Create a project on Google Cloud Platform

1. Log in to Google Cloud Platform.
2. In the top bar, click **My First Project** to open the project list.

3. On the **Select a project** page, click **NEW PROJECT** in the top-right corner.

4. On the **New Project** page, set a project name, and click **CREATE**.
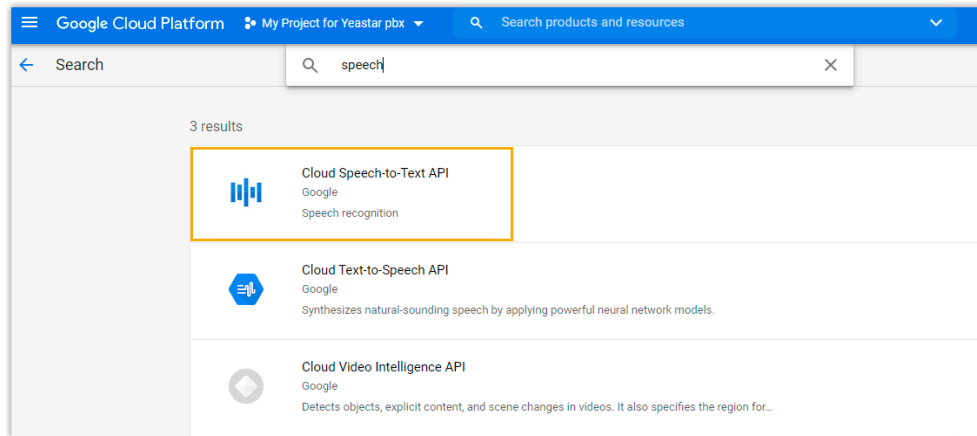
A new project is created, you can select the new project in the project list.

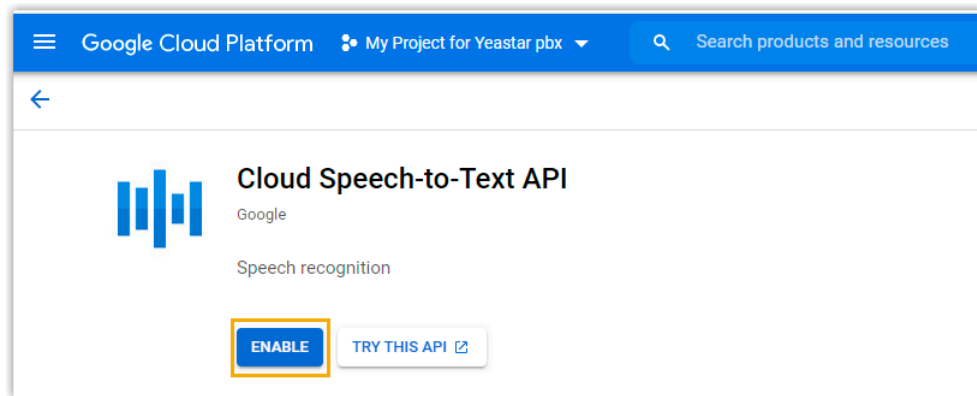**Step2. Enable Speech-to-Text API service on Google Cloud Platform**

1. In the top-left conner, click ☰ to open the navigation menu, and go to **API & Services > Dashboard**.
2. Click **ENABLE APIS AND SERVICES**.
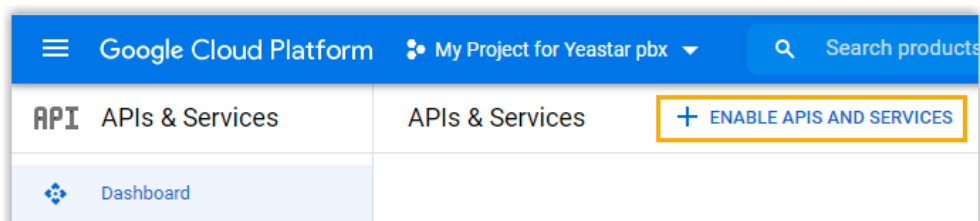
3. In the API Library, enter `speech` in the search box and press `Enter`, then select **Cloud Speech-to-Text API**.
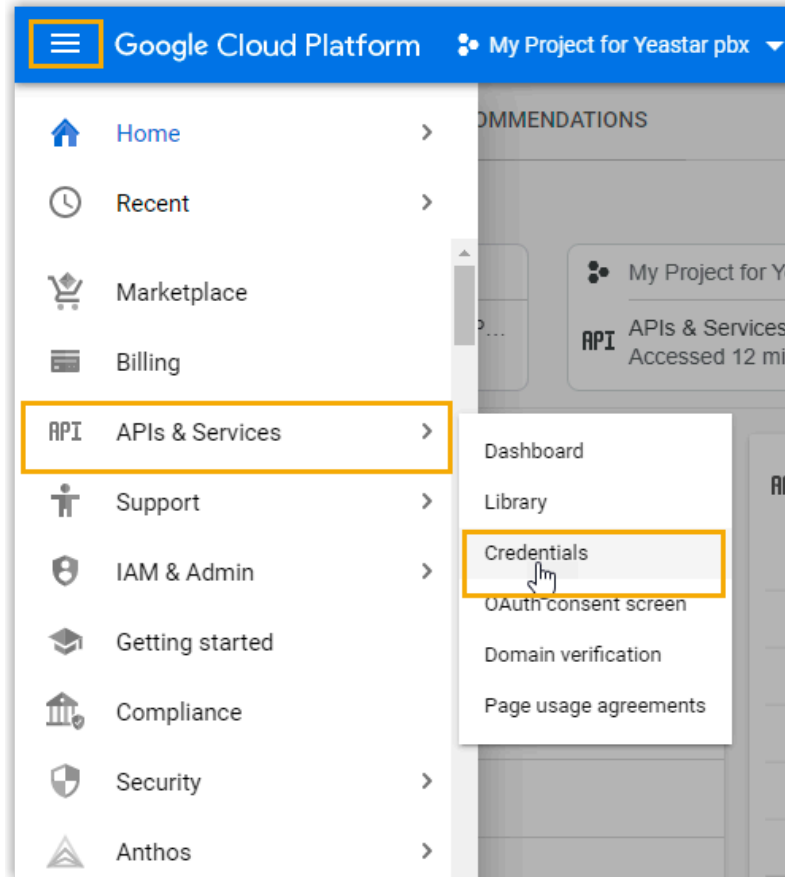
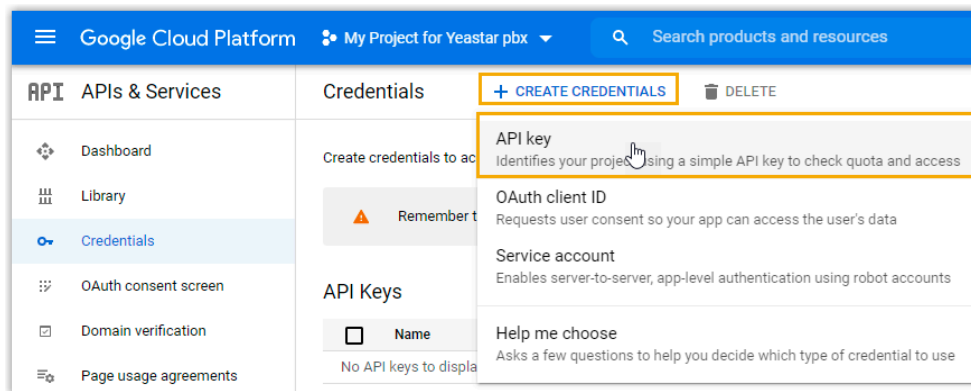4. Click **ENABLE** button for the **Cloud Speech-to-Text API**.

The Speech-to-Text service is enabled.

Step3. Create API credentials on Google Cloud Platform

1. In the left navigation panel, go to **API & Services > Credentials**.

2. Click **CREATE CREDENTIALS** and select **API key**.

3. In the pop-up window, click **Edit API key** to edit and set restrictions for the key.

> ⚠ **Important:**
> For security purpose, you need to restrict your API key, ensuring only authorized requests are made with your API key.

API key created

Use this key in your application by passing it with the `key=API_KEY` parameter.

Your API key

⬚

⚠ This key is unrestricted. To prevent unauthorized use, we recommend restricting where and for which APIs it can be used. Edit API key to add restrictions. Learn more ↗

CLOSE

4. In the **Edit API key** page, complete the following configurations.

   a. In the **Name** field, set a name to help you identify the API key.

   Name *
   API key for Yeastar PBX

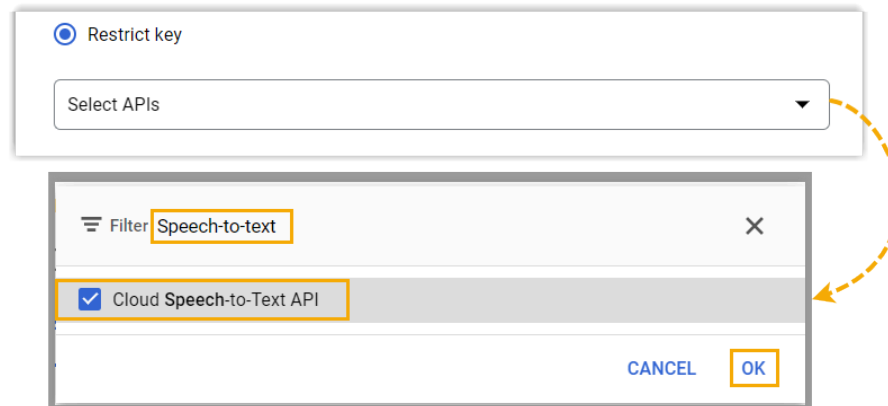   b. In the **API restrictions** section, select **Restrict key**.

   ## API restrictions

   API restrictions specify the enabled APIs that this key can call

   ○ Don't restrict key
   This key can call any API

   ◉ Restrict key

   c. In the **Select APIs** drop-down list, search and select the **Cloud Speech-to-Text API**, then click **OK**.

d. At the bottom of the page, click **SAVE** to apply your configuration.

The API key is now only allowed to call the Cloud Speech-to-Text API.

5. In the **Credentials** page, click **SHOW KEY** beside the restricted API key, then ⧉ in the pop-up window to copy the key.
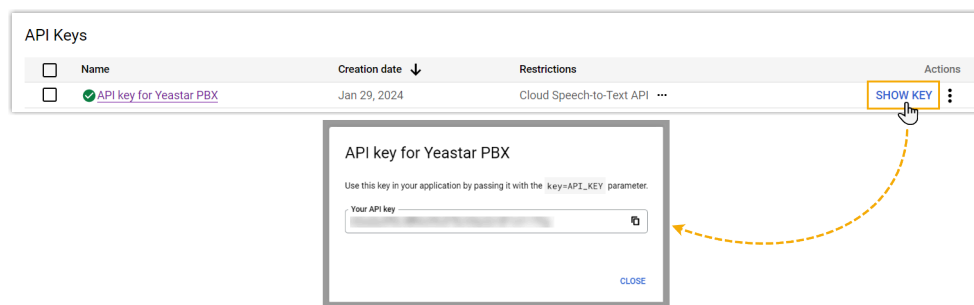
Enable Speech to Text (STT) integration on Yeastar P-Series PBX System

1. Log in to PBX web portal, go to **Integrations > Speech to Text**.
2. In **STT API Integration** section, fill in the required API credentials.
   - **Service**: Select **Google Cloud**.
   - **API Key**: Paste the restricted API key copied in the former procedure.
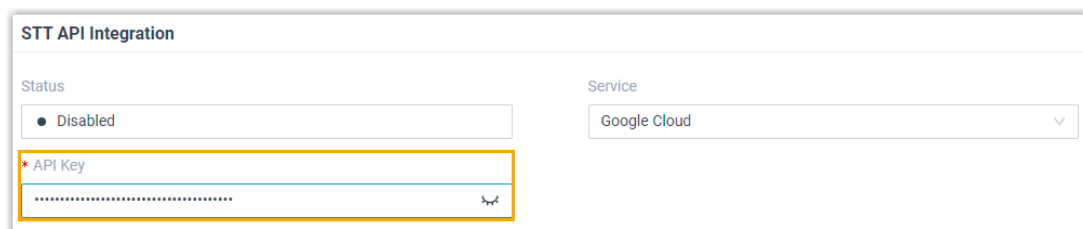
3. In **Settings** section, select the transcription language.

The audio messages will be transcribed to text in the selected language.

> 📝 **Note:**
> If the language of voicemail is different from the selected language, the transcribed text will be inaccurate.

4. Click **Save**.

   If the integration succeeds, the **Status** in the **STT API Integration** section will display **Connected**.

What to do next

After the STT API integration succeeds, go to **Call Features > Voicemail > Voicemail Settings** to enable the Voicemail Transcription feature. For more information, see Enable or Disable Voicemail Transcription.

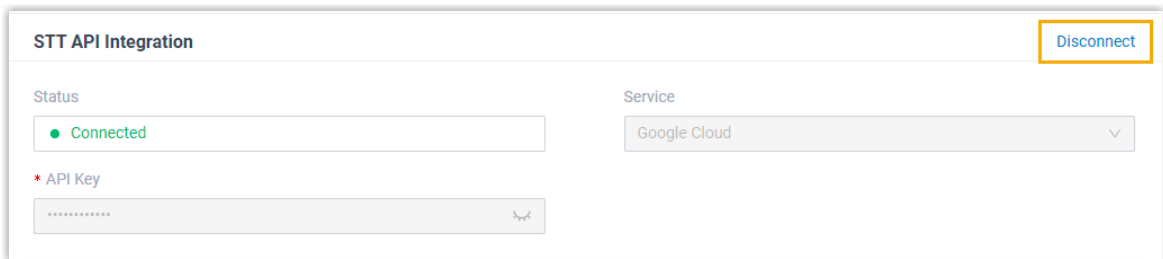**Related information**
Speech to Text API Integration Overview
Disconnect Speech to Text (STT) API Integration

Disconnect Speech to Text (STT) API Integration

After the STT API integration is connected, you can directly disconnect the API service on PBX if you don't need the Speech to Text feature any more, or want to pause the API service.

Procedure

1. Log in to PBX web portal, go to **Integrations > Speech to Text**.
2. In the **STT API Integration** section, click **Disconnect** in the top-right corner.

3. In the pop-up dialog box, click **Confirm** to disconnect the API service.

   The API integration is disconnected, and the **Status** displays **Disabled**.

Result

The Voicemail Transcription feature is unavailable.