



## 5.3 Voice

### Bright Pattern Documentation

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# How to Configure Conversational IVR

In this article, you will learn how to configure conversational IVR for your inbound voice service. Because Bright Pattern's conversational IVR is the front end to a bot, most of the configuration will be done on the bot side (i.e., through Google, GoVivace, or IBM in your workspace), outside of Bright Pattern. This procedure will guide you through the steps to take after you have set up STT and TTS engines through your service provider.

For more information, see the *Contact Center Administrator Guide*, section [What Is Conversational IVR?](#)

## Prerequisites

If you have not already done so, please complete these steps before proceeding:

- Create a [Watson Assistant](#) or [Amazon Lex bot](#)
- Add a [bot/chat suggestions engine integration account](#)
- Download and [import](#) our conversational IVR scenario template: [File:App Conversational IVR Example.zip](#)

## Procedure

### Step 1: Set up a Speech-to-Text engine through your service provider

- **If using IBM Watson:** In IBM Cloud, add Speech-to-Text as a service.
- **If using Google:** Enable Google Cloud Speech API.
- **If using GoVivace:** Enable Speech to Text API.

### Step 2: Add Speech To Text Integration Account

A Speech To Text integration account uses your credentials to connect Bright Pattern Contact Center to a third-party STT engine. Integration accounts are configured in the Contact Center Administrator application.

1. In *Contact Center Administrator* > *Call Center Configuration* > *Integration Accounts*, add a new **Speech to Text** integration account. For property descriptions, see the *Contact Center Administrator Guide*, section [Speech To Text Integration \(STT\)](#).
2. Note that if you do not see Speech to Text as an option when adding a new integration account, that option has not been enabled for your contact center. See your service provider for more information.

### Step 3: Set up a Text-to-Speech engine through your service provider

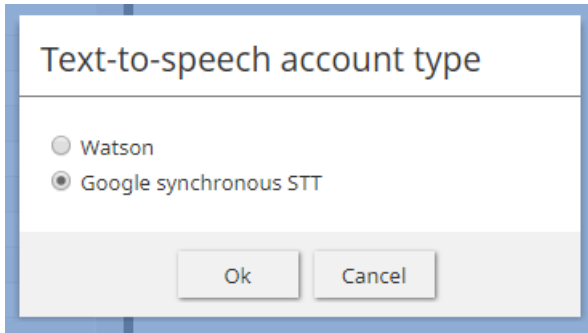
- **If using IBM Watson:** In IBM Cloud, add Speech-to-Text as a service.
- **If using Google:** Enable Google Cloud Speech API.

### Step 4: Add Text To Speech Integration Account

Likewise, a Text to Speech integration account uses your credentials to connect Bright Pattern Contact Center to a third-party TTS engine. TTS integration lets you create voice prompts in numerous supported languages to automate bot responses.

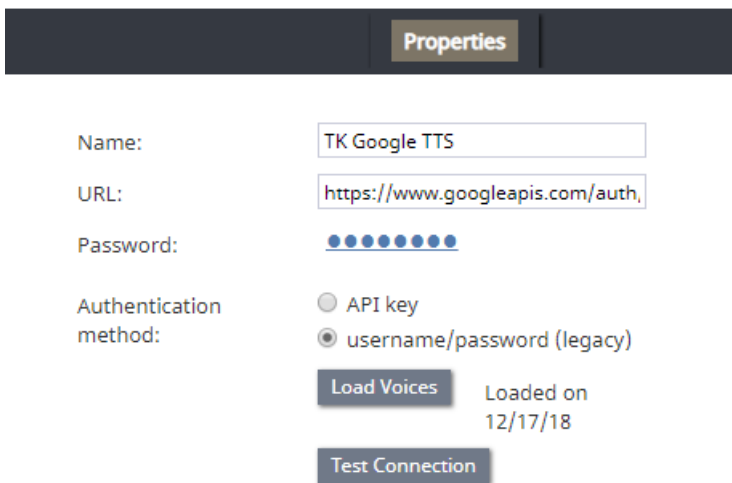
1. In *Contact Center Administrator* > *Call Center Configuration* > *Integration Accounts*, add a new **Text to Speech**

integration account. For property descriptions, see the *Contact Center Administrator Guide*, section [Text To Speech Integration \(TTS\)](#).



Select the type of TTS integration account

2. See the **Load Voices** property. If this is a Google TTS integration account, load voices by completing an additional step in Google. See [How to Load Voices from Google Cloud Text-to-Speech API](#).



Google TTS integration account properties

3. Then click **Load Voices**. This may take a few minutes. When the voices are loaded, a message will display the date they were added: "Loaded on XX/XX/XX."
4. Click **Apply** to save your changes.

## Step 5: Add a Voice Scenario That Includes Play-Listen and Bot Scenario Blocks

The [Play-Listen](#) scenario block is a key part of conversational IVR. This block uses the integrated TTS and STT accounts that you just set up to play voice prompts to the caller and to listen for the caller's response.

[Chat Bot Select Account](#) and [Ask a Bot](#) blocks allow you to choose which integrated bots will be used for interacting with callers.

1. In Contact Center Administrator, go to *Scenarios > Voice* and [import](#) our conversational IVR scenario template: [File:App Conversational IVR Example.zip](#).

2. Work through our scenario-building exercise, [How to Use Conversational IVR in a Scenario](#).
3. Modify the scenario to suit your needs, being sure to select the correct bot and STT account in the scenario blocks.

TK Conversational IVR

The screenshot shows the TK Conversational IVR scenario editor. On the left is a vertical menu of various scenario blocks such as 'Accept', 'Add To Calling List', 'Answer', 'Ask a Bot', 'Attached Data', 'Bright Pattern Create Object', 'Bright Pattern Delete Object', 'Bright Pattern Search Object', 'Bright Pattern Update Object', 'Chat Bot Select Account', 'Collect Digits', 'Comment', 'Connect Call', 'DB Execute', 'Email', 'Exception Handler', 'Exit', 'Fetch URL', 'Find Agent', 'Get Agent State', 'Get Next Record', 'Get Statistics', 'Get user configuration', and 'Goto'. The central area displays a flowchart with several blocks: 'Set Prompt Language "English - United States"', 'Set Variable "Attempts to 0"', 'Chat Bot Select Account', 'Play-Listen "Con\_IVR"', 'DTMF', 'Failed', 'Internal Message', 'Failed', 'Internal Message', 'Failed', 'Ask a Bot', 'Failed', 'Timeout', 'No Data', 'Set Variable "bot\_phrase to \${suggestions[0].msg}"', 'If', 'talking', 'Web screen pop', 'Find Agent', 'No Agents', 'Queue Limit', 'Connect Call', 'No Answer', 'Busy', 'Target Disconnected', 'Transfer failed', and 'Exit'. The right-hand panel is titled 'Play-Listen' and contains configuration options: 'Prompt to play:' with a dropdown set to 'Con\_IVR' and a text field containing '\$(bot\_phrase); Hello, how can I help you?'; 'Transcriber:' with a dropdown set to 'TK Google STT'; 'Recognized phrase:' with a text field set to 'user\_phrase' and a note 'Variable receiving recognized phrase'; 'Confidence:' with a text field set to 'cc' and a note 'Variable receiving confidence'; and 'Max timeout:' with a text field set to '10' and a unit of 'seconds'. At the bottom of the interface are buttons for 'Prompts', 'Save', 'Save As', and 'Cancel'.

Conversational IVR scenario example

## Step 6: Add or Select a Scenario Entry

The scenario entry is the entry point for the caller. For more information, see the Contact Center Administrator Guide, section [Scenario Entries Overview](#).

1. Go to *Scenario Entries > Dial-in* and add a new scenario entry.
2. At the most basic level, add **Name**, **Scenario**, **Service**, **Internal numbers**, **External numbers**, and **Transcribe calls** (if no STT account is configured, this will be greyed out).
3. Click **Apply**.

## You're Done

This completes your conversational IVR configuration. Next, you should try it out by calling your contact center's access number and interacting with the IVR and bot. You can always come back to your scenario and entry point for further editing.

## Recommended Reading

For more information on inbound voice configuration, bots, integrations, and scenarios, see these Bright Pattern tutorials:

- [Inbound Voice Service Configuration](#)
- [AI and Bot Tutorials](#)
- [Integration Accounts](#)
- [Scenario Builder Basics](#)
- [How to Use Conversational IVR in a Scenario](#)

# How to Load Voices from Google Cloud Text-to-Speech API

A Google Text to Speech integration account uses your Google Cloud API credentials to connect Bright Pattern Contact Center to Google's TTS engine. Once configured, integration lets you create voice prompts in numerous supported languages to automate bot responses.

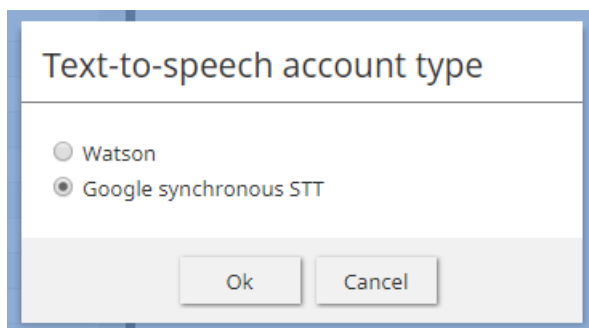
Configuring a such an integration account requires that you not only provide credentials for access, but that you also authorize voices in a specific language on the Google end.

This article describes how to do just that and load voices to your Google Text to Speech integration account.

## Procedure

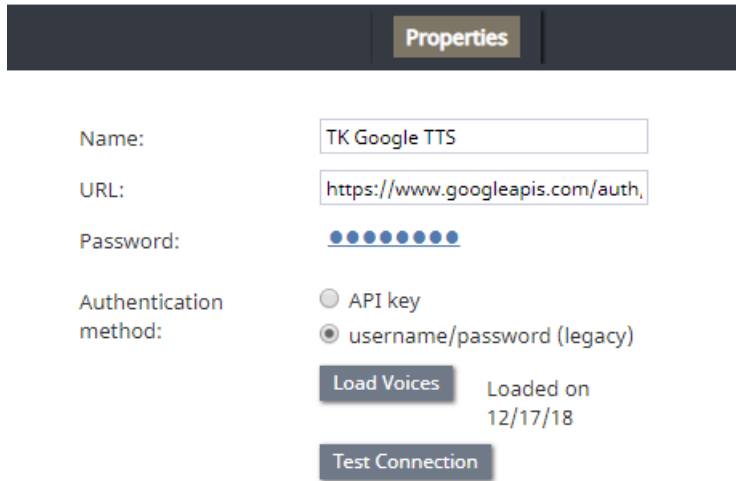
### Step 1: Go to Integration Account Properties in Contact Center Administrator

1. In *Contact Center Administrator* > *Call Center Configuration* > *Integration Accounts*, add a new **Text to Speech** integration account. For property descriptions, see the *Contact Center Administrator Guide*, section [Text To Speech Integration \(TTS\)](#).



Select the type of TTS integration account

2. See the **Load Voices** property.



Properties

Name: TK Google TTS

URL: https://www.googleapis.com/auth,

Password: ●●●●●●●●

Authentication method:  API key  username/password (legacy)

Load Voices Loaded on 12/17/18

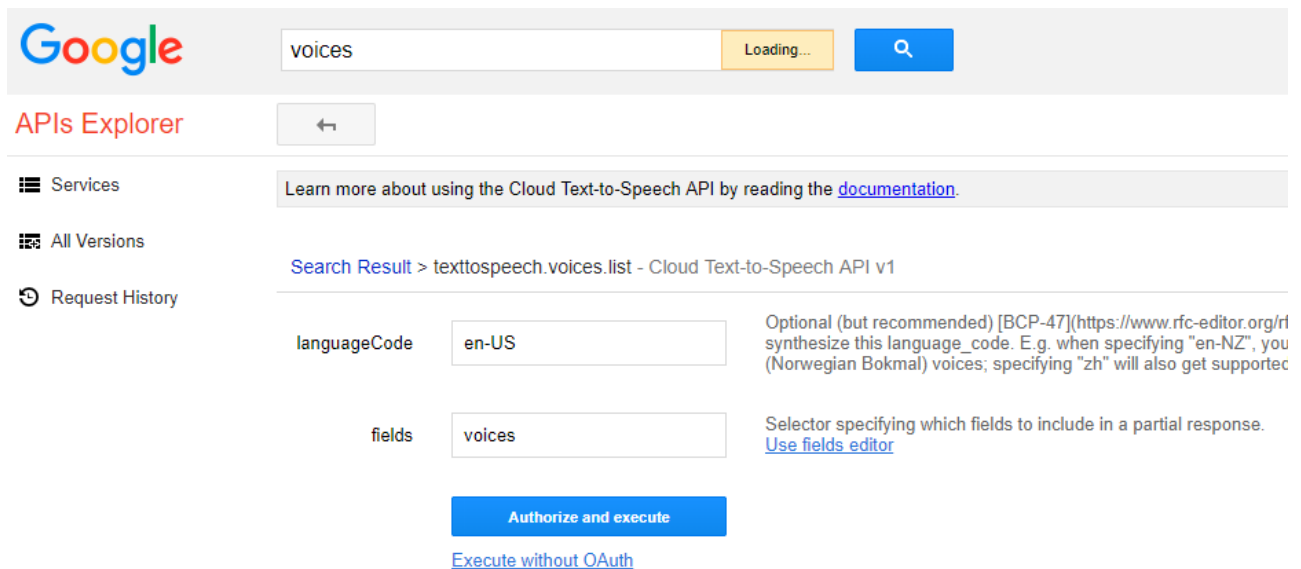
Test Connection

Google TTS integration account properties

3. To get the list of voices to appear, you need to go into Google Explorer and authorize a list in a specific language to be used.

## Step 2: Authorize in Google

1. Go to [https://developers.google.com/apis-explorer/?hl=en\\_US#search/voices/m/texttospeech/v1/texttospeech.voices.list](https://developers.google.com/apis-explorer/?hl=en_US#search/voices/m/texttospeech/v1/texttospeech.voices.list)
2. In `languageCode`, enter the language code (e.g., "en-US")



Google

voices Loading... 🔍

APIs Explorer

Services Learn more about using the Cloud Text-to-Speech API by reading the [documentation](#).

All Versions

Request History

Search Result > texttospeech.voices.list - Cloud Text-to-Speech API v1

languageCode en-US Optional (but recommended) [BCP-47](https://www.rfc-editor.org/rfc) to synthesize this language\_code. E.g. when specifying "en-NZ", you (Norwegian Bokmal) voices; specifying "zh" will also get supported.

fields voices Selector specifying which fields to include in a partial response. [Use fields editor](#)

Authorize and execute

[Execute without OAuth](#)

Enter language code

3. In **fields**, enter "voices"

4. Click **Authorize and execute**

**Select OAuth 2.0 scopes:**

Scopes are used to grant an application different levels of access to data on behalf of the end user. Each API may declare one or more scopes. [Learn more about OAuth 2.0](#)

Cloud Text-to-Speech API declares the following scopes. Select which ones you want to grant to APIs Explorer.

<https://www.googleapis.com/auth/cloud-platform>  
*View and manage your data across Google Cloud Platform services*

Add additional scopes (optional):

**Authorize and execute** Cancel

Authorize it

5. In the **Select OAuth 2.0 Scopes** dialog, select the checkbox for the scope to use

6. Click **Authorize and execute** (again)

7. In the next dialog, allow access to your Google account

8. This initiates the request (GET list in languageCode) and returns the response code and list (JSON)



Google

voices Loading... 🔍

APIs Explorer

Services Learn more about using the Cloud Text-to-Speech API by reading the [documentation](#).

All Versions

Request History

Search Result > texttospeech.voices.list - Cloud Text-to-Speech API v1

languageCode en-US Optional (but recommended) [BCP-47](https://www.rfc-editor.org/rfc/bcp/bcp47.txt) language tag. If specified, the ListVoices call will only return voices that match the specified language; when specifying "no", you will get supported "no-" (Norwegian) and "nb-" (Norwegian Bokmal) voices; specifying "zh" will also get supported "zh-" voices.

fields voices Selector specifying which fields to include in a partial response. [Use fields editor](#)

Execute

texttospeech.voices.list executed 3 minutes ago time to execute: 538 ms

Request

```
GET https://texttospeech.googleapis.com/v1/voices?languageCode=en-US&fields=voices&key={YOUR_API_KEY}
```

Response

```
200
- Show headers -
--{
  "voices": [
    --{
      "languageCodes": [
        "en-AU"
      ],
      "name": "en-AU-Wavenet-A",
      "ssmlGender": "FEMALE",
      "naturalSampleRateHertz": 24000
    },
    --{
      "languageCodes": [
        "en-AU"
      ],
      "name": "en-AU-Wavenet-B",
      "ssmlGender": "MALE",
      "naturalSampleRateHertz": 24000
    },
    --{
      "languageCodes": [
        "en-AU"
      ]
    }
  ]
}
```

JSON response

### Step 3: Load Voices

1. In Contact Center Administrator, go back to your TTS integration account properties and click **Load Voices**. This may take a few minutes. When the voices are loaded, a message will display the date they were added: "Loaded on XX/XX/XX."
2. Click **Apply** to save your changes.