

WebVoice

powered by  cataleya

Communication APIs for Voice Application Enablement

Powerful toolset for building elegant voice solutions

Building elegant business solutions with **Voice API**

Businesses need a powerful toolset to be able to leverage the benefits of voice-enabling their applications – like delivering dynamically scripted messages as a Voice OTP or an announcement across different languages. Voice-based Two-Factor authentication (2FA) continues to be on popular demand owing to its reliability and ease of use, augmenting other communication methods used by businesses for customer verification. With such a toolset offering call-control and diagnostic APIs, businesses can deliver context-based, personalized voice messages to their customers, improve the effectiveness of a campaign, and an operator can improve reliability of their voice solution offering.

Cataleya's Orchid WebVoice provides such a solution through its communication APIs - to make & receive calls, convert text to speech, generate announcements and enable other communications services in combination with our programmable services engine. Innovative services can be developed and deployed quickly by businesses. Operators can manage services effectively using integrated diagnostic tools like always-on tracing, call verification and QoS analytics.

SOLUTION IN BRIEF

Key Features

- Text2Speech API
- Bulk Announcement API
- Call Insights API
- Call notification & webhooks

Characteristics

- Enables 3rd party application development using composite APIs
- Rapid solution development and time-to-market
- Delivered in the form of Service Building Blocks
- Supports on-the-fly programmability
- Can be combined with other Services to form Service function chain

Multiple use cases

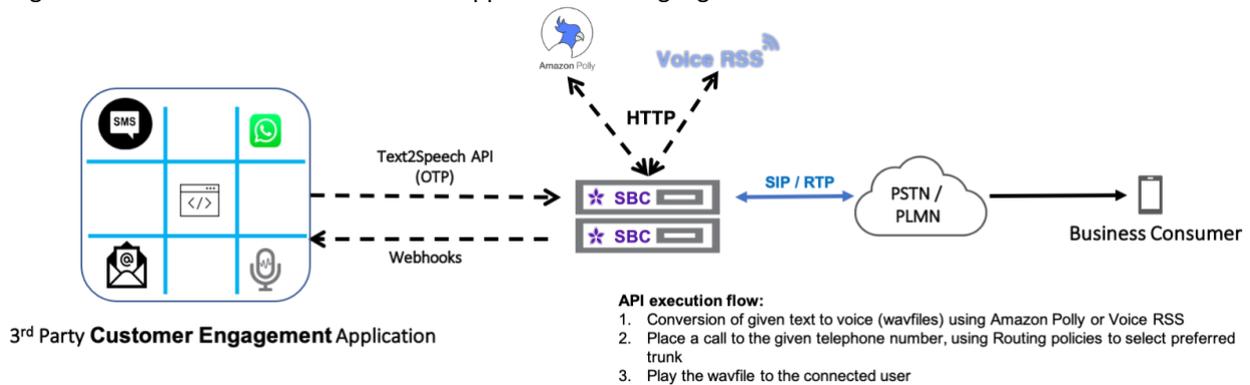
- Voice-based 2FA
- Voice-based Marketing
- Personalized customer service, Customer eXperience Enhancements
- Number verification / Fraud detection
- Carrier Trunk validation

Use Cases

Cataleya’s Webvoice is a toolset for creating powerful applications as it combines the programmability of APIs with the service building blocks. This results in a set of composite service APIs that execute an entire service flow in a single invocation of an API. For example, the Text2Speech API takes a text string and a telephone number as input, converts text into a voice announcement, places a call to the given telephone number (by choosing a routing policy to select the preferred outgoing trunk), and plays the announcement to the connected user. This encapsulates complex functionality and provides a simple API to the application user, thereby enabling rapid development of new voice applications.

Following are a few of the services currently enabled through the WebVoice interface:

Text2Speech (TTS) – API interface to convert text into speech, make and route voice calls on an operator network. Operator can bring their own TTS conversion module to support various languages and controls.



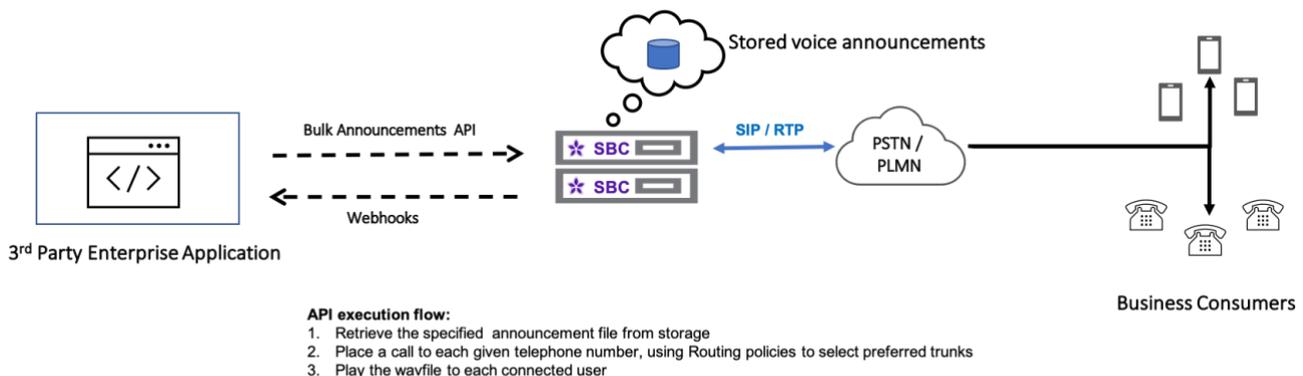
Amazon Polly or VoiceRSS cloud engine can be used for TTS conversion to convert a given text (in many languages) to speech using natural voice. These tools are pre-integrated with Orchid. Orchid can also integrate other TTS tools if required.

This serves business use cases like delivering a Voice-based One-Time Password (OTP) to a customer in a Two-Factor Authentication (2FA) scenario.

Bulk Announcement / Call Campaign - API interface to generate voice call campaigns by using bulk numbers. This simple API is similar to the TTS API but takes a list of telephone numbers to place multiple calls and play a given announcement. The service uses routing policies to place outgoing calls through the preferred trunks and plays the selected announcement file from the storage to each connected user.

Combined with call control APIs the application can query the status of any of these calls and can choose to disconnect the call to any specific customer through the course of the announcement call.

This allows an enterprise application to create bulk outgoing marketing campaigns or improve customer experience by sending out useful announcements to thousands of their customers with the invocation of a single API.



Call Insights API – To make an outbound call to a selected carrier and verify the numbers, call quality and get other insights. Relay real time call control events such as call start, ringing, answer and disconnect events for fraud management system. Includes webhooks to disconnect call at various stages.

The API user is allowed to choose the carrier to terminate the call, enable tracing to capture media and signaling for further analysis. System will identify and isolate billing events generated by these users into separate billable records for each of the API account and record reasons for the call, stages and outcomes along with other custom input data. This service is designed to include normal call processing flow and executes internal logic such as routing policy / LCR rules execution for route analysis, number manipulation rules, SAF validation and perform various call processing activities and hence certify processing capabilities of a configured carrier trunk.

Below are few use cases for the service:

- Number verification to identify telecom fraud such as unassigned A-number, machine answered call to detect false answer, detect sim-box calls etc.
- Carrier trunk certification for call handing, protocol validation
- Voice QoS measurements
- Service Verification - Internal configuration and processing logic validation
- Dynamic Tracing for troubleshooting

What makes WebVoice special is that it is offered as a part of Orchid's Service Management Framework, which is a programmable services engine used to define service logic using pre-defined Service-Independent Building Blocks (SBB). Using this, the complete service flow can be 'programmed' with a tool that allows drag-and-drop of select SBBs to build a flowchart of service logic. A part of the application / business logic implemented as service flow logic on the Orchid has many advantages, including quicker time-to-market for new business applications, and lower risk of programming errors and bugs.

And there's more!

A sophisticated Policy Engine facilitates creation of flexible and efficient Service policies that invoke the services. Each of these services may use several communication protocols like ENUM, HTTP, Diameter, and RADIUS (to name a few). Service Policies can be built to trigger these services based on complex criteria, but with minimal effort.

The WebVoice-based service can be combined with other services by way of forming a service function chain – for example, a voice message delivered to a mobile phone number that has been ported could be delivered correctly by using an NP lookup service prior to routing the call.

This on-the-fly programmability combined with policy-driven service control makes it both powerful and unique.

For more information, contact us at info@cataleya.com



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