



publicVoiceXML Basic Description

publicVoiceXML is an open source toolkit for developing voice services. Using the VoiceXML 2.0 standard, phone based applications can be easily built and connected to web or database services.

The publicVoiceXML toolkit provides the following human interaction:

- Output of audio files and synthesized speech (text-to-speech).
- Recognition of spoken and DTMF input.
- Control of telephony features such as call transfer and disconnect.
- Direction of the call flow based on user input

Executable Component

This component has following modules.

- publicVoiceXML Audio Module uses wave API to play audio on the lines. Different types of audio files can be played using this module.
- VoiceXML Interpreter is VXML interpreter which conforms to W3C VXML specification 2.0. This runs as a separate thread and interacts with input output controllers using call back function mechanism. Many simultaneous VXML files can be parsed at the same time.
- TTS Module: Any Text to Speech (TTS) Engine can be hooked to this module so that the text can be converted to some audible file format. The converted audio file is used by publicVoiceXML Wave/Audio module to play over the lines.
- VoiceXML Interpreter Call back function is used by VoiceXML Interpreter to send notifications output controller thread. During parsing of the VXML file, when VoiceXML interpreter needs to interact with line then it sends the notifications to output controller.
- HTTP Clients Handler is used by controller to communicate bi directionally with the web component. Controller sends HTTP request to the web component and receive the VXML for further processing using this module.
- Speech Recognition is used to recognize the speech from recorded audio and controller takes further action based on it.

Web Component

This component has following modules.

- Document Server comprises of the web server and web server scripts or vxml documents lying on it which generate static or dynamic vxml scripts depending upon the http request using database if needed for dynamic information generation.
- Data Access Layer (DAL) is used by worker for interacting with the database and gives the database access as an abstraction to the worker.

