ReadSpeaker

pioneering voice technology

ReadSpeaker® speechServer MRCP

ReadSpeaker speechServer MRCP (Media Resource Control Protocol) allows you to make text-to-speech technology available in your MRCP server-based client application. It is a complete, standards-based TTS solution for IVR systems, which provides synthetic speech capability based on MRCPv2 or UniMRCP and enables flawless dynamic multithreaded speech sessions.

Product Description

With ReadSpeaker speechServer MRCP, you can effortlessly integrate ReadSpeaker TTS voices in your MRCP-based architecture and run your voice services efficiently, including managing multi-threaded, multiple voice TTS requests for IVR systems.

Once ReadSpeaker speechServer MRCP is integrated, your application can interact with it to deploy text to speech in telephony applications including call centres, CRM, news and email reading and other self-service applications.

Features

Leading synthetic speech for superior customer experience

ReadSpeaker's text-to-speech voices are extremely accurate, clear and natural, designed to deliver the highest quality sound and exceptional performance every time and are continually optimized.

100+ voices in 30+ languages available

New voices are being developed all the time. Presently, ReadSpeaker has TTS voices in 30+ languages and 100+ voices available. For a complete list of available languages go to [our languages web page](#).

Modifiable speaking rate, pitch, and volume (DSP)

The speaking rate, pitch, and volume can be configured as desired.

Voice/language switch

Switching to another language or to another speaking voice in the same language during the conversion from text to speech in response to SSML code in the input text is supported.

User dictionary, IPA supported

The voice specific files included in speechServer MRCP for each licensed language include a dictionary file, the user dictionary, in which the customer can customize the pronunciation of words or sequences of words in a specific way to increase the quality of the reading. The user can create multiple user dictionaries per language if required. The user dictionaries accept IPA input.

Audio clip insertion supported

speechServer MRCP allows for (links to) audio clips (files) to be inserted in the text input so that the audio from the clip will be inserted in the correct place within the synthesized speech in the output audio streamed back to the client application.

Admin tool

speechServer MRCP comes with a powerful administration tool which makes it easy to operate and monitor and includes:

- Service status monitoring
- Service start & stop
- Usage statistics
- Log viewer
- Configurations setup

Mark information creation for event notification

speechServer MRCP allows for mark information to be created in addition to the audio output. Mark information allows creating events when a specific location in a text is read. This can be used to support running a device in sync with the audio output or to offer synchronized highlighting of the text during reading.

Technical Specifications

Supported MRCPs

- IETF MRCP v2 (Media Resource Control Protocol, draft-ietf-speechsc-mrcpv2-21)

Supported Operating Systems

- Windows : Server 2012, 2016, 2019
- Linux : CentOS 7.x / 8.x, Ubuntu 18.x, RHEL 7.x / 8.x

CPU

Intel x86/64 1 GHz or higher

If DNN HQ Micro voices are used: 64 bit CPU is required plus support for the AVX instruction set

RAM

4 GB or more is recommended

Voice footprint

80 ~ 600 MB per voice created with unit selection synthesis (USS)

7 MB ~ 32 MB per voice created with DNN HQ Micro technology

Runtime memory

- 100 MB for basic load
- 35 MB per voice
- 2 ~ 90 MB per channel

Supported input formats

- Plain text
- SSML

Supported character encoding for text input

- UTF8 (all voices)

Supported audio formats

- 8 KHz 8-bit A-law PCM
- 8 KHz 8-bit μ-law PCM

TCP/IP protocol

speechServer MRCP supports the use of TCP/IP protocol for communication between the server application and the TTS engine/speechServer MRCP.

Command line interface

speechServer MRCP allows the server application to communicate with the TTS engine/speechServer MRCP through a command line tool, supporting only the server start, stop, and version check commands.

Voice/language switch

Switching to another language or to another speaking voice in the same language can be realized through SSML commands.

Simple implementation

ReadSpeaker speechServer MRCP is easy to install using the speechServer MRCP installer. Any ReadSpeaker voice can be licensed, installed and used in speechServer MRCP at any time.

Installation and integration support

ReadSpeaker speechServer MRCP includes installation and implementation support by our Support Team, who will assist the customer wherever necessary in understanding and carrying out the installation of the speechServer MRCP following the instructions provided as well as the implementation necessary on the client application to communicate with speechServer MRCP.

Configuration settings

The use of a configuration file is supported in which the user can set the default value for certain parameters, including:

- SIP port number
- MRCP v2 port number
- RTPPortRange
- sentence pause time
- comma pause time
- speaking rate
- pitch
- volume
- the default user dictionary to use

License file required

The license file is a part of the product and technically enforces elements of the required license agreement which governs the use of ReadSpeaker speechServer MRCP. This license agreement determines which voices are licensed and the context within which the product may be used, usually the name and a description of the server application that will be speech-enabled. It also specifies how many concurrent TTS ports are licensed, the synthesis speed rate for text-to-speech conversion, and the number of servers licensed.).

Product Components

ReadSpeaker speechServer MRCP

TCP/IP network-based speech synthesis service program

ReadSpeaker TTS Engine

The ReadSpeaker TTS Engine includes the voice database and a pronunciation dictionary for each licensed language/voice. The voice database(s) contain audio fragments which are used by the TTS Engine for voice synthesis. The TTS engine is called upon by speechServer MRCP to convert text to voice.

User dictionary tool

Allows the user to create one or more user dictionaries for each licensed language to customize the pronunciation The user dictionary files are used by the TTS Engine for the voice synthesis.

Administration tool

User documentation

Includes a user manual for installation and integration and an SSML user manual.

Requirements and Limitations

Scope of use

ReadSpeaker speechServer MRCP may only be used within the context and with the restrictions, such as number of ports, described in the license agreement.

Admin tool

The admin tool will only function on Linux machines with Apache web server and xinetd super-server daemon installed and on Windows machines with IIS web server.

Voice/language switch

At present not all possible voice/language switch combinations are supported. Please contact your account manager to determine whether the combination of voices/languages you would want to use is supported.

Intended Use

Customers may only use ReadSpeaker speechServer MRCP in accordance with this product specification and the separate required license agreement.
Any other use of ReadSpeaker speechServer MRCP is not considered intended use.

Certified product/compliance

Certified as fully compliant with Avaya Inc.'s Experience Portal 7.x.
Avaya is Worldwide Leader in Contact Center, Unified Communications and Cloud Business Solutions.

Certified as fully compliant with the Cisco Virtualized Voice Browser (CVVB).

Also experience in use in conjunction with Genesys GVP 7.8.

Disclaimer

Features listed in this document are guaranteed only if ReadSpeaker speechServer MRCP has been implemented according to our implementation instructions. Specifications and features as described in this product specification can be changed by the manufacturer without prior notice.