Comstice

Comstice IVR ASR TTS

Data Sheet



Why Comstice IVR ASR TTS

Comstice offers an on-premises solution to implement speech to text and text to speech features into your Avaya and Cisco contact centers. Using MRCP protocol, we can implement speech to text and text to speech for many languages.

Comstice also provides SOC2, ISO 27001 and HIPAA-certified Comstice Orbit Cloud, if you prefer Comstice-Hosted solution.

On-Premises

ASR and TTS models can be hosted on-premises for maximum data privacy. You don't need to migrate to a shared cloud service for ASR and TTS.

Wide Range of Language Support

For both ASR and TTS, we have a wide selection of language options. Comstice can provide a PoC phone number for testing your language.

Train Your Own Language Dialect

For TTS, you can also train your own language and dialect. Comstice will help you to create your own TTS model.

AI Voice Assistant

If you are looking for more AI intelligence, Comstice offers AI Voice Assistant that runs on your network or in the cloud and provides three levels of intelligence.

Text to Speech:

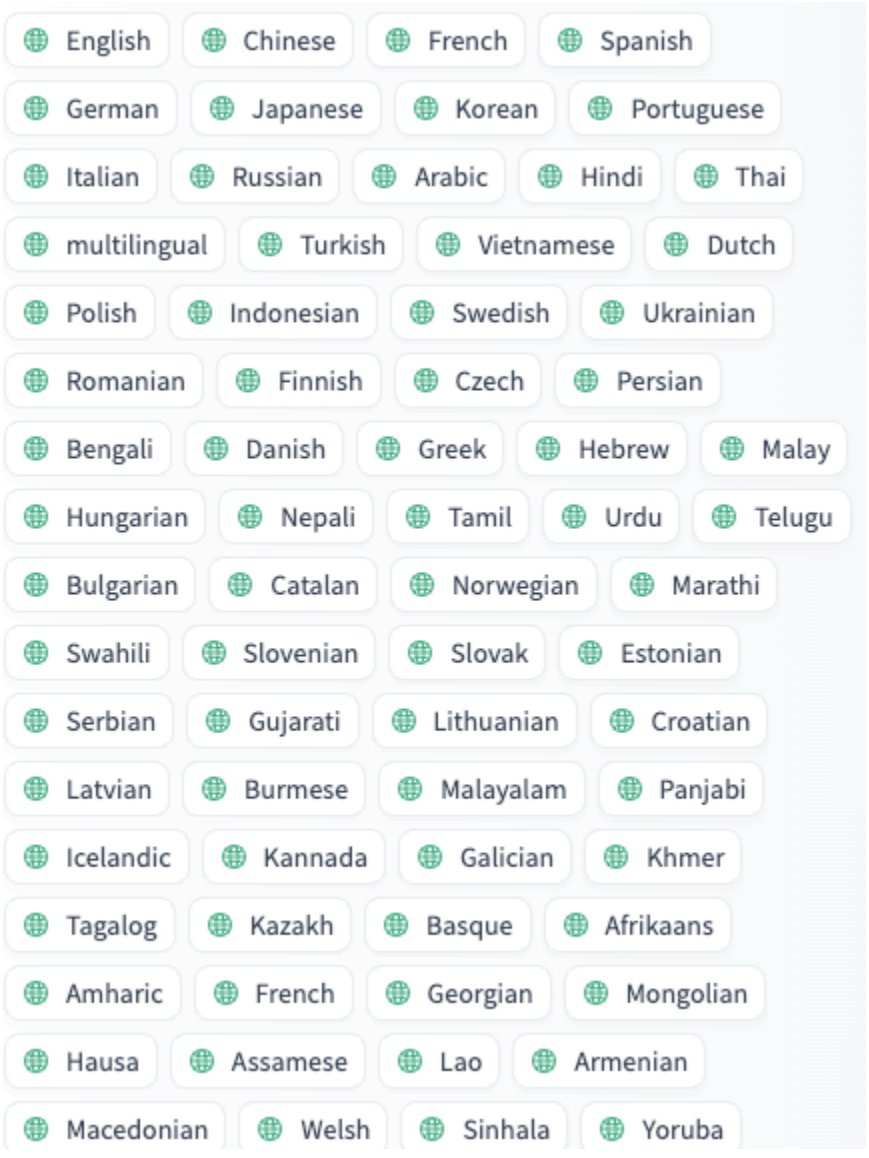
For TTS, we have a lot of freedom. We can train any language or dialect using offline AI Tools provided by Comstice. This means you can have your own dialect in English, French, Arabic or any other language. The procedure is as follows;

1. We discuss and document your TTS scope; subjects, client names if you are planning to call your clients and pronounce their names, whether it is a specialist conversation such as medical terminology used to invite patients to schedule their visits etc.
2. Based on the scope, Comstice creates a text script for reading and recording by a talent.
3. Either a Comstice talent or talent provided by the client reads and records the speech. Recordings are usually between 30min to three hours. It can be recorded in small, shorter chunks.
4. Using offline AI tools, without sharing your recordings with any AI service, Comstice creates your TTS model. This can be done on your network as well for full data privacy.
5. New model is implemented using MRCP features for Cisco contact centers;
   - Click here to learn about configuring ASR and TTS on Cisco UCCX.
   - Click here to learn about configuring ASR and TTS on Cisco CVP for UCCE and PCCE.

Automated Speech Recognition

One of the benefits of the AI boom is that there are many open source language models made available for different languages. Depending on the complexity of the conversations, and the terminology required, we can select one of the available open source models, train it for your business use case and run offline, on your network with no additional cost. Comstice provides the model training, runtime environment and MRCP support for the ASR model selected. Comstice has a test number that you can call, select the language you prefer and test ASR. Click here to request access.

Once ASR and TTS models are integrated, you can add the text on your Cisco UCCX IVR scripts and Cisco UCCE/CVP scripts.



IVR Integration using MRCP

Comstice ASR and TTS models will be integrated into your existing IVR using MRCP v1 and MRCP v2 protocols.

Here are some commonly used IVR models and integration tutorials;

Avaya Experience Portal MRCP Integration

https://comstice.com/blog/post/avaya-aaep-ivr-asr-tts-mrcp

Avaya Voice Portal MRCP Integration

https://comstice.com/blog/post/avaya-avp-ivr-asr-tts-mrcp

Avaya Interactive Response MRCP Integration

https://comstice.com/blog/post/avaya-ivr-asr-tts-mrcp

Cisco UCCX Integration

https://comstice.com/blog/post/cisco-uccx-ivr-asr-tts-mrcp

Cisco VVB / CVP / UCCE / PCCE Integration

https://comstice.com/blog/post/cisco-ucce-ivr-asr-tts-mrcp

AI Voice Assistant

If you are looking for more AI experience, Comstice offers AI Voice Assistant that runs on your network or in the cloud and provides three levels of intelligence;

1. Level 1 is simple comamnds like "Connect me to Finance", "Business Credit Cards" etc. There is no intelligence, it helps to avoid Press 1, Press 2 menu options.
2. Level 2 is pre-populated questions and answers; What is my current balance? When is my renewal due? Where is my parcel? It helps to create self-service support without running a comprehensive language model for intelligence.
3. Level 3 is the true assistant mode where we can train or fine tune a model for your specific business needs such as IT Helpesk support voice assistant or dishwasher support helpline. In this use case, users can ask comprehensive questions and may have detailed conversations with AI Voice Assistant. For example;
   - Our dishwasher is not cleaning well on the top shelf. What should I check?
   - This often happens due to blocked water propeller or the water connection between the pipe at the back of the shelf and the water source at the back wall of the dishwasher. Make sure that they are aligning as expected. Also clear the filter at the bottom, add more dishwasher salt and run an empty round.
   - OK tried that but still not...

Level 3 AI Voice Assistant is often used to provide support on the phone instead of going through lots of support articles or Youtube videos. In the above example, the alternative is to call for a service repair which takes time and costs more. Therefore, customers tolerate the glitches on the AI Voice Assistant and they are more patient. Because it is a better option than the alternative.

Talking is always easier than typing and you can create such service without sharing your data with the third-parties.

On-Premises AI Voice Assistant

Comstice AI Voice Assistant creates conversational AI use cases at scale and integrate with your customer service call flows. It helps different departments to create their own use cases separately and runs offline for maximum data privacy.

Use Cases:

Comstice AI Voice Assistant helps in the following areas;

- Questions to customer knowledge base, product helplines, self deployment assistance
- User guidance with question and answers and specific use cases
- Technical assistance, troubleshooting, diagnostics
- Updates on reservations, schedules, appointments
- Out of hours help on certain tasks
- Technical and engineering help on products and solutions

Features

Comstice AI Voice Assistant solution;

- can work standalone on your network, with speech recognition and text to speech for multiple languages and dialects.
- with **built-in call recording**, we can analyze and optimize the performance of the natural voice conversations.
- can integrate with the AI agents created by Comstice for your use cases
- an integrate with LiveKit AI agents created by your team using LiveKit Agent Builder
- integrates with any SIP-Supported telephony service such as Avaya Session Manager, Cisco CUCM as well as the cloud solutions such as Five9, Nice InContact and, Genesys Cloud.
- Using the questions and queries collected from AI Voice Assistant, we can find out about the new features, common issues, features that are confusing to the user and improve our products and solutions.

AI Voice Assistant as a Service

Comstice AI Voice Assistant is also available as a service in the cloud. It can integrate with your on-premises or cloud telephony and provides the framework for the AI self service use cases

On-Site LLM vs Cloud LLM:

You can use on-site LLM resources if your use cases are at the Layer 3 of the AI Voice Assistant scenarios where the conversations are long and the context must be preserved during the call.

We can use locally-hosted GPU resources or the services such as Amazon Bedrock and RunPod GPU services.

Speech to Text (STT) and Text To Speech (TTS)

Comstice offers on-premises STT and TTS services that you can run fully offline. Depending on the languages and accents, we can also hook into STT and TTS services which may offer a wider variety of languages and regional dialects

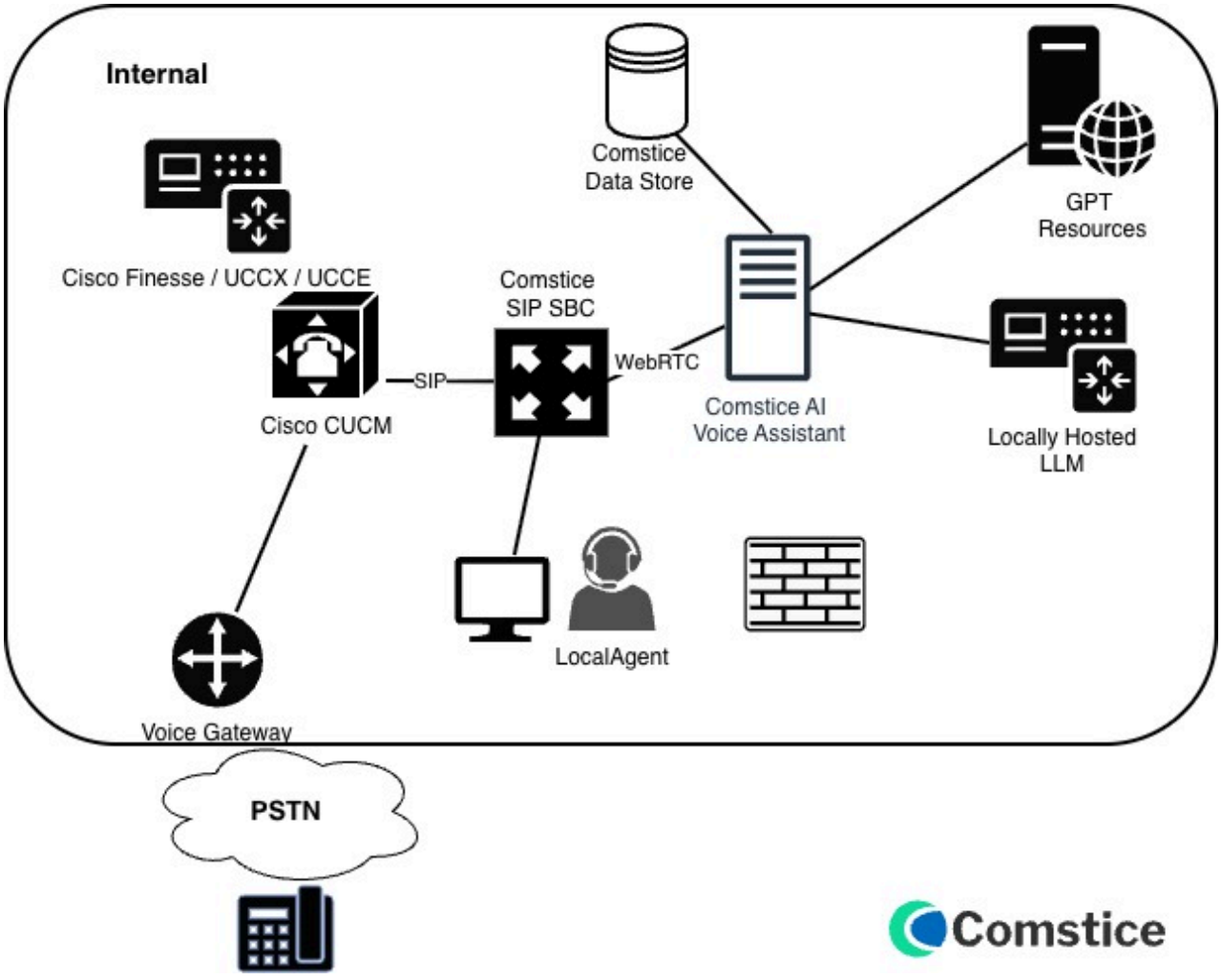
Training TTS for a language or a dialect

If there is a particular language or a dialect you want to train, Comstice can help with that as well. We provide written text that a talent can read and record in the preferred languange. A TTS model can be trained by using this recorded audio.

Integration with Cisco

Comstice AI Voice Assistant will integrate with Cisco CUCM via SIP Trunk and handle calls for the created use cases.

If the call needs to be sent to a live agent, the call context can be added to the SIP Header as key/value pairs and then will be transferred using SIP REFER.



IVR ASR TTS for Cisco FAQ

Which Cisco versions does Comstice support?

Integration is through MRCP and usually MRCPv2 is used. It is not dependant on the Cisco version.

Do I need to purchase GPUs? Can we just use the services available?

Whether you need GPUs depends on the depth of the conversation and the number of concurrent calls.

What is the difference between using local STT and TTS vs. STT and TTS as a service?

You can run STT and TTS for any language on your network. It is all related to the hardware resources you may need.

What is the license model?

License model mainly looks at the number of concurrent sessions and the model training your use case may need. Minnimum is 10 channels.

Does Comstice offer an MCP server for Avaya and Cisco contact centers

Yes, Comstice offers MCP servers for Avaya and Cisco Unified Communications.

Visit https://comstice.com/request-callback to schedule a discussion with our experts.

Comstice

Thank You

Please contact sales@comstice.com
for demos and callback.