

The Powerful **Orchestration Engine** for Seamless **VoiceBot** Creation

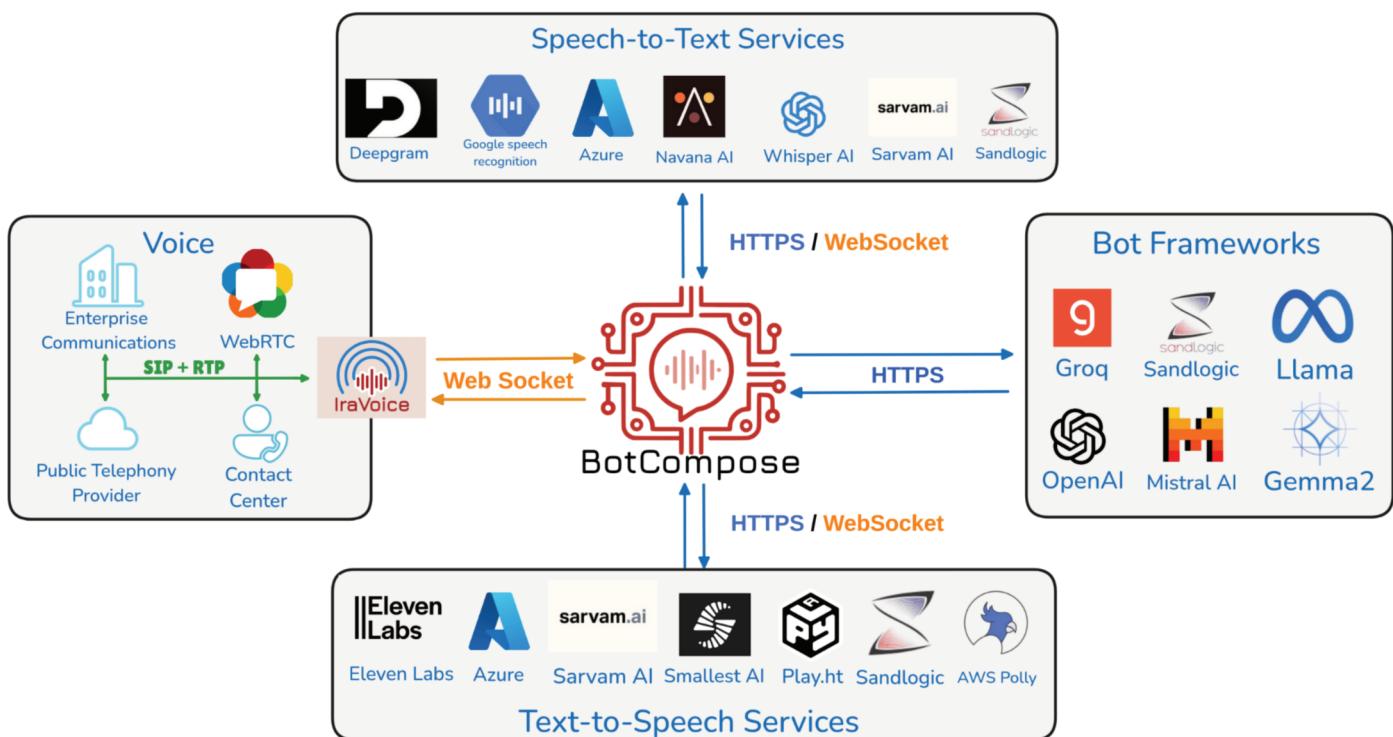
**BotCompose** by EPCODE transforms customer engagement by replacing traditional IVR systems with intelligent VoiceBots, enabling natural, seamless conversations. It integrates effortlessly with existing PBX, UC, and CRM platforms, empowering businesses to create tailored, domain-specific voice applications with advanced speech technologies.

With a best-of-breed approach to TTS, STT, LLM and NLP modules, BotCompose ensures top-tier performance and flexibility. It supports integration with both established AI models and custom inference endpoints, while built-in content moderation and **IraVoice** integration provide secure, compliant, and scalable voice solutions.

## HIGHLIGHTS

- Allows integration of AI applications with existing PBX, UC, & CRM platforms.
- Ready integrations with multiple STT, TTS, LLM & low cost NLP based models.
- Optimize the costs of STT through VAD, and TTS through response caching.
- Ensure brand safety and regulatory compliance with integrated content moderation.

## Architecture



## ■ Seamless Connectivity and Integration

**IraVoice** seamlessly handle all aspects of VoIP connectivity:

- PSTN integration with any Telco.
- Integration with existing PBX, UC system.
- Secure WebRTC.

**BotCompose** seamlessly handles all aspects of AI model integrations:

- Speech-to-Text (STT)
- Text-to-Speech (TTS)
- SLM, LLM and NLP models
- Vector DB for Knowledge base

This robust infrastructure empowers enterprise developers to focus on their business domain application and drastically reduces the time to market.

## ■ High Availability and Scalability

Integration through **BotCompose** delivers a unified, secure, and highly resilient architecture, ensuring unparalleled scalability across all components of the solution. By harnessing the power of **BotCompose**, organizations effortlessly expand their capabilities to meet rising user demands, all while preserving exceptional security, operational excellence, and architectural flexibility across the entire application stack. With a proven ability to handle over 2,500 concurrent voicebot conversations without compromising quality, **BotCompose** guarantees a premium, high-performance experience for every interaction.

## ■ Intelligent Efficiency

**IraVoice** is equipped with a sophisticated Voice Activity Detection (VAD) engine, enabling precise detection of when a user begins and ends speaking. This capability allows businesses to leverage file-based STT, offering a more cost-effective alternative to streaming STT, without sacrificing performance.

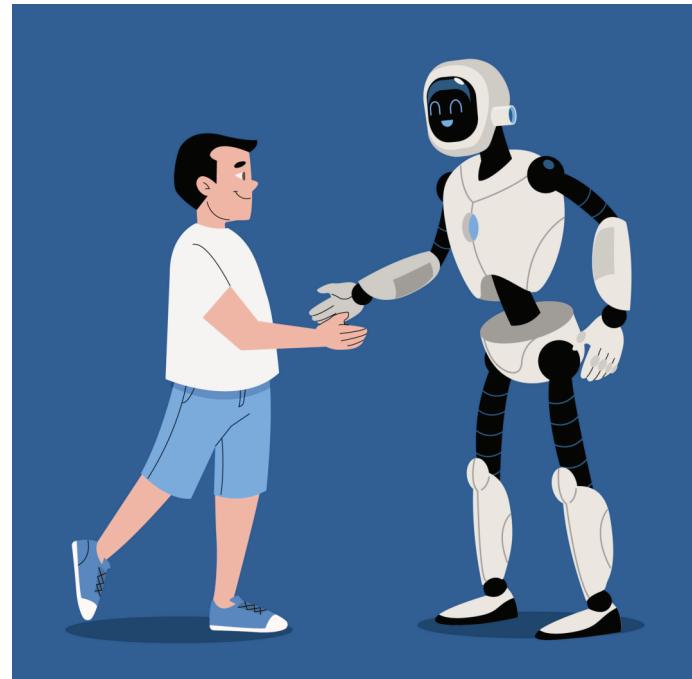
Furthermore, when NLP-based models are employed, the majority of TTS responses can be seamlessly cached. This optimization empowers organizations to utilize premium TTS service providers for lifelike, high-quality voices, all while maintaining operational efficiency and keeping costs in check.

Enterprises can also configure the max call duration, exceeding which the bot will gracefully inform the user that it will transfer the call to a human agent.

# Other use cases

## Elevating Agent Assist with BotCompose

BotCompose can be seamlessly integrated to create a sophisticated agent assist system. In this scenario, the conversation unfolds between a customer and a human agent, while BotCompose silently listens in through **IraTap** and **BotStream**. It effortlessly transcribes the interaction in real time, providing the agent with insightful, contextually relevant suggestions via a sleek web interface. The TTS adapter of BotCompose is not utilized in this instance.



## Seamless, Near-Real-Time Translation

The advanced Voice Activity Detection (VAD) engine of **IraVoice**, combined with the sophisticated integrations of **BotCompose** with premium speech models and LLMs, enables the creation of an elegant near-real-time translation solution. In this immersive experience, both the customer and agent engage with **BotCompose** independently, without hearing each other's language. **BotCompose** seamlessly translates the customer's speech into the agent's preferred language, while simultaneously translating the agent's responses into the customer's language, ensuring smooth and fluid communication across any language barrier.



## About Us

EPCODE is a telephony middleware products company established in the year 2020. We work with ISV's to develop real-time voice applications in the AI driven customer experience domain. Our business model is tailored to the below mentioned attributes.

- Develop API based backend software products with a primary focus on system engineering.
- Expertise in developing real time voice applications with distributed architecture.
- The “Go to Market Strategy” would be “OEM partnerships” with a B2B approach, selling only to systems integrators, technology partners, and business application developers.
- Adopt proven and field-tested best-of-breed open source platforms as part of our product stack.

As a consciously chosen design strategy, our OEM products are designed based on the partner's business requirements or use cases. The EPCODE solution architects make sure that the products are optimised for specific deployment environments as prescribed by our business application partners, be it on-premise or pure cloud environments like AWS, Google or Azure cloud.



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