

# AI-Powered Real-Time Background Voice Suppression for Edge and Embedded Systems

## Overview:

Background Voice Suppression (BVS) is Meeami's proprietary AI-based speech separation technology that intelligently removes intelligible human background voices—not just ambient noise—from real-time audio streams. It ensures only the primary speaker's voice is transmitted, improving *clarity* and *comprehension* in noisy, multi-speaker environments.

## Ideal For:

- Edge Devices
- Contact Centers
- Virtual Meetings (Zoom, Meet, Teams)
- Voice Assistants & IVRs
- VoLTE/VoWiFi & Conference Calls

Unlike competitors, Meeami's BVS is:

- **Language Agnostic:** Works without reading predefined sentences.
- **Depth-aware:** Leverages reverberation characteristics to infer speaker distance.
- **No user setup:** Plug-and-play AI inference in < 20ms.

## Outcomes & Transformations

- **Improved Speech Intelligibility:**  
Only the primary speaker is transmitted – background voices are removed without distorting the main voice.
- **Lower Word Error Rates (WER) in ASR Systems:**  
ASR engines and bots can focus only on the intended input, leading to more accurate transcriptions and responses.
- **Enhanced End-User Experience:**  
Cleaner, quieter, and more natural communication for end-users in virtual meetings or calls.
- **Edge-Deployable:**  
Works in low-compute environments like embedded chipsets, phones, and laptops – no cloud dependency.

Before BVS	After BVS
Customer conversations contain background agent voices, causing distractions	Calls are clean with only the primary speaker audible

Before BVS	After BVS
Voice assistants misfire due to multiple people speaking in the background	Assistants respond only to the intended speaker
Poor ASR performance due to overlapping speech	Accurate transcription with reduced WER
High effort in training users to maintain silence or specific distance	Plug-and-play solution with no training or enrolment
Cloud-based solutions introduce latency and privacy issues	On-device processing, <20ms latency, no PII sent to cloud
Crosstalk affects VoLTE/conference quality	Seamless, clear, and human-like interaction in real-time

## Why Enterprises Choose Meeami

- Real-time performance on CPU, GPU and NPU
- No need for speaker enrolment
- Embedded + cloud hybrid options
- Patentable architecture
- Integration-ready SDK for chipset, PC, mobile, and web

## Request a Demo or SDK

Contact us to explore integration, evaluation SDKs, or to schedule a demo:  
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