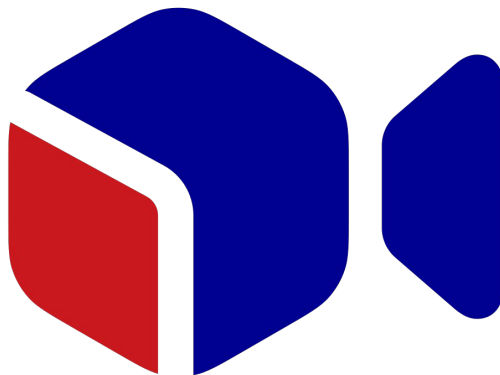# Real-time Live
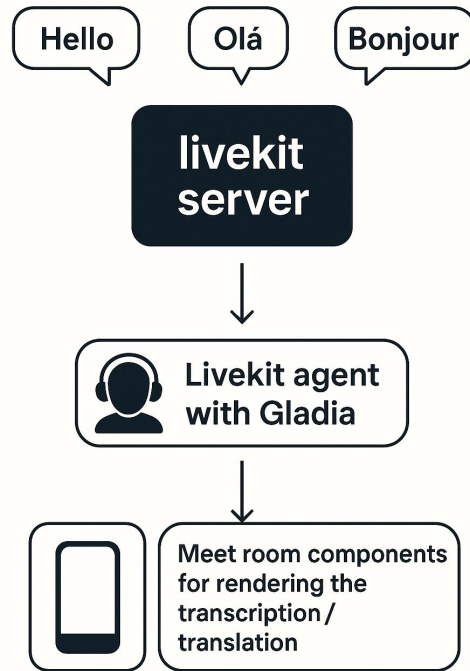# Transcript - Translation in Video Calls

HACK DAYS

Context & Objective

- Problem: Accessibility and multilingual collaboration in real-time video meetings.

- Goal: Display live transcripts and translations during video calls.

Technical Stack

- LiveKit Agent (Python)

- Gladia API for STT & translation

- Kotlin Multiplatform for mobile support (iOS & Android)

Why Gladia?

- Supports 100+ languages

- Integrated translation with STT

- Low latency, best-in-class accuracy

- French technology: Solara model, hosted on OVH, SecNumCloud-ready

What We Built

- Python agent that joins LiveKit room automatically
- Transcribes / Translate participant speech using Gladia
- Displays transcript / translation in Meet web client
- Live subtitle rendering on mobile apps (iOS/Android)

Challenges

- LiveKit agent originally designed for single-language STT

- Modified agent to support multilingual transcription using Gladia

- Frontend development

- # Max Session of Gladia

- VAD latency

- Noise Cancelling

Impact

- Breaking barriers for Europeans with disabilities

- Enabling global teams and remote education

- Cross-cultural communication enhancement

- Tomorrow, Real-time translation with preserved voice/tone

- Low-latency multi-language support (100 languages)

What's Next?

- Integrate open-source STT models like Whisper or Unmute

- Add Text-to-Speech (TTS) for fully accessible conversations

- Explore Croissant LLM for translation fallback

Thank You!

Special Thanks: Antoine Lebaud