aplcomp

Finland-China R&D and Technology Forum 2019

Automatic IP Telephony Translation

Functions

1. Participant strong authentication by automatica speaker verification (ASV)
2. Speech-to-Text (S2T)
3. Text-to-Text translation (T2T)
4. Text-to-Speech synthetizaition (T2S)
5. Produces electronically signed memos or contracts

Applications

Law technology
Global remote support
Cross border financial services
Forensic hearings documentation
Multilingual conference minutes

Advantages

Robust voice capture in noisy environments
Unbreakable ASV
- Using dual microphone (IEEE/ACM 2018)
- ZEFA Zero Effort Authenticaton
Can use all web client hosts, handset to PC

Technology

Dual microphone signal, audio and throat
ZEFA authentication patented in USA and EPO
OpenID Connect compatible federation
Microsoft Azure Cognitive Services

Partner Search

Dual microphone voice signal processing for S2T
Commercial exploitation

Current Status

Available as demo prototype
All functions except S2T / dual signal processing are working either as in-house or as SaaS

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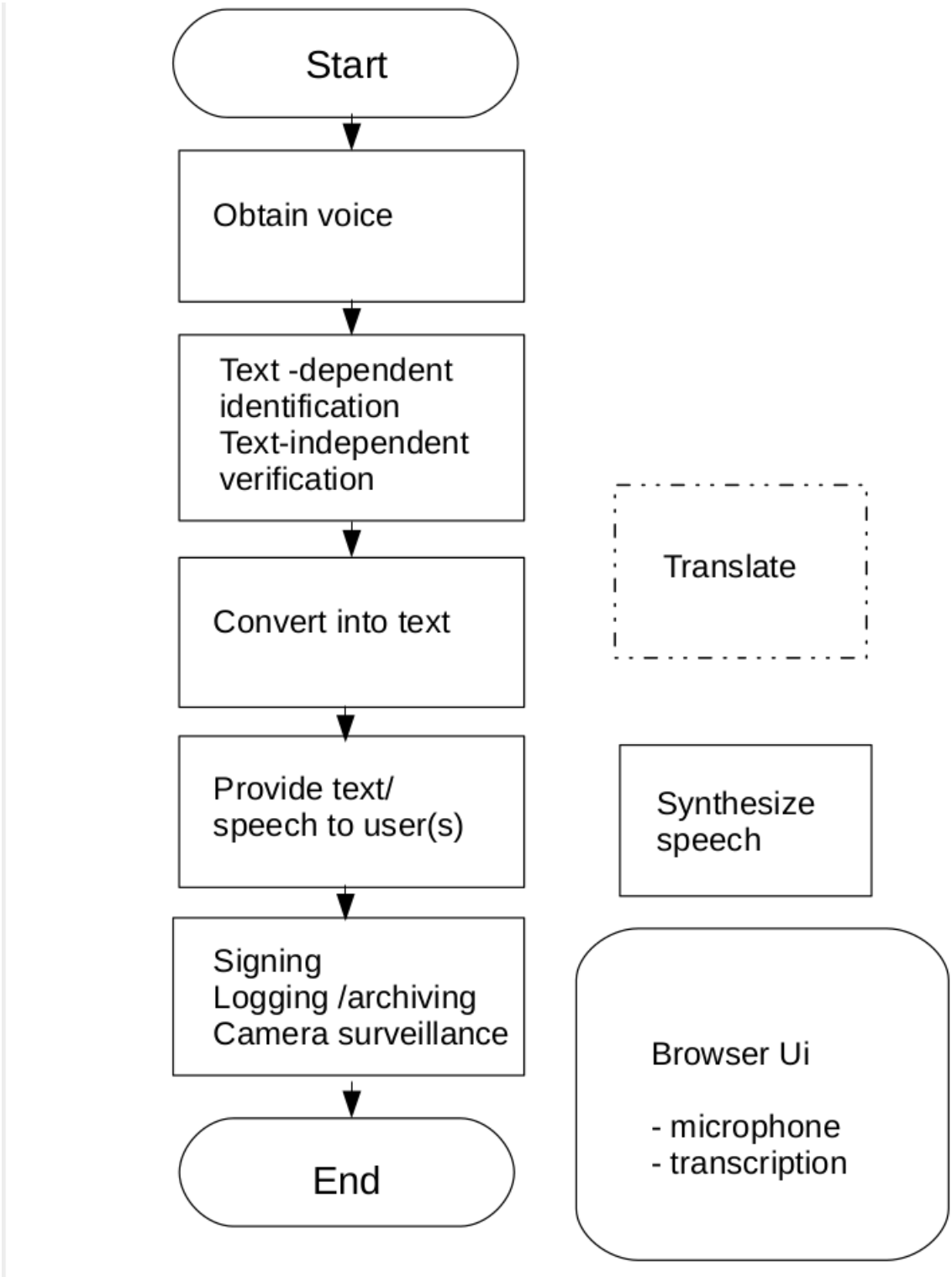
Start
Obtain voice
Text -dependent identification
Text-independent verification
Convert into text
Provide text/ speech to user(s)
Signing
Logging /archiving
Camera surveillance
End
Translate
Synthesize speech
Browser Ui
- microphone
- transcription

Figure 1

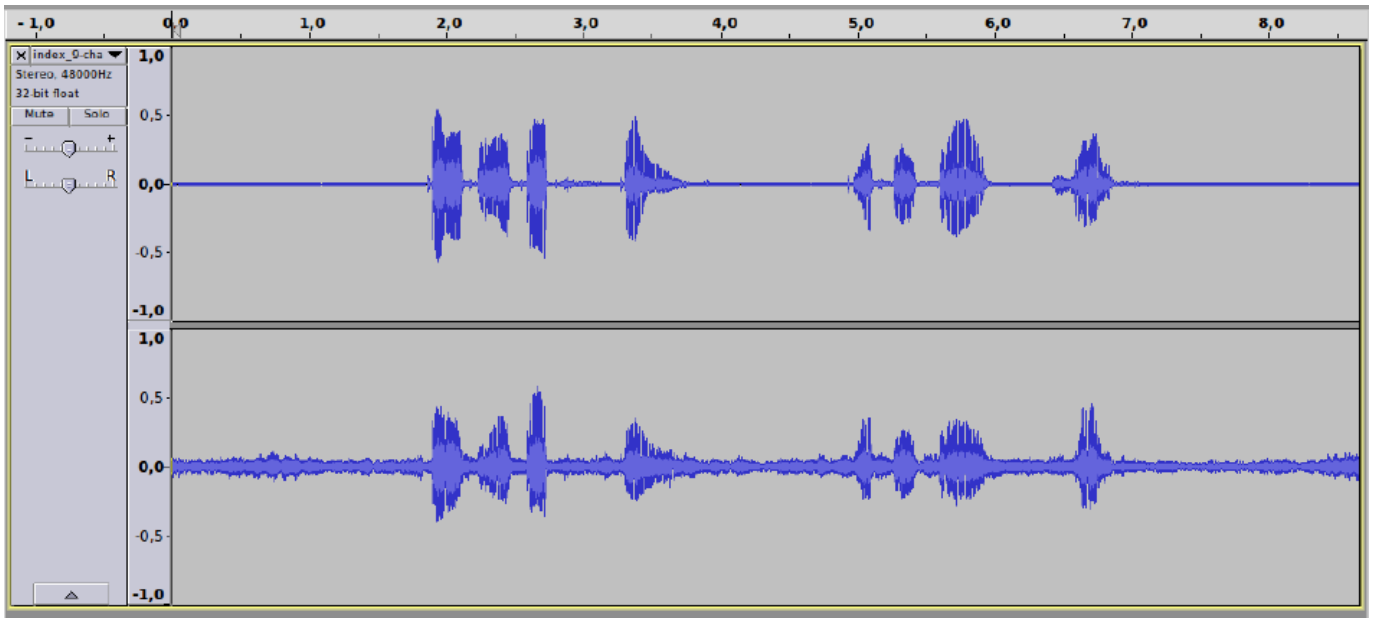

Figure 2: Stereo signal from our throat/audio dual microphone. The first channel is from throat microphone, without background noise.