

A hand holding a pen is shown in a blurred, artistic style on the right side of the image. A solid blue square is overlaid on the left side, containing white text. The background is a light, neutral color.

HANCOM INTERFREE

Innovating World with Smart Solution

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hancom



Hancom Interfree

Hancom Interfree specializes in speech recognition technology, automatic speech translation & automatic document translation services



Speech Processing Lab
Language Processing Lab
Machine Translation Lab



ETRI Research institute spin-off company



Collaboration of top-tier technologies

Co- development with ETRI (Electronics and Telecommunications Research Institute),equipped with Korea's top speech recognition and automatic speech translation technology

Unrivaled technology and quality

Korea's leadint softwear company providing automatic speech translation and multi-language document translation up to 150 languages

Products and services

- Automatic interpreting and translation
- Automatic Speech Recognition solution
- Multi-language document translation Solution
- Foreign language learning service

Product Line up of Hancom Interfree



Automatic Interpreting
& Translation



Automatic Speech
Recognition



Multi-language
Document translation

일상말랑 GenieTalk



- Web/machine-based automated interpretation app
- Interpreting smart devices

GenieTalk VOICE



- Speech API
- Server(On premise)
- Embedded

GenieTalk TEXT



- Translate API
- Enterprise Server
- Embedded

A group of people in a meeting are gathered around a table, looking at tablets. One tablet in the foreground shows a bar chart with the title 'Expenditure from 2018 to 2021'. The chart has five bars of increasing height, colored in shades of blue and green. The background is slightly blurred, showing other people and a white table.

Product & Solution

Expenditure from 2018 to 2021



GenieTalk

Top-tier speech recognition, machine translation app developed by Hancom Interfree



GenieTalk

- Translates multiple language pairs including Korean ↔ English, Japanese, Chinese.
 - also Supports Spanish, French, Russian, Germany, Arab
- Application for Android & iOS
- Convenient additional functions available during interpretation
- Character recognition and translation in image

Genietalk



Top-tier speech recognition, machine translation app developed by Hancom Interfree



Speech Translation



Text Translation



Image Translation

- OS
- 가 LA KR - CN/JP/EN/ES/FR/GR /RU/Arabic
- Continuous Conversation mode
- 10 • Similar translation results
- TTS reader
- Terminal interpreter without internet connection

Extra features

Genietalk

Automatic interpreting and translation devices

GenieTalk offline



- OTG-type accessory for automatic interpretation which can be plugged into your smart phone without internet access
- DB Resource built in the USB running in the smartphone.

GenieTalk pair



- An automatic interpretation device without internet access
- Connected to smartphone 펌 Bluetooth
- Speech Recognition Engine built in the device

GenieTalk freehands



- A wearable automatic interpretation
- Zero UI technology requires no additional action (Push to Talk)

Features

- Speech recognition technology that **analyzes and converts human voice into text**
- Supports **Korean, Chinese, English, Japanese**
- Supports **Server type** and **Embedded type**
- Applied in various fields Auto translation service, IoT, Home Automation, Robotic device, Data analysis, and Intelligent & interactive agent service



Dialogic type



Easy to use
voice user interface



Effective audio signal
processing with noise
cancelling technology



Applies the latest
Deep Neural Network
technologies



Multilingual
Speech recognition

Performance

- High performance of speech recognition over 95% in dialog domain.
- Handles up to maximum 300,000 calls per a day. (on GenieTalk Service)
- Recognizes well the dialect, placement name, food name, and well-known proper none.

Consistently...



Collects speech data and corpus.



Develops a new algorithm.



Improves the user interface

Applications



AI Robot

Voice recognition interface for AI virtual secretary

Multi-lingual Machine Translation Solution GenieTalk **TEXT**

Features

- NMT(Neural Machine Translate) text translation (in dialog, documents domains)
- Supports 8 language pairs(Korean↔Chinese/English/Japanese/Spanish/French/German/Russian/Arab)
 - Supports 150 language pairs in document domains (w. Systran)
- Applies a neural network algorithm (sentence to sentence translation)



Text translation



File translation
(Format maintained)



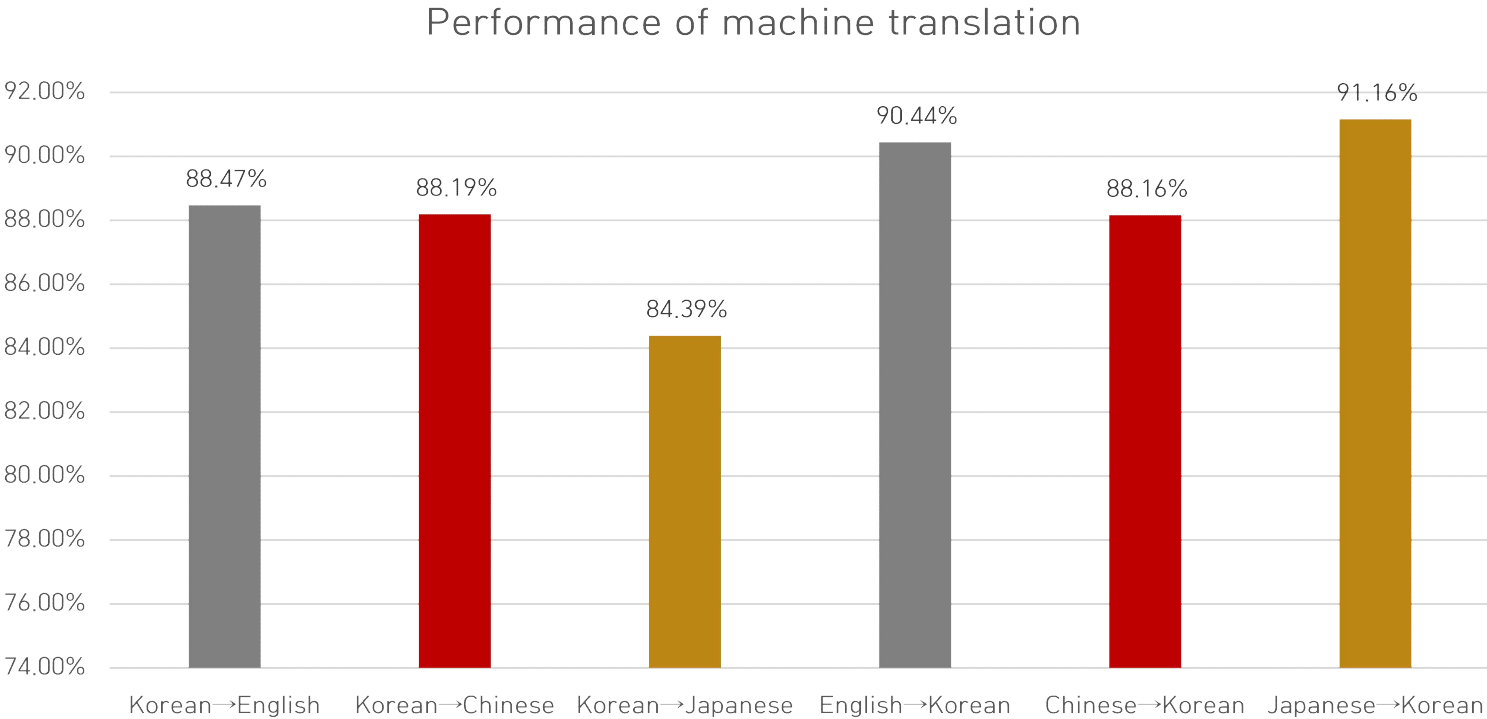
Domain Specific
(Customized translation technique)



User Dictionary

Performance

- Performance test conducted by specialist groups at Hankuk University of Foreign studies

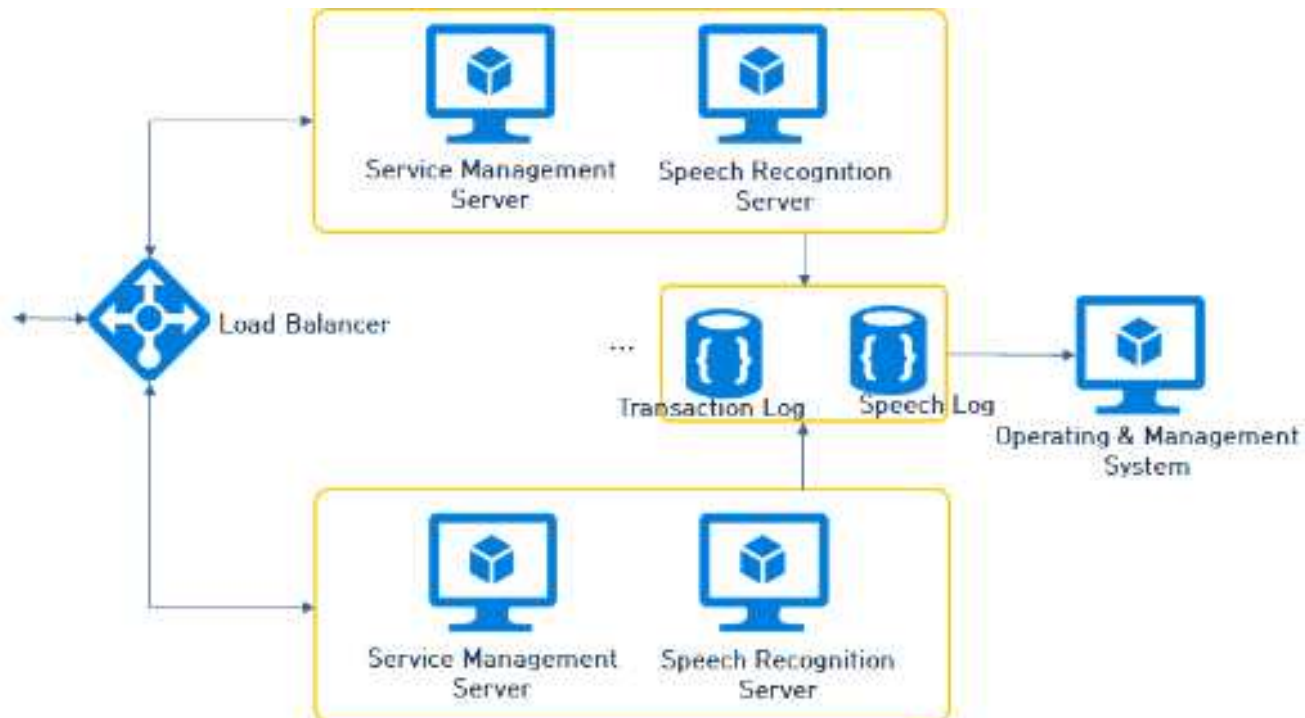


APPENDIX

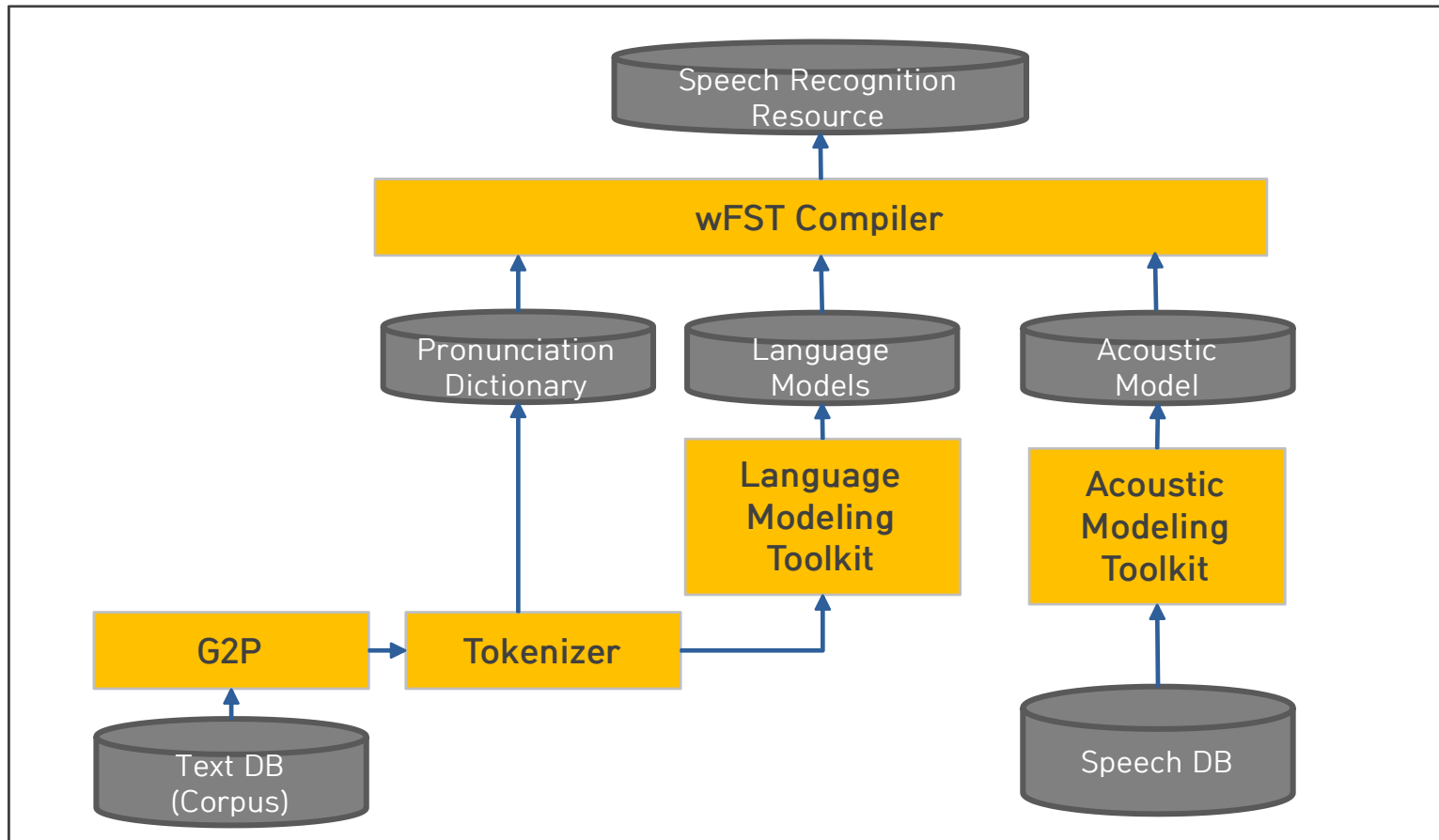
– Technical Specification & Architecture

Specifications & Architectures

Name	Contents
CPU/RAM	• 16 vCPU / 32 Giga byte
Channel capacity	• Maximum 16 Channel (based on 1,000,000 sentences)
Response speed	• 1.3 RTF(Real Time Factor)
Supported Type	• 16KHz 16Bits PCM, mu-law PCM



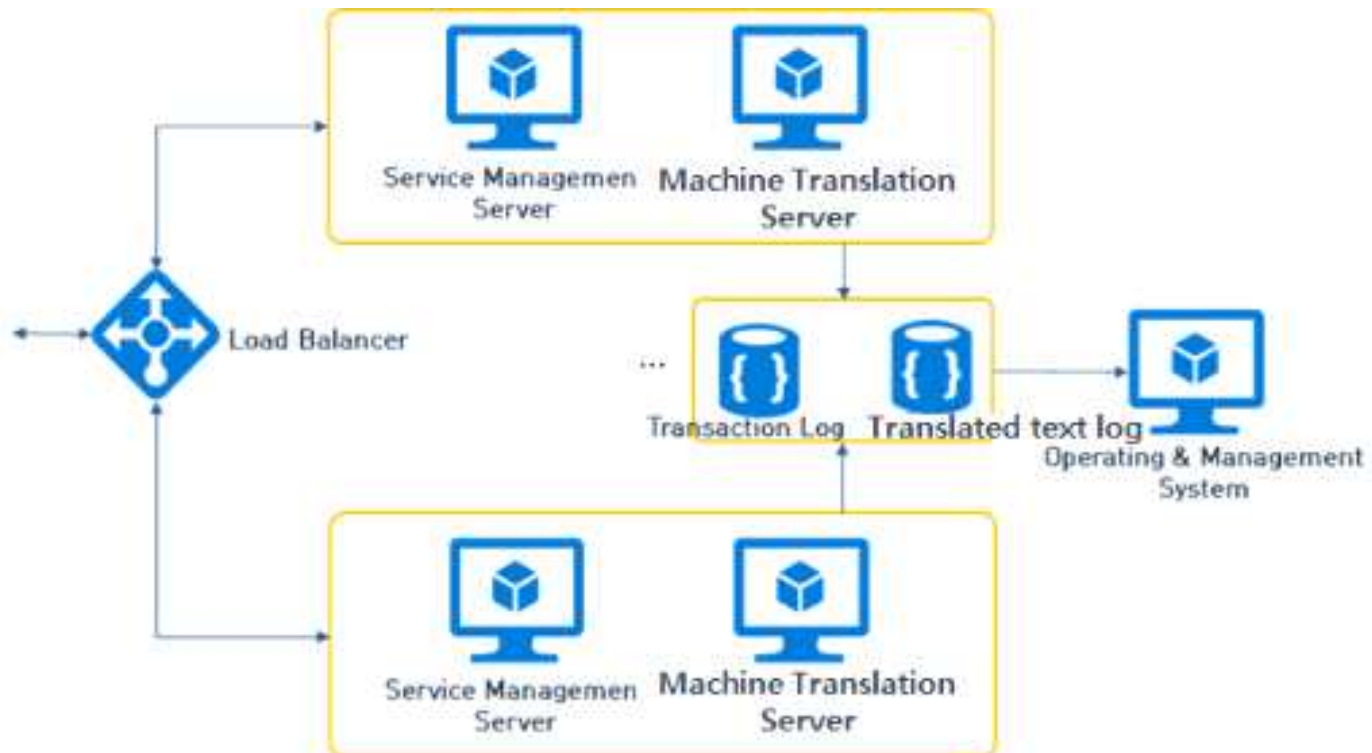
Optimization Development Steps



Multi-lingual Machine Translation Solution GenieTalk **TEXT**

Specifications & Architectures

Name	Contents
CPU/RAM	• 6 vCPU / 56 Giga byte / GPU 1(12Gb)
Channel capacity	• Maximum 25 Channel
Response speed	• 200 ms
Supported Language pairs	• Korean - Chinese



Thank You

HANCOM INTERFREE