

# AI Voice Bot with Speech Analytics

*Commercial Group*

May 2025

AI-Ops

Cybersecurity

5.5G

AI Superhighway

ESG

Supercomputing

AI+

A large, stylized graphic of the text "AI+" in a 3D, metallic font. The text is surrounded by vibrant, flowing ribbons in shades of blue, orange, and pink, creating a sense of motion and energy. Several translucent blue spheres are scattered around the ribbons, adding to the futuristic aesthetic. The background is a deep blue with streaks of light, suggesting a high-tech or space-themed environment.



# *Holistic End-to-end Contact Center Business Solutions*





# HKT's Contact Center Technologies & AI Journey

First Speech  
Analytics

**2017**

First Human-Like  
Outbound Voicebot

**2020**

First Gen AI Bot



**2015**

First Chatbot

**2018**

First Inbound Voicebot

**2023**

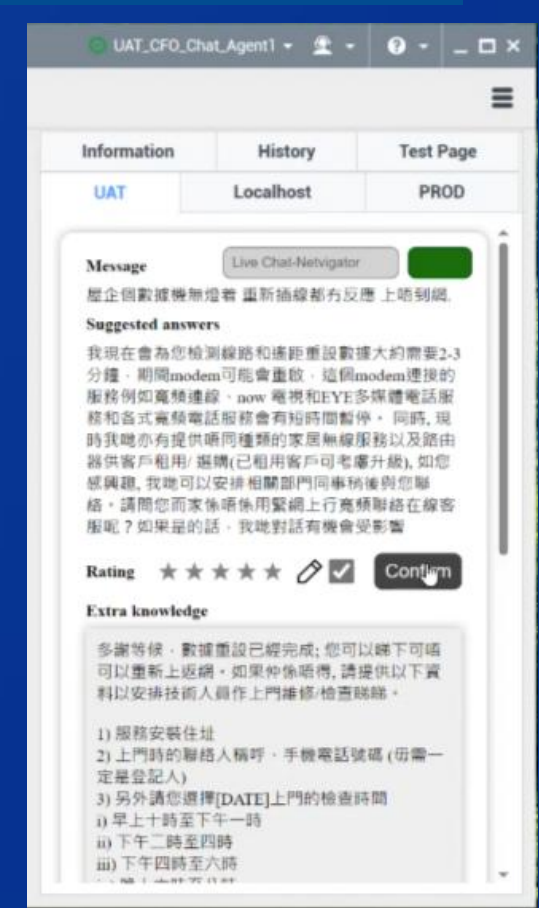
Continue to Leverage **Technology** to  
improve **Customer Experience & Productivity**



# Gen AI Killer Apps beyond Chatbot

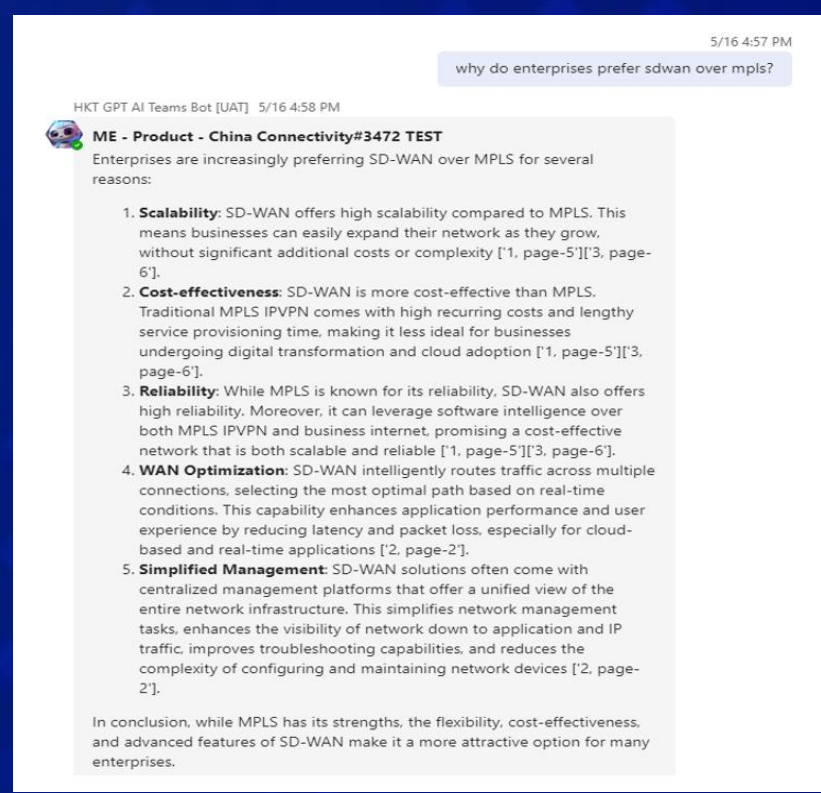
## Agent Assist

- "Listen" to agent conversations, use AI generated suggestions and answers to reduce AHT by 30%
- Applicable to all channels



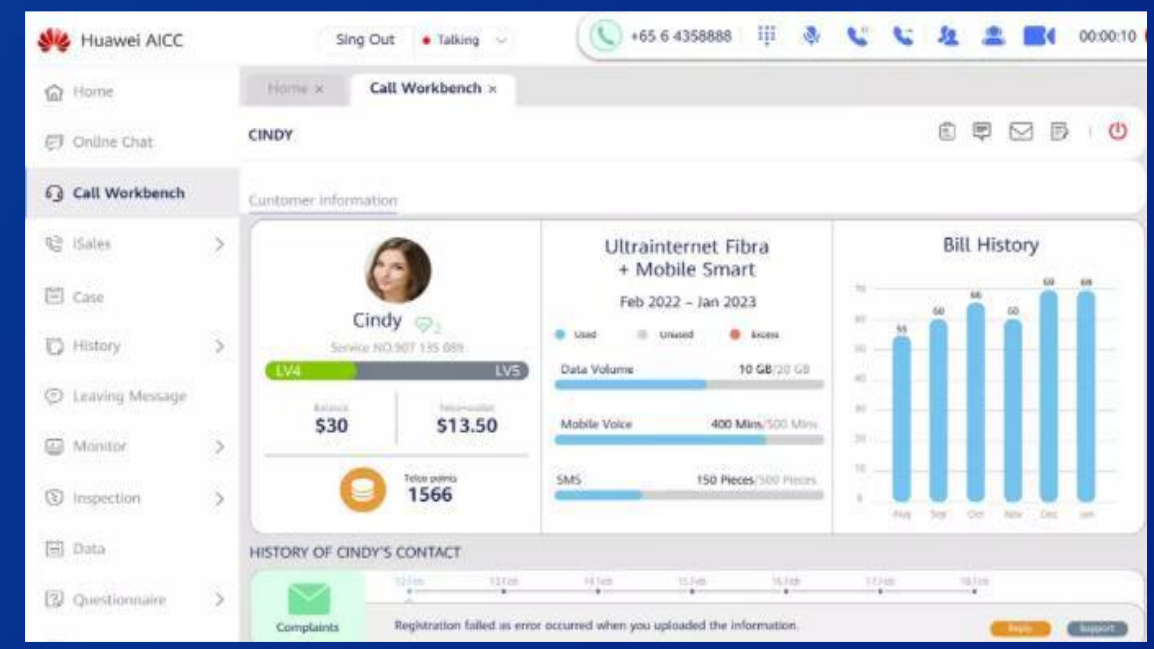
## Intelligent Knowledge Management

- LLM robots as interfaces.
- Manage large amount of corporate knowledge thru RAG.
- E.g.: Product robots to replace product encyclopedias



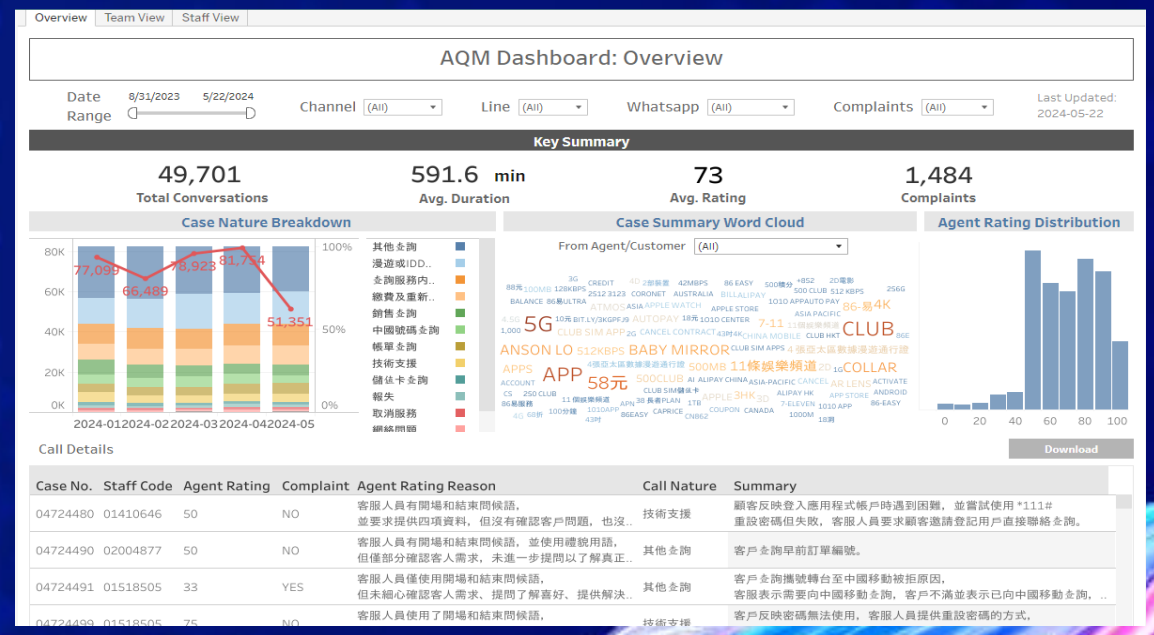
## Call Summary

- Automatically classify calls to avoid human error
- Generate summaries to identify the next best actions



## Automated QM and Analytics

- 100% QA vs. traditional 3 - 5%
- Visualized analysis of conversations (incl. voice or text)





# Key to ANY Contact Center AI Success – LOCALIZATION

Speech and Language Technologies are CRITICAL to Contact Center AI

Best of 2 worlds - NLP vs Gen AI (LLM/RAG)

Key Considerations:

- Accuracy & Predictability
- Speed of Response
- Running Cost



**Fano**



# Language AI for Enterprise



# Core Technologies

## Auto-Detection



Auto Language  
Detection

- Auto Language Detection & Switching

## What



Speech-to-Text

- Supports mixed languages

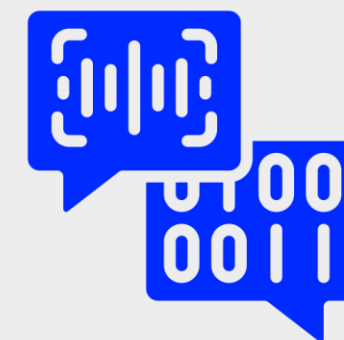
## Who



Voice Biometrics

- Verify speaker's identity
- Text-independent

## Why



Natural Language  
Processing

- Classify intents, entities, speech patterns

## Feedback



Speech Synthesis

- Support mixed language and natural intonation
- Custom voice

## Generative

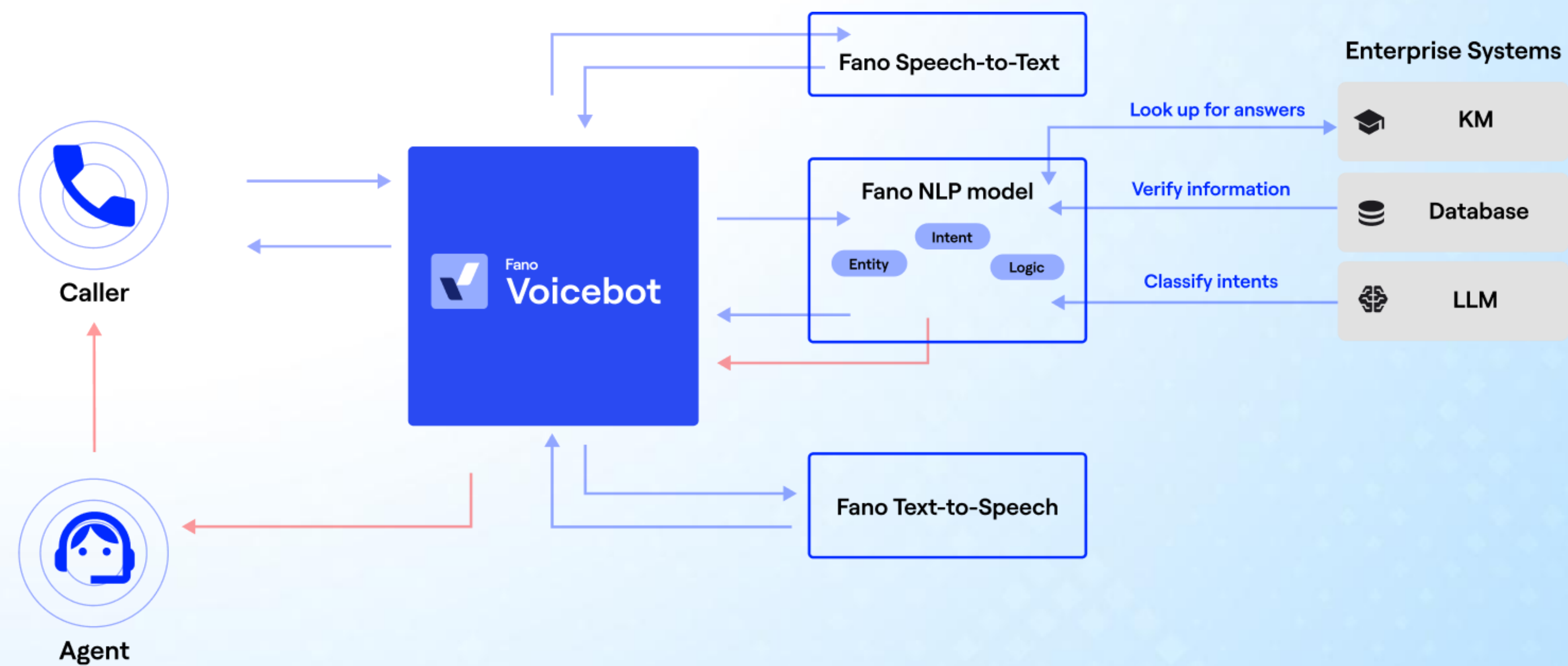


Generative AI

- Summarization
- Translation
- Advanced Sentiment
- Auto-FAQ



# How's Fano Voicebot works?



**Driving Real Business Outcomes**

**Intuitive self-service**

**Reduce staff cost and head count**

**Improve customer lifetime value**

**Improve containment rate**

**High first contact resolution**

**24/7 service availability**

**Intuitive self-service**

**Improve customer lifetime value**

**Increase customer service efficiency**

**Reduce call abandon rate**

**Shorten time-to-market**



# The world's strongest AI capabilities to process multilingual speech

S

SPEAKER\_1 ▾

Then from hong kong, right?

00:00 - 00:01

More Info

Confidence Scores: 0.620000

S

SPEAKER\_2 ▾

廣東話，我唔識得講廣東話㗎。

00:01 - 00:04

More Info

Confidence Scores: 0.720000

S

SPEAKER\_1 ▾

English, eh, eh.

00:04 - 00:06

More Info

Confidence Scores: 0.130000

S

SPEAKER\_2 ▾

English, ah.

Comment

Legend

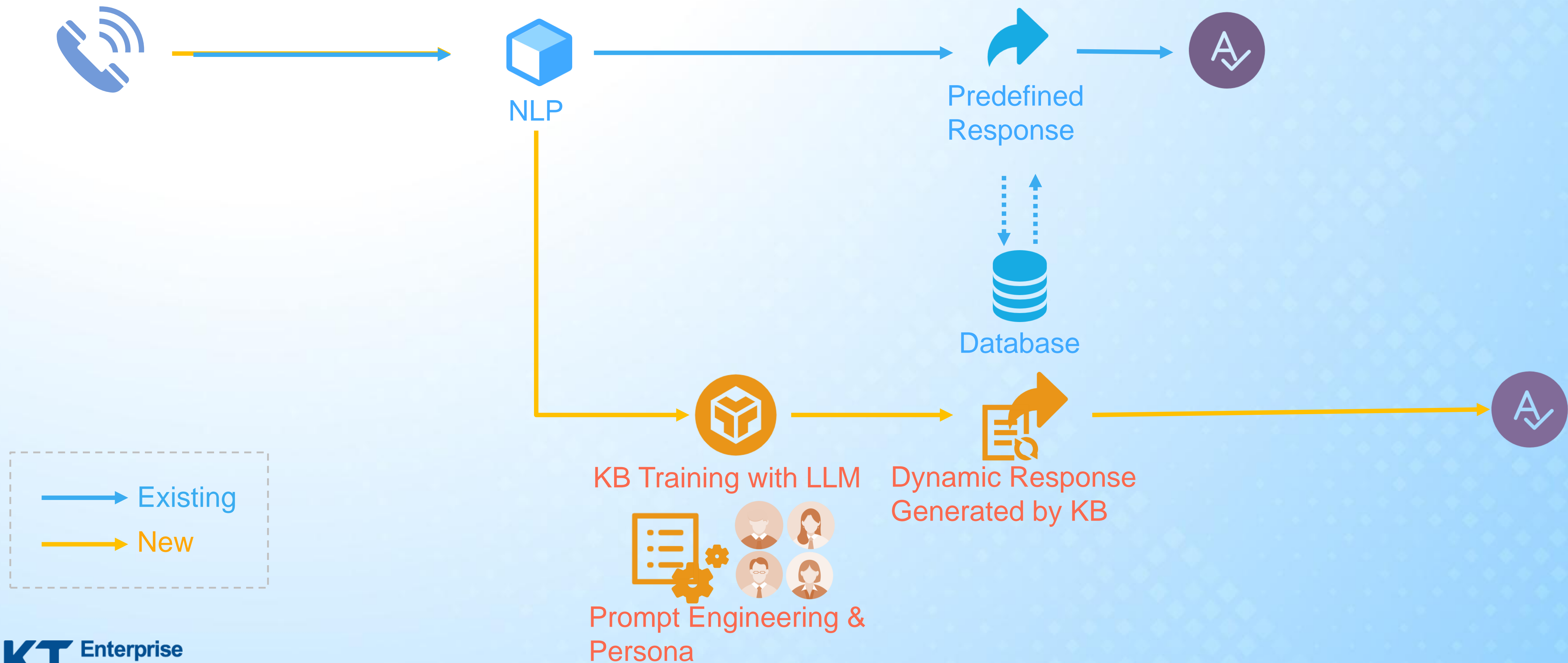
FOLLOW

1.0X

0:00 / 0:16

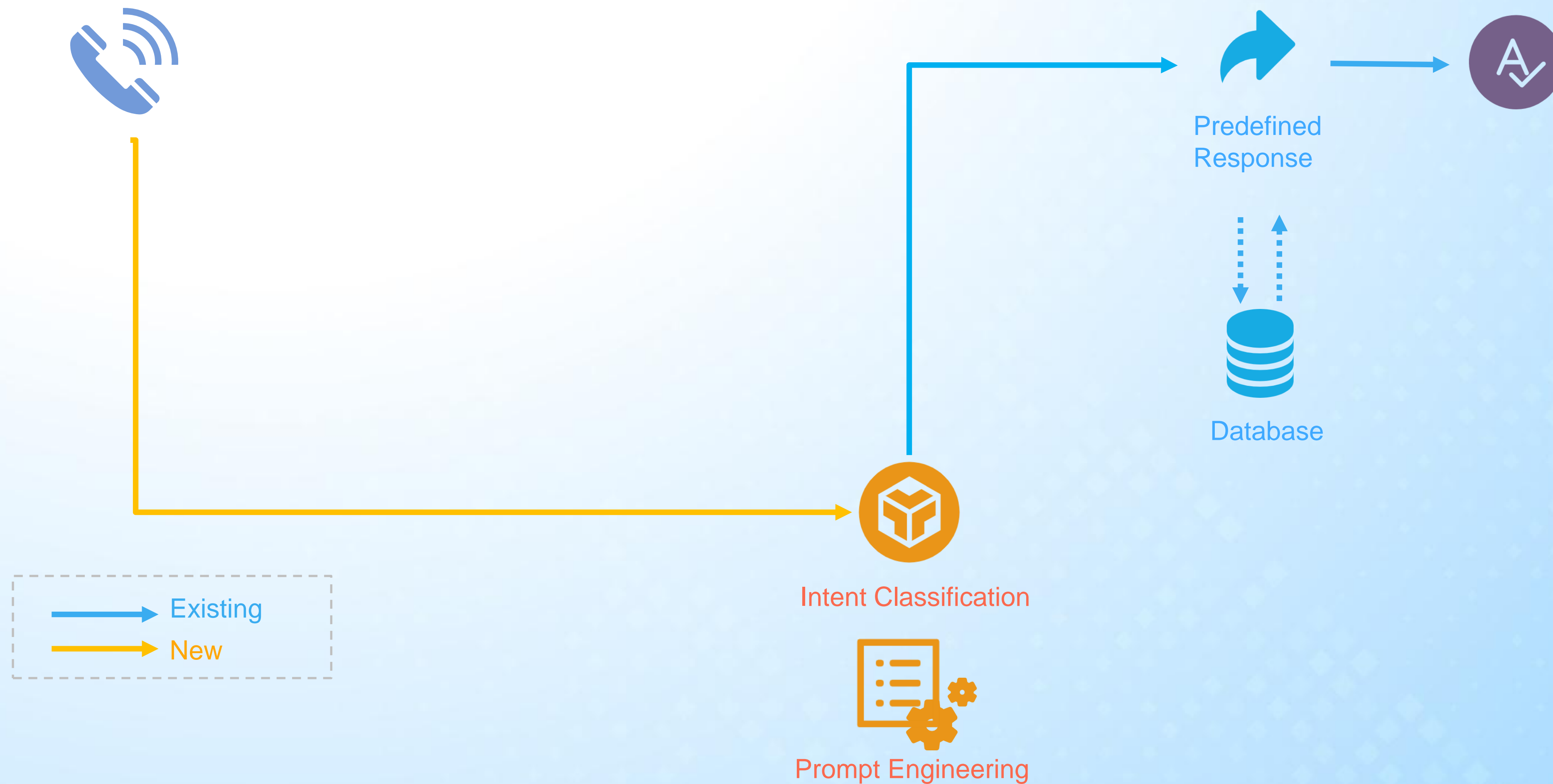


# Differentiation - Best of Two Worlds: NLP + LLM (For Response)





# ***Differentiation - Best of Two Worlds: LLM (For Intent Classification) + Predefined Response***

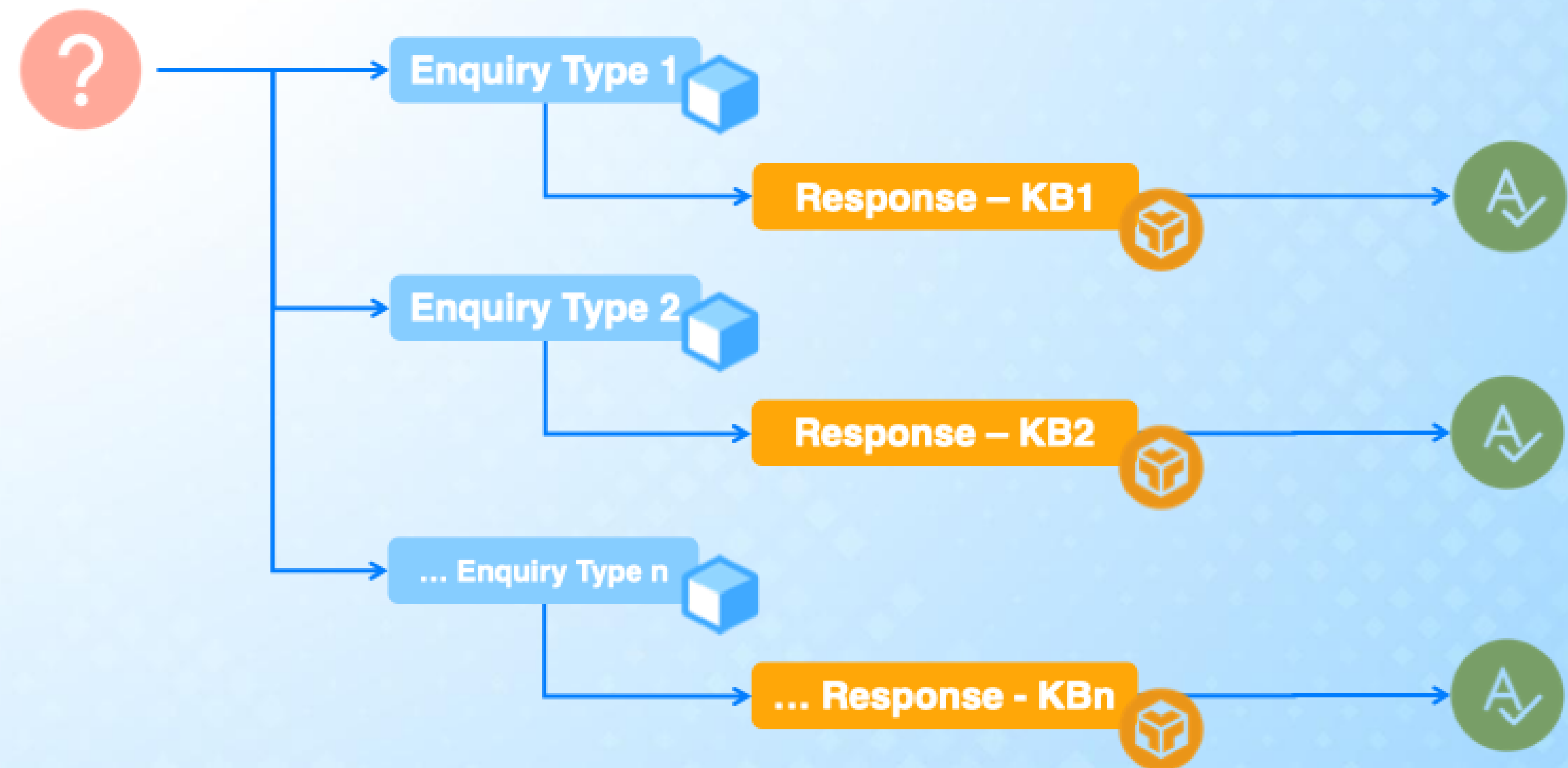




# Implementation Options

Approach:

- Leverage Intent/Entity to classify high level enquiry type, to narrow down the KB with higher accuracy
- Knowledge Base trained based on each enquiry type

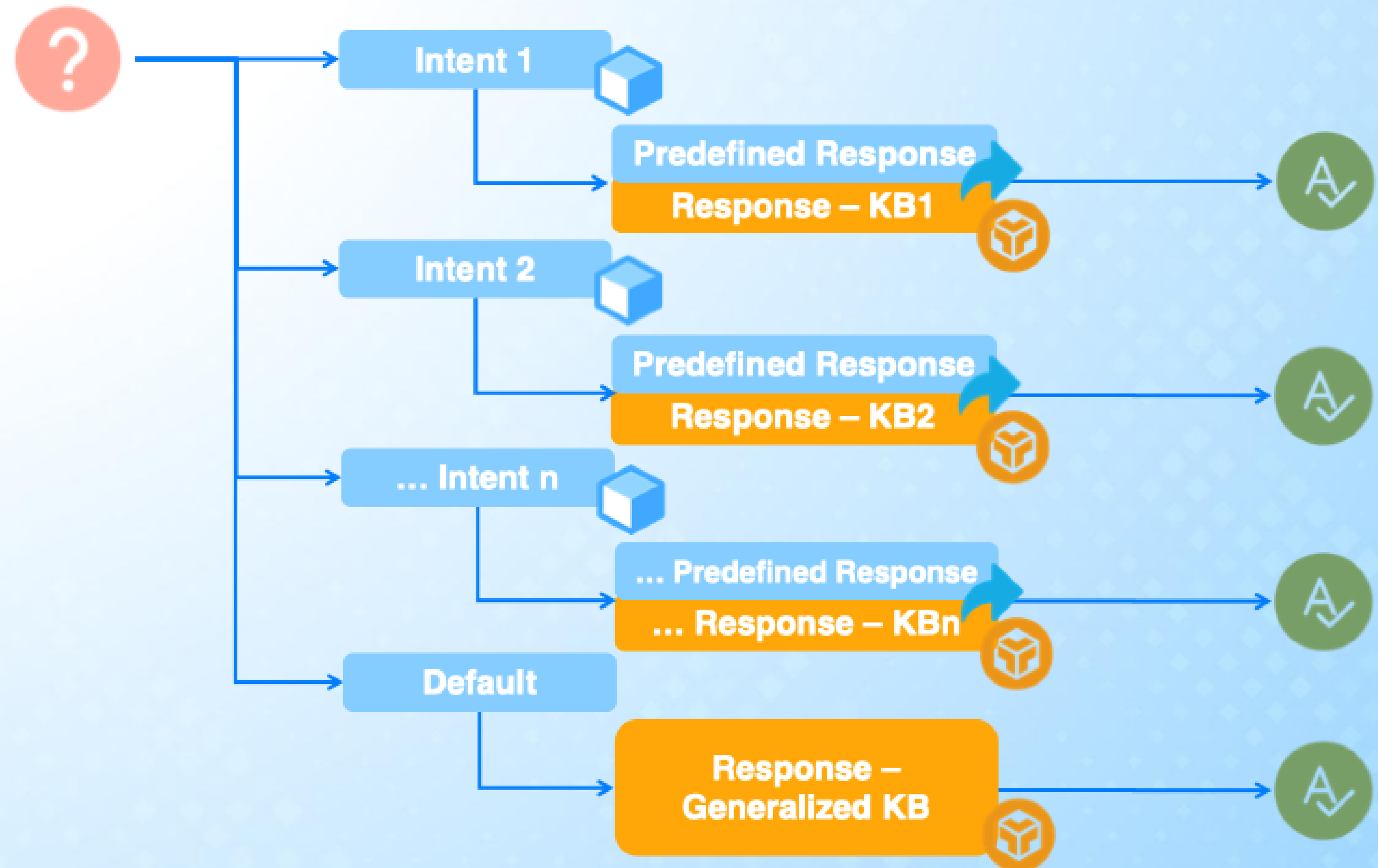




# Implementation Options

Approach:

- Leverage existing NLP to handle existing intents
- Use LLM to massage the tone of the prompts to give more lively user experience
- For those inquiries that cannot be handled by NLP, LLM will be used to response





# How It Works

←

Insight v1

View Task Setting

Redo Intent Classification

Complete Task

✓

Data Cleansing

✓

Intent Classification

✓

Intent Clustering

4

Make Decision

SuggestIntent0003 | ^

Utterances | Q

Language | v

Distance from Ce | Q

→

Distance from Ce | Q

▽

☁

Confirmed Intent | v

Move To

Comment All

Comment Content

Comment

		Distance from Centroid ⬆	Move To Intent		Move To Type	Operation
<input type="checkbox"/>	溫啲舊客笨	0.86	--	--		
<input type="checkbox"/>	新join	0.57	--	--		
<input type="checkbox"/>	擇	0.4	--	--		
<input type="checkbox"/>	先	0.55	--	--		
<input type="checkbox"/>	續約都仲收咁貴	0.54	--	--		
<input type="checkbox"/>	呢個價錢我負擔唔起	0.49	--	--		
<input type="checkbox"/>	服務費好貴	0.75	--	--		

20/page | v

Total 7

<

1

>

Go to

1

Go to



# New Intent Identified – Family Plan

←

Insight v1

View Task Setting

Redo Intent Classification

Complete Task

✓

Data Cleansing

✓

Intent Classification

✓

Intent Clustering

4

Make Decision

SuggestIntent0008

Utterances

Language

Distance from Ce

→

Distance from Ce

Confirmed Intent

Confirmed Intent

Move To

Comment All

Comment Content

Comment

<input type="checkbox"/>	Utterances	Distance from Centroid	Move To Intent	Move To Type	Operation
<input type="checkbox"/>	咁iPhone有冇啲嚟全家人一齊共享啲嚟計劃?	0.22	--	--	<a href="#">✎</a>
<input type="checkbox"/>	屋企幾個人啲嚟計劃?	0.47	--	--	<a href="#">✎</a>
<input type="checkbox"/>	例如話啲嚟全家人一齊share嘅plan	0.31	--	--	<a href="#">✎</a>
<input type="checkbox"/>	有冇啲一家人用啲嚟?	0.38	--	--	<a href="#">✎</a>
<input type="checkbox"/>	有冇family plan? 有就有得諗	0.32	--	--	<a href="#">✎</a>

20/page

Total 5

<

1

>

Go to

1

Go to



# Thank You