# **@ Hitachi Digital Services**

# Enterprise Al/LLM-Powered Software Development.

Ho Chi Minh City – 14 March 2025

## **Phi Van Tran**

## Chief Technology Officer Hitachi Digital Services

- Phi has over 10 years of experience in software solutions and services for global clients.
- Leader AI Center of Excellence, a team of around 100 Data and AI Experts.
- Solution Architect for multi-million projects in the UK Rail industry, Japan Energy, BFSI.
- Certified professional Software Architect from Google, Azure, AWS.
- Mentoring for innovation in the tech community.
- Alumnus of University of Science VNUHCM.



## Agenda

1	About us - Hitachi Digital Services
2	AI/LLM Assistant for Customer.
3	AI/LLM Software Development Process
4	Real-world enterprise use cases
5	AI/LLM Roadmap
6	QnA









# HITACHI Inspire the Next











IT'S OUR FUTURE

900+
Companies

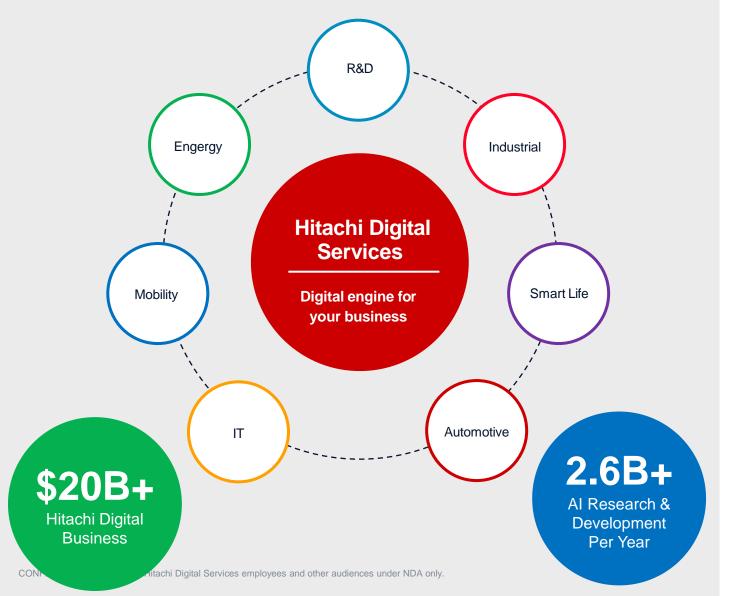
320,000+ people

\$57B consolidated revenue

\$2.4B R&D and co-creation

\$3.7B
3-year investment in Al and digital

# Guiding industry, and society at the intersection of IT-OT





**@ Hitachi Digital Services** 

Vietnam - the second largest center of HitachiDS 1100+ Staff | 1000+ Projects

3 Offices: Ho Chi Minh, Da Nang & Ha Noi

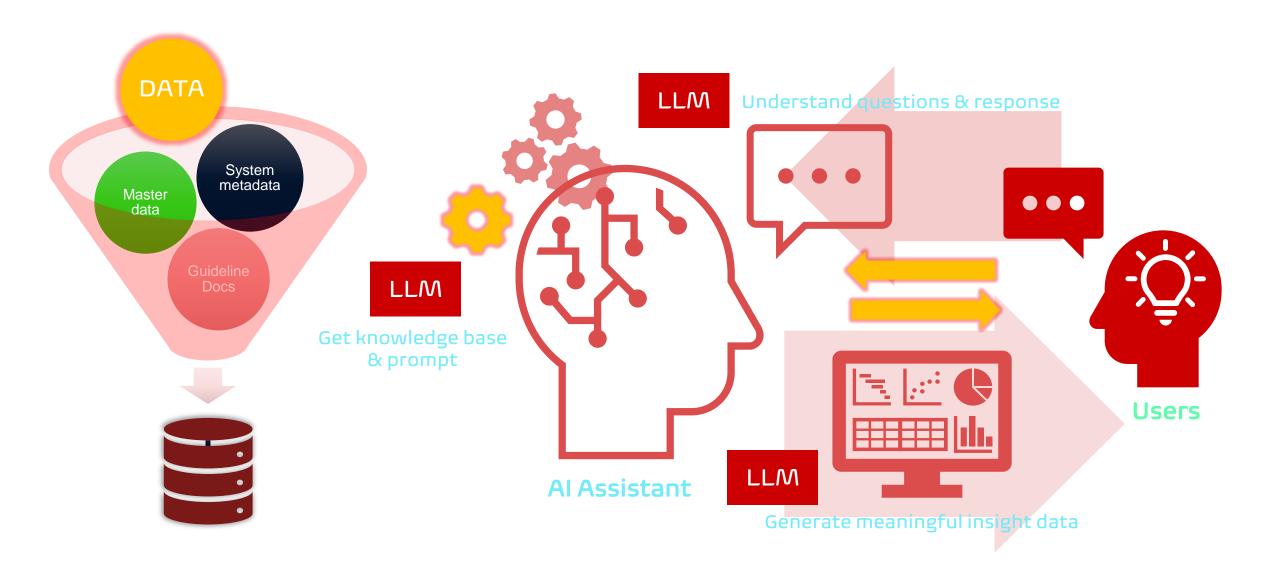




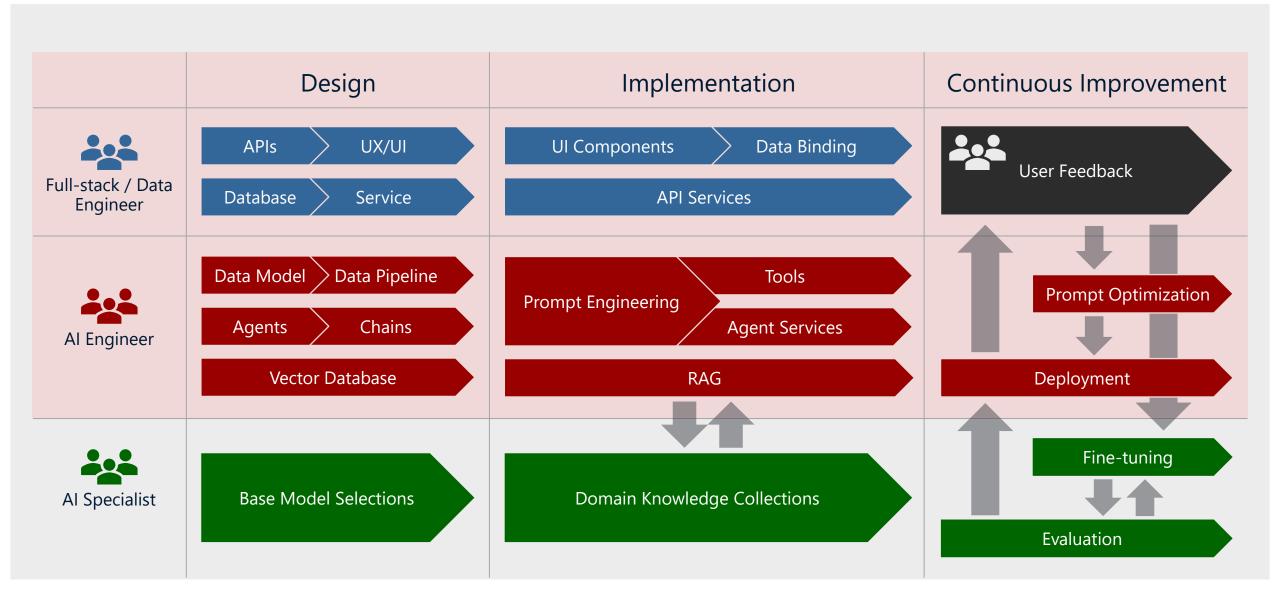




### 2. AI/LLM Assistant for Customer

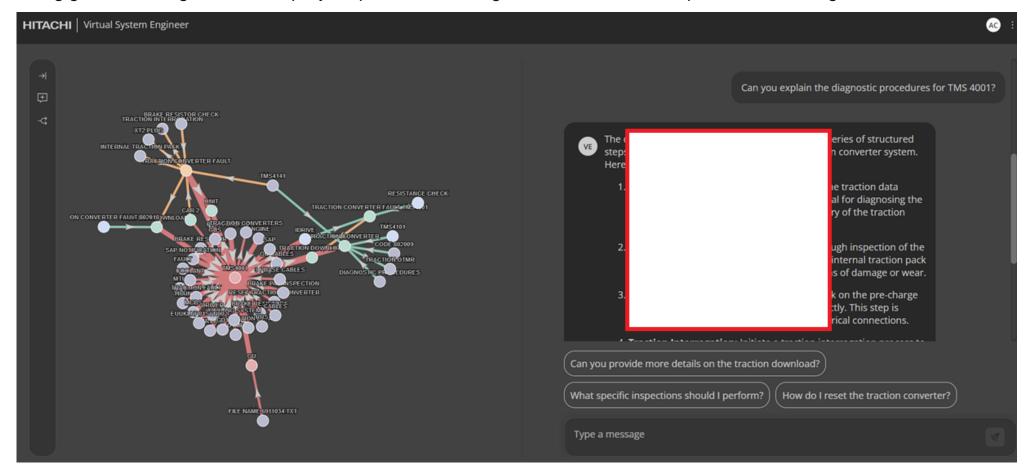


## 3. AI/LLM Software Development Process



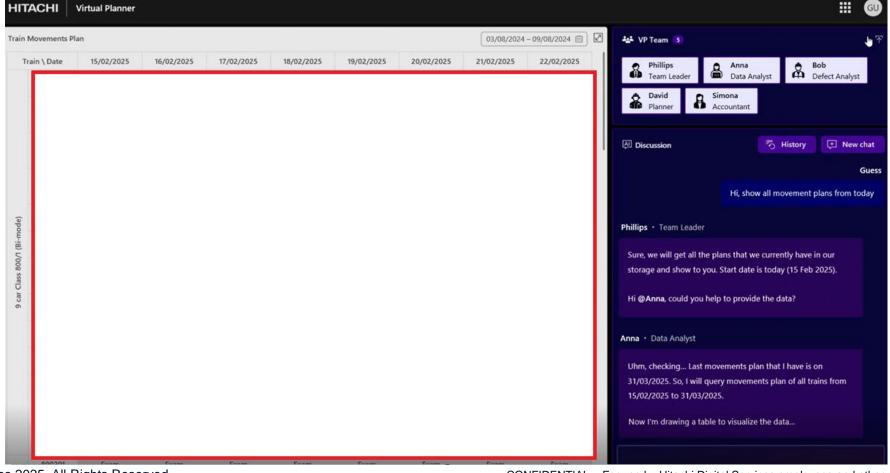
## 4. Real-world enterprise use cases (1)

- Project : Virtual System Engineer
  - Virtual System Engineer uses GenAl to guide technicians in resolving defects from Train by analyzing historical SAP tickets and defect handling guidelines. It generates step-by-step troubleshooting instructions based on past actions and guidelines.



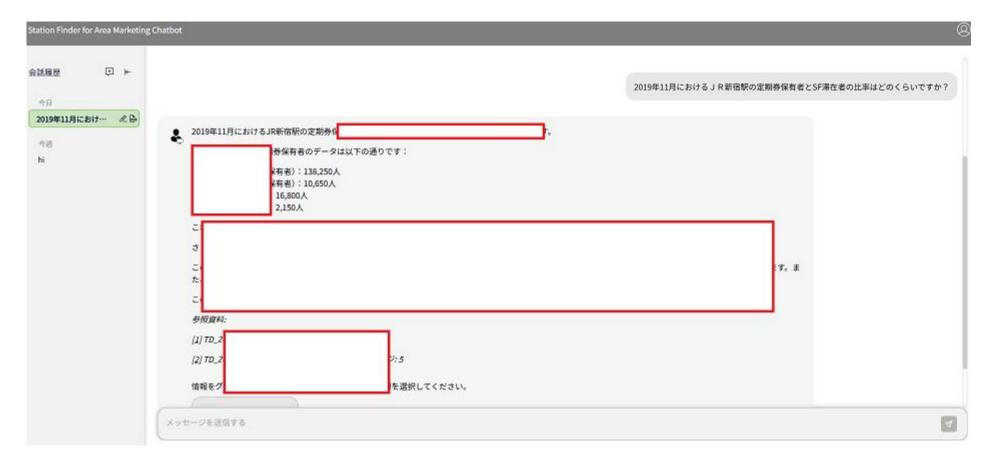
## 4. Real-world enterprise use cases (2)

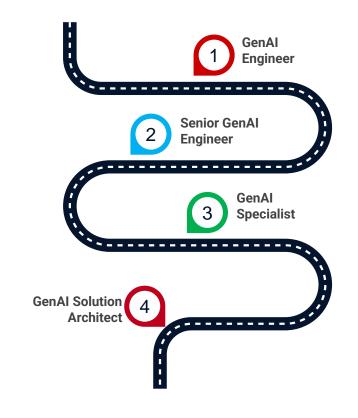
- Project : Virtual Planner
  - Virtual Planner automates the synchronization of train movement plans, gathers train schedule and restriction data from a variety of sources, including seamless third-party system integrations, to minimize manual input.



## 4. Real-world enterprise use cases (3)

- Project : JP Station Finder
  - Extract data from sample Station Chart Reports which contains the statistic information of passenger usage of 600 stations in Tokyo. Then
    leverage that knowledge to build a RAG system to provide accurate, context-aware answer to users.





#### 1. GenAl Engineer

(13)



Design and optimize prompts to improve AI model outputs for specific tasks and requirements.



Expertise in prompt crafting and optimization.
Proficiency in Python or similar scripting languages.

#### 3. GenAl Specialist





Adapt GenAl models to enhance performance for domain-specific applications using customized data.



Fine-tuning generative AI models (e.g., GPT, BERT) on domain-specific data.

Experience with transfer learning and domain adaptation for Al models.

#### 2. Senior GenAl Engineer





Lead prompt engineering initiatives, optimizing complex tasks and guiding teams to achieve top-tier Al outputs.



Advanced prompt optimization for complex generative AI models. Proficiency in custom prompt frameworks and multi-turn interactions.

#### 4. GenAl Solution Architect





Architect generative AI solutions that integrate seamlessly into existing systems to drive innovation and scalability.



Deep understanding of transformer-based architectures and generative models. Expertise in scalable deployment of generative AI systems. Q&A

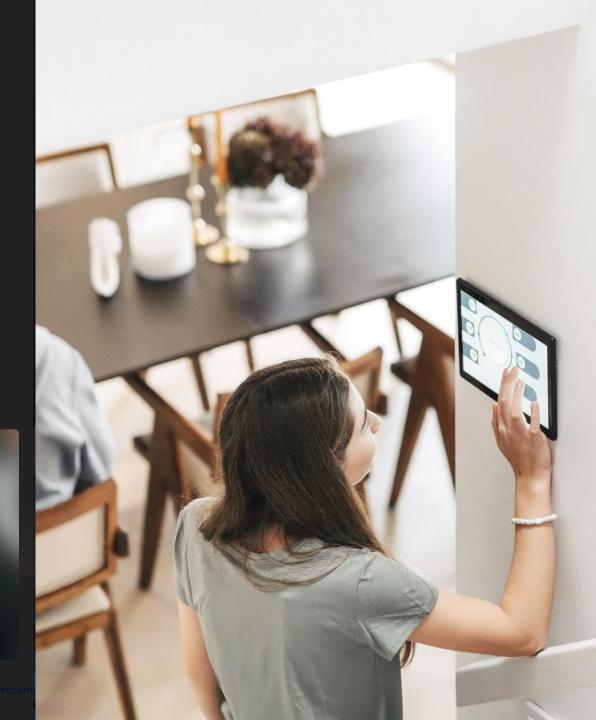
Q.1: What are the strengths of humans compared to AI?



Q.2: What are the challenges/issues of using LLM (ChatGPT as an example)?



Q.3: What are the ways of using LLM to enhance your language skill?



# MARM UP

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# R/I/C/L/A/T/I/IF/A



# ARTIFICIAL



# L/R/A/M/O/G/I/T/H



# **ALGORITHM**



# Thank you

