SunExpress Airlines

ITUarc aerospace research center

SunExpress Airlines & ITU Aerospace Research Center

AI-Enhanced Operations Shift Assitance – AIRMIND Module

30.04.2024

Joint venture of Lufthansa and Turkish Airlines

Lufthansa | TURKISH AIRLINES

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Digital Shift Assistant – Together to the New Heights!

Motivation

- 66 A/C scaling up to 166
- Increasing ops complexity
- Route expansion
- Resource optimization
- Increasing number of tools and screens

Benefits

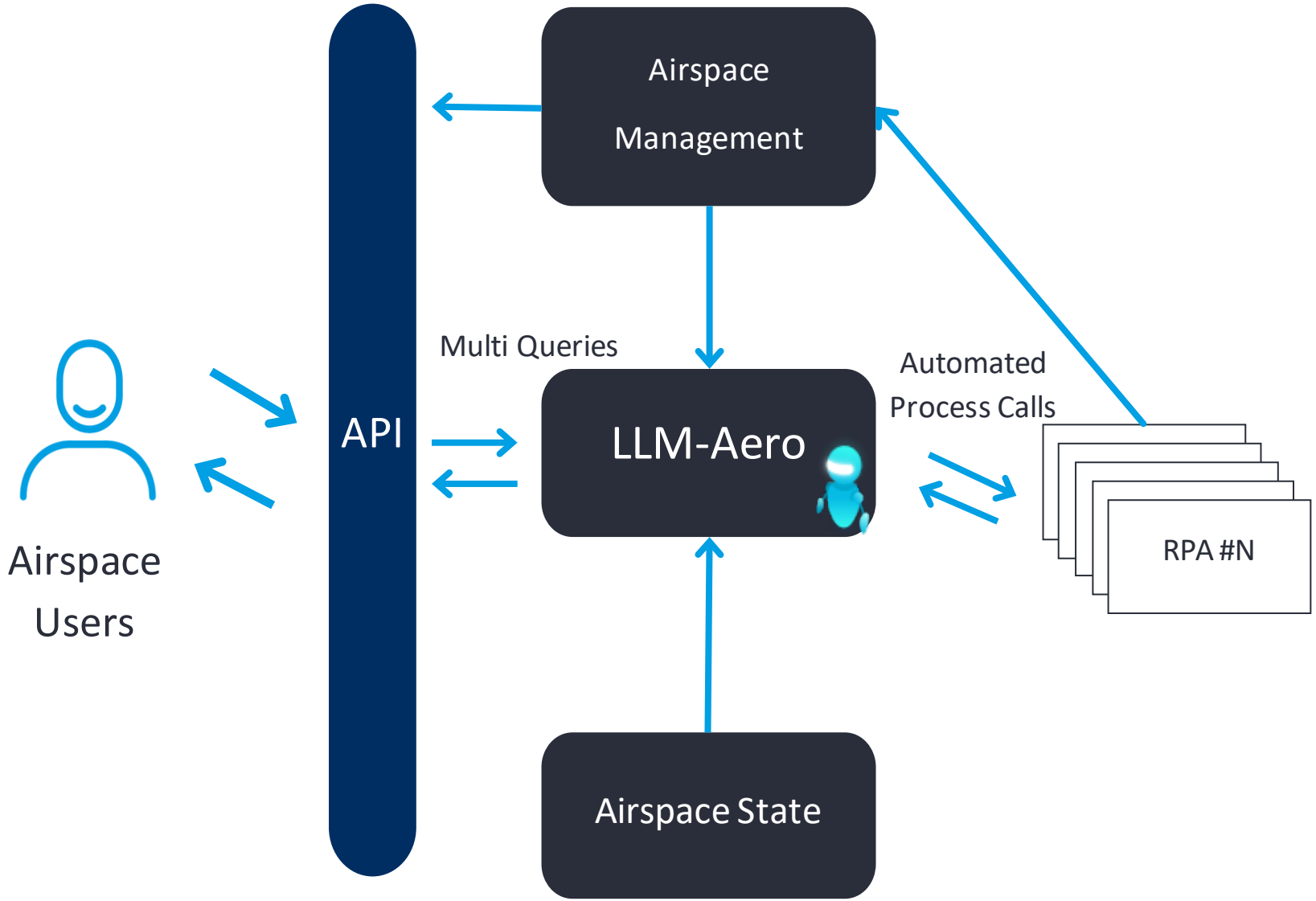
- ML & AI based decision support
- Irregularity control and handling tool
- Advanced A/C and A/P tracking
- Easy processing of historical data
- Ability to send automatic messages
- System integration – 10 in 1

#togethertothenewheights

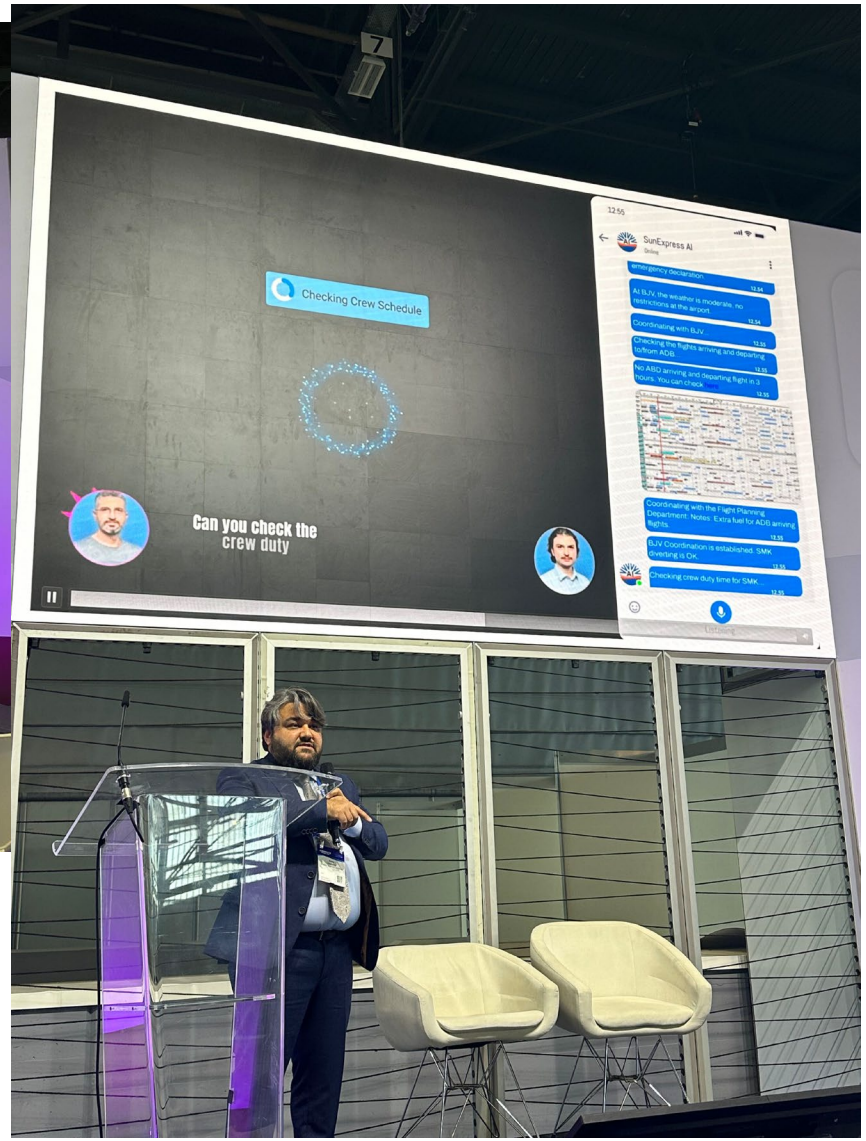
Overview of Airline Operation with Intelligent Neural Dynamics - AIRMIND

Large Language Models as an AI Agents in Airspace Operations

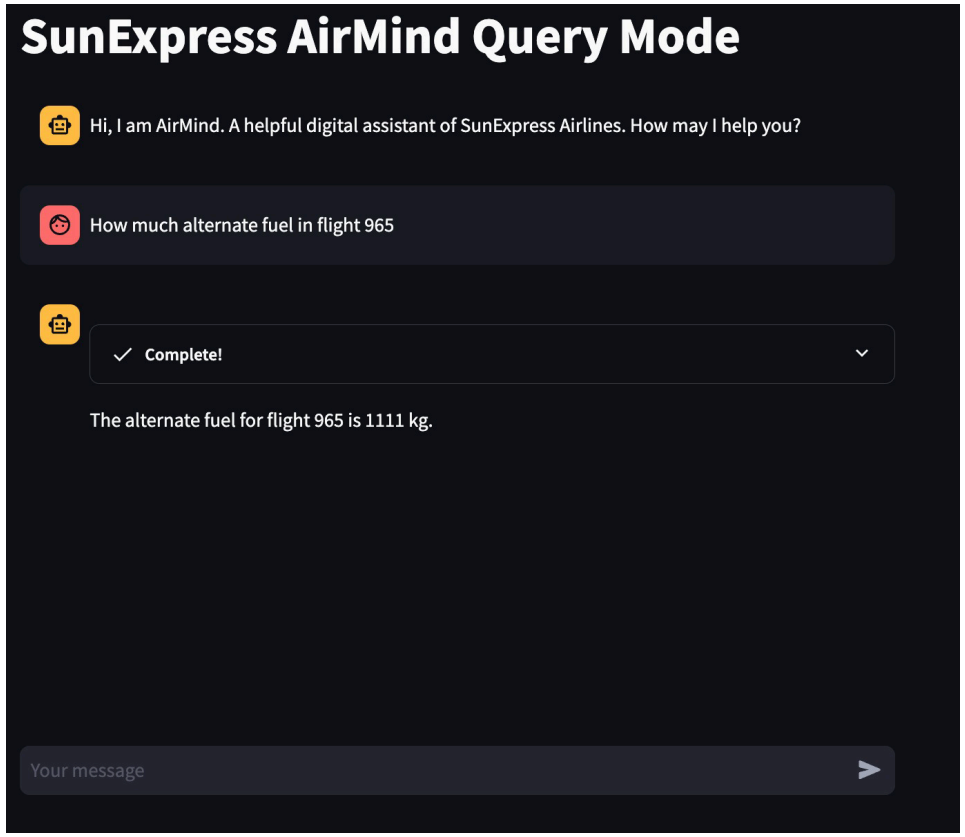
Large Language Models as an AI Agents Framework



Concept of Operation and Tactical Demo in Airspace World 2024



LLM as an AI Agent in Airline Operations: e.g. Flight Diversion Management



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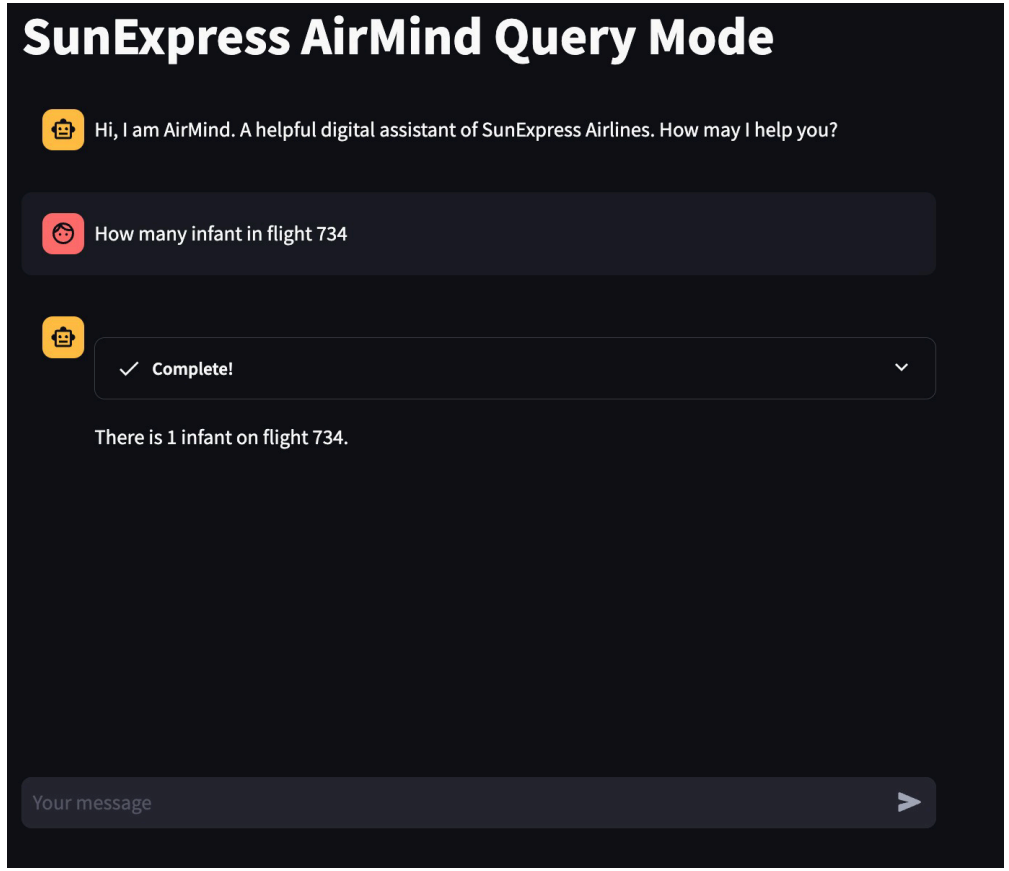
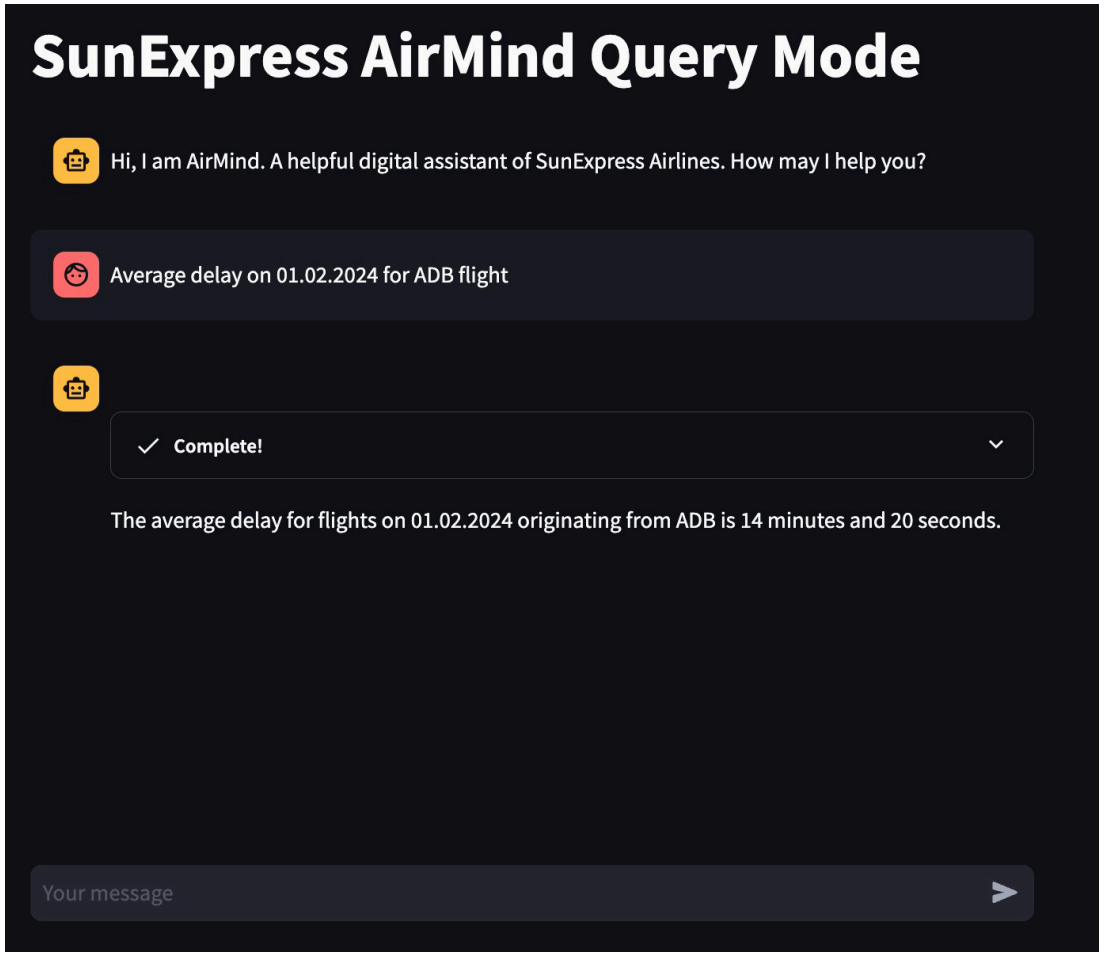
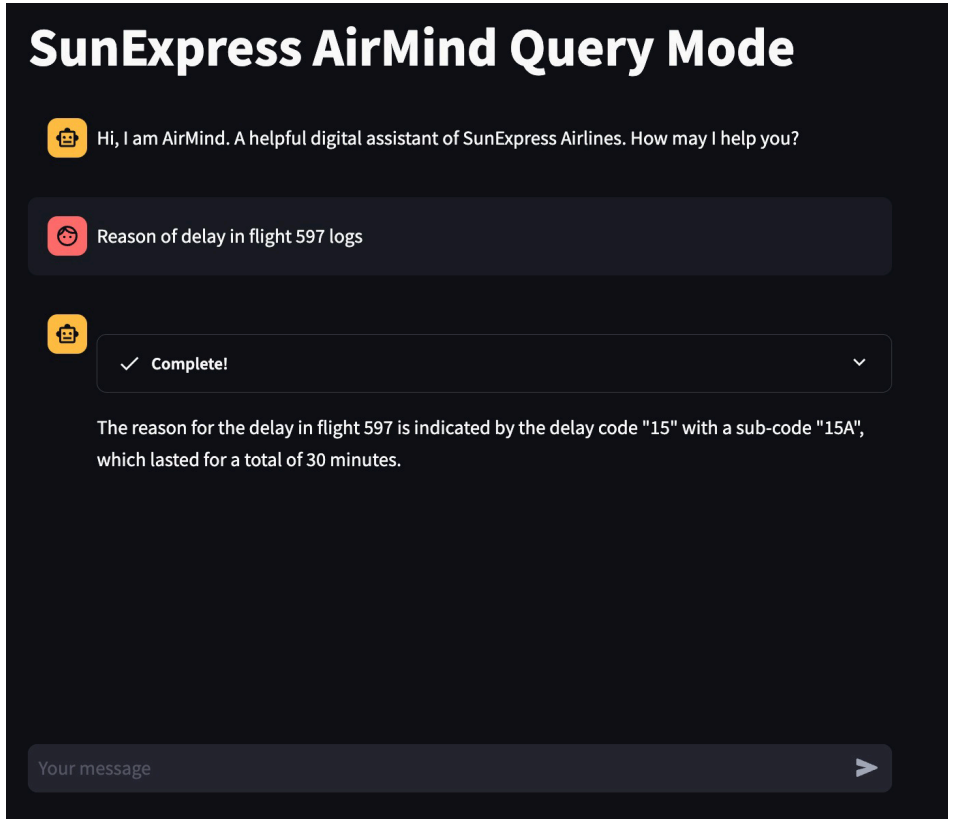
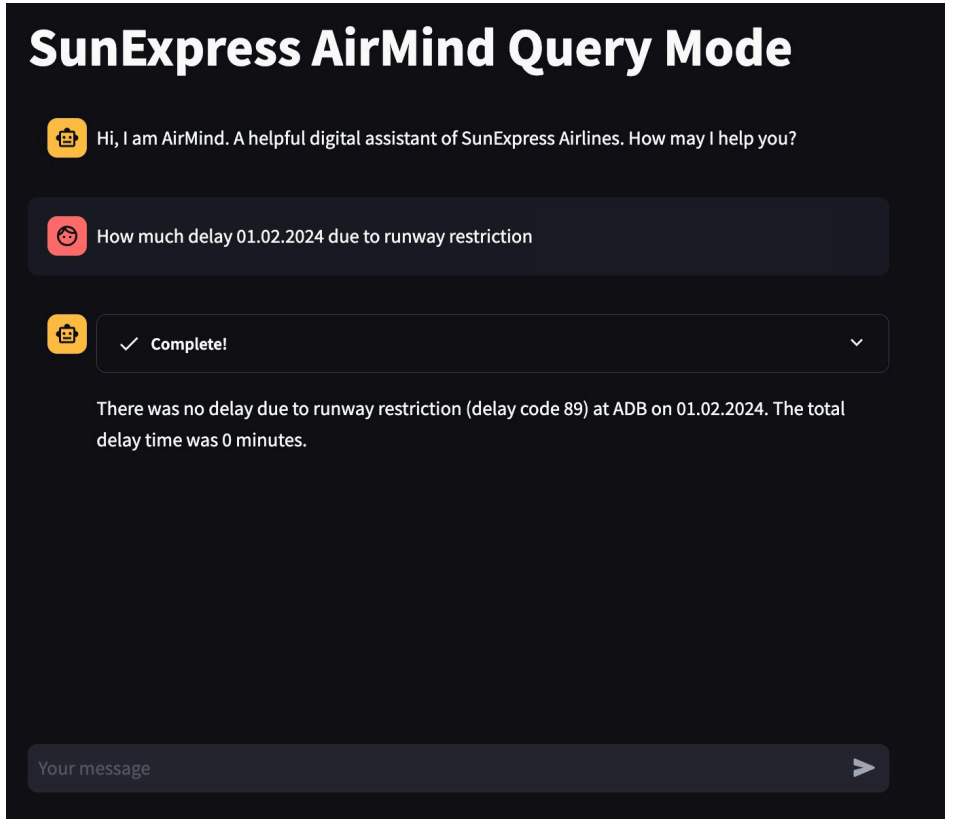


LLM as an Agent in Airline Operations: e.g. Post Processing with Some Math!

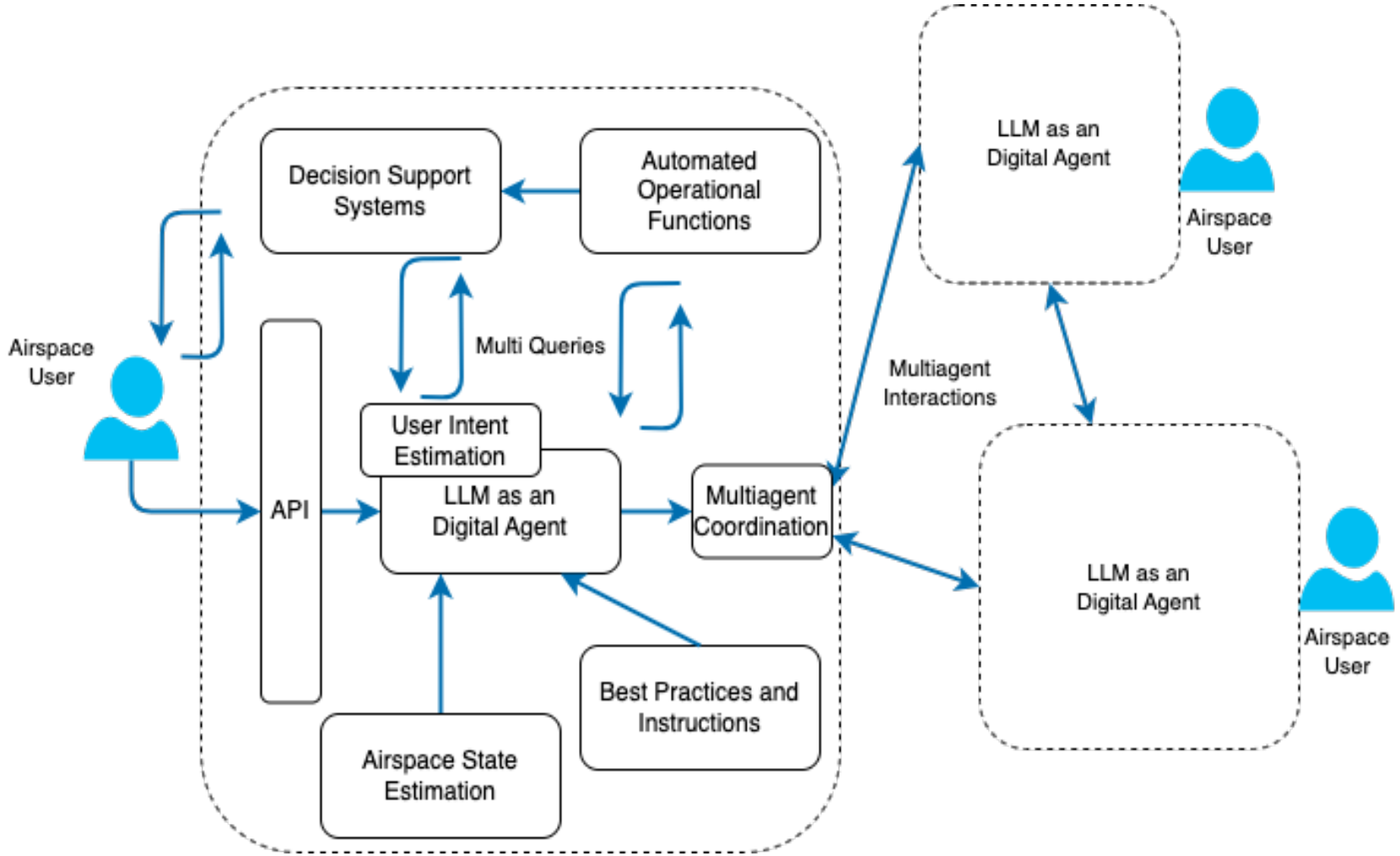


LLM as an AI Agent in Airline Operations: e.g. Reasoning – Flight Log Checks





Our Future Vision:
Large Language Models as an AI Agent – Human Teams!



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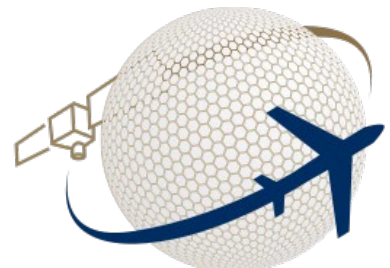

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