

# Artificial Intelligence

- *AI Integration - ChatGPT, Anthropic – use cases*
- *AI Architecture - Banking, Investment, CRM, Wealth Management – use cases*
- *Architecture review using - Investment Banking use case*
- *AI Architecture – AI Framework*

Version 4.0 dd Sep 25, 2025

Alex ILIE

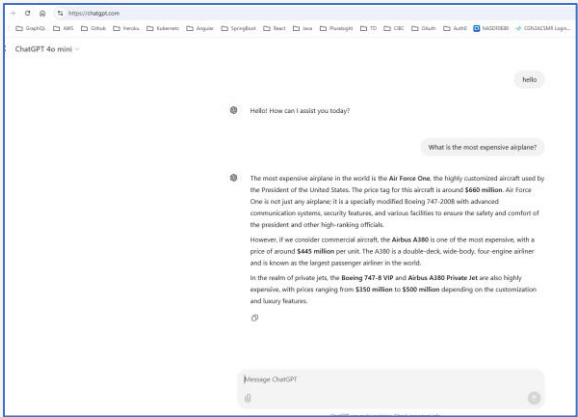
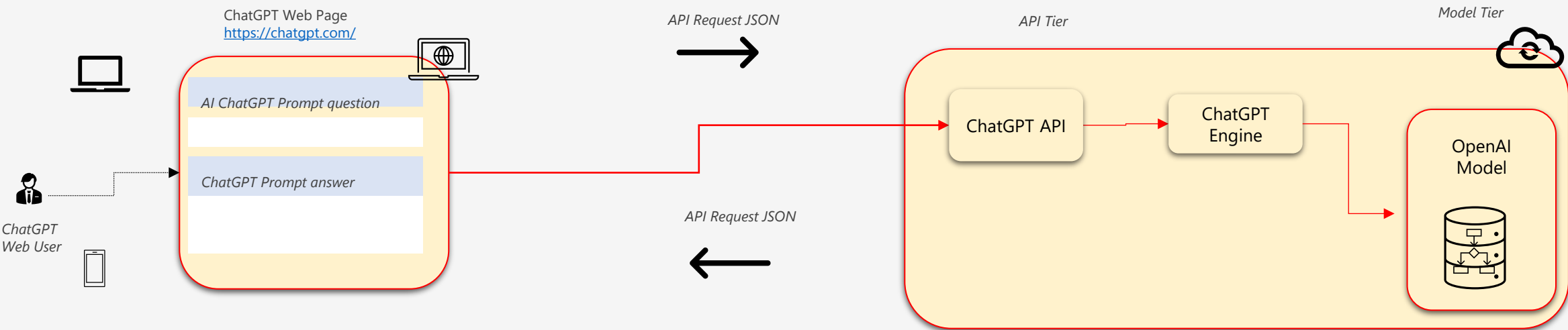
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# Artificial Intelligence

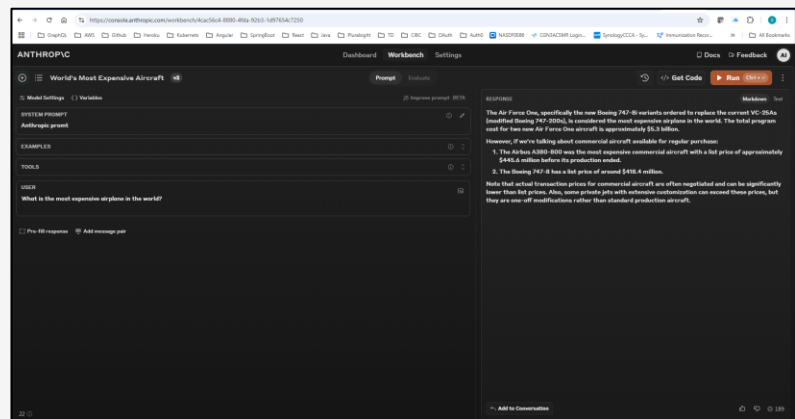
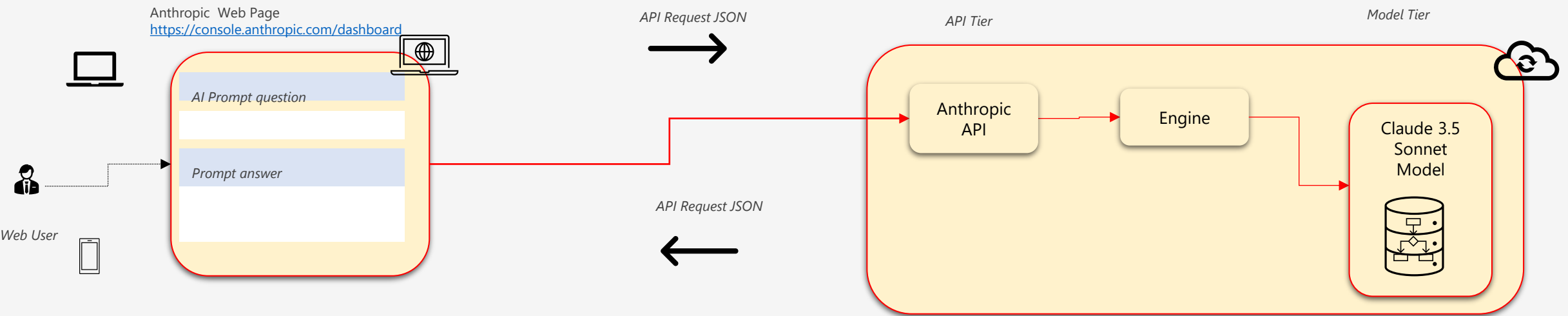
ChatGPT 4o Open AI LLM - Large Language Model



Model	LLM – Large Language Models	OpenAI
Features		

# Artificial Intelligence

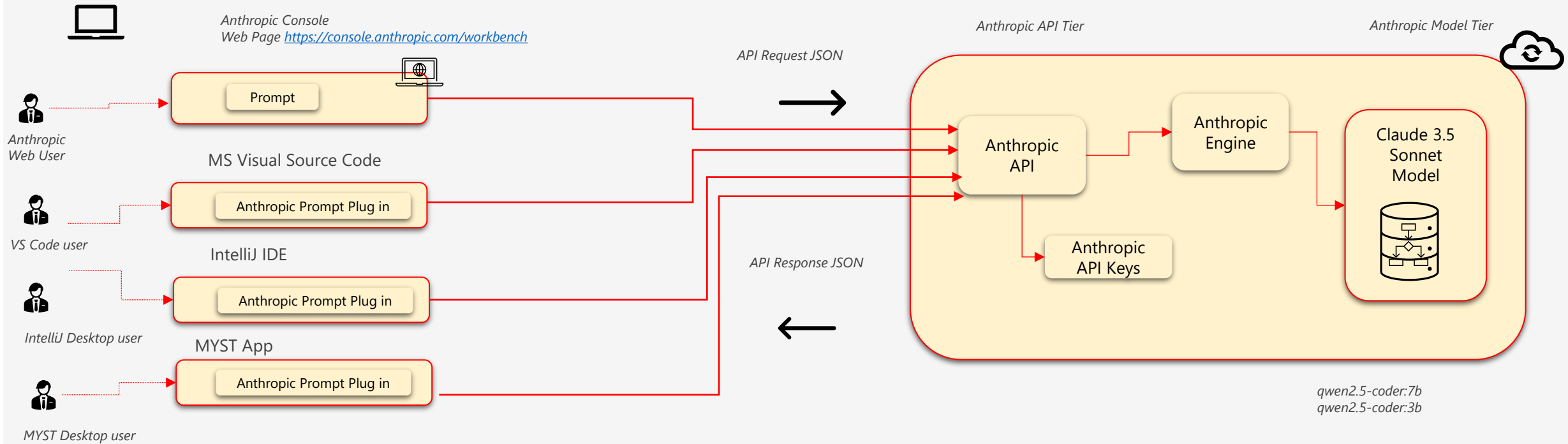
Anthropic | Claude LLM - Large Language Model



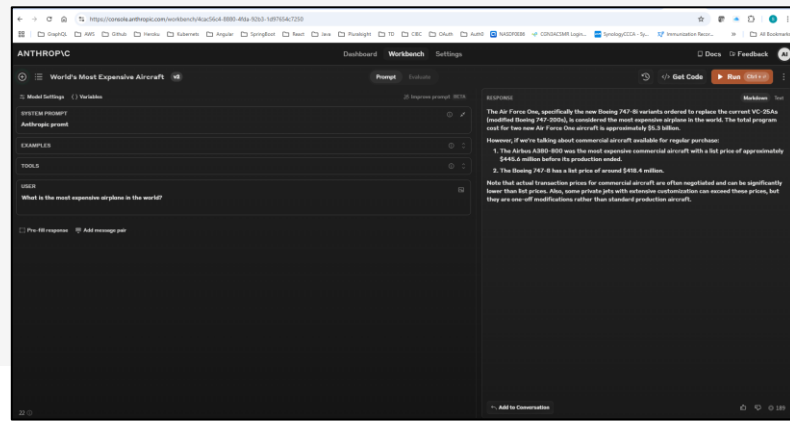
Model	LLM – Large Language Models	Claude 3.5 Sonnet
Features		

# Artificial Intelligence

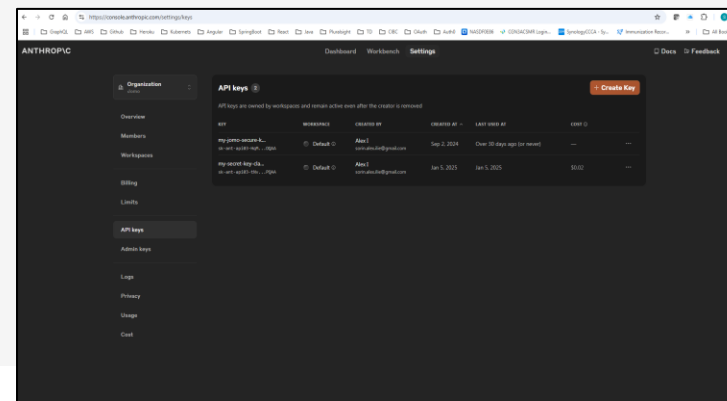
Anthropic usage with Anthropic.com, VS Code, IntelliJ Anthropic & MYST



Anthropic Prompt usage; Anthropic Console  
Web Page <https://console.anthropic.com/workbench>

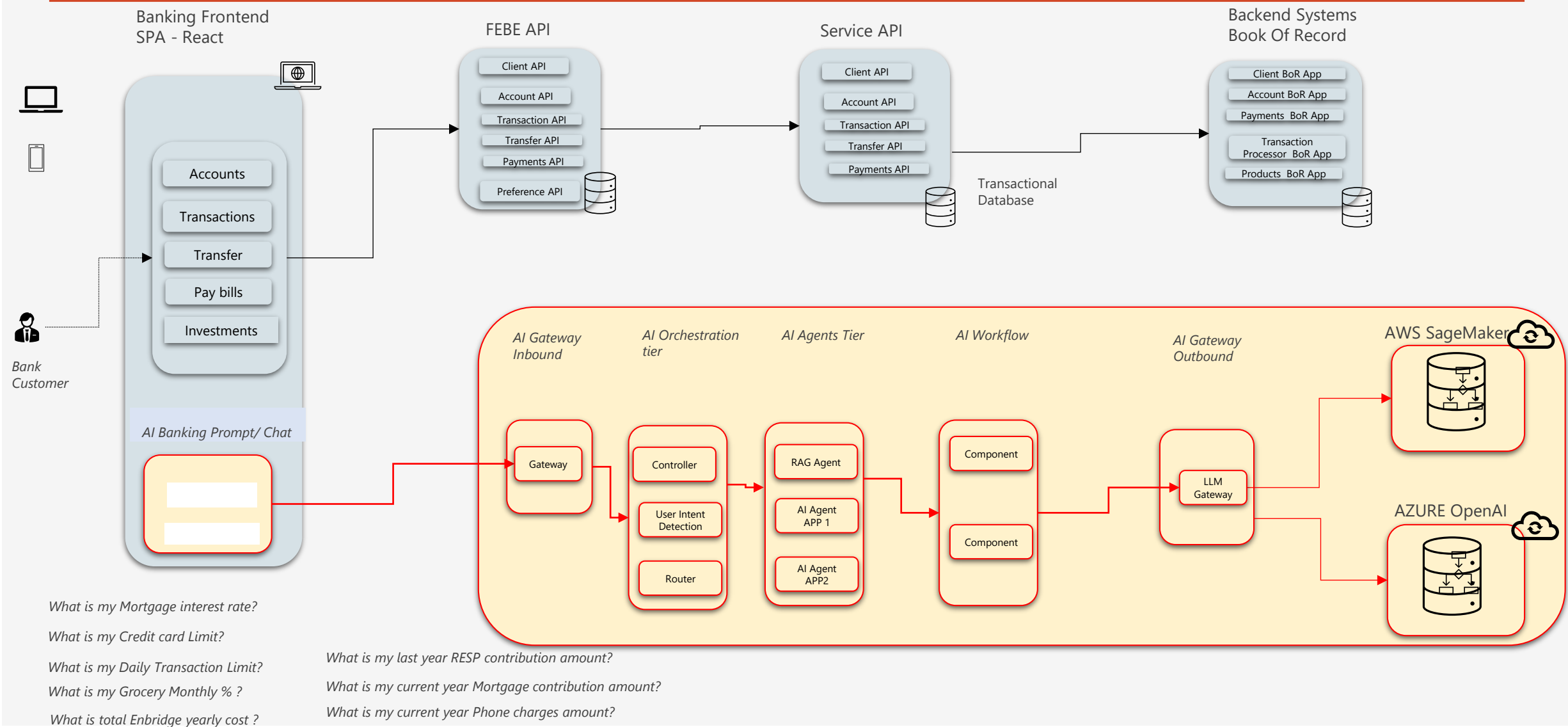


Anthropic API Authorization using Anthropic API Keys

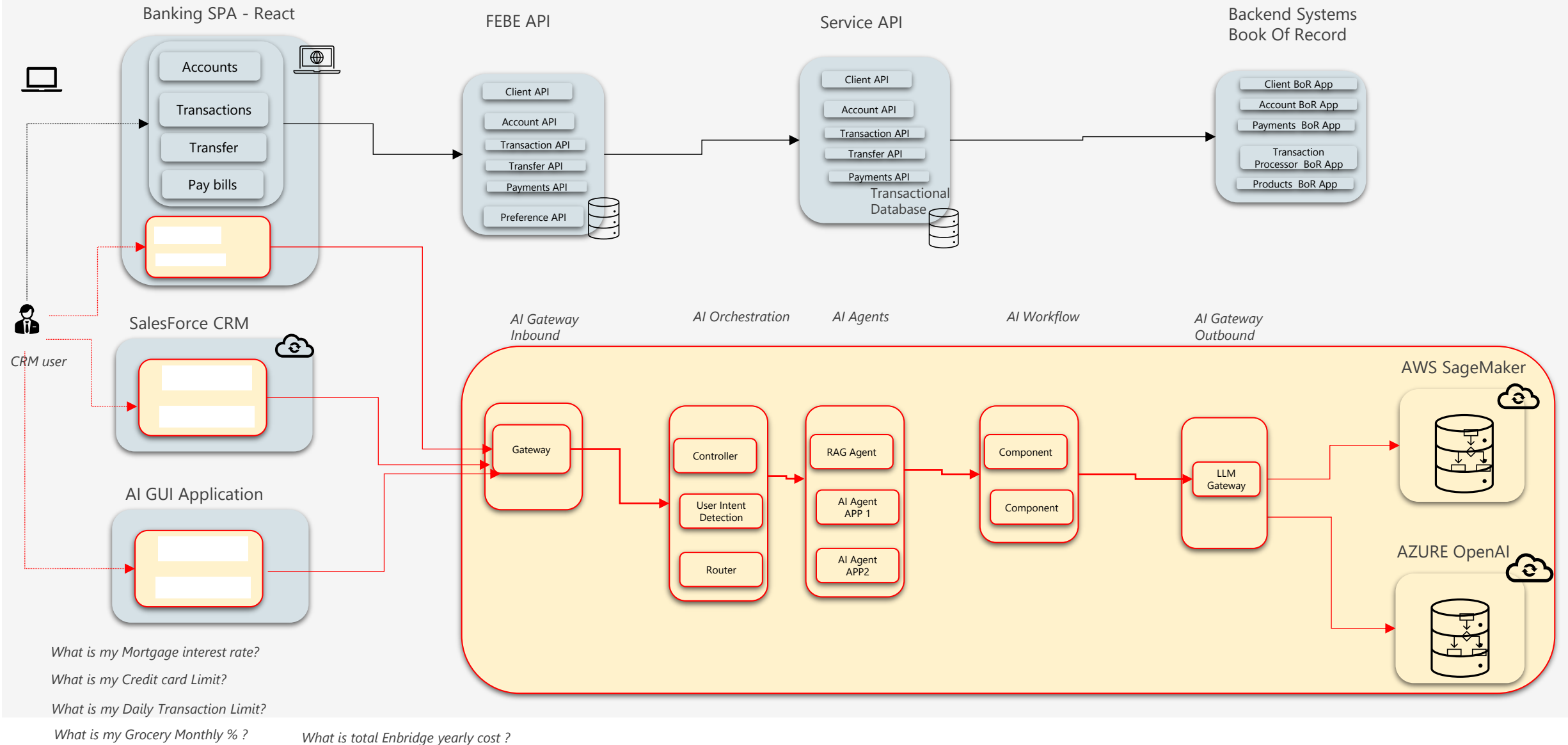


# Artificial Intelligence

## Banking & AI - Architecture

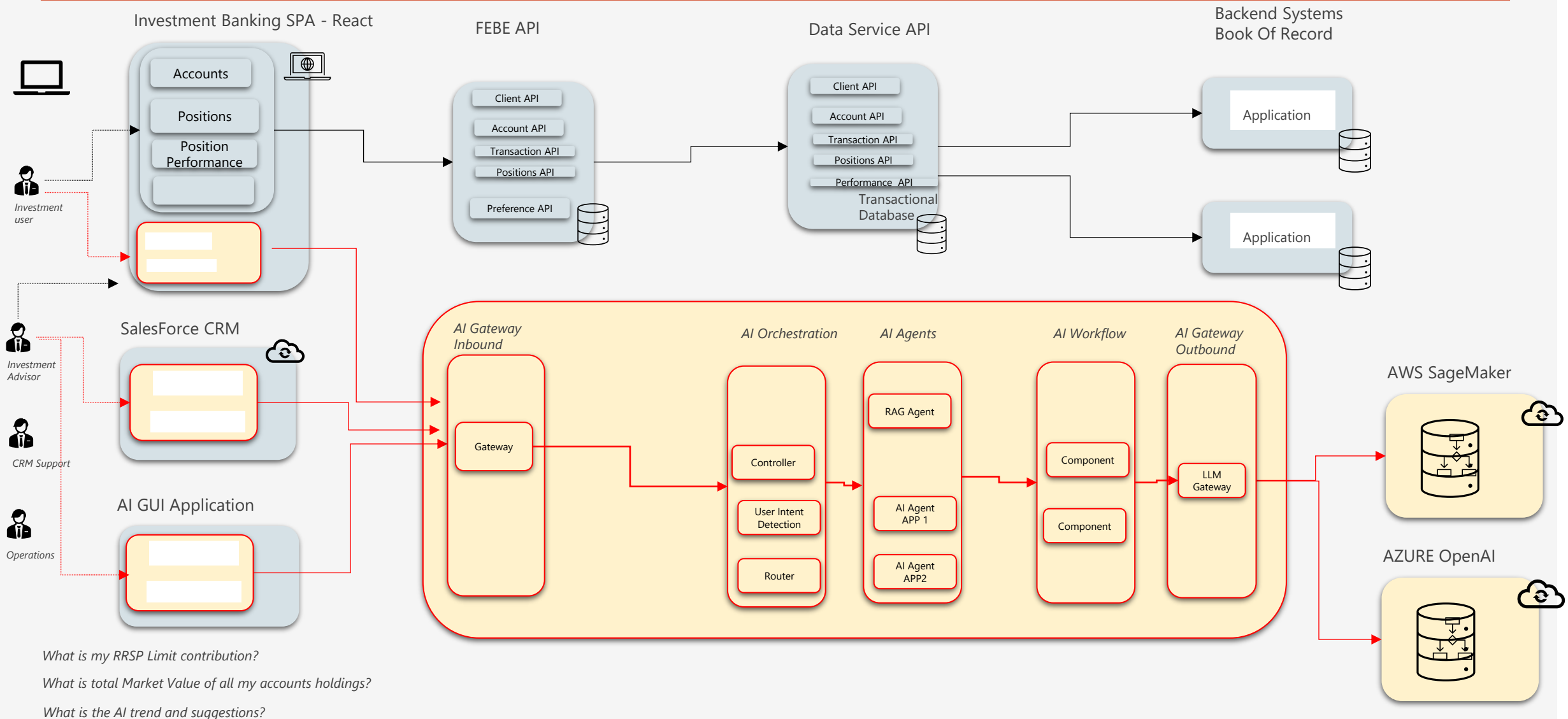


## SalesForce CRM & AI – Architecture



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AI Architecture | Investment Banking – **DRAFT** before First AI review





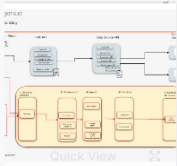
# Artificial Intelligence

Msty

Hello! How can I help you today?

You ^

Please review this Investment Banking Architecture diagram and please let me know if this is correct AI Architectural implementation pattern



Claude 3.5 Sonnet Latest

This appears to be a well-structured AI architecture diagram for Investment Banking. Let me analyze the key components and patterns:

The architecture follows good practices with:

1. Clear Frontend Layer:

- Investment Banking SPA using React
- Salesforce CRM integration
- AI GUI Application interface

2. API Layer:

- FERE API for core functionalities
- Data Service API for data processing

3. AI Processing Pipeline (well-structured):

- AI Gateway (Inbound)
- AI Orchestration
- AI Agents with NLP Agent and Rules
- AI Workflow with Consumers
- AI Gateway (Outbound)

4. Backend Integration:

- Book of Record Applications

Msty

Hello! How can I help you today?

- Salesforce CRM integration
- AI GUI Application interface
- 2. API Layer:
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- AI Gateway (Outbound)
- 4. Backend Integration:
- Book of Record Applications
- Cloud AI Services (AWS SageMaker and Azure OpenAI)

Good Implementation Patterns:

1. Separation of concerns

2. Microservices architecture

3. API-first approach

4. Cloud integration

5. Clear data flow

Suggestions for improvement:

1. Consider adding API Gateway for better security

2. Include error handling/fallback mechanisms

3. Add monitoring and logging components

4. Consider adding caching layer

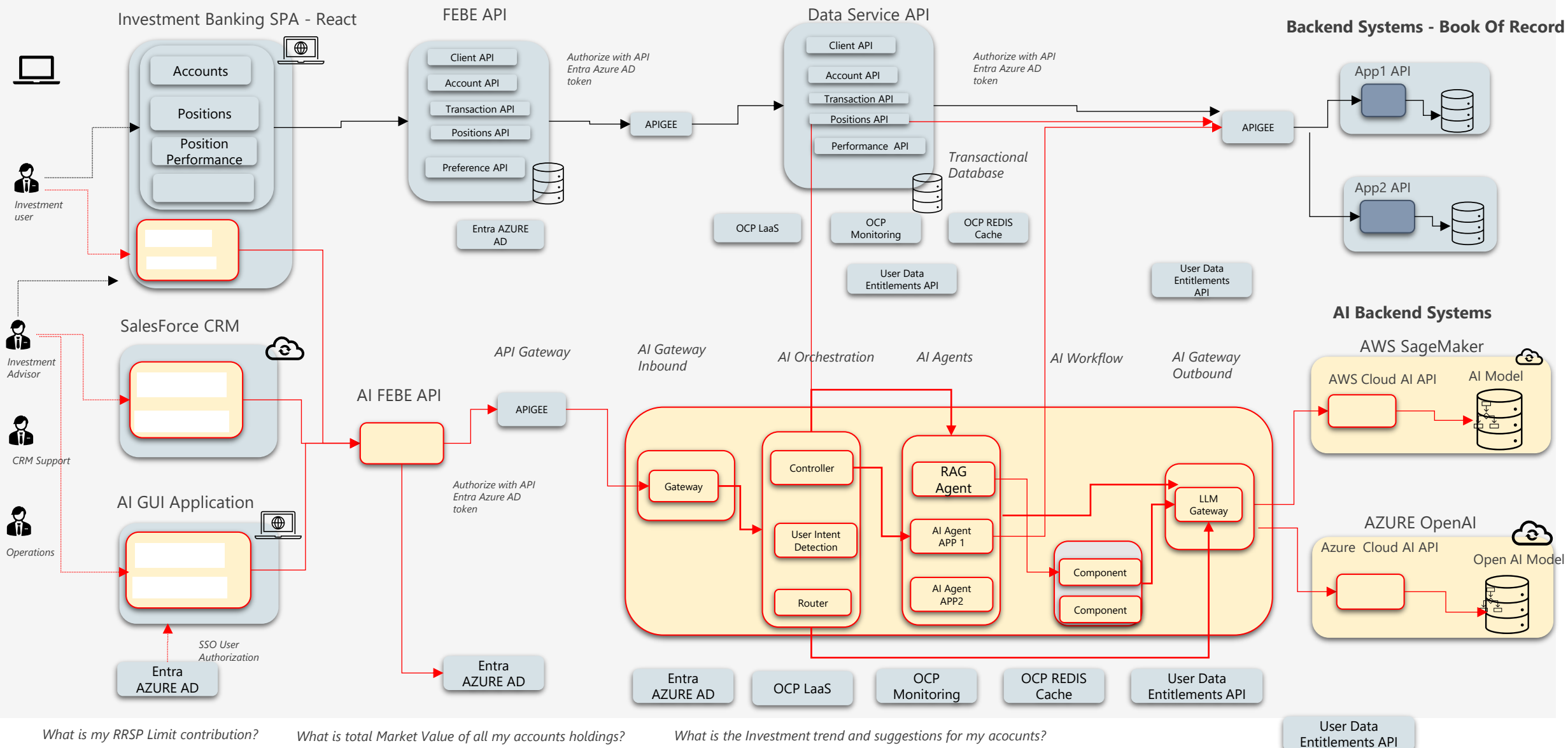
5. Include data validation/security layers

Overall, this is a solid AI architectural pattern for Investment Banking use cases, especially for handling queries about ROI contributions, market values, and trend analysis.

Press / to focus here and start typing...

Claude 3.5 Sonnet Latest

# Artificial Intelligence

AI Architecture | Investment Banking – **updated** version

*What is my RRSP Limit contribution?*

What is total Market Value of all my accounts holdings?


*What is the Investment trend and suggestions for my acocunts?*

User Data  
Entitlements API







# Artificial Intelligence

AI Architecture | Investment Banking – **second** architecture review with Msty and Anthropic & Claude 3.5 LLM



Msty



+



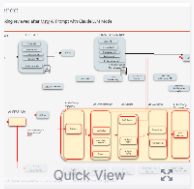
Hello! How can I help you today?

 Add Split Chat CtrlT ...




Overall, this is a solid AI architectural pattern for Investment Banking use cases, especially for handling queries about ROI contributions, market values, and trend analysis.


You

Please review this updated Investment Banking Architecture diagram and please let me know if this is correct AI Architectural implementation pattern



Quick View

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 **Claude 3.5 Sonnet Latest**

This updated architecture diagram shows significant improvements and more detailed implementation patterns. Let me analyze the key changes and components:

Improvements in the Architecture:

1. Enhanced Security Layer:

- Added Entra AZURE AD integration for authentication
- SSO User Authorization implementation
- Proper API authorization flows


2. More Detailed API Structure:






- FEBE API with clear endpoint definitions
- Data Service API with granular service endpoints
- AI FEBE API integration

3. Enhanced Data Management:

- Added OCP Layer
- OCP REDIS Cache implementation
- OCP Monitoring
- Transactional Database

Press / to focus here and start typing...

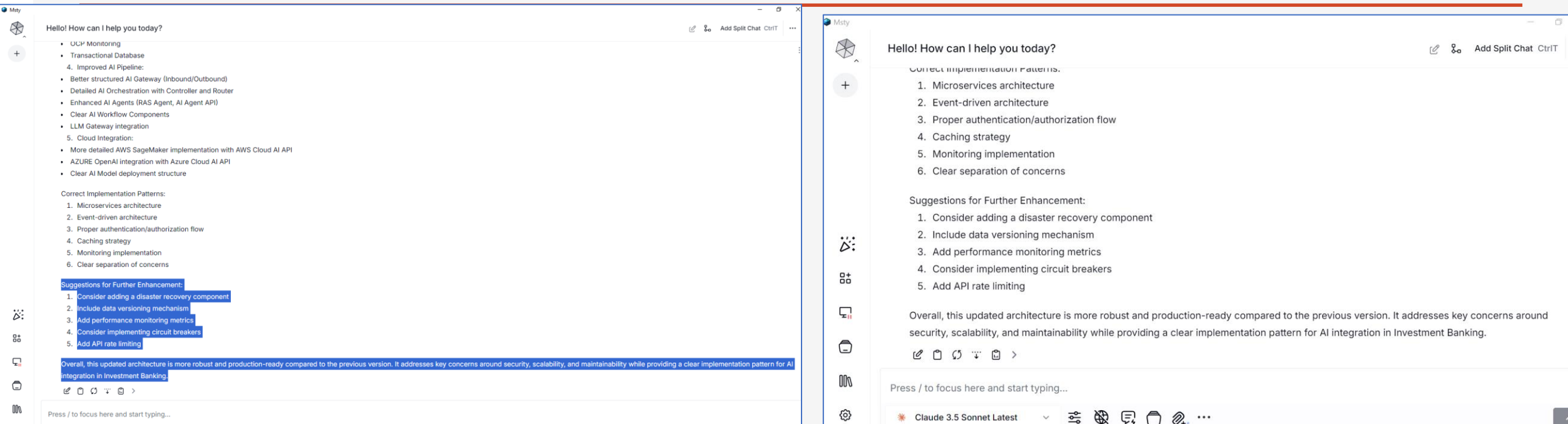
 Claude 3.5 Sonnet Latest

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# Artificial Intelligence

AI Architecture | Investment Banking – AI response after **second** architecture



Suggestions for Further Enhancement:

1. Consider adding a **disaster recovery** component
2. Include **data versioning mechanism**
3. Add **performance monitoring metrics**
4. Consider implementing **circuit breakers**
5. Add **API rate limiting**

Overall, this *updated architecture is more robust and production-ready compared to the previous version*. It addresses key concerns around *security, scalability, and maintainability* while providing a clear implementation pattern for AI integration in Investment Banking.

