



AI Insights and Application in the Industry



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Agenda

- 1 Quick Introduction
AI Insights
- 2 RAG – Retrieval Augmented Generation
Introduction and Industry Use Cases
- 3 AI Agents
Introduction and Industry Use Cases
- 4 Next Steps
Exploring and Learning AI

The future of AI is here



AI is reshaping
our world.

Not in years. Not in months.
Right now.



Making the impossible
now possible.

From natural language to visual
understanding.



AI is redefining
enterprise capability.

From cost center to strategic
differentiator.

Generative AI trends

93%

organizations are experimenting
with multiple models¹

75%

responsible AI users reported improvements
in customer experience and trust³

50%

enterprises using generative AI will
launch agentic AI pilots by 2027²

30%

or fewer generative AI experiments
moved to production⁴

1. [16 Changes to the Way Enterprises Are Building and Buying Generative AI | Andreessen Horowitz](#)
2. [Autonomous generative AI agents | Deloitte Insights](#)

3. [Trust in artificial intelligence – 2023 Global study on the shifting public perceptions of AI | KPMG](#)
4. [GenAI and the future enterprise | Deloitte Insights](#)



New applications built over the next 24-36 months

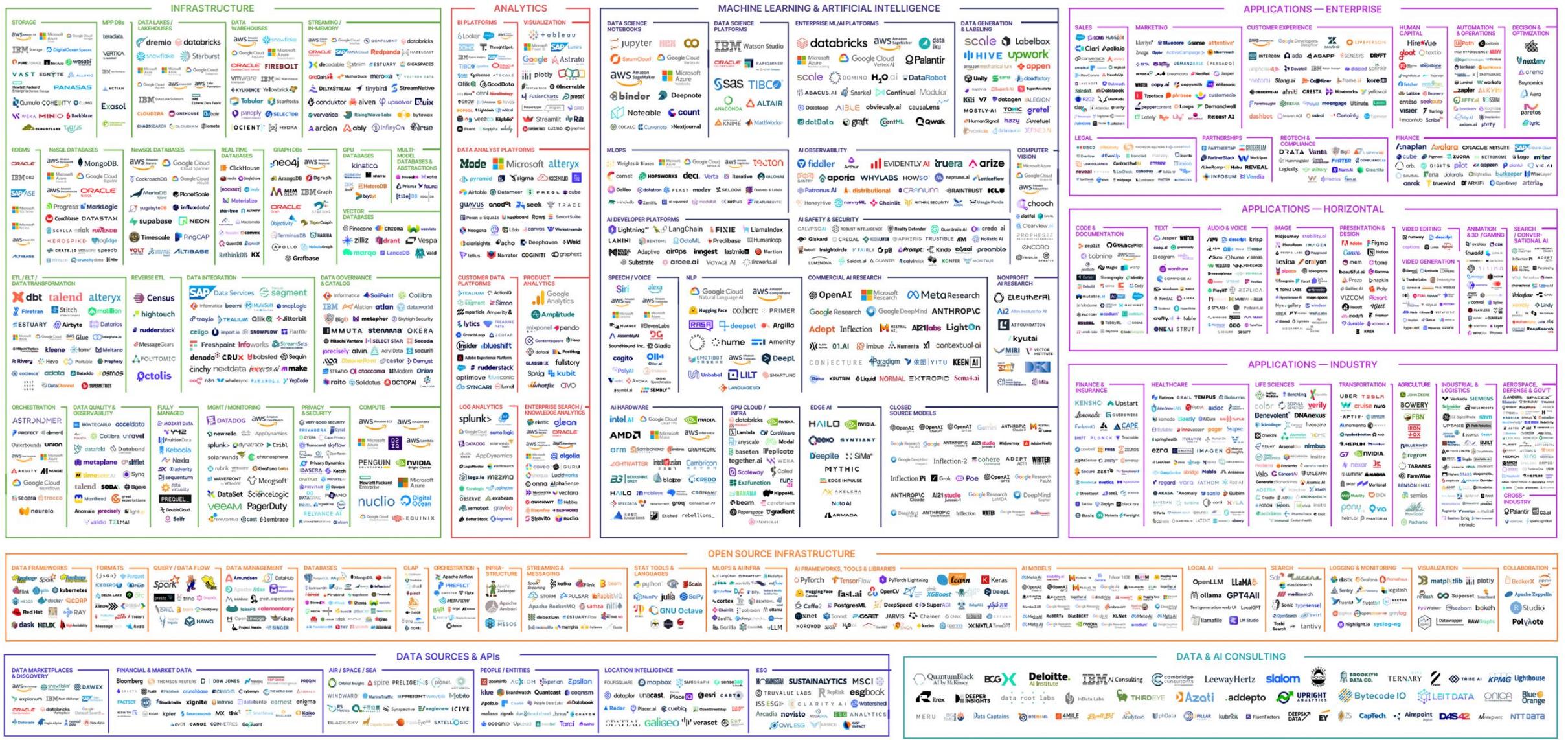


Organizations accelerating app modernization to bring AI into existing apps



Developers using AI in their toolset

The Data and AI landscape





Azure AI Foundry

-  Copilot Studio
-  Visual Studio
-  GitHub
-  Azure AI Foundry SDK

Foundational models | Open-source models | Task models | Industry models



Azure
OpenAI Service



Azure
AI Search



Azure AI
Agent Service



Azure AI
Content Safety



Azure Machine
Learning

Evaluations

Customization

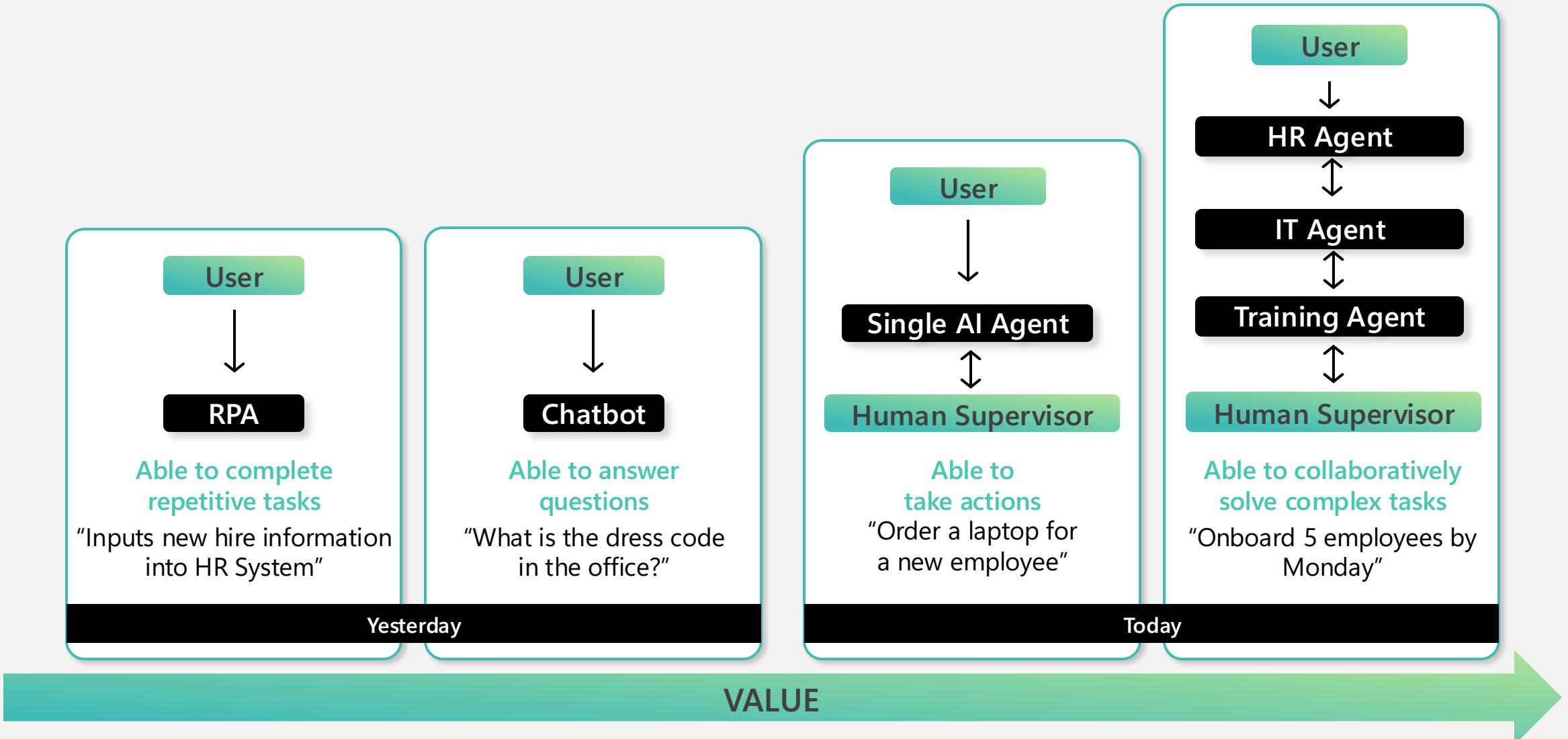
Governance

Monitoring

Observability

Demo - AI

Evolution of AI capabilities and automation



RAG - Retrieval Augmented Generation



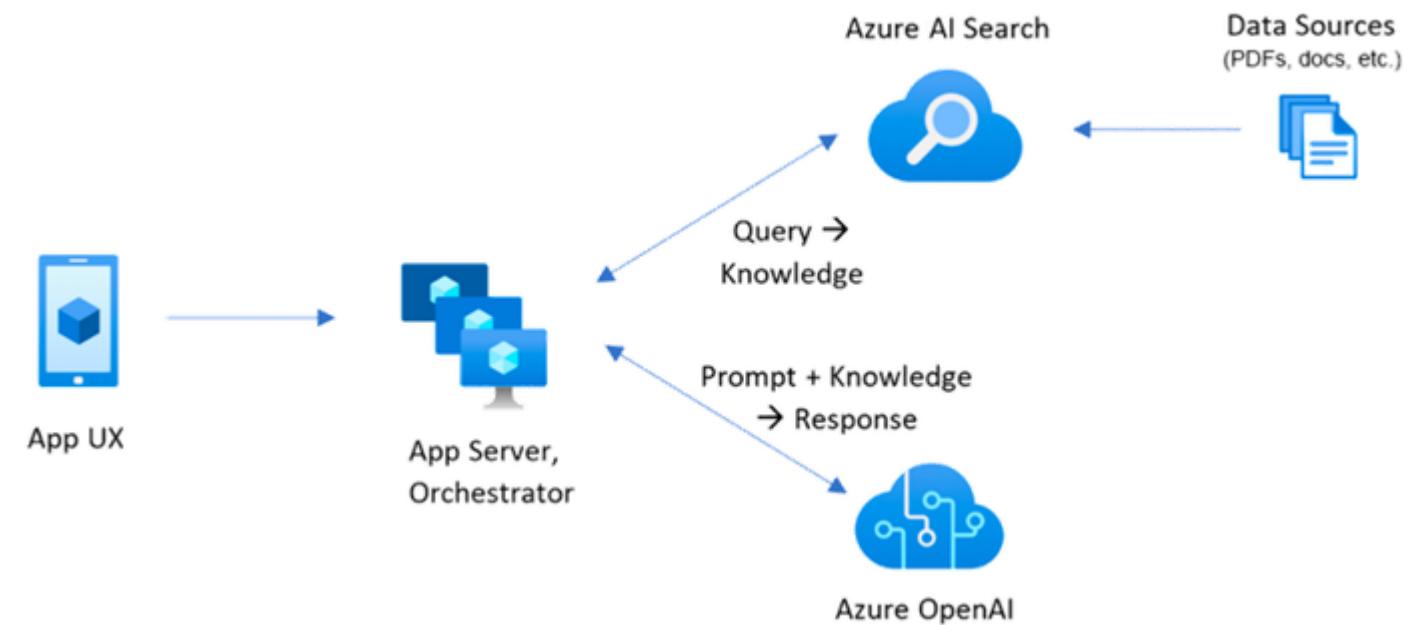
RAG & First wave of generative AI Apps

RAG

- Primary technique for grounding
- Process for retrieving information relevant to the task, providing it to the LLM along with a prompt, and relying on the LLM to use this specific information when responding.
- Powerful and easy-to-use technique for many use-cases.

First wave Use Cases

- Conversational chat on private data
- Text/Document/Audio summarization and classification
- Image description and entity extractions
- Personalized content generation



What are the key consideration to build the RAG system?

1. Data Preparation

- Understanding Data Sources
- Data Ingestion
- Data Chunking
- Data Versioning

2. Vectorization & Indexing

- Efficient Vector Indexing
- Hybrid Search Strategies
- Embedding Models

3. LLM & Prompt Optimization

- LLM Models
- Prompt Engineering
- Context Optimization
- Memory & Personalization

4. Orchestration & Workflow

- Orchestration Framework
- APIs
- Response Evaluation

5. Security & Compliance

- E2E Solution Security
- Prompt Security / Sanitization
- AI Content Filtering
- Regulatory Compliance

6. Cost & Performance Optimization

- Latency Optimization
- Token Usage Control

7. Responses Evaluation & Monitoring

- Automated Metrics Tracking
- User Feedback Loop

8. UI / UX & User Interaction

- UI / UX Design

9. Infrastructure

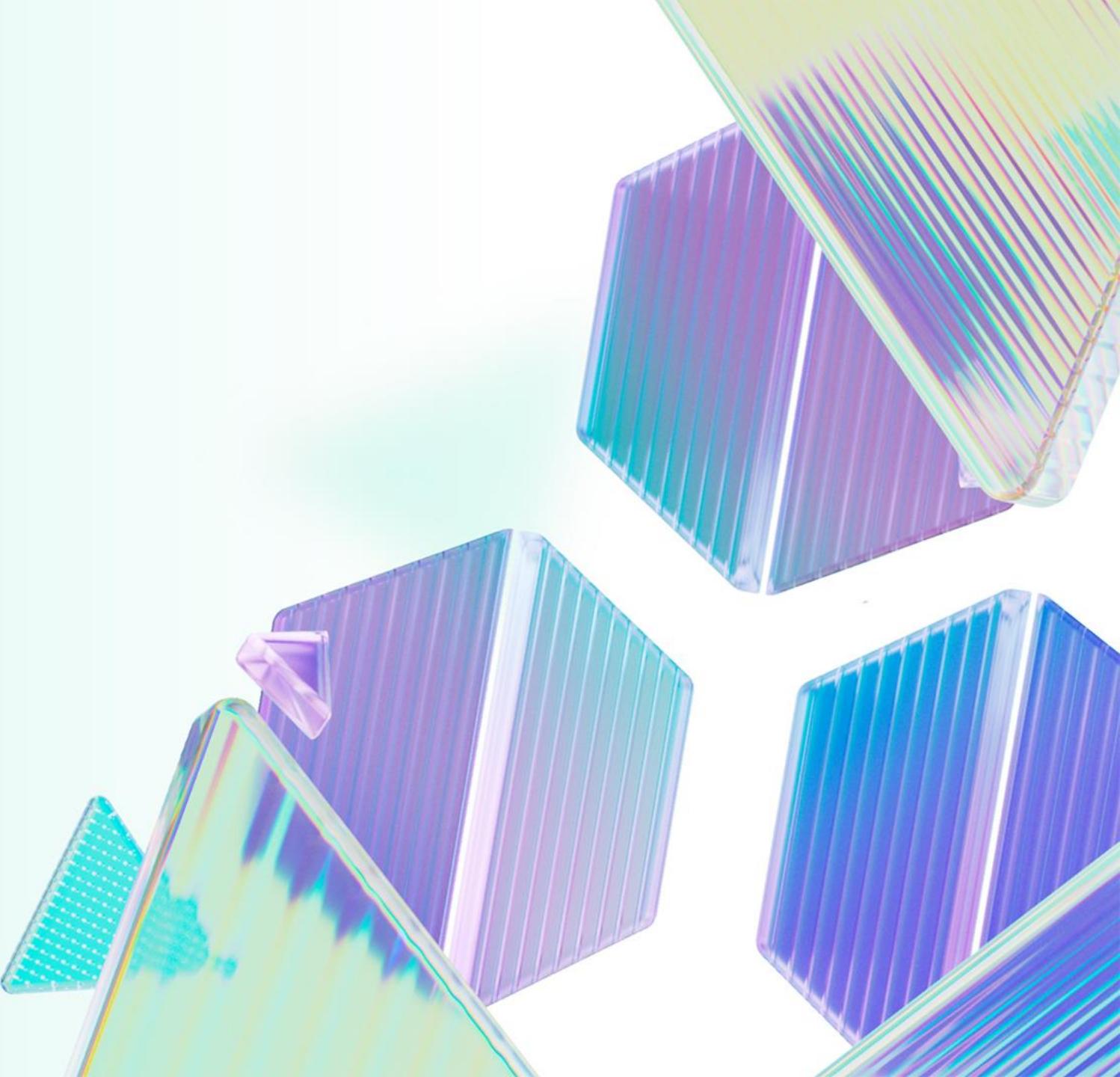
- Environment Sizing
- Monitoring
- DevOps (CI/CD)

Demo - RAG





AI Agents



Agents

Complex interactions & orchestration

- Virtual assistants
- Customer support
- Intelligent code editors

Tools calling

Many LLM tasks + steps
undefined sequence = agentic reasoning

Improve efficiency and accuracy

Ask a question on a topic?

Do web search? First draft response.
Need more research?
Do revision on response.
Iterate for more details?
Revise, act and respond.

Agentic Reasoning

Question



Search

Response



Revise

Iterate



Research

Agent frameworks and services



[Semantic Kernel Agent Framework](#)



[Autogen](#)



[Langgraph](#)



[Azure AI Agent Service](#)

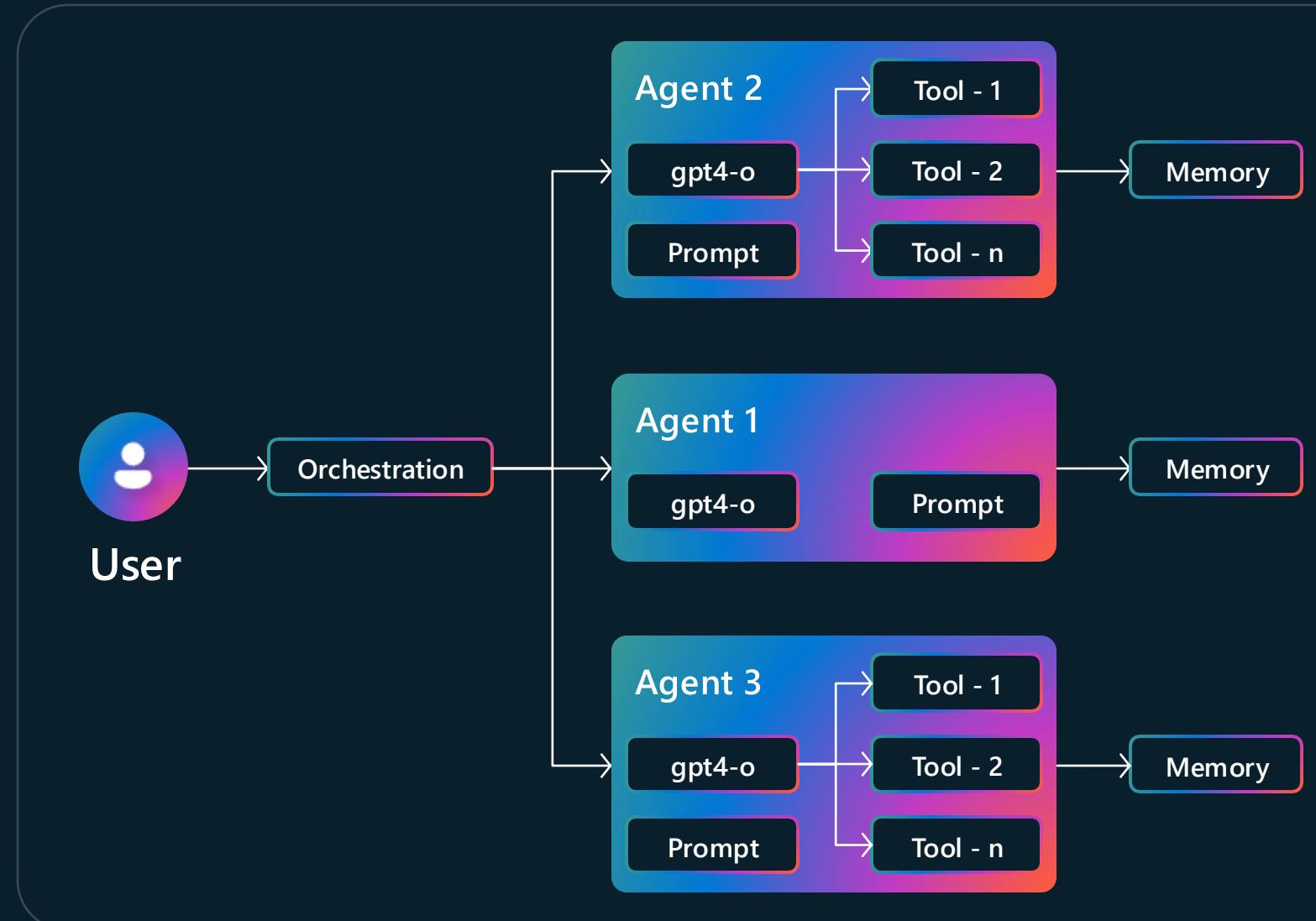
Multi Agent Logical Architecture

Each agent is specialized in different tasks or aspects of a problem

Agents can communicate and coordinate with each other. Structured orchestration is crucial

2 primary categories based on orchestration types

- Vertical Architecture
- Horizontal Architecture



| INTELLIGENT AUTOMATION



"We are using Microsoft's Semantic Kernel and Azure AI Agent Service to orchestrate multiple specialized AI agents and an orchestrator AI to coordinate them to answer questions as a team"

Hirotaka Ito,
Lead Developer, Fujitsu Limited



Business Goal

Fujitsu continues to push innovation to enhance productivity and operational efficiency. Addressing inefficiencies in its sales processes, Fujitsu targeted automating the time-intensive task of generating sales proposals.

Technology Solution

Fujitsu developed an intelligent, scalable AI agent for sales automation. The AI-driven agent interprets user inputs, integrates data from multiple sources, and produces precise, up-to-date proposals in a fraction of the time. At the solution's core is Fujitsu Kozuchi Composite AI, powered by Semantic Kernel, a tool that orchestrates multiple specialized AI agents. These agents dynamically retrieve and synthesize knowledge from scattered internal sources, ensuring proposals are tailored and data-driven.

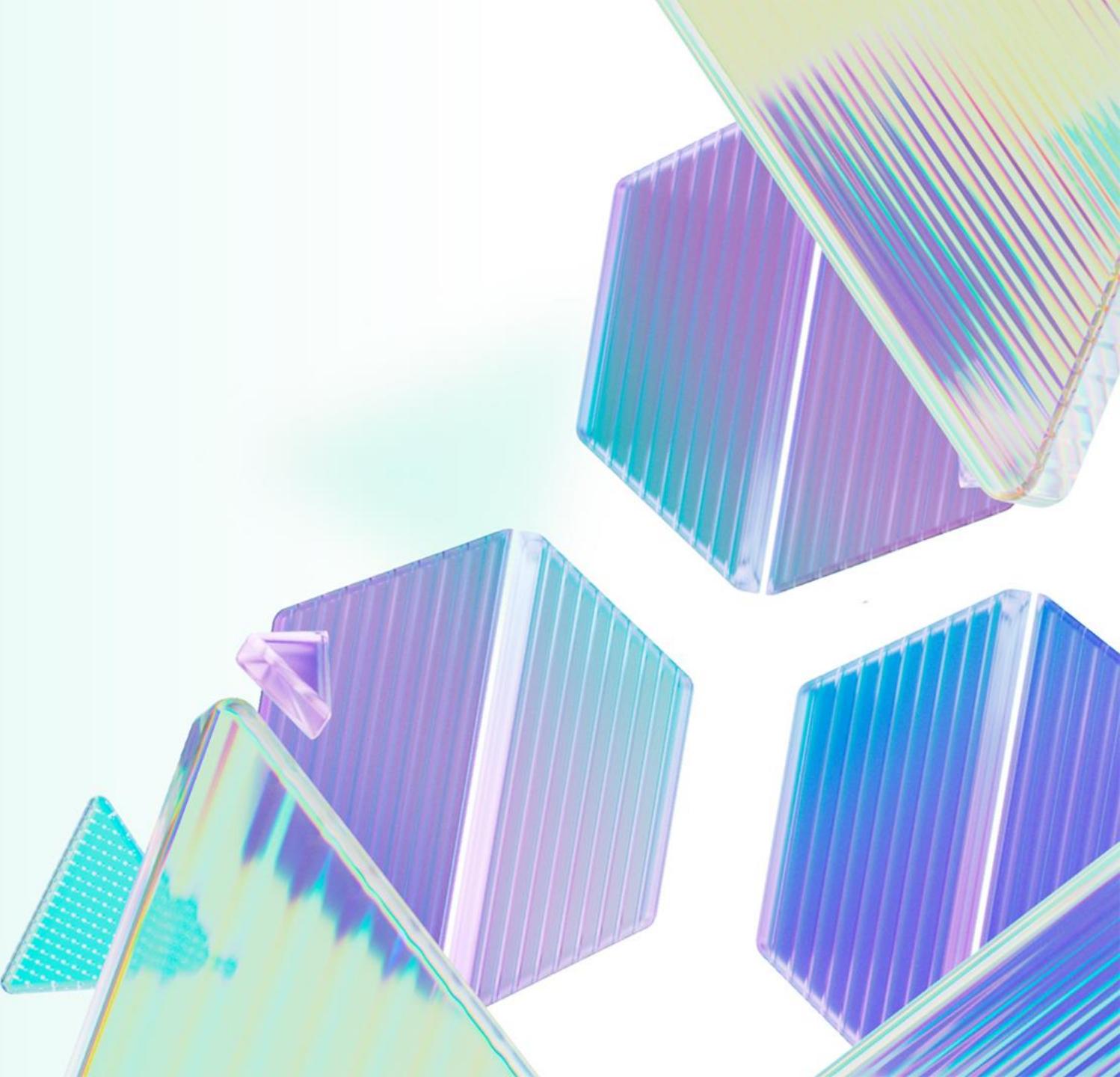
Key Products

Semantic Kernel
Azure AI Agent Service
Azure AI Search
Azure AI Foundry

Impact

Sales proposal creation productivity boosted by 67%, saving countless hours to focus on customer engagement.

Demo - Agent



Perth Microsoft Data, Analytics, AI and Power Platform

Meetup Perth, AU

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 Part of **Azure Data Tech Groups - 135 groups** [i](#)

Perth Microsoft Data, Analytics, AI and Power Platform

4.6 586 ratings

Perth, Australia
2,276 members · Public group [i](#)
Organized by **Sabrina Da Motta Zenatti** and 2 others

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What we're about

Welcome to the official Microsoft Data, Analytics, AI, and Power Platform User Group in Perth! Our group is dedicated to fostering connections among enthusiasts who share a passion for data, artificial intelligence, and the power platform. Join us as we explore and exchange knowledge on Microsoft Fabric, Azure Databricks, Azure Synapse, Azure Data Factory,

Organizers
 **Sabrina Da Motta Zenatti** and 2 others [Message](#)

Members (2,276) [See](#)



<https://www.meetup.com/perth-microsoft-data-and-analytics-user-group/>

Skilling Offerings for Innovate with Azure AI Platform

Plans on MS Learn



Curated sets of content, designed to help individuals and teams achieve specific learning outcomes. With built-in milestones, sharing capabilities, reporting, and optional email reminders to efficiently guide learners towards their goals.

Level: Beginner, Intermediate, Advanced (100-300)

When to use: Customer training resources to focus on specific training area.

Audience: 1:1, Field, Customers, Partners

Approach: Self-paced

Duration: 12-15 hours

- https://aka.ms/ADAI_OpGenAISols_Plan
- https://aka.ms/ADAI_DevGenAIExp_Plan
- https://aka.ms/ADAI_OptlGenAI_Mod_Plan
- <https://aka.ms/StartTransformingBizAI>

MS Learn Learning Paths / Modules



Free skilling content across Azure products with step-by-step guidance, interactive content.

Level: Beginner, Intermediate, Advanced (100-300)

When to use: Customer training resources to focus on specific training area

Audience: 1:1, Field, Customers, Partners

Approach: Self-Paced

Duration: 25 mins to 90+mins

[Browse learning paths, and modules](#)

MS Learn Challenges



Free interactive learning through task-based achievements, to help advance technical skills while earning achievements and/or preparing for Microsoft role-based certifications.

Level: Beginner, Intermediate, Advanced, Expert (100-400)

When to use: Customer events or campaign (moment in time activity)

Audience: Customers

Approach: Gamified learning

Duration: Length of event or campaign

<https://aka.ms/aitourchallenge>

Virtual Training Days



Pre-recorded large-scale training to support skilling. Always on training opportunity with direction for content, audience and agenda.

Level: Beginner, Intermediate, Advanced, Expert (100-400)

When to use: depth outreach to customers, increase connection to Microsoft

Audience: IT Pro/Developer

Approach: 1st party field hosted and executed; Corp produced recordings with live Q&A. 500 – 2k Per event.

Duration: 2-day simu-live event with 3 hours content per day

- [AI Fundamentals](#)
- [Develop Your Own Custom Copilots with Azure AI](#)

Credentials



Including **Certifications** and **Applied Skills**. Challenges that demonstrate and validate your expertise. Earn globally recognized and industry-endorsed credentials and showcase them to your network.

Level: Beginner, Intermediate, Advanced (100-300)

When to use: 1:1, T1/Flagship events, trainings, VTDs

Audience: 1:1, Field, Partners and Customers

Approach: Instructor-led, Self-Paced, includes Performance-Based Testing through dedicated Azure Tenant

Duration: 60 mins to 90+mins per module within the certification learning path

[Browse Credentials](#)

Links to resources requested

Azure Free Account

See on the link below a list of products that are free up to the specified monthly amounts. Some are always free to all Azure customers, and some are free for 12 months to new customers only.

<https://azure.microsoft.com/en-au/Free#all-free-services>

MCP (Model Context Protocol)

MCP is an open standard that enables developers to build secure, two-way connections between their data sources and AI-powered tools.

<https://techcommunity.microsoft.com/blog/educatordeveloperblog/unleashing-the-power-of-model-context-protocol-mcp-a-game-changer-in-ai-integrat/4397564>

Azure AI Landing Zone Reference Architecture

When deploying AI services such as Azure OpenAI, using a Landing Zone approach helps you manage your resources in a structured, consistent manner, ensuring governance, compliance, and security are properly maintained.

<https://techcommunity.microsoft.com/blog/azurearchitectureblog/azure-openai-landing-zone-reference-architecture/3882102>

Azure AI sample solutions, SDKs and templates

There are many sample code, details on how to use SDKs available on the link below.

<https://github.com/Azure-Samples/azure-ai>



Q&A

Thank you!



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