

AI Knowledge Foundation with Microsoft Azure

LAUNCH CONSULTING

2025



Why is AI Important?

EVEN WITH ALL THE HYPE, AI IS REAL

- Generative AI is driving the transformation of processes, businesses, and entire industries
- Things that took hours, now take minutes.
- Agentic automation will increase the pace and scale of everything
- Generative AI saves times, increases efficiency, and improves quality across almost every aspect of every business
- Create, research, revise, automate, produce, and serve outputs that accelerate processes and improve experiences
- Interact with users in a natural way through language, speech, vision, text and audio to increase adoption, engagement, and satisfaction



What Drives the Business Value?

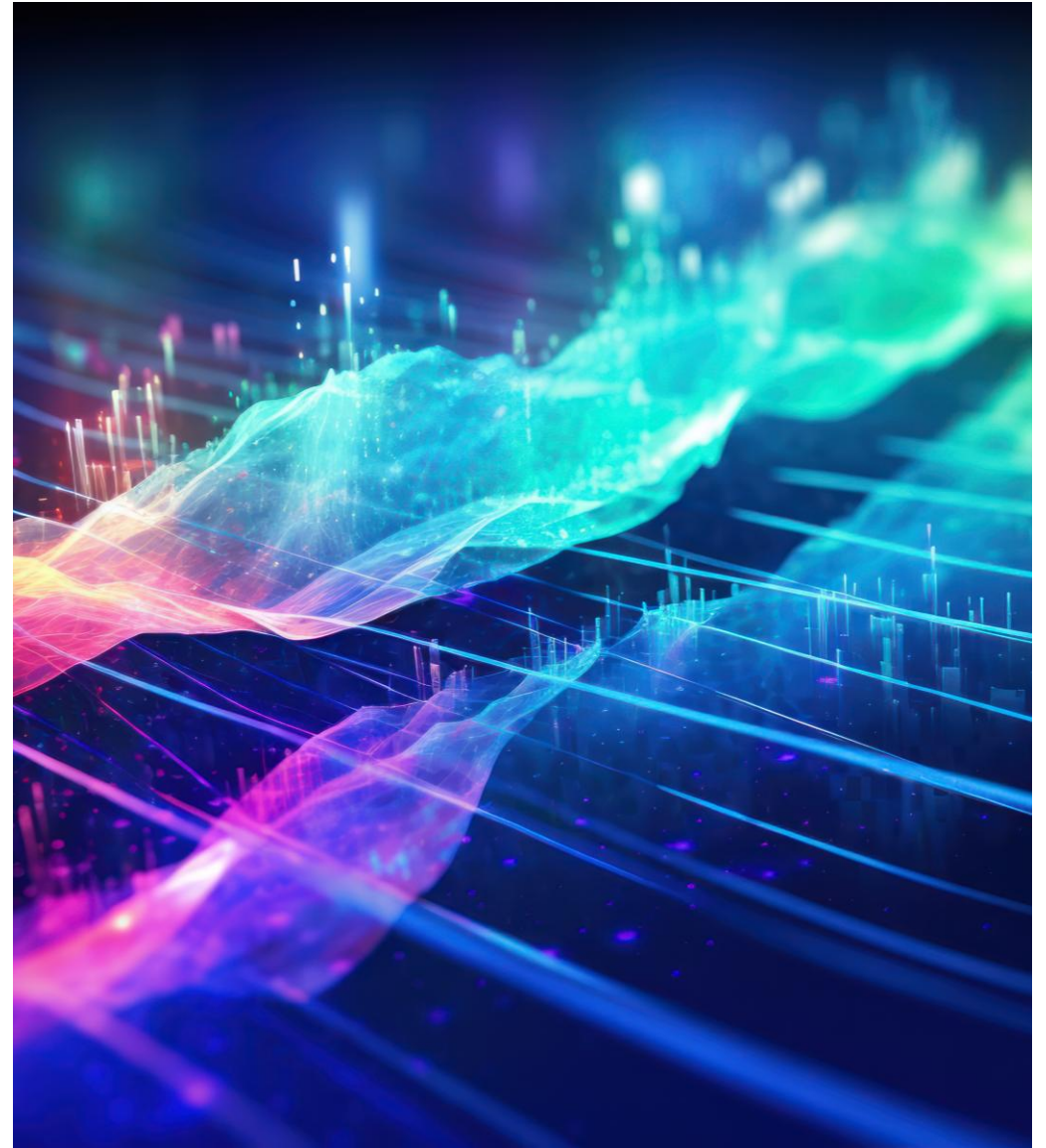
TOP 5 BENEFITS OF AN ENTERPRISE AI KNOWLEDGE FOUNDATION

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| 1 | Drive Growth | Unlocks new revenue opportunities by transforming enterprise data into actionable insights, enabling innovation, and accelerating AI-driven decision-making. |
| 2 | Save Costs | Reduces operational expenses by automating knowledge discovery, minimizing redundant work, and optimizing data storage and retrieval. |
| 3 | Increase Productivity | Enhances efficiency by providing employees with instant access to relevant knowledge, streamlining research, and improving collaboration. |
| 4 | Reduce Risk | Strengthens compliance, security, and governance by ensuring accurate, up-to-date, and well-managed enterprise knowledge. |
| 5 | Enhance Customer & Employee Experiences | Delivers personalized experiences, improves customer support with AI-driven knowledge retrieval, and empowers employees with AI-assisted decision-making. |

What is an AI Knowledge Foundation?

An **AI Knowledge Foundation powered by Azure AI** is a modern platform that transforms enterprise data into an intelligent, searchable, and AI-powered asset. It integrates large language models (LLMs), advanced indexing, embedding, and vectorization techniques to structure and enhance data, making it easily accessible for AI-driven applications. By curating, storing, and indexing **knowledge from across the organization**, it ensures that AI models and agentic frameworks can efficiently retrieve, understand, and apply relevant information in real time.

This foundation unlocks significant business value by enabling faster decision-making, automating knowledge discovery, and enhancing productivity across teams. It reduces time spent searching for information, streamlines workflows, and improves customer and employee experiences with AI-powered insights and recommendations. By ensuring **data is organized, contextualized, and ready for AI**, businesses can drive innovation, scale automation, and gain a competitive edge in an increasingly digital and AI-driven world.



Solid Foundational Approach



CLOUD FOUNDATION

The first step to enabling an AI First enterprise is to adopt the cloud. Our Cloud Foundations offering sets the stage to take advantage of the power of modern cloud services in a secure and scalable.



AI READY DATA PLATFORM

The next step in the transformation journey is to implement an AI Ready Data Platform that delivers high-quality, cleaned, standardized, and governed enterprise data to power AI and analytics.



AI KNOWLEDGE FOUNDATION

Once you have an AI Ready Data Platform it is critical to curate your enterprise data for use in AI models, and agentic frameworks to unlock AI-powered experiences, applications, and automation.



AI AGENTS AND AUTOMATION

With access to modern cloud services, and your enterprise data ready for use by AI models and agentic frameworks it is now possible to transform enterprise operations through agentic task and process automation.



AI EXPERIENCES AND APPLICATIONS

Leverage your new AI and Agentic capabilities to implement AI-powered applications and innovations that transform experiences for employees and customers through self-service and efficient access to information.



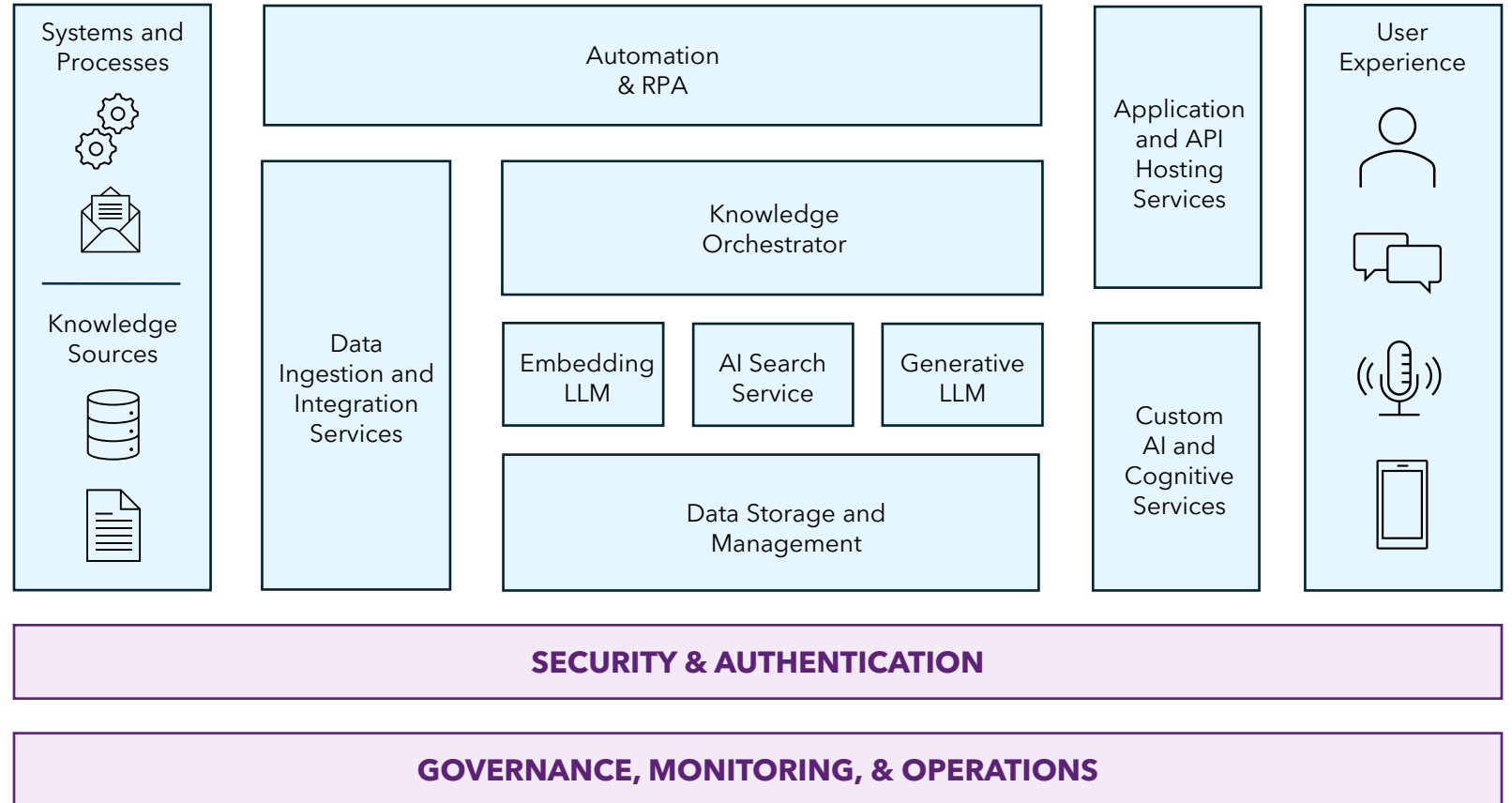
Enterprise AI Knowledge Foundation

Establishing your AI platform is a critical component of the methodology

- Design to support the repeatable processes & unique use-cases
- Critically consider Hyperscaler platforms vs point solutions

Consistency in this area will reduce friction and increase ROI

LOGICAL ENTERPRISE AI ARCHITECTURE



Components of an Azure AI Knowledge Foundation



INGEST & INTEGRATE

Bring enterprise data and documents into the platform

- **Azure Data Factory**
Scalable data pipeline orchestration (ETL/ELT)
- **Logic Apps / Power Automate**
No-code integration from apps like SharePoint
- **Microsoft Graph API**
Extract documents from Microsoft 365 (Teams, OneDrive, Outlook)
- **Event Grid / Event Hubs**
Real-time data ingestion and streaming scenarios



CURATE & PREPARE

Enrich, classify, and organize data to make it AI-ready

- **Azure Synapse / Microsoft Fabric**
Unified data engineering, analytics, and warehousing
- **Azure Purview**
Data cataloging, lineage tracking, and governance
- **Azure Cognitive Services**
OCR, language detection, entity recognition, key phrase extraction
- **Azure OpenAI Service**
Semantic enrichment using LLMs (e.g., embedding, auto-tagging)
- **Azure Machine Learning**
Train and deploy custom models for classification or content filtering



STORE & INDEX

Organize and store knowledge for powerful, secure search

- **Azure Data Lake Storage Gen2**
Scalable and secure data and document storage
- **Azure Cosmos DB / Azure SQL Database**
For structured metadata and knowledge graphs
- **Azure AI Search (Cognitive Search)**
Full-text and semantic vector-based indexing
- **Blob Indexer with Cognitive Skills**
Automated metadata and content extraction



GOVERN, SECURE, AND MONITOR

Ensure compliance, observability, and enterprise-grade security

- **Microsoft Purview**
Data governance, classification, and lifecycle policies
- **Azure Monitor / Log Analytics**
Operational monitoring, usage analytics, and auditing
- **Azure Key Vault**
Secure management of credentials, keys, and secrets
- **Microsoft Entra ID and Role-Based Access Control**
Manage access securely across roles and teams

The Potential of Azure AI Knowledge Foundation

- **UNLOCK ENTERPRISE KNOWLEDGE AND INSIGHTS**

Aggregate structured and unstructured data across the organization.

Azure Services: Azure AI Search (indexes and retrieves enterprise knowledge) and Azure OpenAI Service (summarizes and reasons over data)

- **ACCELERATE AI AND AUTOMATION INITIATIVES**

Provide curated, AI-ready data to power AI search, copilots, and autonomous agents.

Azure Services: Azure Machine Learning (train custom AI/ML models) and Azure AI Studio (build copilots and intelligent agents)

- **IMPROVE DECISION-MAKING AND INNOVATION**

Deliver faster, more accurate access to trusted information for employees and systems.

Azure Services: Azure Cognitive Services (analyze text, images, documents) and Azure Data Factory and Azure Synapse Analytics (integrate and analyze data at scale)

- **ENHANCE GOVERNANCE, SECURITY, AND COMPLIANCE**

Ensure enterprise knowledge is secure, compliant, and responsibly governed.

Azure Services: Microsoft Purview (data governance and cataloging) and Azure Security Center (security management)

- **DRIVE OPERATIONAL EFFICIENCY AND COST REDUCTION**

Minimize time spent searching, gathering, and validating information.

Azure Services: Azure Data Lake Storage (cost-effective storage of curated knowledge) and Azure Functions (serverless automation of ingestion and enrichment)



Azure AI Knowledge Foundation Key Use Cases

Empowering the Intelligent Enterprise

1. ENTERPRISE SEMANTIC SEARCH

Empower employees, customers, and partners to find the right information instantly across millions of documents, emails, knowledge bases, and databases.

Azure Services: Azure Cognitive Search, Azure AI Document Intelligence

2. RETRIEVAL-AUGMENTED GENERATION (RAG) FOR AI APPLICATION

Enhance generative AI models by grounding outputs in real enterprise data, ensuring answers are accurate, traceable, and based on trusted knowledge sources.

Azure Services: Azure OpenAI Service, Azure AI Search, Azure AI Studio

3. PERSONALIZED AI ASSISTANTS AND COPILOTS

Build domain-specific copilots that understand enterprise knowledge and assist employees with complex workflows, research, or customer support.

Azure Services: Azure OpenAI Service, Azure AI Studio, Azure Machine Learning

4. AI-POWERED KNOWLEDGE MANAGEMENT

Curate, organize, and maintain structured and unstructured data to create a living enterprise knowledge graph, ready for AI consumption and use.

Azure Services: Azure Cognitive Search, Microsoft Purview, Azure OpenAI Service

5. DOCUMENT PROCESSING AND AUTOMATION

Automate extraction, classification, and summarization of contracts, invoices, research papers, and customer communications to reduce manual effort.

Azure Services: Azure AI Document Intelligence, Azure Form Recognizer, Azure AI Services

6. DATA-DRIVEN INSIGHTS AND PREDICTIVE ANALYTICS

Feed curated, enriched knowledge into analytics and machine learning models to drive smarter decision-making, forecasting, and innovation.

Azure Services: Azure Machine Learning, Azure Synapse Analytics

