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# BUILDING THE INTELLIGENT ENTERPRISE: FOUNDATIONS FOR AGENTIC AI



## Introduction

As enterprises accelerate their adoption of agentic AI, the focus is shifting from isolated automation to intelligent, context-aware collaboration. Agents are no longer just executors of tasks. They are becoming decision-makers, orchestrators, and collaborators within complex business ecosystems. However, for agents to operate effectively, they require more than just execution capabilities. They need access to real-time infrastructure, semantic understanding, and the ability to work in concert with other agents.

This point of view explores the foundational elements required to unlock the full potential of agentic systems.

## Building blocks of Al-Powered Transformation - APIs, Semantic Data & Agent Collaboration

The concept of building the foundation for autonomous agents revolves around creating an intelligent ecosystem where these agents can perceive, reason, act, collaborate, and learn. This is not just about developing smarter models but about integrating various components to enable seamless interaction and functionality.



## **Client Onboarding Framework for Banks**

## Steps Involved in Building the Foundation

#### 1. Unlocking Agent Context with APIs and Real-Time Messaging

Agentic systems are only as effective as the infrastructure they operate on. Many enterprises remain constrained by legacy systems that were not designed for real-time responsiveness or API-driven consumption.

To empower agents to act meaningfully across channels, systems, and experiences, organizations must:

- Expose core business capabilities through APIs, decoupling them from legacy silos.
- Adopt real-time messaging patterns to support event-driven, responsive behavior.
- Leverage GraphQL or convergence APIs to aggregate and simplify data access for agents.

These APIs form the execution layer for agents, enabling them to query, act, and orchestrate enterprise workflows seamlessly.

### 2. Creating a Semantic Data Layer for Context-Aware Reasoning:

Execution alone is not sufficient. Agents also require context and understanding to make informed decisions.

This is where the semantic data layer becomes essential. It serves as a knowledge-first foundation that abstracts and interrelates key business entities—such as customers, accounts, transactions, and more. With this layer, agents are able to:

- Understand relationships and context among data points
- Make intelligent decisions based on semantic reasoning
- Enable use cases such as micro-lending, fraud detection, and personalized payments

This layer transforms raw data into knowledge, the essential fuel for agentic artificial intelligence.

#### 3. Agent to Agent Collaboration Leveraging Agent Frameworks and Modern Context Protocol:

Addressing complex business problems requires more than isolated execution. Agent-to-agent collaboration is fundamental, enabling agents to perceive, reason, act, and learn within a shared business context.

An emerging dimension of agentic Al is agent-to-agent (A2A) collaboration. Imagine a network of agents that can:

- Delegate tasks to one another
- Share goals
- · Coordinate actions across domains

The rise of multi-agent frameworks such as Microsoft AutoGen, Google A2A, and CrewAl offers structured approaches for building reliable, modular, and scalable AI agents. Selecting the appropriate framework for specific business use cases is critical, as each provides distinct advantages. However, no single framework fits all scenarios, prompting platforms to adopt multi-framework strategies to leverage the best capabilities for each use case.

The Model Context Protocol (MCP) provides a standardized method for agents to maintain shared understanding, contextualize tasks, and reason collectively. It serves as the foundation for:

- Multi-agent collaboration
- Cross-functional workflows
- Scalable, adaptive automation

In summary, agent frameworks combined with MCP enable agents to think together—not merely act in parallel.

## Case Study: Financial Services Transformation

To illustrate the effectiveness of building the foundation for autonomous agents, let's consider a case study in the financial services sector. In this scenario, autonomous agents were deployed to enhance customer service, streamline operations, and improve decision-making processes. By implementing the steps mentioned above, the financial services company was able to achieve significant improvements in efficiency, customer satisfaction, and overall performance.



## Conclusion

Agentic Al is redefining how enterprises approach automation and decision-making. To realize its full potential, organizations must go beyond execution and invest in the foundational layers that enable agents to understand, reason, and collaborate. Real-time APIs and messaging provide the operational backbone, semantic data layers offer the context for intelligent decisions, and multi-agent frameworks with shared protocols like MCP unlock scalable, coordinated action. Together, these elements form the architecture for building intelligent systems that not only act but also think and evolve with the business.



## About the Author



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