



DATA TO INTELLIGENCE WEBINAR SERIES

# How to Build Agents that Know Your Data: Copilot Studio + Microsoft Fabric



MEET OUR PRESENTER

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SVP of Data & AI - Technology

# What is an AI Agent?

LLMs autonomously using tools in a loop to achieve a goal.

## Tools

Fetch data from a database

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Send an email/teams msg

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Create a PowerPoint/spreadsheet

# The Agent Journey

## 1 Establish a central repository for all data

1

Integrate disparate data sources into a unified data platform and data lake



Microsoft Fabric or other third-party



Microsoft Fabric data experiences



Azure AI Foundry



Microsoft Copilot Studio

## 2 Prepare data for AI innovation

2

Improve the quality of your data, to ensure it is complete, accurate, and governed

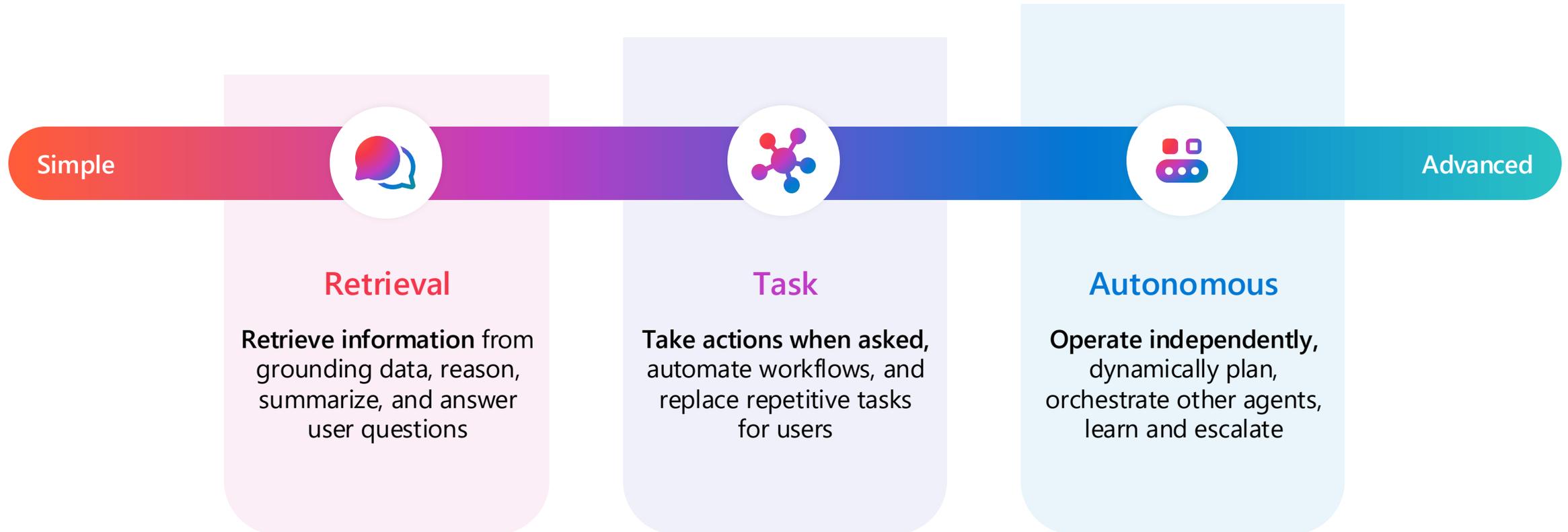
## 3 Build generative AI experiences on top of your data

3

Enhance the breadth and depth of data-driven experiences by creating an AI solution



# Agents exist on a spectrum



Agents vary in levels of complexity and capabilities depending on your need



# Options for Building Agents

START HERE TO  
VALIDATE USE CASE

GET HERE: RELIABLE  
ENTERPRISE USAGE

## Off-the-shelf Product: Copilot, Claude, ChatGPT

### IDEAL USE CASES

Personal Productivity,  
Individual use or quick  
experiments

### BENEFITS

Fastest time-to-value  
No setup or infra cost  
Vendor updates/ improves

### LIMITATIONS

- Limited control over quality improvements (accuracy, style, content safety, etc.)
- Cannot access internal systems securely
- Poor alignment with enterprise workflows
- Lack of control, observability, and auditability

## Low-code Customizable Product: Copilot Studio

### IDEAL USE CASES

Internal knowledge access  
with limited integration,  
Departmental pilots, MVPs

### BENEFITS

Low code/no-code  
Secure data access  
Native to Microsoft 365

### LIMITATIONS

- Limited control over quality improvements
- Limited scalability and modularity
- Orchestration of multi-step complex flows is hard
- Manual testing required; no full CI/CD support
- Advanced builds with private data can introduce risk and loose ends

## Model Context Protocol Server and Orchestrator

### IDEAL USE CASES

Multi-modal agents  
with multiple aspects  
and varied tasks.

### BENEFITS

Control Across: tools,  
memory, and orchestration  
Modular and reusable agent  
design patterns  
Logging, monitoring, testing,  
and role-based access

### LIMITATIONS

- Requires strong engineering capability
- Still early ecosystem maturity

## Enterprise Grade Platform with well-defined Ops

### IDEAL USE CASES

Advanced enterprise grade.  
Require monitoring and  
security for compliance.

### BENEFITS

+Benefits of MCP Server and  
Orchestrator  
MLOps/LLMOps capabilities:  
testing, monitoring, rollout  
Governance: responsible AI  
gates, fairness, explainability

### LIMITATIONS

- Requires upfront investment
- Strong cross-functional team needed (Dev, QA, Data, MLOps, Security)



# ProArch Sales Opportunities Agent

## Challenge

Sales leads tracked in multiple systems

Difficult to get a comprehensive view of the sales lifecycle

Traditional reports provided limited, static insights

## Solution

Consolidated data from disparate systems into a Microsoft Fabric

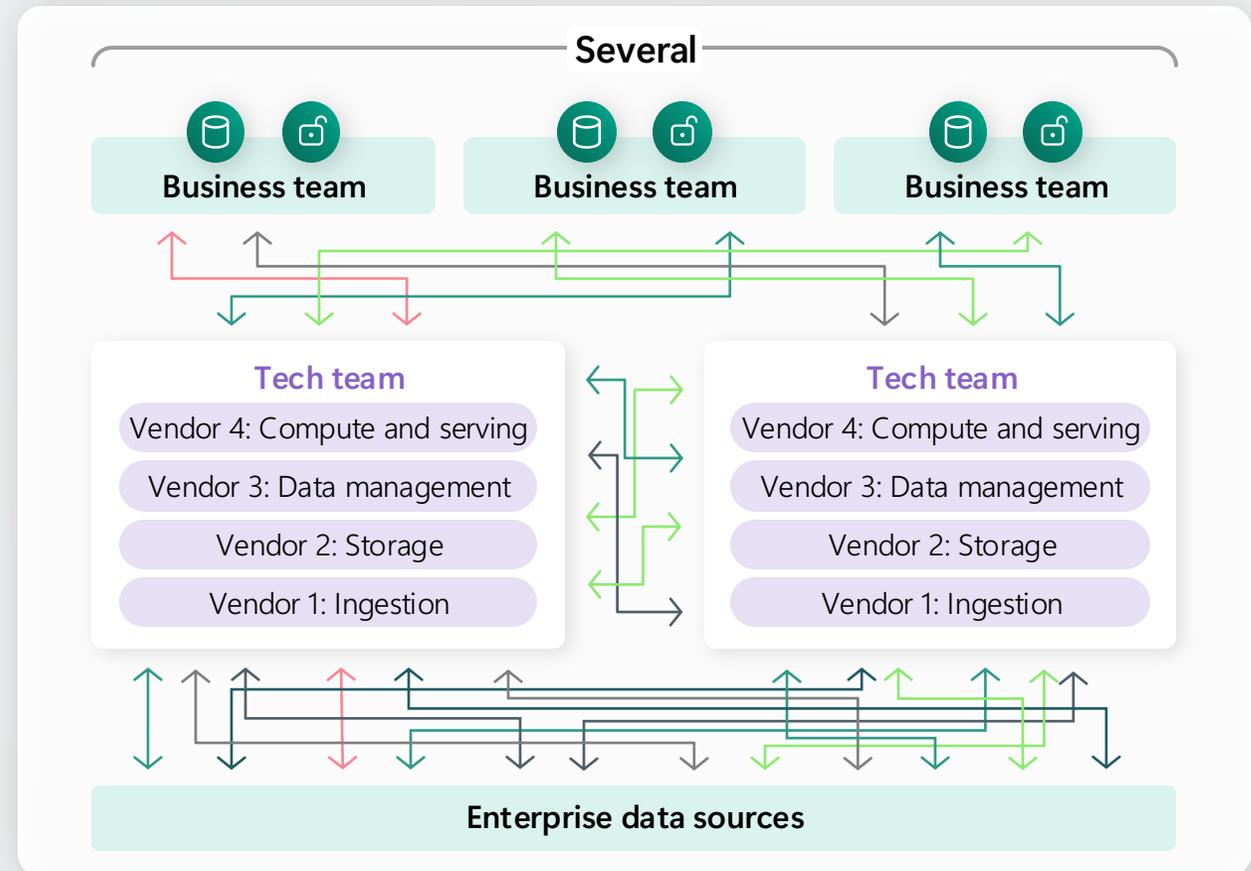
Built a conversational AI agent in Copilot Studio to analyze pipeline data

Layered AI on top for deeper real-time insights

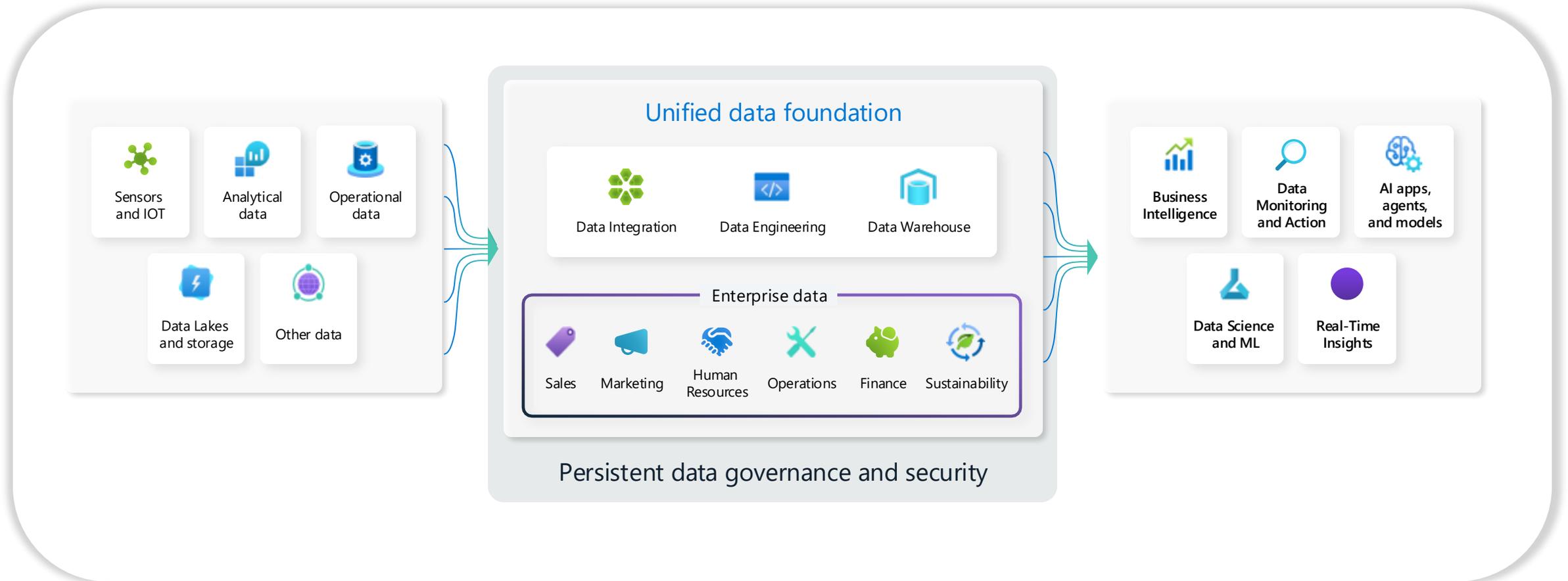
# Demo: Fabric Data + Agent

# AI is going to make your current data problems bigger.

- 1 Fragmented and siloed data sources
- 2 Complex and disconnected security policies
- 3 Limited visibility and compliance challenges



# The Goal: Enterprise Data Utopia





# Microsoft Fabric

## From

Multiple analytics services

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Disconnected data sources

---

Data exposure risks

---

Gen AI bolt on

## To

» **Unified stack and centralized management**

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» **All the data in one place**

---

» **End-to-end visibility and governance**

---

» **Gen AI built in**

# Microsoft Fabric

THE UNIFIED DATA PLATFORM FOR AI TRANSFORMATION



Data  
Factory



Analytics



Databases



Real-Time  
Intelligence



Power BI



IQ



Copilot



OneLake



Purview



# Microsoft Fabric

## Securing Warehouse/Lakehouse

### → Integrated Access Model

Combines Fabric permissions with SQL permissions for effective user access control.

### → Granular Security Mechanisms

Object, row, column security and dynamic data masking protect sensitive data effectively.

### → Audit & Compliance Support

SQL audit logs and tools enable tracking user activity and meeting regulatory requirements.

### → Advanced Data Encryption

Customer-Managed Keys provide user control over encryption keys in Azure Key Vault.

# Building Agents with Copilot Studio



# Copilot Studio

## The Copilot Agent platform:

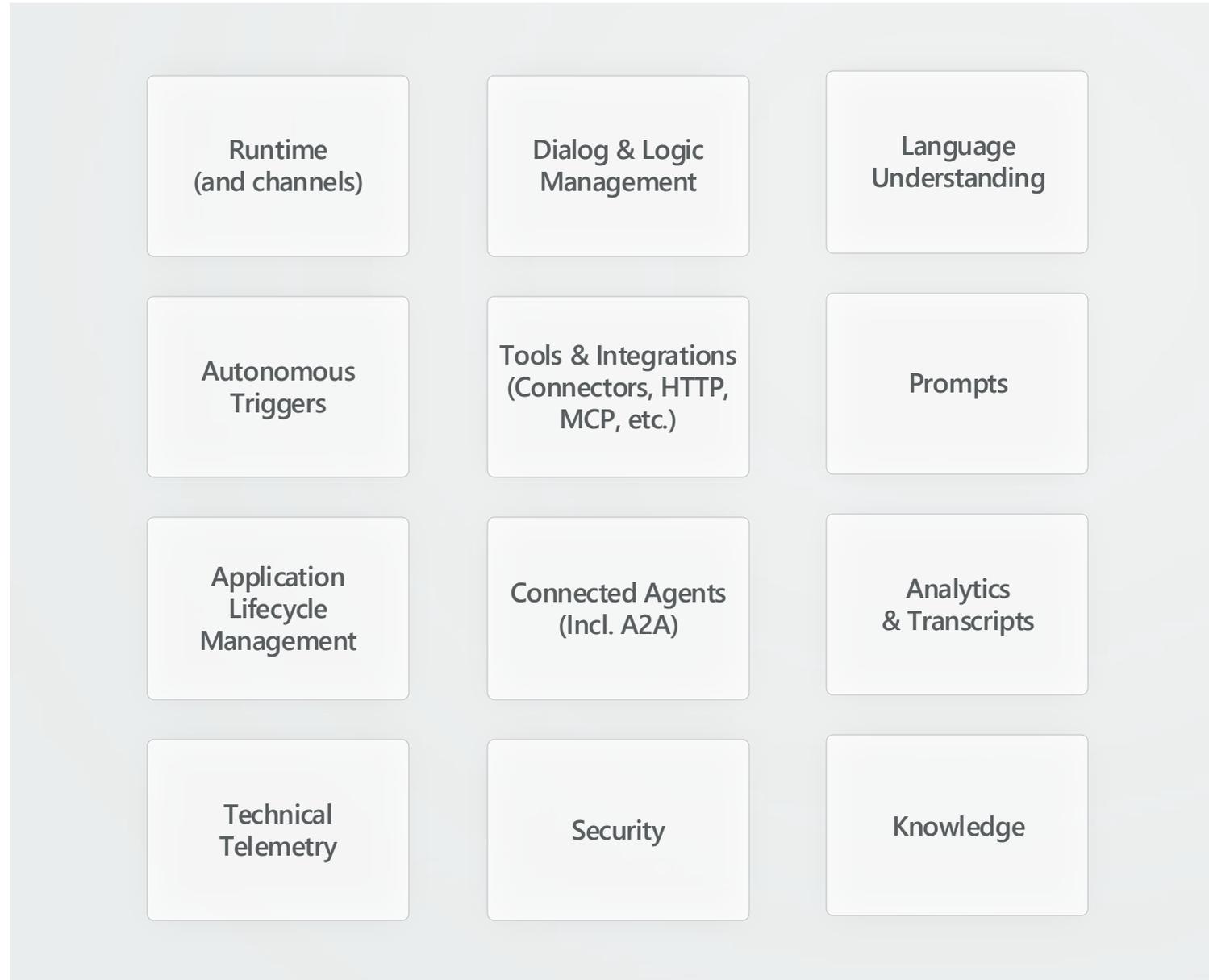
Enable agents with company and third-party data.

## Build all the agents you need:

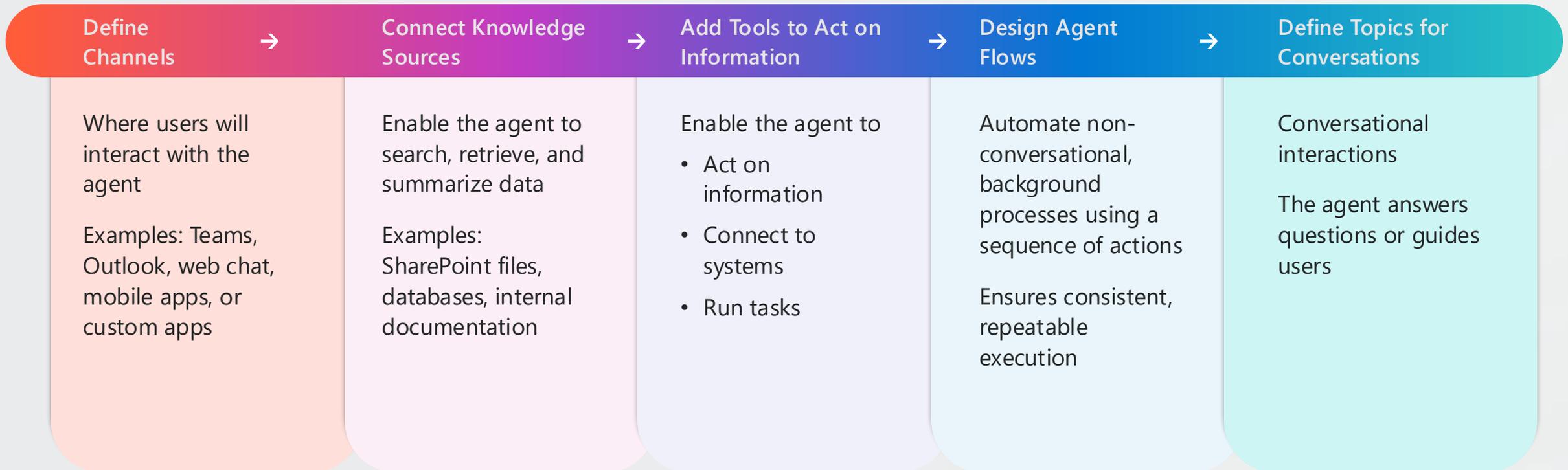
Build agents that extend Microsoft 365 Copilot or operate standalone.

## Stay in control:

Manage data access, compliance, and risk from one platform.



# Building Copilot Studio Agents





# Copilot Studio: Channels

Where users will interact with your agent.

Share a preview

- Demo website

Microsoft channels

- Teams and Microsoft 365 Copilot
- SharePoint

Other channels

- Web app
- Native app
- Facebook
- WhatsApp
- Slack
- Telegram
- Twilio
- Line
- GroupMe
- Direct Line Speech
- Email

Customer engagement hub

Connect to a customer engagement app to enable your agent to hand off a chat session to a live agent or other agent.

- Dynamics 365 Customer Service
- Telephony
- Genesys
- LivePerson
- Salesforce
- ServiceNow
- Custom engagement hub



# Copilot Studio: Retrieval-Augmented Generation (RAG) made easy

**Retrieval:** AI searches your company's data, documents, and sources.

**Generation:** AI turns that info into actionable answers or suggestions.

**Custom Agents:** Connect your data to a Copilot agent using RAG.

Agents answer questions and perform tasks using your real company data, not just generic AI knowledge.

## EXTERNAL SUPPORTED KNOWLEDGE SOURCE

### PUBLIC WEBSITES

Searches the query input on Bing.  
Only returns results from provided websites.

## INTERNAL SUPPORTED KNOWLEDGE SOURCES

### DOCUMENTS

Searches documents uploaded to Dataverse.  
Returns results from the document contents.

### SHAREPOINT

Connects to a SharePoint URL.  
Uses GraphSearch to return results

### DATAVERSE

Connects to the configured Dataverse environment.  
Uses a retrieval-augmented generative technique in Dataverse to return results.

### ENTERPRISE DATA USING CONNECTORS

Connects to connectors where your organization data is indexed by Microsoft Search.

### AZURE AI SEARCH

Connects to vectorized data in configured Azure AI Search.



# Copilot Studio: Tools & Automation

**Tools** connect your agent to external systems.

- **Power Platform connectors** for Microsoft services and third-party apps
- **Built-in connectors:** Native integrations for common data sources and actions
- **Custom connectors:** Connect to any REST API
- **MCP (Model Context Protocol):** Advanced integration layer for enterprise systems.
- **Computer Use Tool:** Enables agents to perform actions on the user's device.

**Agent Flows** automate background processes and orchestrate multi-step tasks without user intervention.

**Topics** manage the conversational experience, allowing users to have a conversation that feels natural and flows appropriately.



# Advantages of Model Context Protocol (MCP)

## LLM

Limited to static knowledge,  
no external data access

(e.g., an isolated librarian  
only having access to their  
books)

## LLM + Connectors

Custom-coded integration for each  
tool (complex, unscalable)

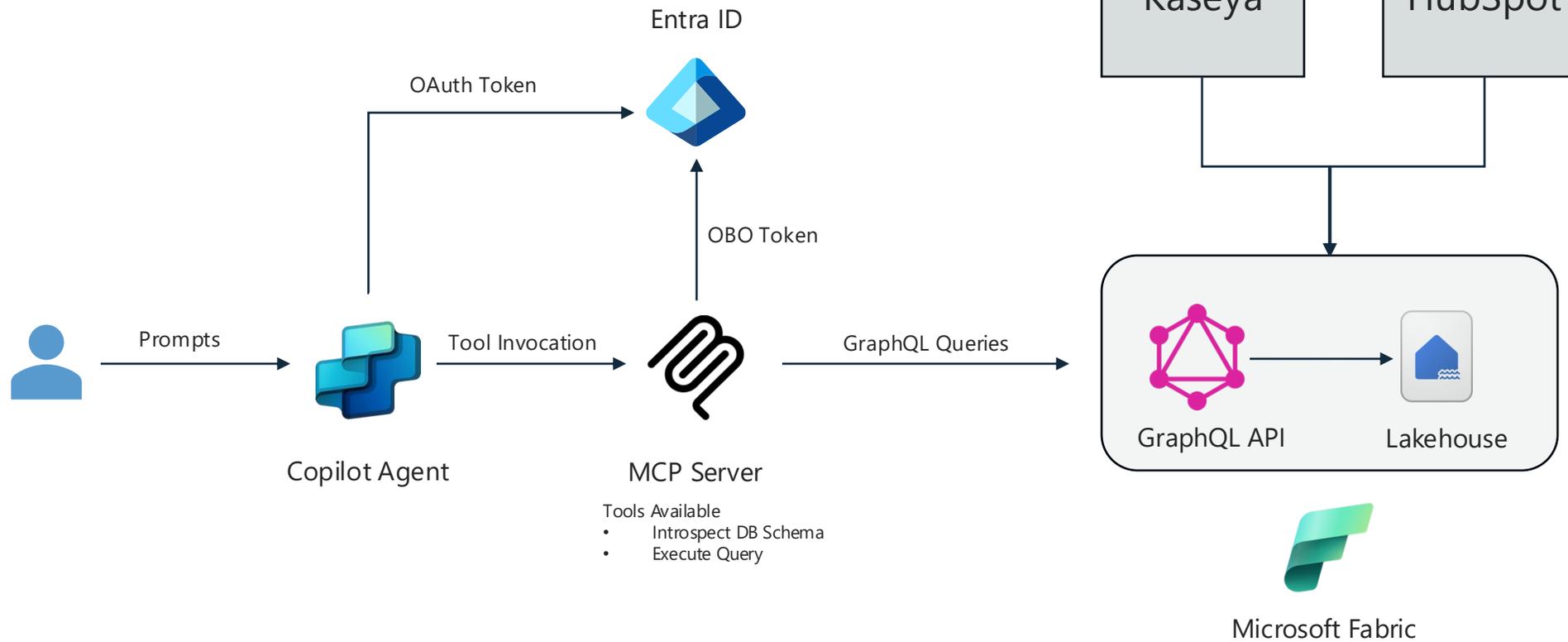
i.e., each action and their inputs need  
to be described and potentially  
updated as new actions/definitions  
are available

## LLM + MCP

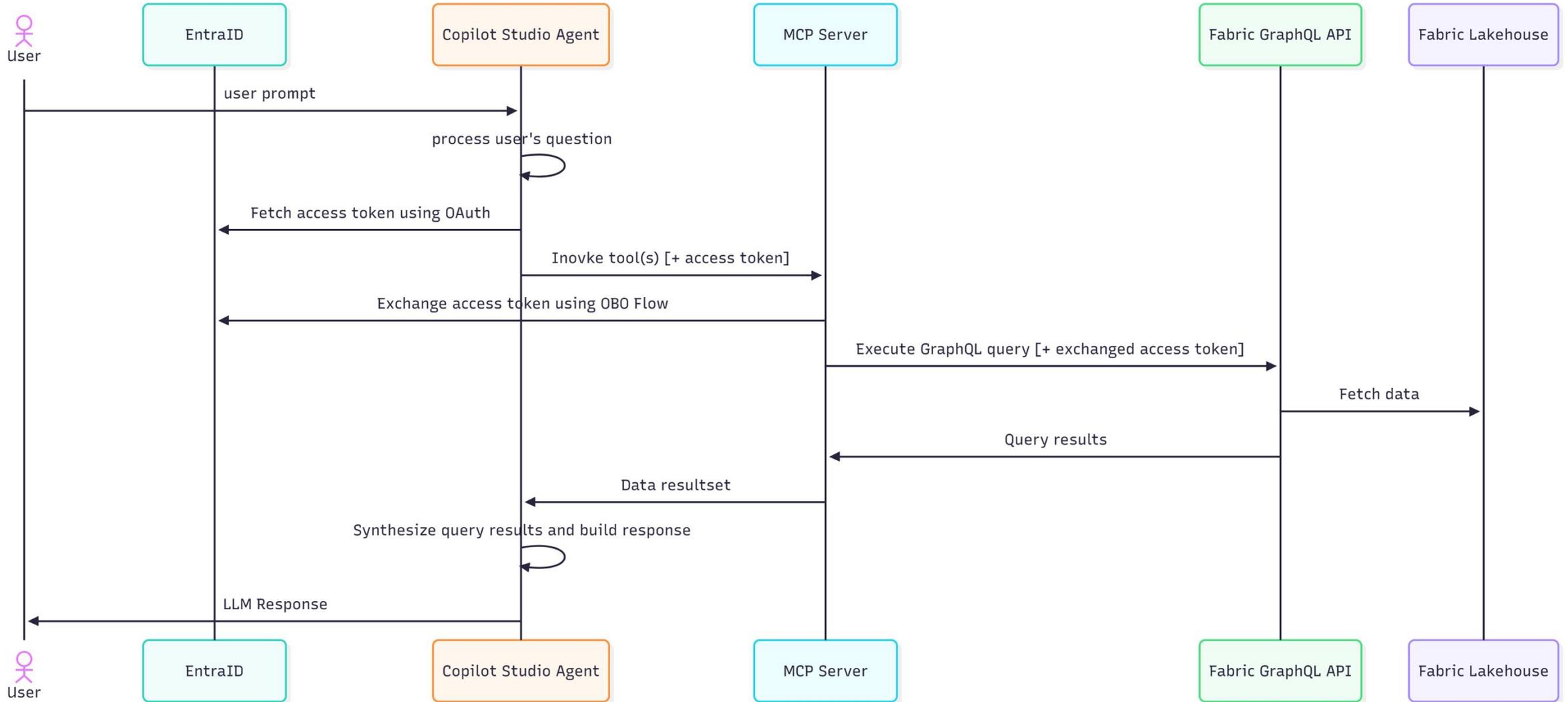
Standardized integration instantly  
compatible with any MCP-  
enabled tool, solving complexity.

# Agent Walkthrough

# ProArch's Sales Opportunities Agent



# Sales Opportunities Agent Workflow





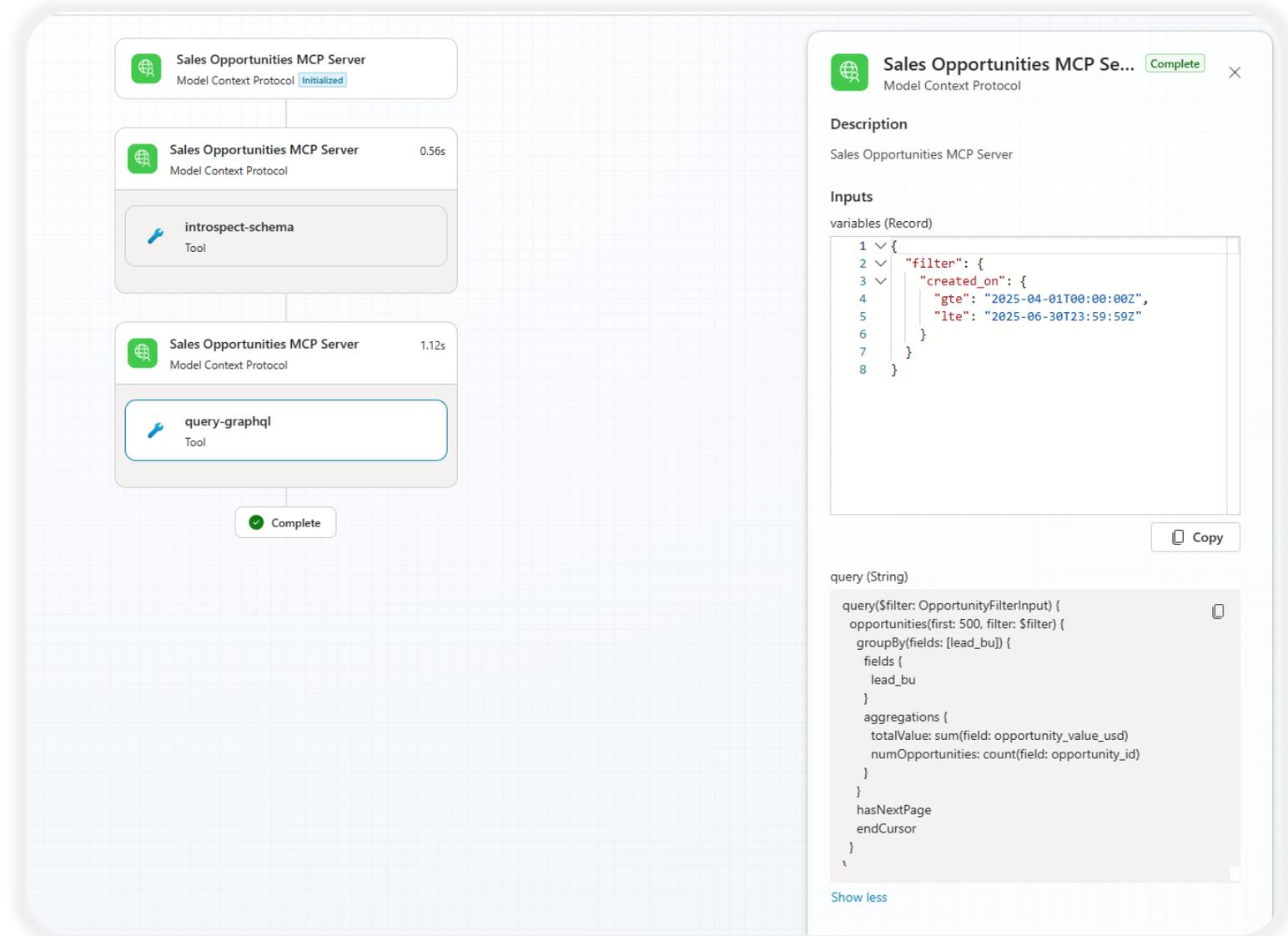
# ProArch's Sales Opportunities Agent

show me a breakdown of opportunities created in Q2 2025 by BU ordered by opportunity value

...



# ProArch's Sales Opportunities Agent





# DEMO: Inside Copilot Studio



# Best practices for Building Copilot Agents

Ensure instructions are grounded in configured actions and knowledge sources

Use tool names, variables and PowerFX

Define constraints, response format, and guidance

Start with simple instructions and refine

Use accurate names and descriptions

- Names are more important than descriptions
- Specify when and how to use certain tools or knowledge sources

Use clear constraints, response formats, and guidance in conversational instructions

Use Markdown formatting to improve readability and comprehension

Include examples for usage of tools

# Best practices for MCP Server

Treat each MCP server as a microservice with specific context

Design each tool with a single responsibility

Have distinction between tools

If multiple tools perform similar functions, then LLMs will get confused

Emphasize graceful error handling (indicate retry eligibility, implement jittered backoff)

Key security considerations

- Validate all input
- Implement OAuth authentication with appropriate scopes

Instrument like any other API for observability

Cache responses when applicable

Prefer async patterns for IO intensive operations

Questions?

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DETAILS COMING  
SOON

How to Build Agents  
that Understand Your  
Data with Copilot

REGISTER NOW → 

How to Build Agents that Understand  
Your Data with Copilot

WEDNESDAY, NOVEMBER 12 AT 2PM EST

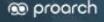
AI Security Blueprint: How  
Microsoft Security Tools  
Work Together to Mitigate  
AI Risk

WATCH NOW → 

AI Security Blueprint: How Microsoft  
Security Tools Work Together to Mitigate  
AI Risk

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Data Stewardship  
Program in 30 Days

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