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#FABCONSQLCON2026

FABCON

Microsoft Fabric
COMMUNITY CONFERENCE

SQLCON

Microsoft SQL
COMMUNITY CONFERENCE

ATLANTA MARCH 16 - 20, 2026



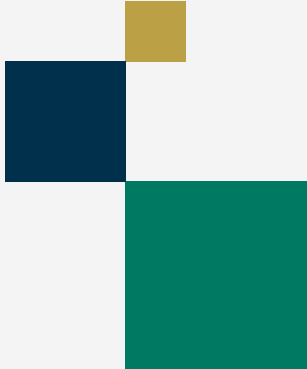
Build data-driven agents with Microsoft **OneLake** and Microsoft **Foundry**

Farzad Sunavala

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Microsoft, USA

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Principal Product Manager
Microsoft, USA

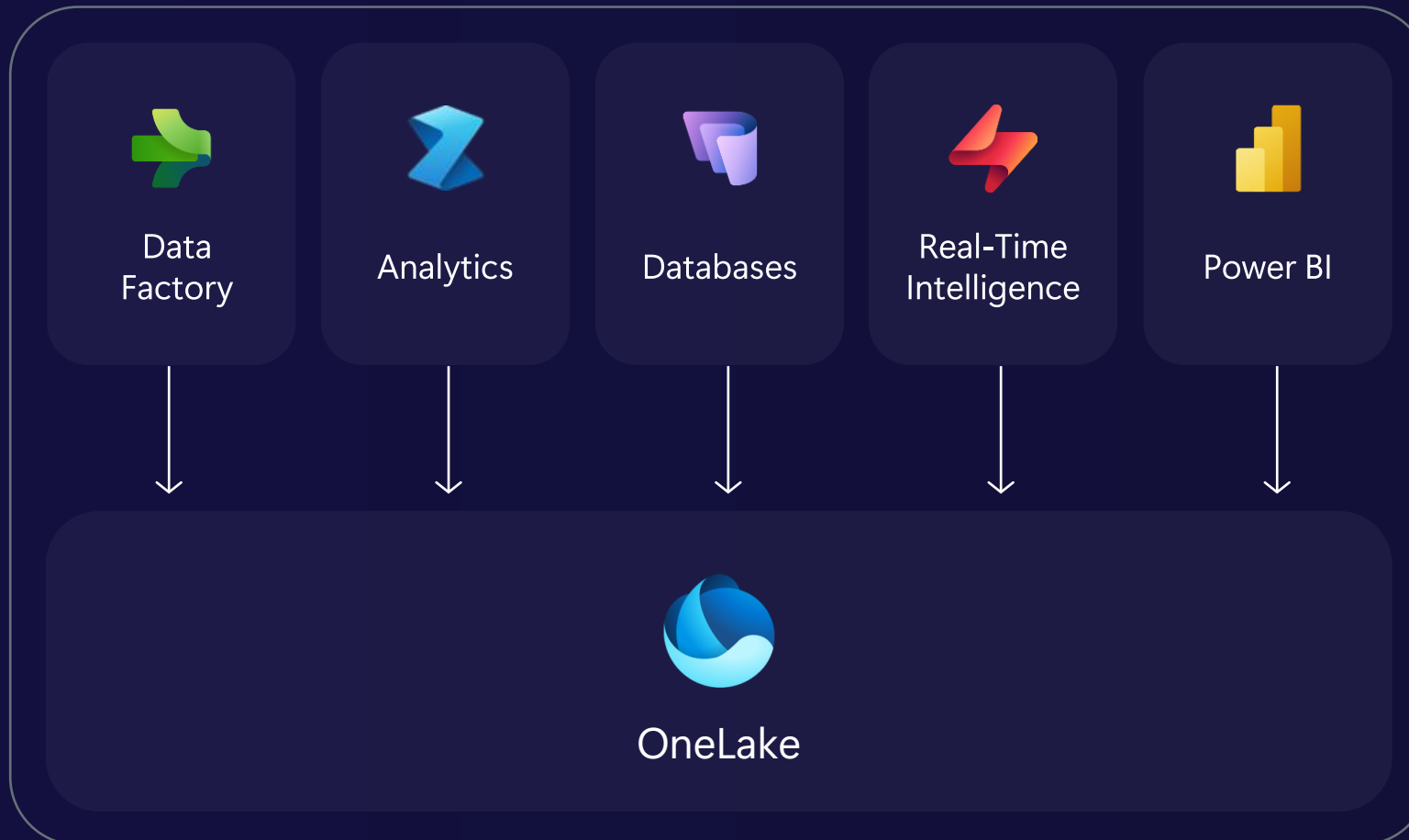


AI is transforming the world

Data is the **fuel** that powers **AI**

OneLake is the OneDrive for data

Your single, secure foundation for every workload



One open format for storing and querying data org-wide

Automatically indexed to simplify discovery and sharing

Built-in lineage for end-to-end traceability across workloads

Protected at every layer with OneLake security

Bringing Data to OneLake

Connect existing estate

Connect data anywhere with no data movement or duplication

No Migration

Existing storage resources can still be managed externally



**Microsoft
OneLake**

OneLake security

Physically Store

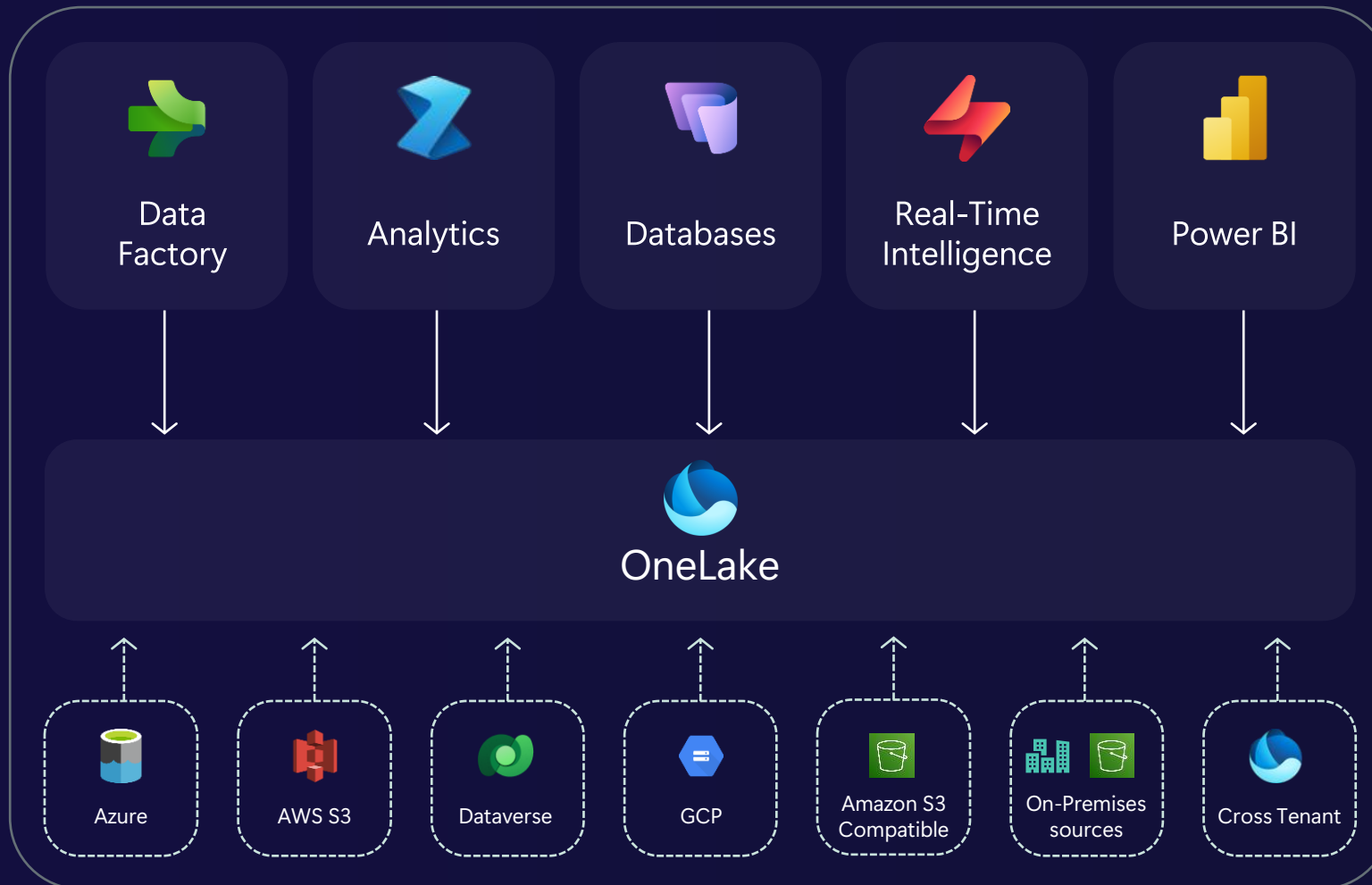
Physical storage is SaaSified away

Reside data in different regions

Automatically meet demand for any scale

All data works the same

Unify the Data Estate with Shortcuts and Mirroring



Shortcuts are symbolic links which point from one data location to another

Shortcuts enables access to data across clouds and on-prem without data movement

Mirroring provides read-only replicas of databases into OneLake in open format

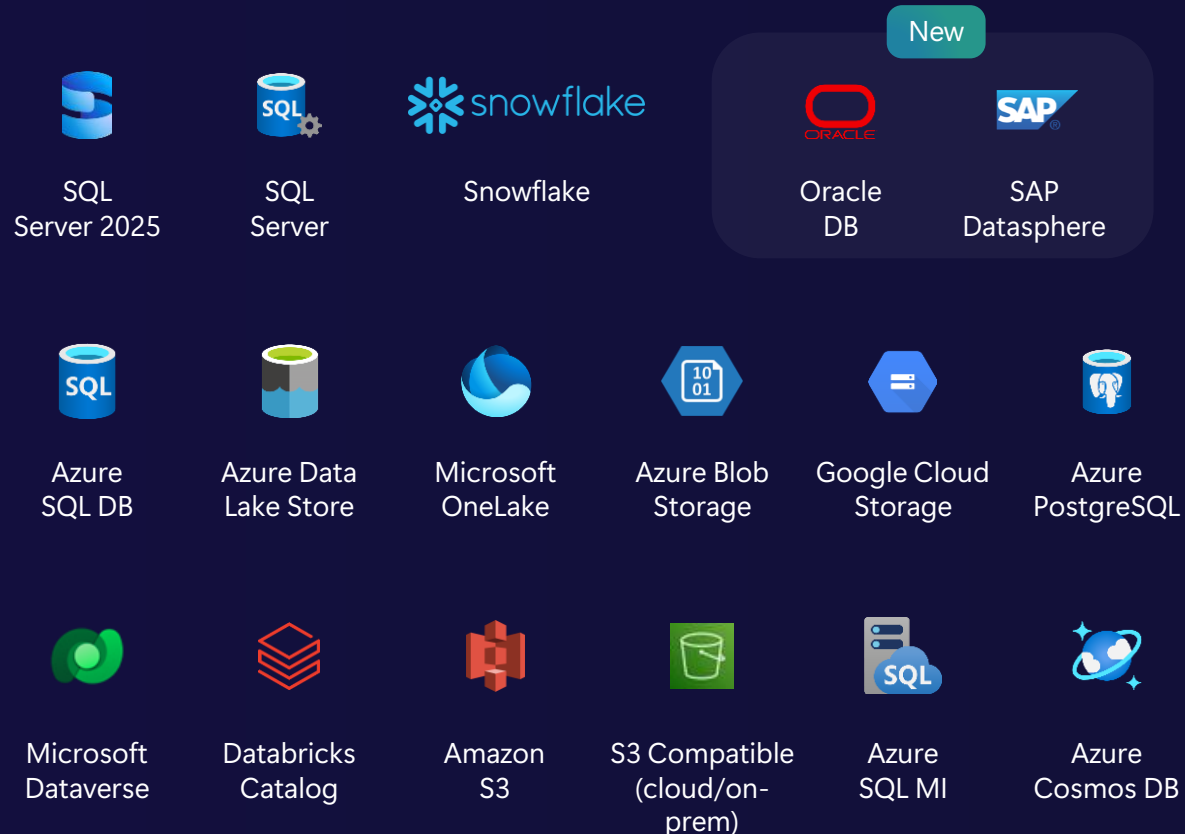
Mirroring uses shortcuts of DB's CDC mechanism to keep replica up to date in NRT

Shortcuts are zero-storage, while mirroring provides free included storage (up to a limit) and free ingestion

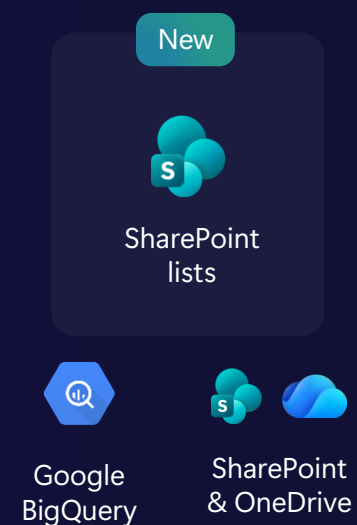
Unify data in OneLake with zero ETL

Shortcut and mirroring sources

Generally available



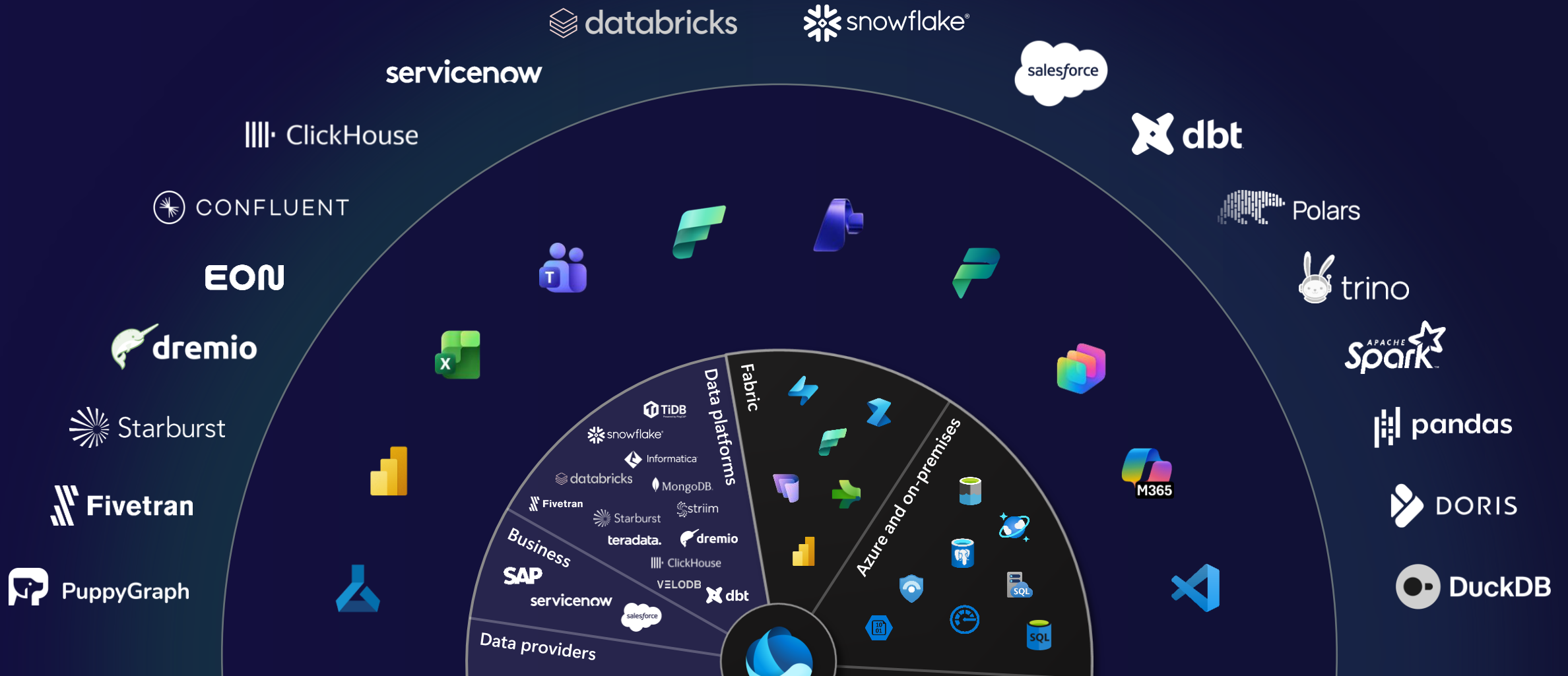
Public preview



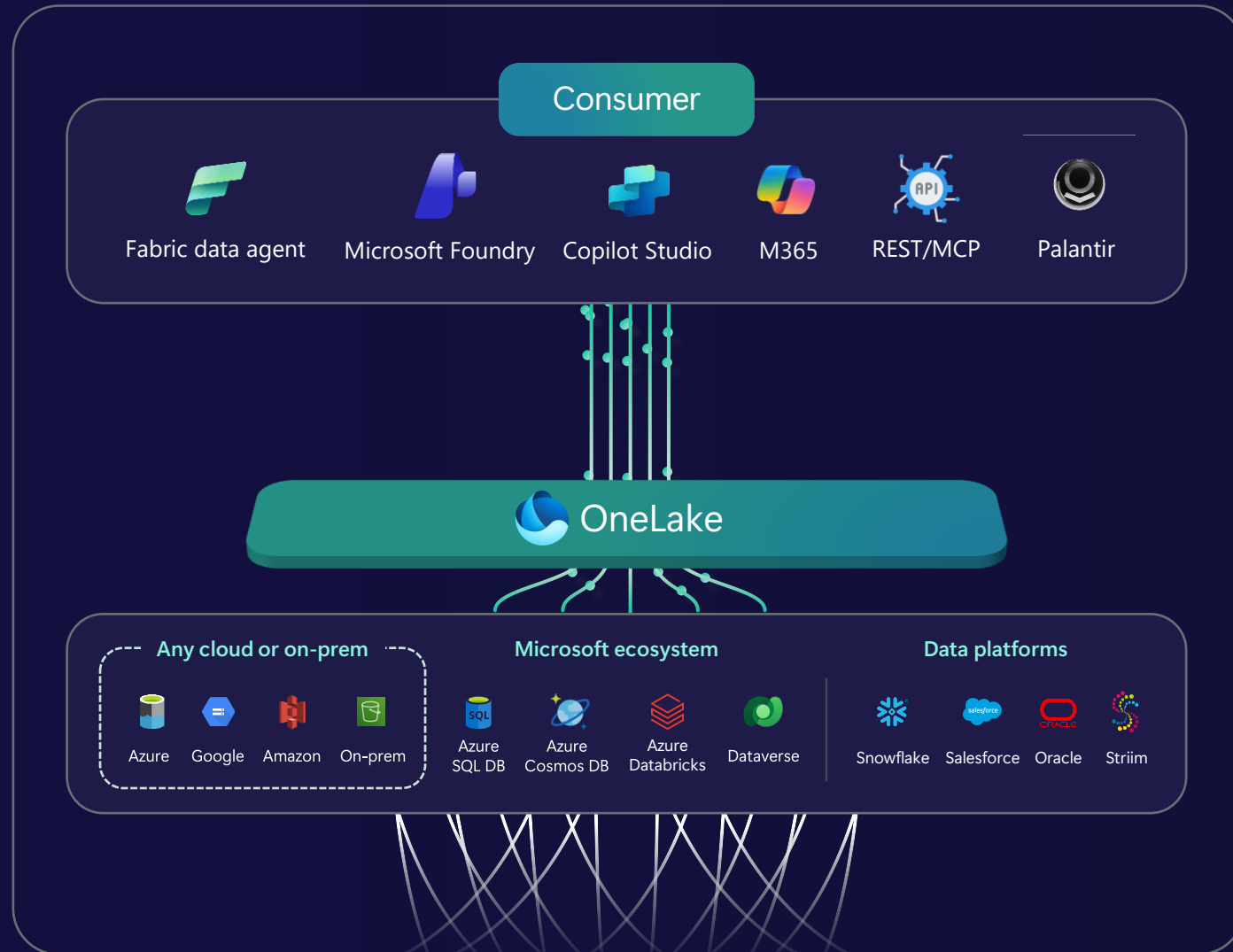
Coming Soon



OneLake data is available everywhere



Unified data lake for AI and shared intelligence



Enable **ALL OneLake** data for AI

Connect to **any AI tool**
in Fabric, Microsoft or Partners

Make **Fabric IQ sharable** across all
Microsoft AI platforms

AI adoption is accelerating and AI agents are at the forefront

1.3B
AI agents

by 2028



82%

of organizations intend to integrate them
within 1–3 years

Capgemini 

90%

of enterprise software engineers will utilize AI
code assistants by 2028

Gartner

The new wave: multi-models and agentic AI

Challenges

- Select the best model in a fast-evolving landscape and continue using the best model throughout AI app and agent lifecycle
- Lack of streamlined tools for orchestrating AI agents
- Complex enterprise workflows with data spread across different sources
- Cost management and scalability of generative AI models
- Continuously monitor and optimize AI apps and agent performance

81%

of leaders expect agents to be integrated into their company's AI strategy in next 12-18 months

Source: Work Trend Index Annual Report

85%

of enterprises are pursuing multi-model strategies, emphasizing the need for rapid testing and deployment of new models to maintain a competitive edge

Source: Forrester

70%

or more generative AI experiments never make it to production

Source: Deloitte

The way we build AI apps and agents is changing

From

Single model
Simple POCs
Point-in-time ROI

Deterministic logic features
Manual coding – Building – Testing

Reactive monitoring
Human-driven deployment
Multiple point-based security solutions

Shift

To

Next-gen AI platform

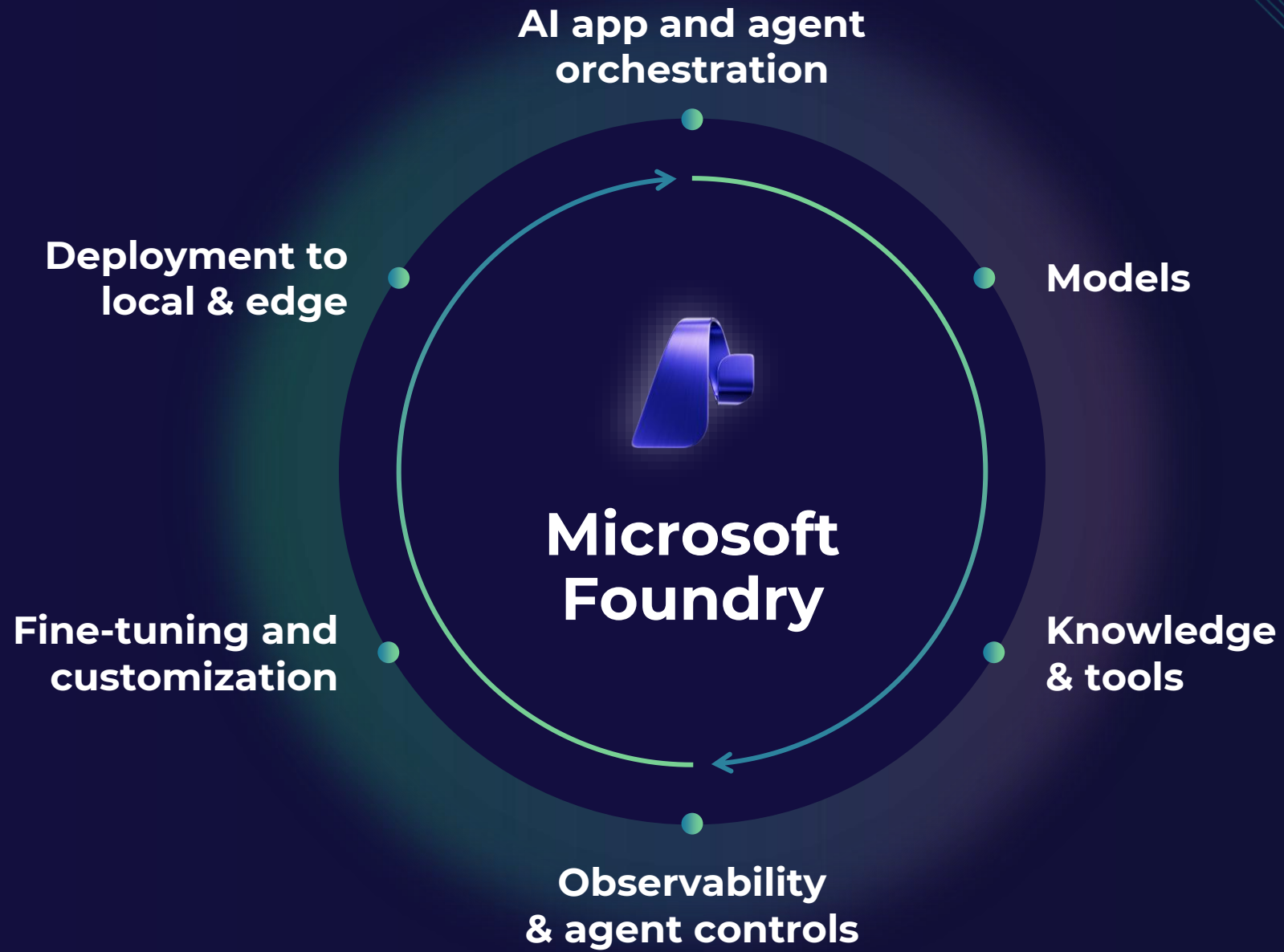
Multi-model
Automated agentic workflows
Continuous improvement

AI-agentic DevOps

Adaptive reasoning agents
Writing prompts – Creating – Evaluation

Proactive security and governance

Ongoing predictive observability
Dynamic AI-driven orchestration
End-to-end platform-based security approach





The AI app and agent factory



Models



Agent Service



IQ



Tools



Machine
Learning



Control Plane

Cloud

Edge

Security, compliance, and governance

Microsoft Foundry: The AI app and Agent Factory



Accelerate
innovation with
a complete,
integrated, and
interoperable AI
platform



Drive business
results with action-
oriented, context-
aware agents



Govern the AI
lifecycle with
organization-wide
observability and
controls

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Foundry Agent Service

Open by design

Build with any framework
or protocol

Connected intelligence

Empower agents with
memory, knowledge, and
over 1,400 MCP-enabled
connectors

Enterprise-grade security and reach

Deploy confidently and
one-click publishing to
Microsoft 365

Build AI apps and agents that scale



Orchestrate with open, flexible frameworks



Microsoft Agent Framework

Open-source engine for building and orchestrating intelligent AI agents

Open standards
& interoperability

Pipeline for
research

Community-driven
& extensible by design

Ready for
Production

aka.ms/AgentFramework

Microsoft Foundry: The AI app and Agent Factory



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Unlocking knowledge for your agents



Reusable
knowledge bases



Indexed & remote
knowledge sources



Agentic RAG for
superior context



Enterprise-grade
security



Point-and-click
data transformation
& embedding

Sources



Integrations





Asking our agents questions

? A typical advisor's question

Stream-of-thought questions require answers grounded in curated data, app and user context that's optimized for AI



With post-CPI news this AM, acct 7842-WM projected volatility looks elevated. Seeing past guidance on incremental moves in IPS §3.4.1. OK to rebalance portfolio without escalation?

A single question requires reasoning across relevant market signals, portfolio history, and advisory policies



Which market event? CPI release, Fed remarks, and market briefs set context

Client account records and portfolio definitions, sourced from CRM

With **post-CPI news** this AM, **acct 7842-WM** projected volatility looks elevated. Seeing past guidance on incremental **moves in IPS §3.4.1**. OK to **rebalance portfolio** without escalation?

Advisory policy and regulatory guidance from document repositories

Firm approval rules and escalation thresholds from internal policy

Microsoft IQ

Unified intelligence for enterprise AI



Work IQ

“How your employees work”

Context on people, collaboration, and workflows



Fabric IQ

“How your business operates”

Context on business entities, systems of record, and actions



Foundry IQ

“How your agents unlock knowledge”

Context on policies, authoritative documents, and knowledge bases

Microsoft Foundry: The AI app and Agent Factory



Accelerate
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Drive business
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aware agents



Govern the AI
lifecycle with
organization-wide
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Govern the AI lifecycle with organization-wide observability and controls



Foundry Control Plane

Define controls

Keep agents safe, grounded, and on task across inputs, outputs, and tools

Observe end-to-end

Understand every agent's health, cost, and behavior in real-time

Secure every agent

Enforce enterprise identity, runtime defense, and sensitive data protection

Manage agent fleets

See and govern your entire agent fleet across clouds, frameworks, and teams from one control plane

Everything developers need to control, observe, secure, and manage fleets of agents in one place

Keep agents safe and grounded

User inputs

Tool calls

Tool responses

Agent actions & outputs

The screenshot displays the Microsoft Foundry Guardrails interface. On the left is a sidebar with navigation options: Agents, Workflows, Models, Fine-tune, Tools, Knowledge, Data, Evaluations, and Guardrails (selected). The main area is titled 'Guardrails' and includes a search bar, a 'Create guardrail' button, and a table of existing guardrails. The table has columns for Name, Type, Applied to, and Last modified. One guardrail, 'Financial services control', is selected. To the right, a detailed view of this guardrail is shown, including its 'Applied to' scope (Agents and Model deployments) and a list of specific controls like Jailbreak, Indirect prompt injections, Sensitive data leakage, Task drift, Content safety, Protected materials, and Partner integration, each with a count of active controls.

Guardrails

Add guardrails to reduce safety and security risks, so users can engage with your AI apps and agents confidently. Create, manage and apply them across models or agents for a safer user experience. [Learn more](#)

Search Create guardrail

Name	Type	Applied to	Last modified ↓
Default guardrail	Agent Model	GPT-5, Medical assistant..	
☒ Financial services control	Agent Model	Translation agent, GPT-5	
☐ Health services controls	Model	GPT-o4 mini	
☐ Custom controls	Agent Model	GPT-5, Medical assistant..	
☐ Custom controls no PII	Agent	Medical assistant agent	
☐ Healthcare controls no PII	Agent	Medical assistant agent	
☐ Finance controls no PII	Model	o4-mini	
☐ Medical agent controls	Agent	GPT-5, Medical assistant..	
☐ Custom content safety	Agent Model	GPT-5, Medical assistant..	
☐ Healthcare controls	Agent	Medical assistant agent	

1-10 of 30 < 1 2 3 >

Financial services control
Last modified:

Try in playground Edit Delete

Applied to

Agents
Medical services agent, Translation agent

Model deployments
GPT-5

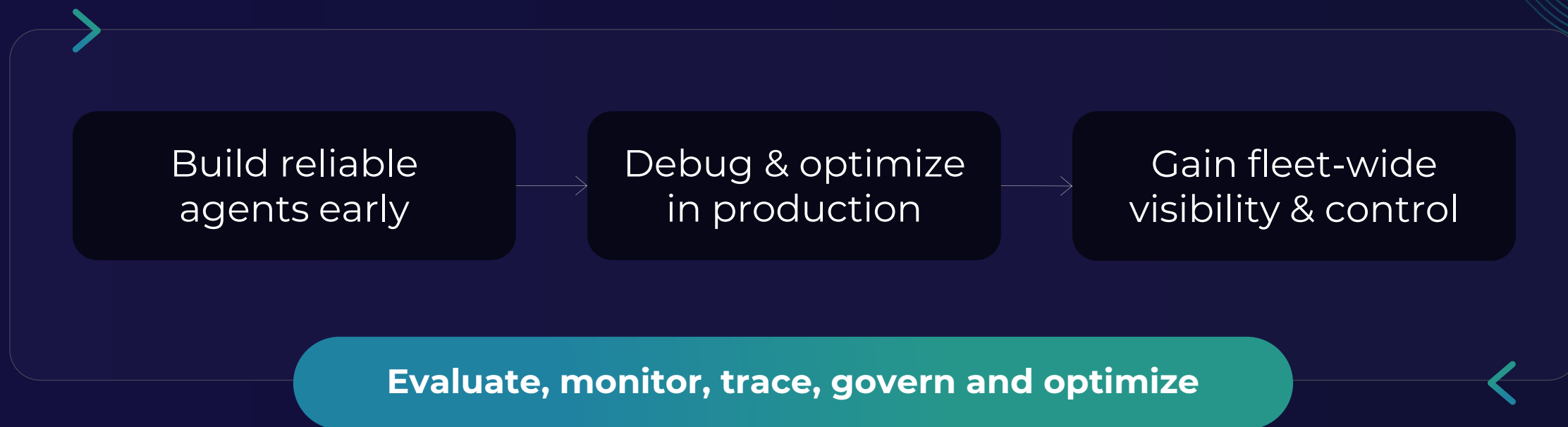
Controls:

- Jailbreak: 0 active controls
- Indirect prompt injections: 0 active controls
- Sensitive data leakage: 1 active controls
 - Risk type: PII (24), Sensitive data labels
 - Intervention point: User input, Output
 - Action: Annotate and block
- Task drift: 0 active controls
- Content safety: 5 active controls
- Protected materials: 2 active controls
- Partner integration: 1 active integration

Palo Alto Network Prisma AIRS

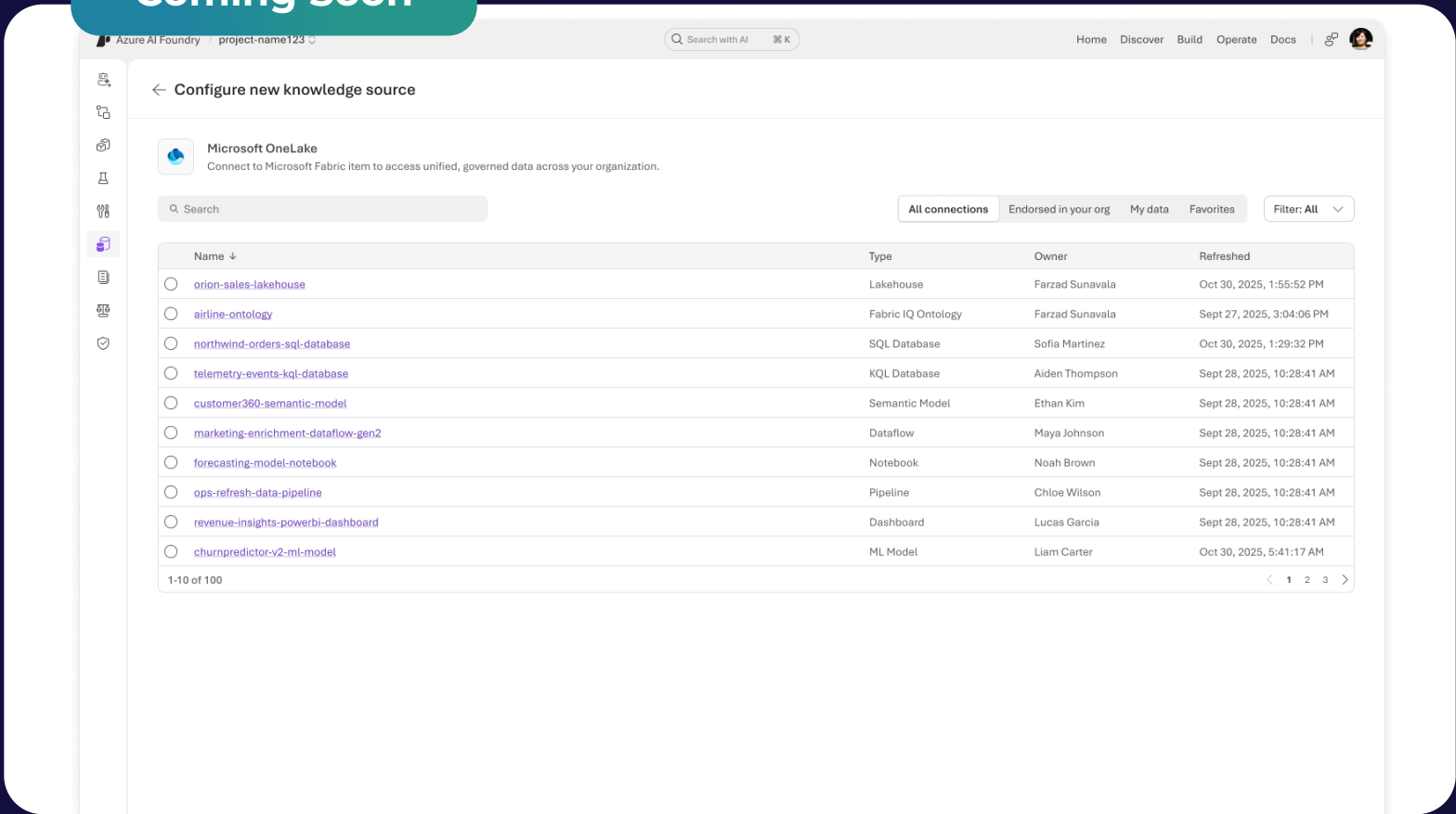
Image may not reflect actual user interface

Evaluate, monitor, and optimize AI apps and agents in real-time



OneLake Catalog in Microsoft Foundry

Coming Soon



Discover enterprise data through a **single trusted catalog** embedded in Foundry

Add data seamlessly to **knowledge, agents, and AI workflows**

See a unified view of data **across Foundry and Fabric experiences**

Demo



Unified data estate with Microsoft Foundry

Microsoft

Fabric

Prep_for_AI

Public

Search

Trials activated: 19 days left

Update

Home

Get data

New semantic model

Open notebook

Add to data agent

Manage materialized lake views (preview)

Manage OneLake security (preview)

Update all variables

Home

Workspaces

Copilot

OneLake catalog

Monitor

Real-Time

Workloads

ZAVA analytics

My workspace

CRM_mirrored

Table view

	12L ID	ABC Persons
1	1	person1
2	1	person2
3	2	person3
4	3	person4
5	3	person5

Succeeded (3 sec 367 ms)

Columns 2 Rows 5

Rainy days ahead 55°F

Search

2:03 PM 11/15/2025

Demo



Code-first Demo OneLake + Foundry IQ + GitHub Copilot CLI (ATL-edition)

Next Steps

Foundry IQ <> Fabric IQ Knowledge Source (Private Preview)
aka.ms/FoundryIQ-FabricIQsource

Azure AI Search – MCP Knowledge Source (Private Preview)
aka.ms/KR-MCPsource

Azure AI Search Serverless (Private Preview)
aka.ms/AISearch-Serverless

Foundry IQ in Microsoft Agent Framework
aka.ms/FoundryIQ-agentframework

Connect Agents to Foundry IQ Knowledge Bases
aka.ms/FoundryIQ-kb2agents

Foundry IQ for Multi-Source AI Knowledge Bases
aka.ms/FoundryIQ-mm

Deep Dive into Foundry IQ
aka.ms/FoundryIQ-deepdive

A new developer series
coming soon!

Foundry IQ episodes
premiere every
Wednesday at 9 AM PT,
starting March 18, 2026



Master Microsoft IQ with The IQ Series



1

aka.ms/iq-series

Visit: <https://aka.ms/iq-series>

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