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Microsoft Fabric: Building the Trusted Data Foundation for Enterprise AI

ProArch + Microsoft Webinar Series | Part 1 of 2

Wednesday, October 28 | 2 PM EST | Venkatesh Rajupalepu & Swathi Mannepalli

Next 20 minutes

- Microsoft Fabric capabilities
- Why AI needs a data foundation
- The demo scenario
- Live demo
- Key takeaways
- Your next step

One journey, two sessions

From enterprise data to intelligent agents, using one real-world business scenario throughout.

PART 1 · TODAY

PART 2 · NOVEMBER 11

01

Trusted data foundation

Fabric unifies fragmented data in OneLake, Lakehouse and Warehouse, then a semantic model adds business meaning.

02

AI-ready insights

The same semantic model powers Power BI, Copilot and Fabric Data Agents answering in business language.

03

Intelligent agents

Fabric IQ and Microsoft Foundry agents investigate, reason, recommend and act, with approval.

Running scenario: Improving Customer Delivery Through AI-Powered Contract Intelligence

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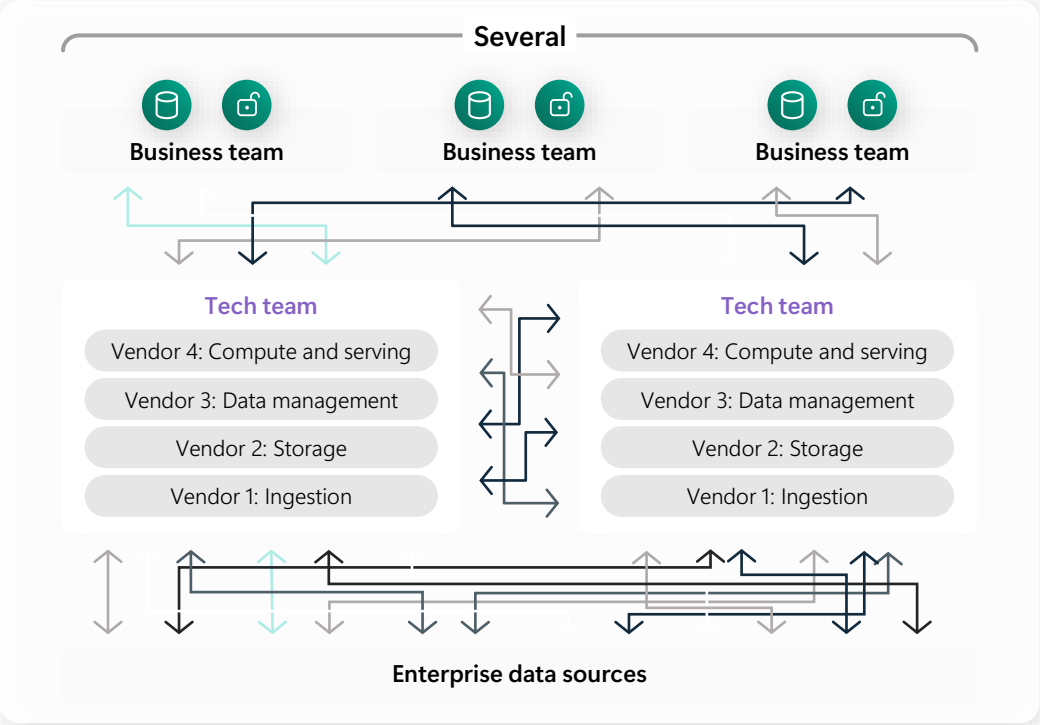
The Microsoft Fabric capabilities behind the foundation

The starting line

A complex, organically evolved data estate



1. Data copies and infrastructure inefficiencies
2. Limited interoperability between vendor services
3. Data exposure risks

Microsoft Fabric

The data platform for the era of AI

From		To
Multiple analytics services	»	Unified stack
Disconnected data sources	»	All the data in one place
Isolated application	»	Entire estate
GenAI bolt on	»	Powered by AI

Microsoft Fabric

The unified data platform for AI transformation

Databases

Data Factory

Analytics

Real-Time Intelligence

Power BI

IQ

Fabric Platform

Copilot

OneLake

Governance

Microsoft Fabric: one platform for AI-ready data

Fabric IQ — *Ontology: enterprise concepts and rules for agents (Part 2)*

Experiences	Power BI	Copilot	Fabric Data Agents	AI applications
Business context	**Semantic model**	Measures & KPIs	Relationships	Prep data for AI
Curate	Lakehouse	Warehouse	SQL analytics endpoint	

Store — OneLake: one copy of data in open Delta Parquet format

Governed end to end

One copy, no shadow extracts

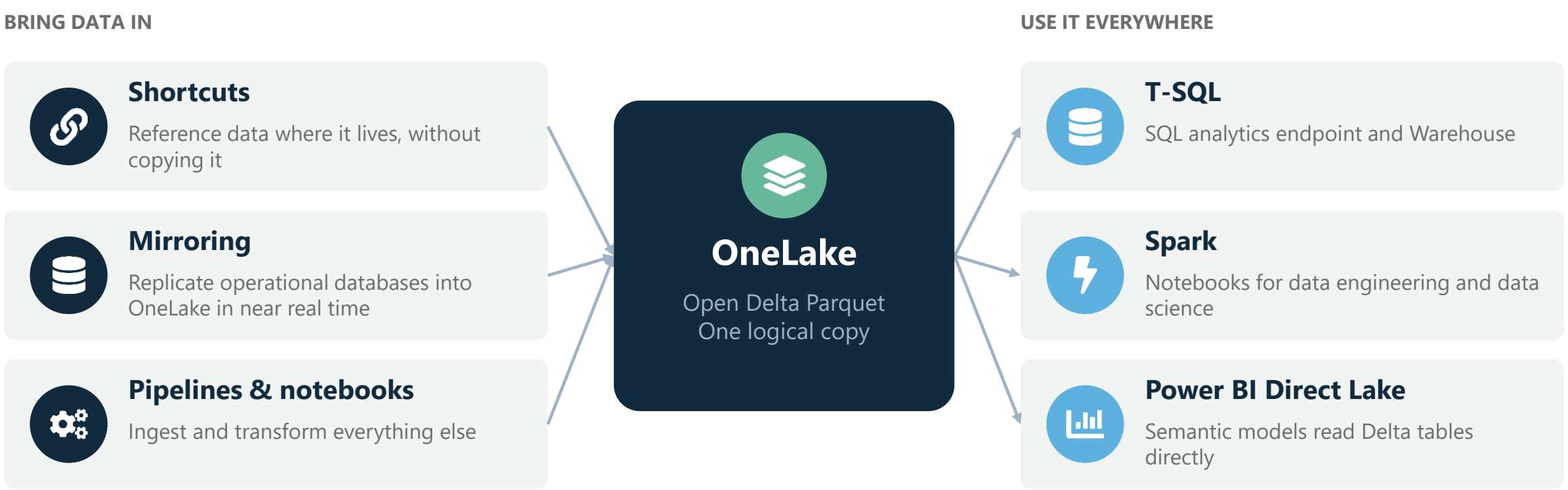
Agents query as the signed-in user

Source permissions respected

Read-only queries from Data Agents

OneLake: one copy of data, many engines

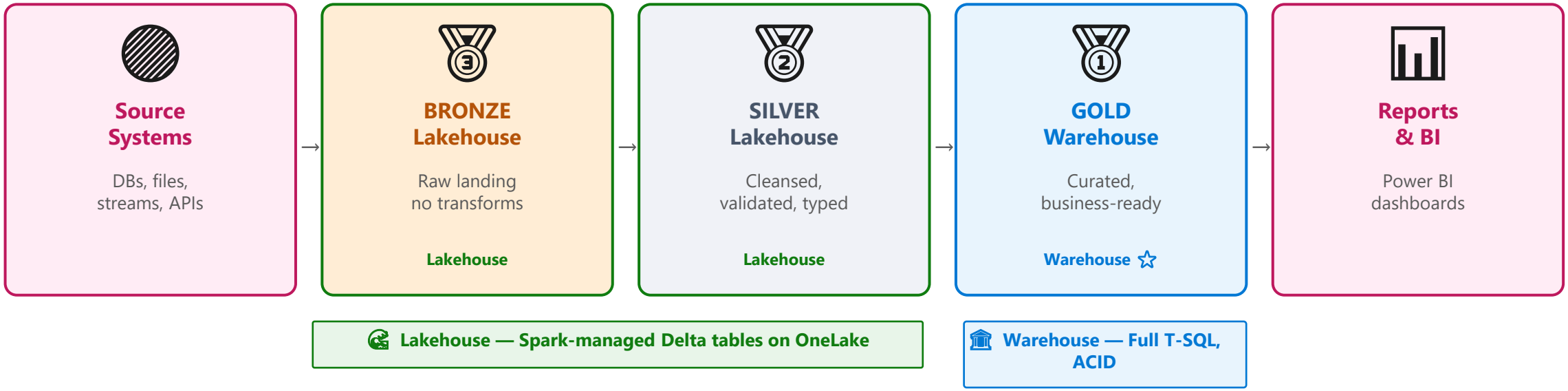
Bring data in once, in an open format, and let every engine work from the same copy.



In the demo: six source systems land once in OneLake, so no AI app has to integrate them separately.

Lakehouse and Warehouse: architecture

Lakehouse Owns Bronze & Silver — Warehouse Owns Gold



> *"Many customers land in Silver Lakehouse — Warehouse takes it from there to the business."*

Semantic models: business meaning, defined once

What the semantic model adds

Measures and KPIs

At-Risk Commitments, Revenue Exposure, SLA %

Relationships

Customer to Commitment to Fulfillment, Contract and Date

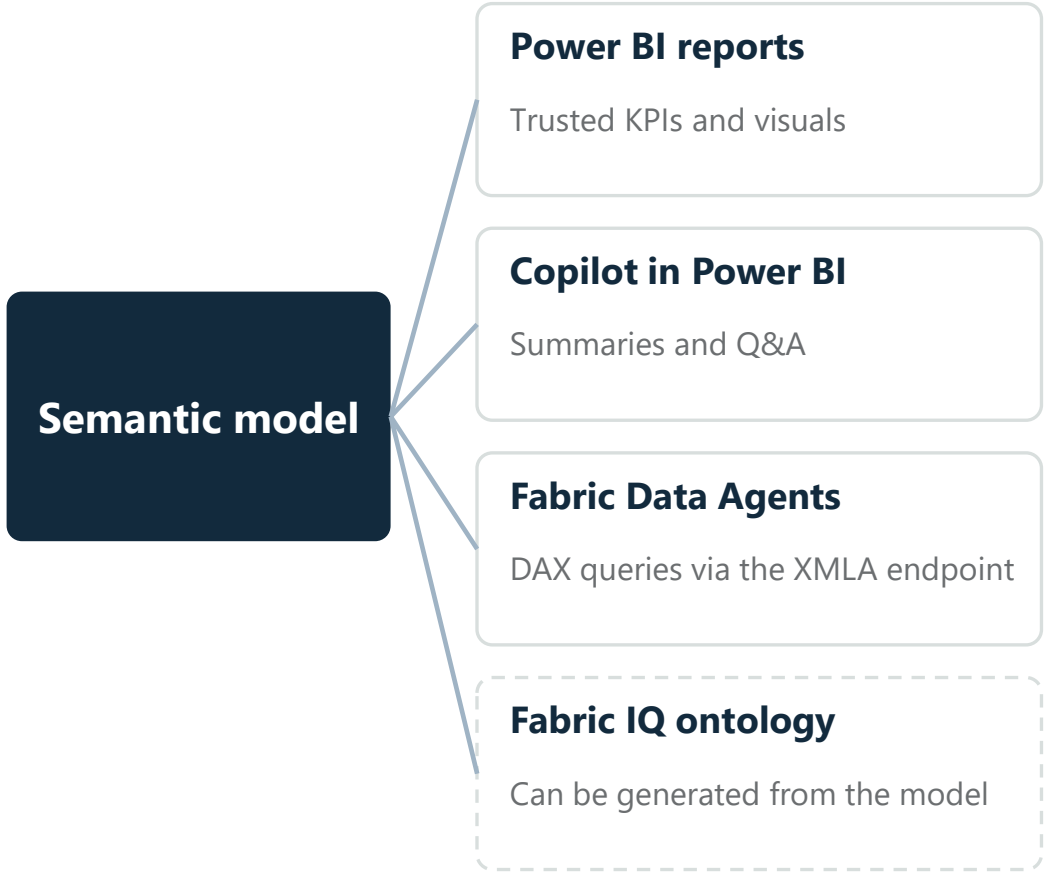
Business rules and definitions

What "at risk" and "strategic" actually mean

Security

Row-level and object-level access defined in one place

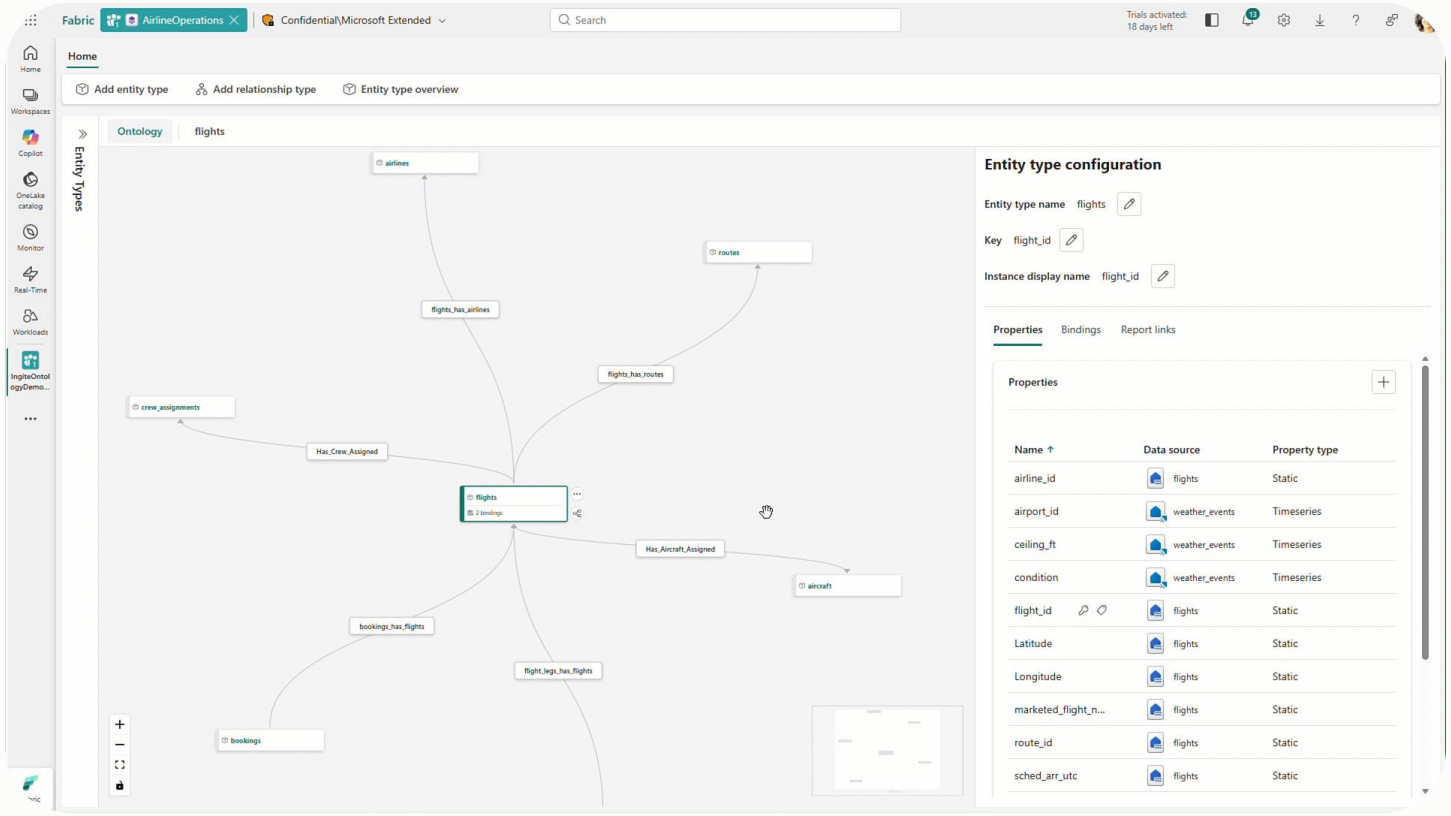
One model, every consumer



Fabric IQ Ontologies

Define how your business works, not just how your data is structured

Public preview



Your enterprise, mapped

Capture entities, relationships, and rules on top of semantic models

One definition, everywhere

Align every team and tool on one view of the org, across BI and operations

New integrations

Fabric Data Agents: talk to governed data

Ask
A business question in natural language

Plan and route
Pick the right source, or combine several

Query
Generate read-only SQL, DAX or KQL

Answer
Results, with the steps it took

Connect
Up to five sources per agent

- Lakehouse
- Warehouse
- Semantic model
- KQL database
- Ontology

Configure
Ground it in your business logic

- Agent instructions
- Data source instructions
- Example queries*

Publish
Use it where people work

- Microsoft 365 Copilot
- Copilot Studio
- Microsoft Foundry
- Custom apps

*Example queries apply to SQL and KQL sources; for semantic models, use verified answers in Prep data for AI. · Agents run under the signed-in user's identity and respect source permissions.

Microsoft Fabric

Bring data access to developers, data professionals, and business users

Fostering a data-driven culture

- Enable **automated, repeatable, and governed data** development in Fabric
- Unify data in a **single, discoverable data catalog**
- Empower everyone to use data directly in apps **like Teams, Excel, and Foundry**

AI is only as trustworthy as the data behind it

Many organizations jump straight to models and copilots. But giving AI access to tables is not the same as giving it an understanding of what that data means.

Access alone

- Hundreds of raw technical columns and codes
- Ambiguous terms like "at risk" or "exposure"
- Every report, copilot and agent interprets data differently

Access + business context

- Curated, governed business entities
- Shared definitions, KPIs, relationships and rules
- Consistent, trusted answers across BI and AI

Lessons: AI accuracy is a modeling problem

When an AI answer is wrong, check the semantic model before blaming the language model.

Ambiguous names, duplicate measures and missing relationships cause most bad answers.

1 Speak the business language

Rename rev_exp_amt to Revenue Exposure. Add descriptions and synonyms.

2 One official measure per concept

If three "revenue" measures exist, AI will pick one. Hide the rest.

3 Start from questions, not schema

Collect 20 to 30 real questions first, then model what they need.

4 Keep the star schema

Facts and dimensions help AI traverse the model; flat tables limit it.

5 Test answers like code

Rerun a question bank before every model change goes live.

6 Narrow beats broad

One domain and one audience per agent gets trusted faster.

One pattern, many industries

Every organization has a "which X is at risk?" question. The scenario changes; the pattern doesn't.

MANUFACTURING

Which customer orders will miss their promise date?

Signals Production schedule, inventory, supplier delays

Define once On-time in full, promise date

HEALTHCARE

Which payer contracts are we under-collecting on?

Signals Claims, remittances, contract terms

Define once Expected reimbursement, denial

FINANCIAL SERVICES

Which borrowers are nearing a covenant breach?

Signals Financial statements, payments, covenants

Define once Covenant headroom, watch list

PROFESSIONAL SERVICES

Which projects will overrun budget or margin?

Signals Timesheets, milestones, change orders, billing

Define once Margin at completion, burn rate

RETAIL & DISTRIBUTION

Which stores will run out of promoted items?

Signals Point of sale, inventory, promotions, deliveries

Define once Days of cover, stockout

SOFTWARE & SERVICES

Which renewals are at risk this quarter?

Signals Product usage, tickets, feedback, contract dates

Define once Customer health, renewal window

What you'll see in the demo

1

Unified data

Six source systems already landed in OneLake

2

Semantic model

Measures and definitions like "at risk" and "revenue exposure"

3

Prep data for AI

AI data schema, AI instructions and a verified answer

4

Fabric Data Agent

Business questions answered in plain language

5

The boundary

Where analytics stops and agents begin

Watch for this: nobody types a table name, a join or a line of DAX. The business meaning lives in the model, so the AI can use it.

The scenario: which commitments are at risk?

"Which customer commitments are at risk, and where should we focus our attention?"

A commitment could be

- A contracted implementation milestone
- A product or service delivery
- An onboarding deadline
- An SLA-backed customer obligation

42 Active commitments	8 Currently at risk	3 Strategic customers affected
$4.7M Commitment value at risk	$2.1M Revenue exposure	

The answer is spread across six systems

NorthWind, a technology services company, has 42 active commitments across 24 customers. Leadership wants to know which are at risk and where to focus.

WHY IT MATTERS

Miss a commitment and NorthWind pays twice

Now

SLA credits and unbilled revenue

Later

A damaged customer relationship

SIX SOURCE SYSTEMS, LANDED AS LAKEHOUSE BRONZE TABLES

CRM

Who the customer is, their tier and account owner

PSA / delivery

What we promised, and by when

Fulfillment tracking

How far along each commitment is

Support / ITSM

What is broken right now

Contracts & finance

Value, billing and SLA terms

Customer feedback

How the customer feels

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Live demo: from fragmented data to AI-ready answers

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Recap Of FabCon Barcelona 2026

Public preview

On-Demand Billing

Introducing the F0 SKU for optional pay-per-use compute

Run select workloads on demand, the rest on capacity

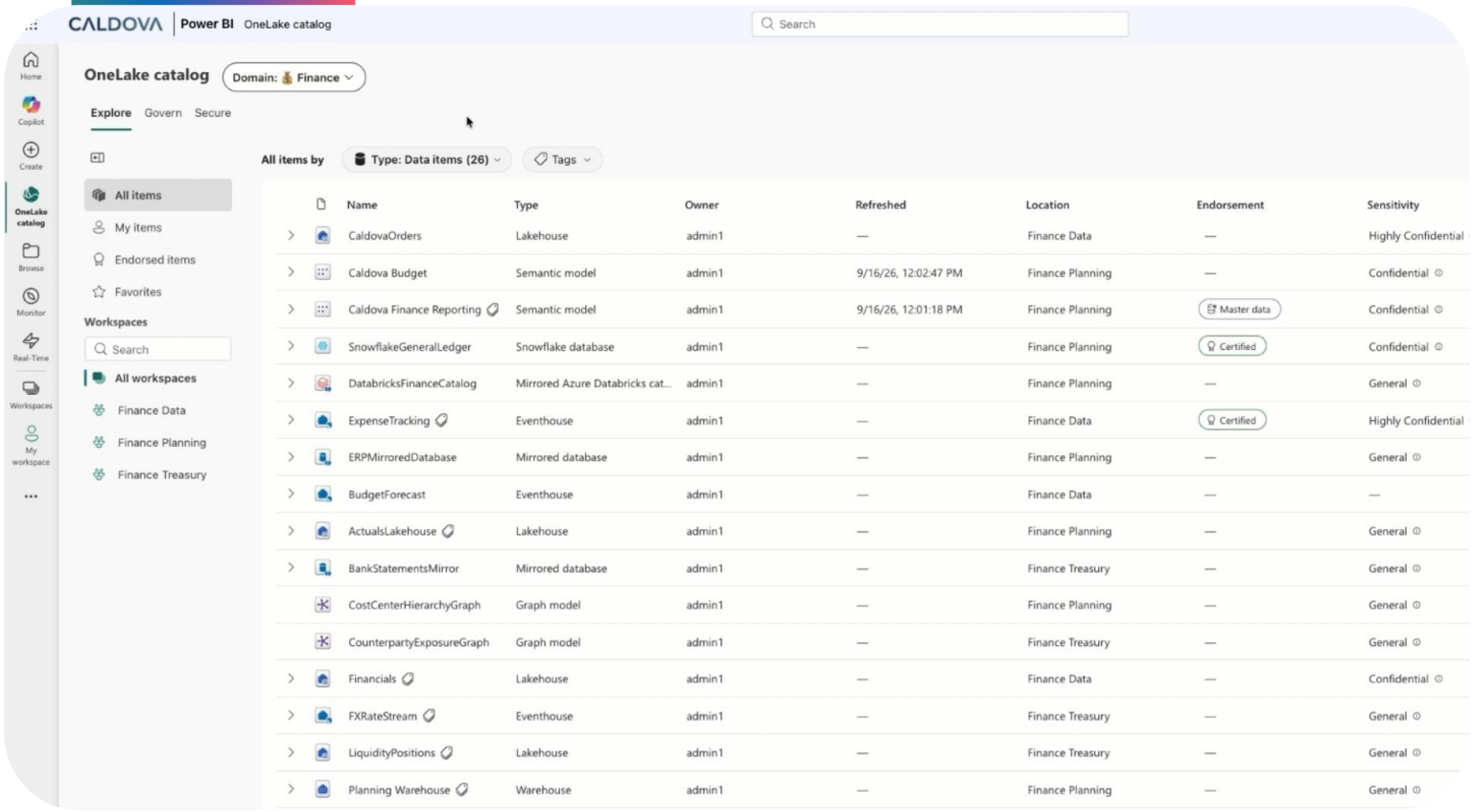
Start on F0 to run everything on demand, with nothing upfront

Set spend limits with built-in monitoring and governance

OneLake Catalog: New Capabilities

Deeper data discovery and smarter, AI-guided governance

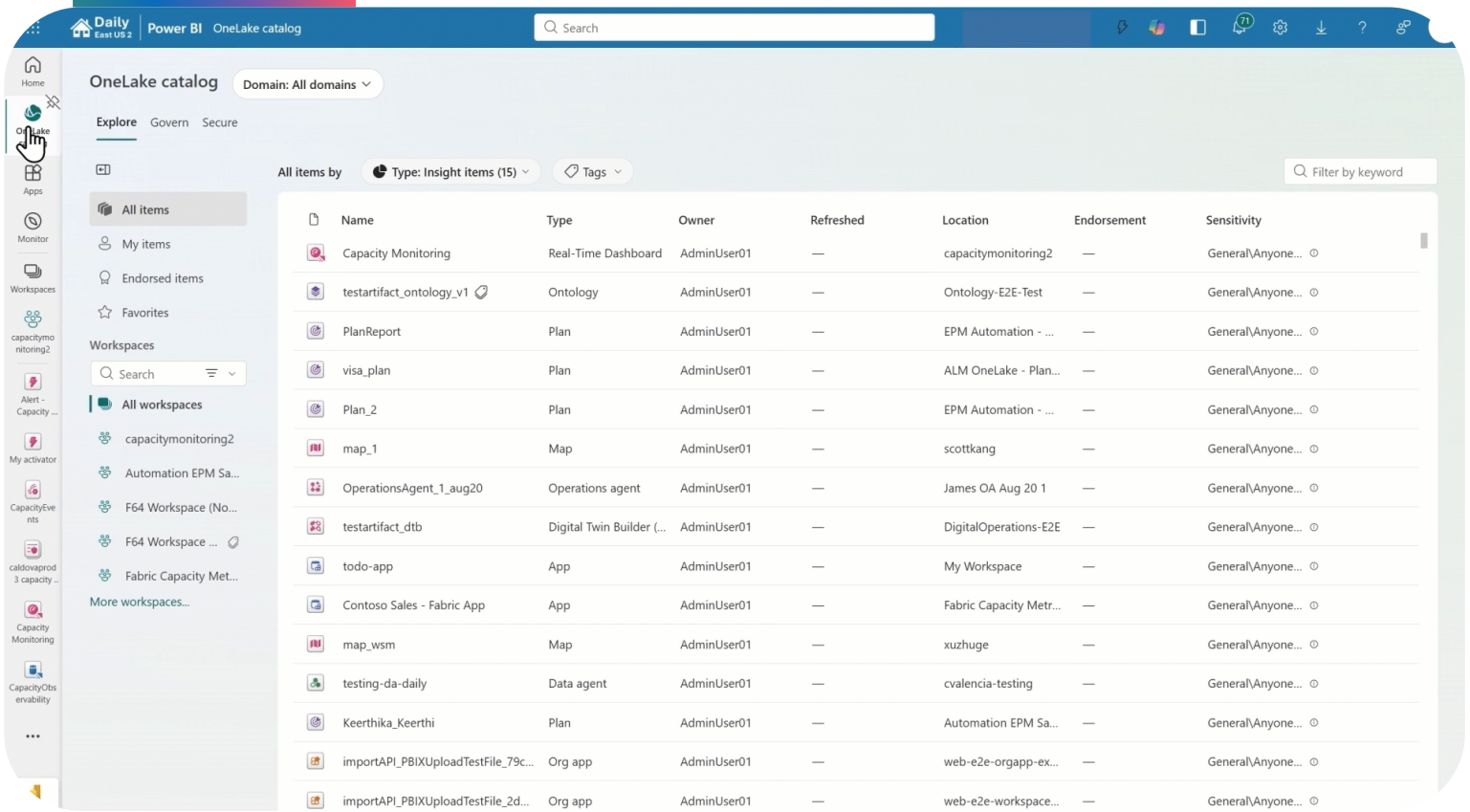
Public preview



- Discover in depth
- Search smarter

Enforce customized controls across tenants and capacities

Public preview

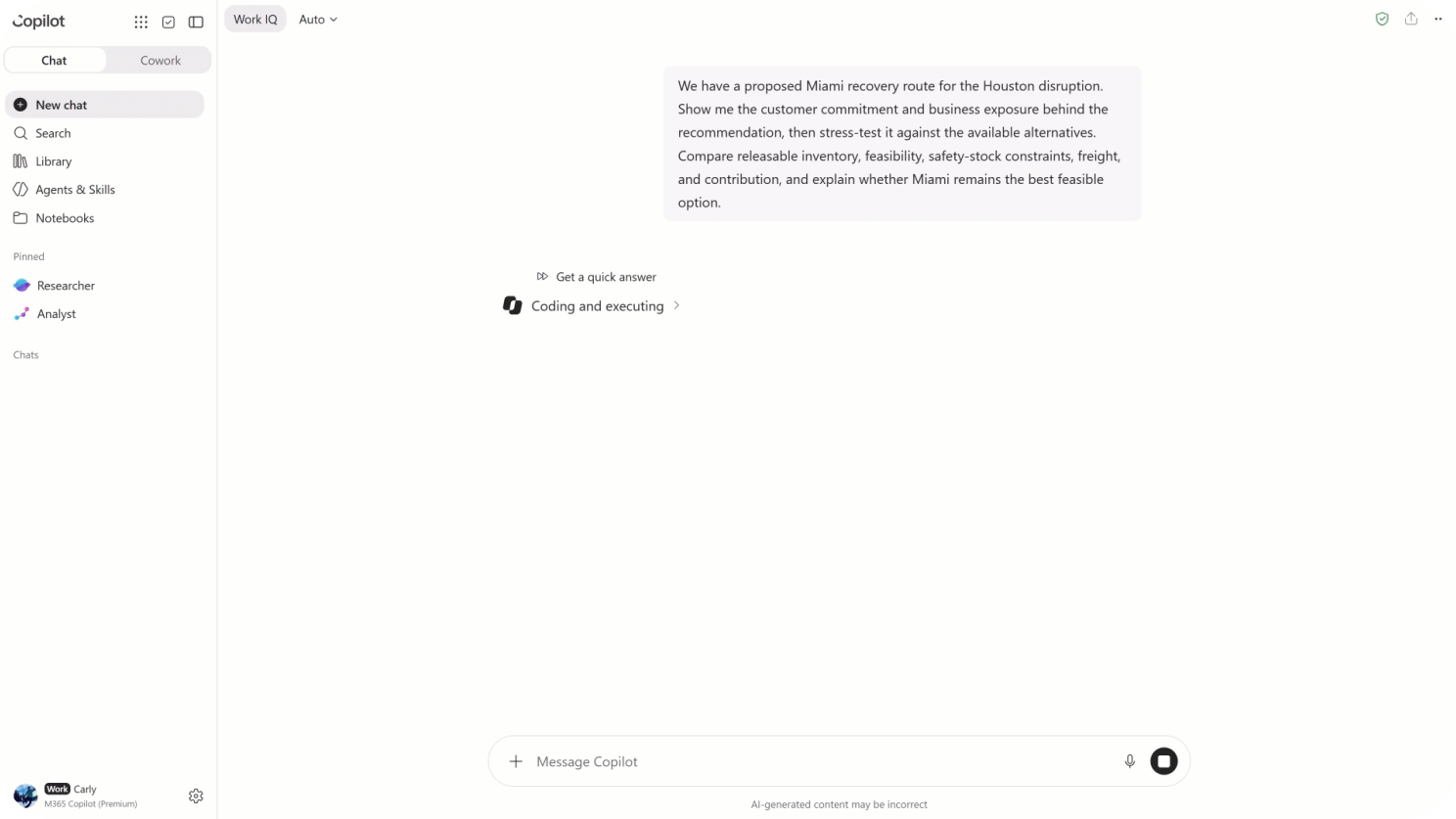


- Attribute-based policies
- Governed actions
- Programmatic control

Fabric IQ in Microsoft Copilot

Trusted context from your enterprise in every answer and action

Generally available

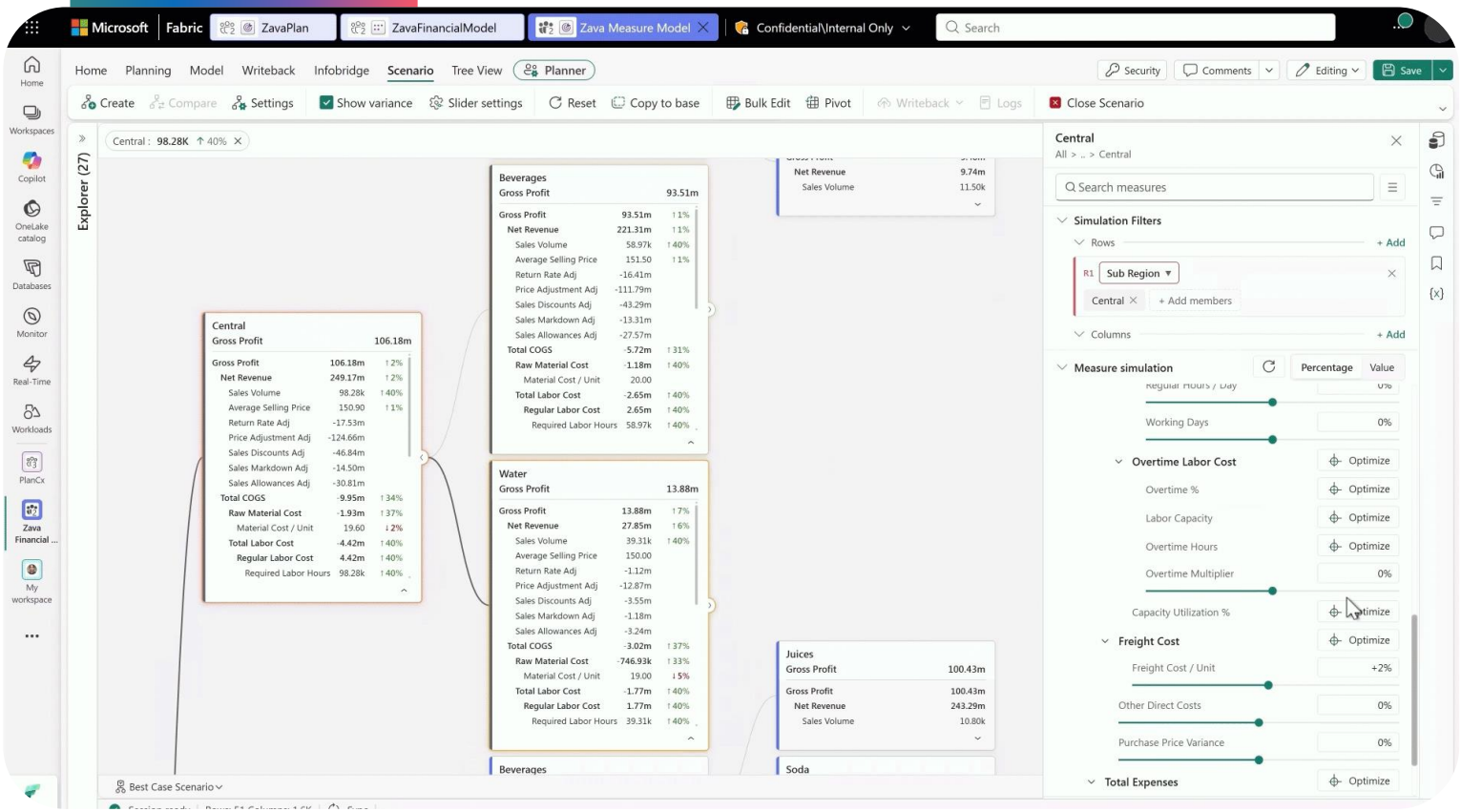


- Grounded answers
- Governed semantics
- No token tax

Planning in Fabric

Forward-looking context for your semantic layer, now generally available

Generally available



End-to-end planning

Build budgets, forecasts, models, and more on OneLake

Fabric IQ integration

Sync plans to semantic models, giving agents context to act

New

10x performance and scale

Input, allocate, and edit plans at 10x the scale on OneLake

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Key takeaways and next steps

Today we made enterprise data understandable to AI

Key takeaways

- Build a trusted, AI-ready data foundation in Microsoft Fabric
- Add business context with semantic models, KPIs, relationships and rules
- Reuse one governed foundation across Power BI, Copilot and AI applications
- Enable natural-language access to trusted data with Fabric Data Agents
- Prepare Fabric for agents that investigate, recommend and act

Is your data AI-ready? A 10-point check

Data foundation

- [ ] **1.** Source data lands in OneLake on a reliable schedule
- [ ] **2.** Curated business entities exist, not just raw tables
- [ ] **3.** Data quality has a named owner

Business meaning

- [ ] **4.** Star schema with business-friendly names
- [ ] **5.** One certified measure per key concept, with descriptions
- [ ] **6.** Terms like "at risk" are defined and agreed

AI controls

- [ ] **7.** AI data schema hides technical fields
- [ ] **8.** Verified answers cover top executive questions
- [ ] **9.** Row-level security tested with AI experiences
- [ ] **10.** A question bank tests answers before each release

0–4 — **Foundation first**
Unify data and agree definitions before adding AI.

5–7 — **Focused pilot**
One domain, one audience, Copilot or a Data Agent.

8–10 — **Extend to agents**
Add knowledge, tools and approved actions (Part 2).

Your next step with ProArch

Start where your 10-point check puts you.

SCORE 0–4 · NEW TO FABRIC

Fabric ImpactNOW Assessment

Prove value in 3–6 weeks

- A working use case in Fabric
- Outcomes tied to your KPIs
- A clear go / no-go / scale call

SCORE 5–7 · ALREADY ON FABRIC

Fabric Architecture Review

Make your Fabric estate AI-ready

- Lakehouse and warehouse design
- Semantic models and pipelines
- Prioritized remediation roadmap

SCORE 8–10 · READY FOR AGENTS

AI agents on Fabric

From answers to governed action

- AI use-case prioritization
- Agent design and build
- See it in Part 2 on November 11

Let's talk about your first use case

Scan to explore ProArch Fabric services · **letstalk@proarch.com**

Microsoft Fabric Featured Partner

Next in Part 2: from context to intelligent action

PART 2 OF 2

Microsoft Fabric IQ + Foundry: Turning Enterprise Context into Intelligent Action

Wednesday, November 11
2 PM EST

Venkat R, PJ and Srini

We start from this exact Apex Retail risk.

Investigate

Across enterprise data and knowledge, not just tables

Reason

Over business context represented with Fabric IQ

Recommend

A recovery plan for account and delivery teams

Act, with control

Invoke workflows or APIs after human approval

Governed by identity, security, observability and human approval across the agent architecture.

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Questions & answers

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