



Unlocking the Data Potential: Microsoft Fabric

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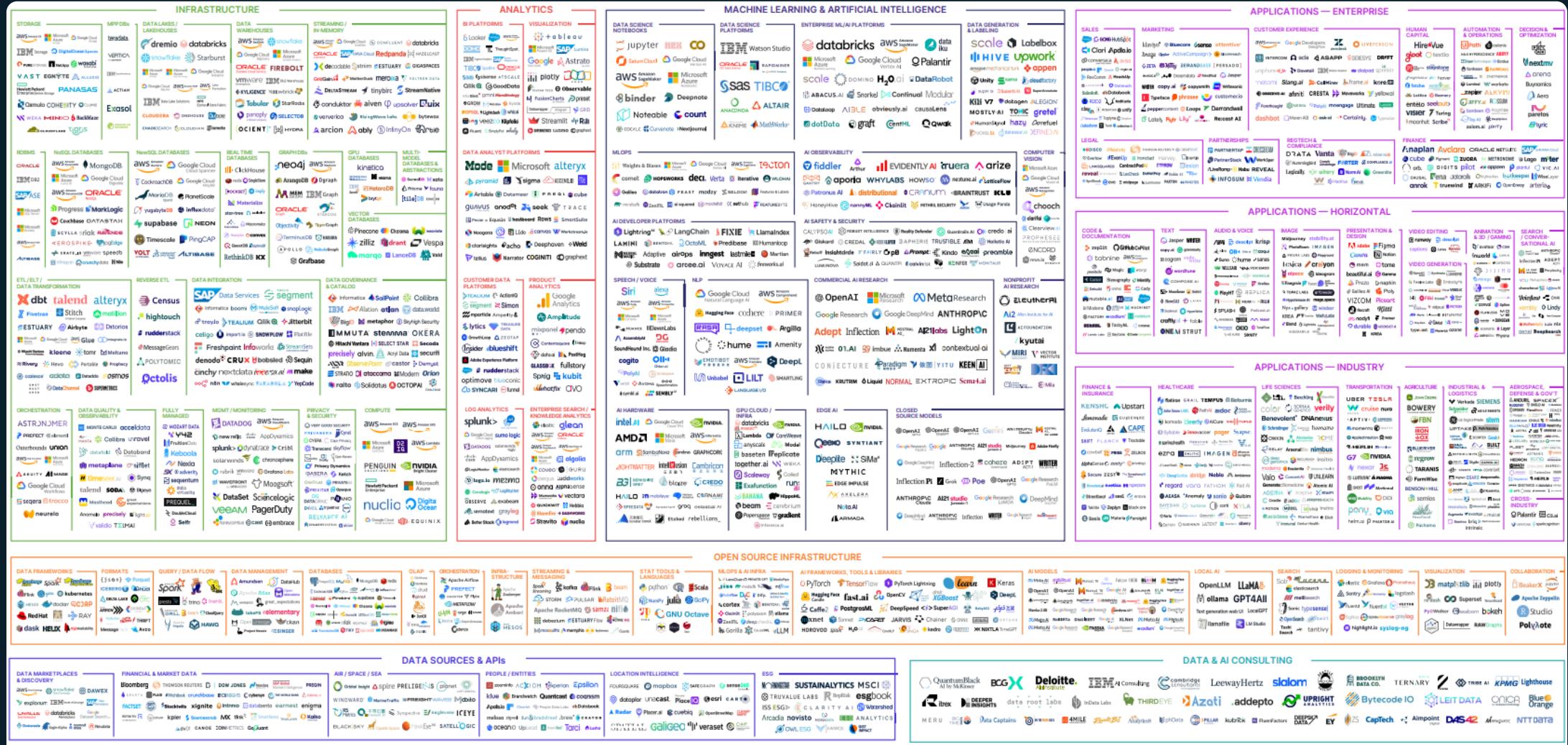
"Fabric is everything you need"

"All the AI tools need data in the right shape in good quality ...

Microsoft Fabric is one of the main foundations for your AI landscape"

(cit. Satya @ keynote MS Build 2024)

2024 Data and AI Landscape



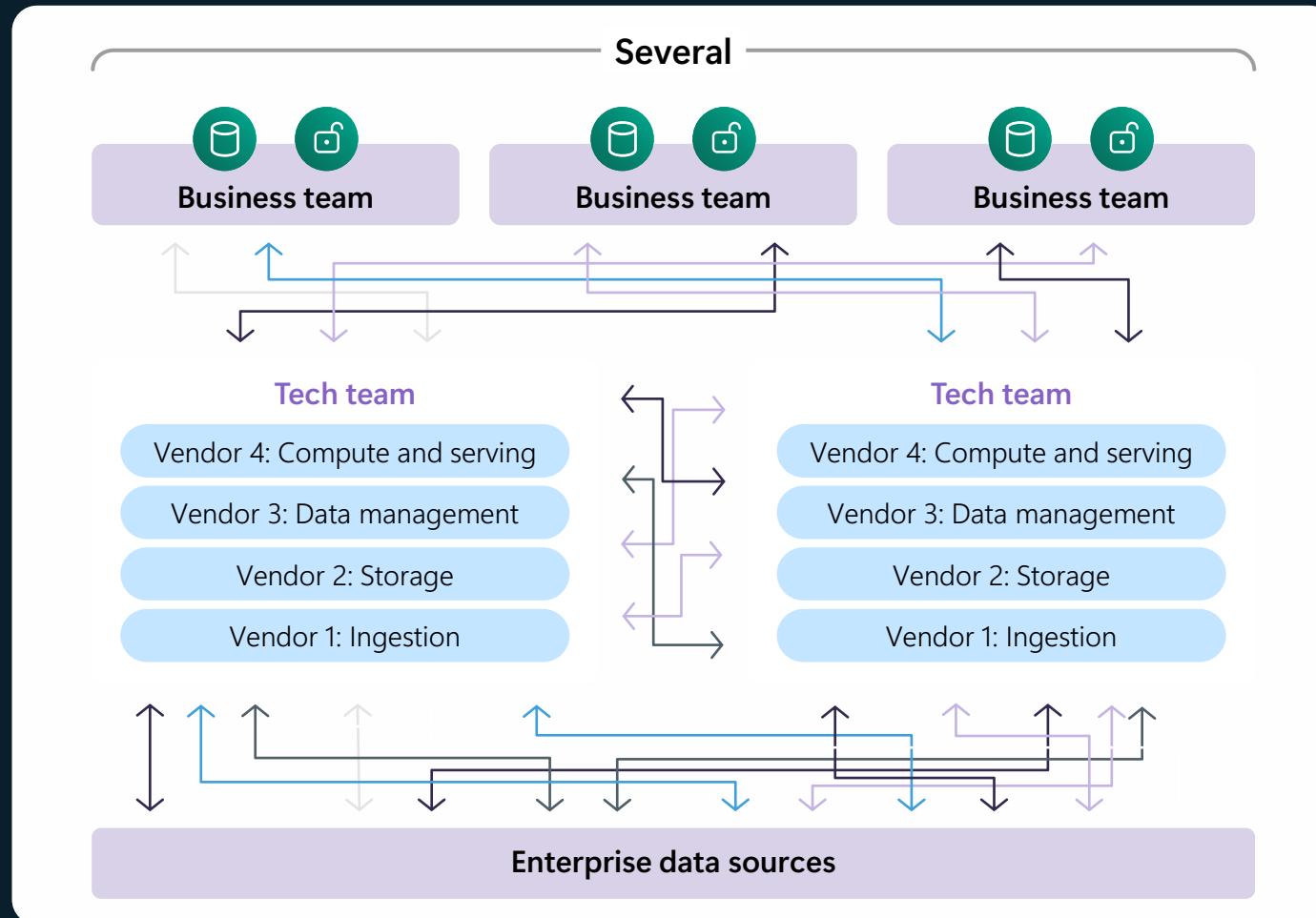
**“Unify,
Unify,
I am the Chief Information Officer and don’t
want to be the Chief Integration Officer.
Help me unleash AI in my data estate.”**

Every CIO, Every Enterprise



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

350K+

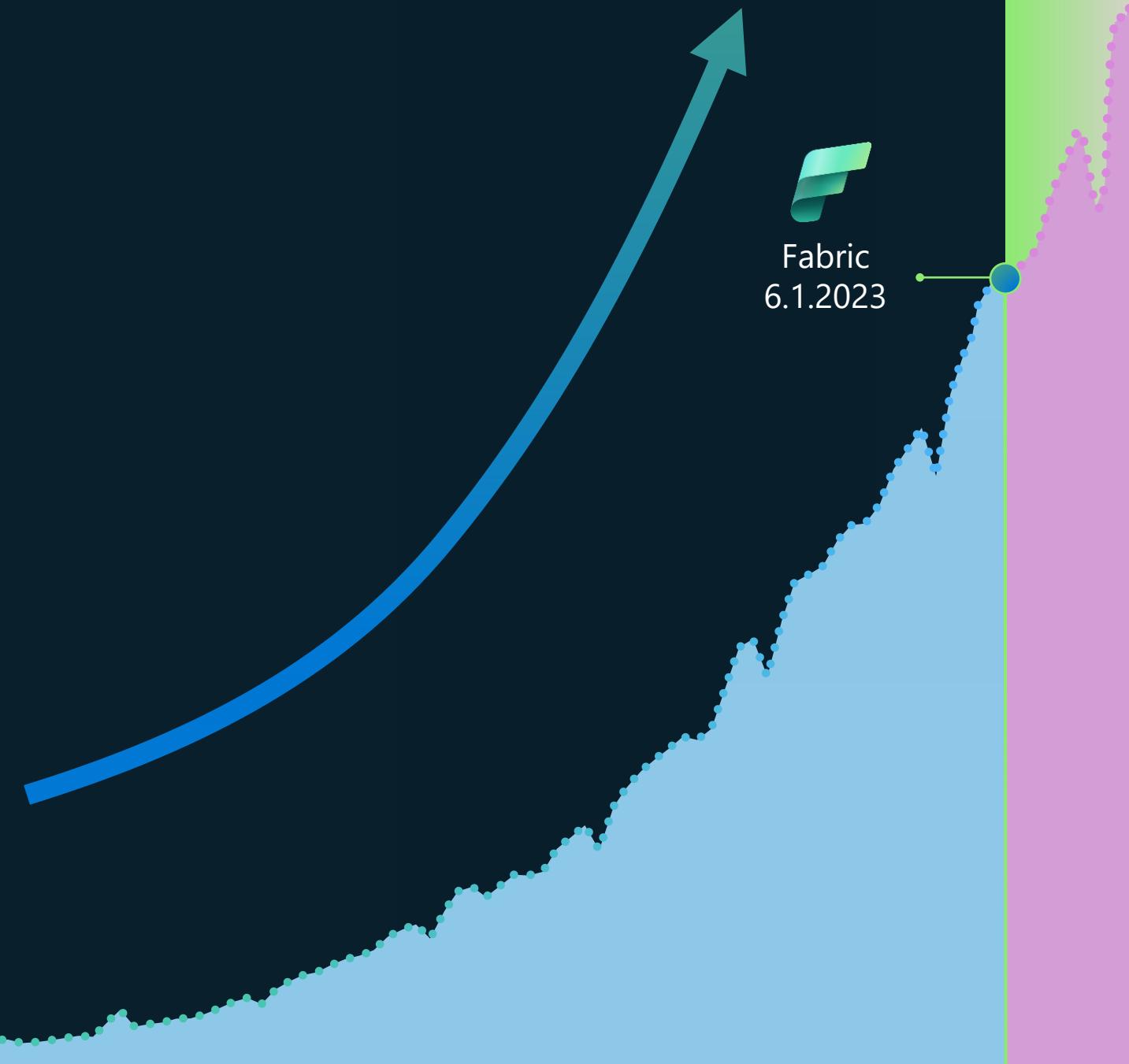
Power BI
Customers

97%

Fortune 500 Companies
Use Power BI

6.5M+

Power BI
Developers



Fabric
6.1.2023

Rapid pace of innovation

aka.ms/FabricRoadmap





Microsoft Fabric

The unified data platform for the era of AI

From

Isolated components

Single database

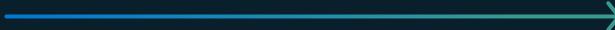
Gen AI bolted-on

To

Unified stack

All the data

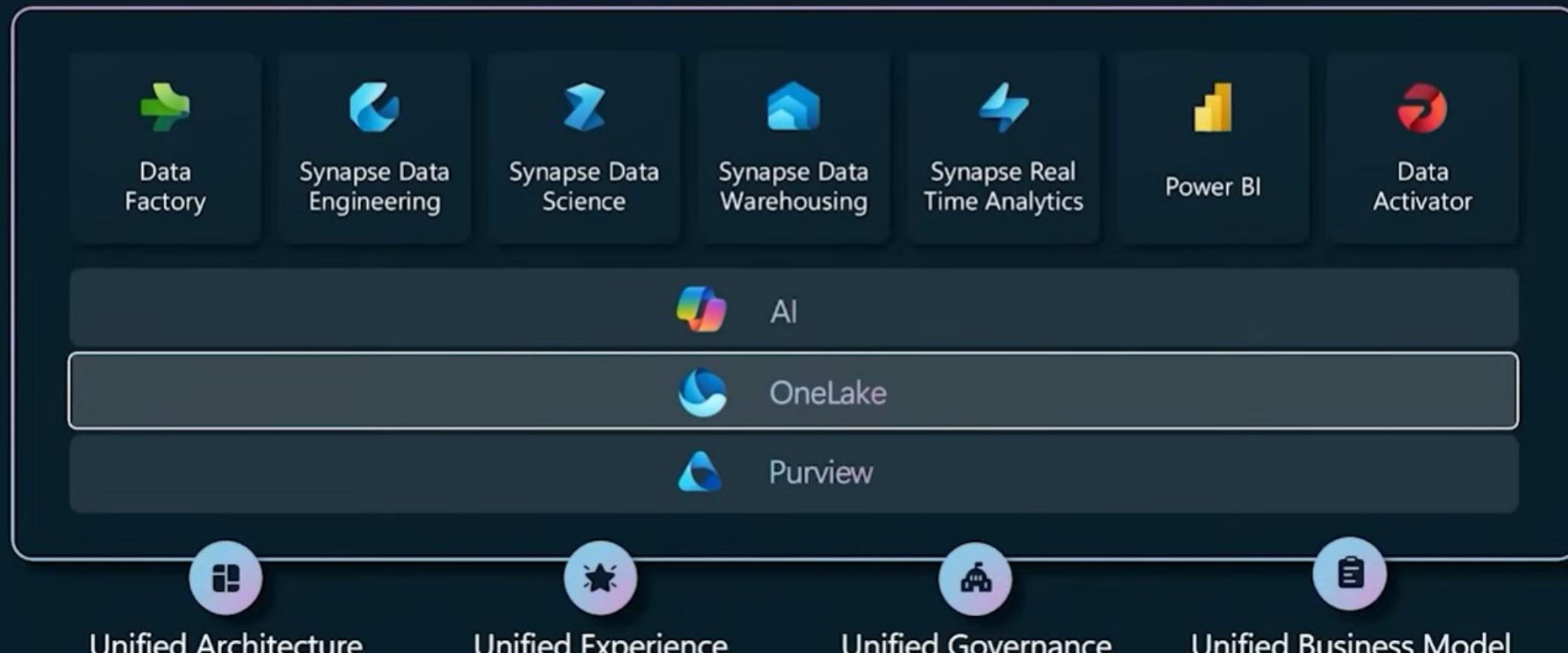
Gen AI built-in





Microsoft Fabric

The unified data platform for the era of AI





Microsoft Fabric

The unified data platform for the era of AI



- A **unified platform** to handle your whole data lifecycle
- A **flexible platform** that can accommodate a broad range of data scenarios for different industries, needs and use cases



Microsoft Fabric

The unified data platform for the era of AI

The screenshot shows the Microsoft Power BI Home interface. At the top, there's a banner with a Seattle skyline at night. Below it, the 'Recommended' section displays five items: 'FabCon Report 2024', 'Azure Data LT Dashboard', 'COVID Bakeroff', 'Arun LT Report', and 'Fabric Customer Analytics'. Each item has a small thumbnail, a title, a brief description, and an 'Open' button. The main content area shows a list of workspaces and reports. The list includes:

Name	Type	Last activity	Location	Endorsement	Sensitivity	
Contoso Outdoor Sales	Workspace	2 hours ago	Workspaces	—	—	
MovieAPICalls	Workspace	3 hours ago	Workspaces	—	—	
FabCon Report 2024	Report	4 hours ago	FabCon 2024	Confidential/Microsoft Extended	○	
FabCon 2024	Workspace	4 hours ago	Workspaces	—	—	
FabconMirrorTest	Workspace	22 hours ago	Workspaces	—	—	
My workspace	Workspace	22 hours ago	Workspaces	—	—	
Fabric Customer Analytics	Report	23 hours ago	—	Confidential/Microsoft Extended	○	
FabKeynoteReport	Workspace	a day ago	Workspaces	—	—	
Contoso Sales Profitability Report	Report	a day ago	FabKeynoteReport	—	Confidential/Microsoft Extended	○



Microsoft Fabric

Common misconceptions about Microsoft Fabric



- Fabric as a **mere rebranding**
(is not just a change of name)
- Fabric is only suitable **for large organizations**
(is not only appropriate for big businesses / big projects)

All have



Fabric

available 1-click away



Microsoft Fabric

11,000 paying organizations since GA six months ago



Dener Motorspor



Microsoft Fabric

The unified data platform for the era of AI

Complete Analytics Platform

Everything, unified

SaaS-ified

Secured and governed

Lake Centric and Open

OneLake

One copy

Open at every tier

Empower Every Business User

Familiar and intuitive

Built into Microsoft 365

Insight to action

AI Powered

Copilot accelerated

AI-driven insights

Gen AI on your data



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Scales to the most demanding projects

SQL Developer

Data Engineer

Database Admin

Developer

Project Manager

Business Analyst

Data Scientist

Name	Type	Owner	Refreshed	Next refresh	Endorsement	Sensitivity
ContosoOutdoors	Lakehouse	Patrick Baumgartn...	—	—	—	Confidential
ContosoOutdoors	Semantic model (...)	Contoso Sales Exc...	10/18/23, 2:11:33 PM	N/A	—	Confidential
ContosoOutdoors	SQL analytics end...	Contoso Sales Exc...	10/27/23, 12:55:04 PM	N/A	—	Confidential
ContosoOutdoorsDW1	Warehouse	Patrick Baumgartn...	—	N/A	—	Confidential
ContosoOutdoorsDW1	Semantic model (...)	Contoso Sales Exc...	10/26/23, 3:08:04 PM	N/A	—	Confidential
ContosoSalesKPILakehouse	Lakehouse	Patrick Baumgartn...	—	—	—	Confidential
ContosoSalesKPILakehouse	Semantic model (...)	Contoso Sales Exc...	7/17/23, 11:41:40 AM	N/A	—	Confidential
ContosoSalesKPILakehouse	SQL analytics end...	Contoso Sales Exc...	—	N/A	—	Confidential
Customer Loyalty New Member Update	Dataflow Gen2	Patrick Baumgartn...	—	N/A	—	Confidential
Dataflow Customer Loyalty New Member Update	Lakehouse	Patrick Baumgartn...	—	—	—	Confidential
Dataflow Customer Loyalty New Member Update	Semantic model (...)	Contoso Sales Exc...	7/21/23, 11:32:37 AM	—	—	Confidential

Fabric stakeholders

- Data Movers → Data Architects, Data Engineers, Developers
- Data Users → Data Scientists, Analysts, BI Developers
- Business Leaders → Executives and Leaders, Business Managers
- IT Leaders → IT Managers and CTOs, DevOps and DataOps Teams, Cloud Solution Architects, Compliance Officers, Data Stewards and Governance Professionals



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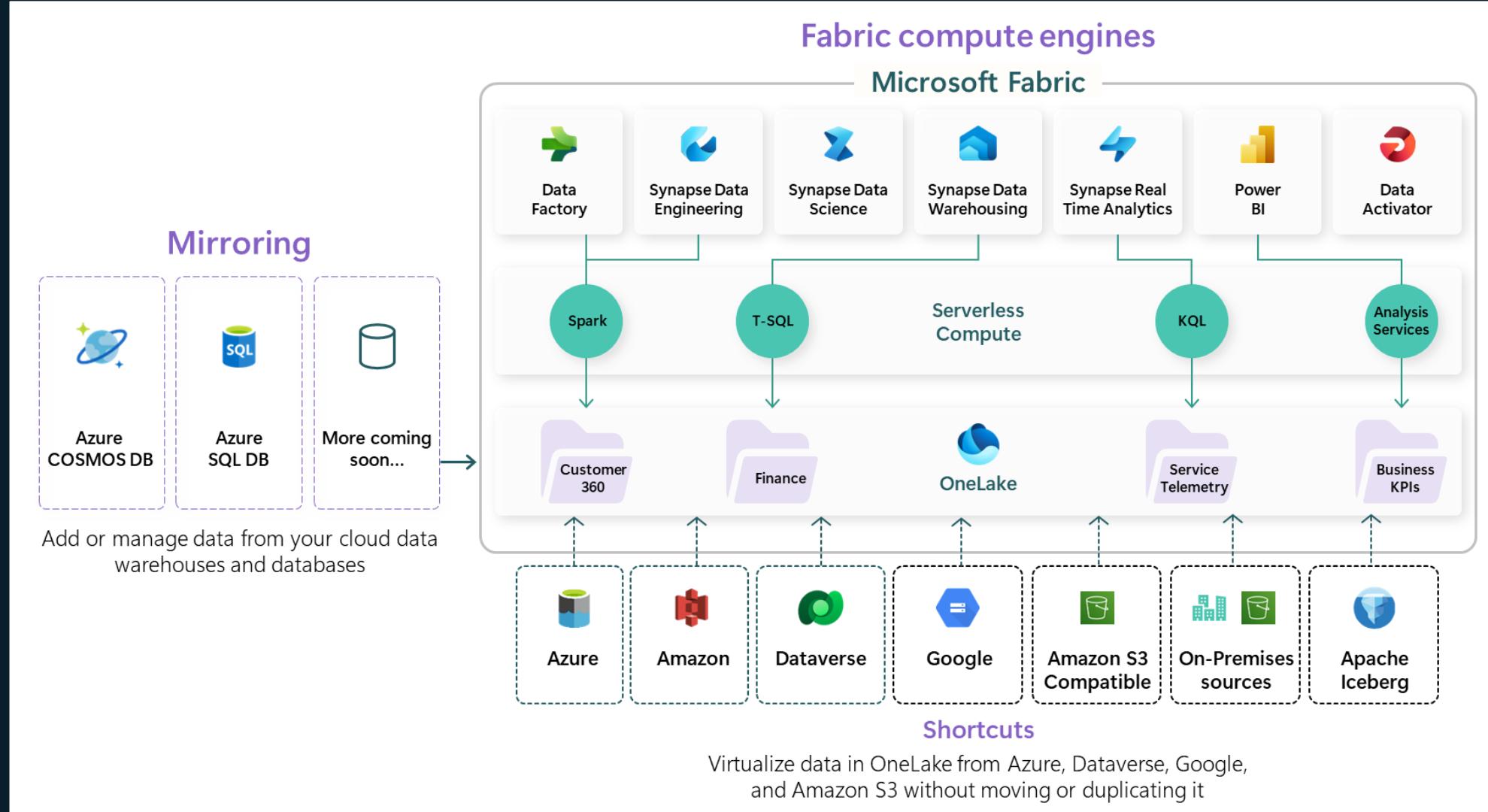
**“The OneDrive
for Data”**



OneLake

Unifying data in OneLake

Bring in data from anywhere



One Copy for all
computes



OneLake

Free Mirroring Storage for Replicas



OneLake

Unified Data Estate in OneLake



OneLake

Synapse Data Engineering

https://dxt.powerbi.com/home?experience=data-engineering

Microsoft DXT | Synapse Data Engineering Home

Search

Trial:
59 days left

63

?

Home

Create

Browse

Data hub

Monitoring hub

Workspaces

My workspace

Lakehouse

Notebook

Environment (Preview)

Spark Job Definition

Data pipeline

Import notebook

Use a sample

New

Current workspace: My workspace

Items will be saved to this workspace.

Show less ^

You frequently open this

My workspace

Contoso_OutdoorsDataLake

ContosoOutdoorsDataLake

Product Demand and Inventory Forecasting

Contoso Outdoors

Quick access

Recent

Favorites

Filter by keyword

Filter

	Name	Type	Opened	Owner	Endorsement	Sensitivity	Location
	ContosoOutdoors	Workspace	an hour ago	—	—	—	Workspaces
	Contoso Outdoors	Workspace	an hour ago	—	—	—	Workspaces
	Loyalty Program Order and Delivery Status	Report	an hour ago	Contoso Outdoors	—	Confidential\Micro... ⓘ	Contoso Outdoors
	Loyalty Program Order and Delivery Status	Report	an hour ago	ContosoOutdoors	—	Confidential\Micro... ⓘ	ContosoOutdoors



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Insight to action

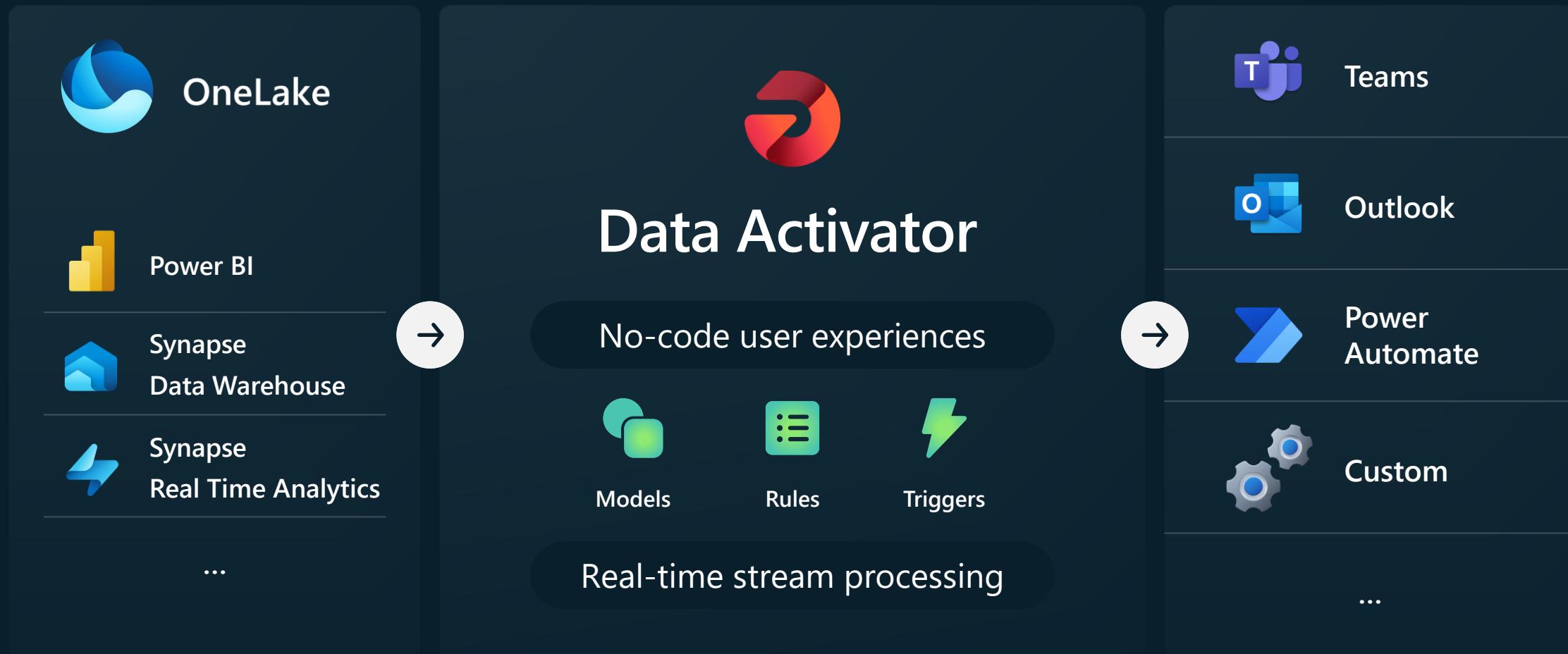
AI Powered

Copilot accelerated

AI-driven insights

Gen AI on your data

Trigger actions on all your data, from one place

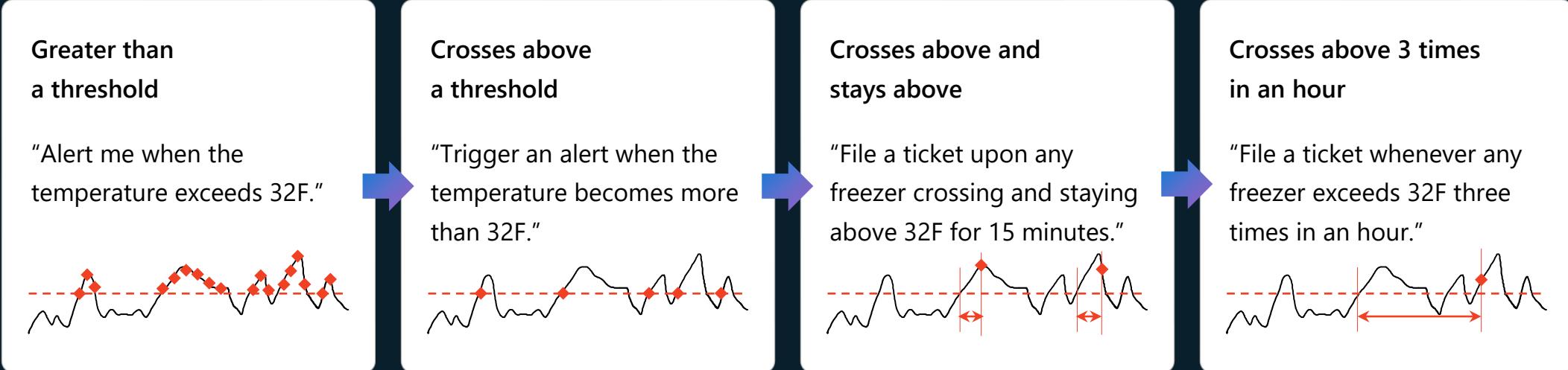


Trigger actions on all your data, from one place

A	B	C	D	E	F
1	Segment	Country	Product	Discount Band	Units Sold
2	Government	Canada	Carretera	None	1618.5 \$ 3.00
3	Government	Germany	Carretera	None	1321 \$ 3.00
4	Midmarket	France	Carretera	None	2178 \$ 3.00
5	Midmarket	Germany	Carretera	None	888 \$ 3.00
6	Midmarket	Mexico	Carretera	None	2470 \$ 3.00
7	Government	Germany	Carretera	None	1513 \$ 3.00
8	Midmarket	Germany	Montana	None	921 \$ 5.00
9	Channel Partners	Canada	Montana	None	2518 \$ 5.00
10	Government	France	Montana	None	1899 \$ 5.00
11	Channel Partners	Germany	Montana	None	500
12	Midmarket	Mexico	Montana	None	500
13	Enterprise	Canada	Montana	None	500
14	Small Business	Mexico	Montana	None	958 \$ 5.00
15	Government	Germany	Montana	None	2146 \$ 5.00
16	Enterprise	Canada	Montana	None	345 \$ 5.00
17	Midmarket	United States of America	Montana	None	615 \$ 5.00
18	Government	Canada	Paseo	None	292 \$ 10.00
19	Midmarket	Mexico	Paseo	None	974 \$ 10.00
20	Channel Partners	Canada	Paseo	None	2518 \$ 10.00
21	Government	Germany	Paseo	None	1006 \$ 10.00

Units Sold is lower than
expected
Do something!

Trigger actions on all your data, from one place



Announcing

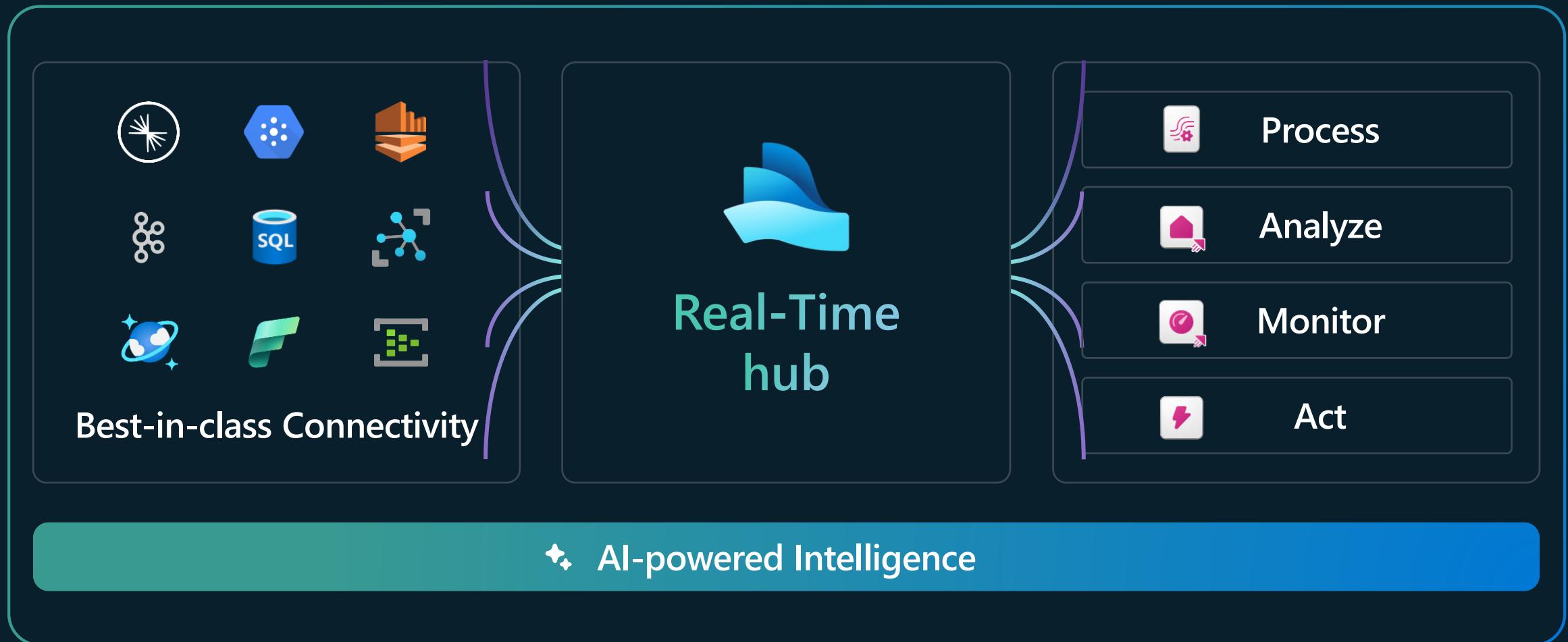


Real-Time Intelligence

at Microsoft Build 2024



Real-Time Intelligence in Microsoft Fabric





Real-Time Intelligence in Microsoft Fabric

Logistics

Delivery tracking and routing

Warehouse management

Supply & demand operations



Finance & Insurance

Finance Automation

Fraud Detection



Operational Efficiency

Manufacturing

Improving Quality

Predictive Maintenance

Inventory Prediction



Automotive

Connected fleet applications

Autonomous Driving

Manufacturing + R&D



Retail

Inventory tracking

Promotions and buying experiences

Supply chain management



Energy & Utilities

Station monitoring, energy leakage detection



Equipment Maintenance & Monitoring

Failure Monitoring





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AI-driven insights

Gen AI on your data

AI Powered

Gen AI accelerates your data journey in Fabric



Copilot accelerated
experiences



AI-driven
insights



Custom
generative AI
for your data

Copilot Integrated in every Microsoft Fabric Experience



Data Factory



Data Warehouse



Data Science



Real-Time Intelligence



Power BI



Microsoft Fabric

Copilot for Power BI Consumption

The screenshot shows the Microsoft DXT | Power BI Home interface. On the left, a sidebar menu includes Home, Create, Browse, OneLake data hub, Apps, Metrics, Monitoring hub, Deployment pipelines, Learn, Workspaces, Contoso Sales..., and Power BI. The main area features a "Recommended" section with four cards: "Feature Usage app" (You frequently open this), "Customer Loyalty Program Analytics" (You favorited this), "testForMaxim app" (Merav Lahav featured this), and "Feature Usage app" (Mohammad Ali opened this). Below this is a "Recent" section with three items: "Contoso Customer Loyalty Program" (Report, Opened 9 minutes ago, Location: Contoso Sales Excellence, Endorsement: —, Sensitivity: Confidential). The second item is "Customer Loyalty Program Analytics" (App, Opened an hour ago, Location: Apps, Endorsement: —, Sensitivity: —). The third item is "Contoso Sales Excellence" (Workspace, Opened an hour ago, Location: Workspaces, Endorsement: —, Sensitivity: —). A search bar at the top right shows "Trial: 59 days left" and a user profile icon.

Name	Type	Opened	Location	Endorsement	Sensitivity
Contoso Customer Loyalty Program	Report	9 minutes ago	Contoso Sales Excellence	—	Confidential
Customer Loyalty Program Analytics	App	an hour ago	Apps	—	—
Contoso Sales Excellence	Workspace	an hour ago	Workspaces	—	—

Demo

AI Skills



AI Powered



Generative AI on your data

Announcing Public Preview

Deliver custom
generative AI experiences
for **your data**



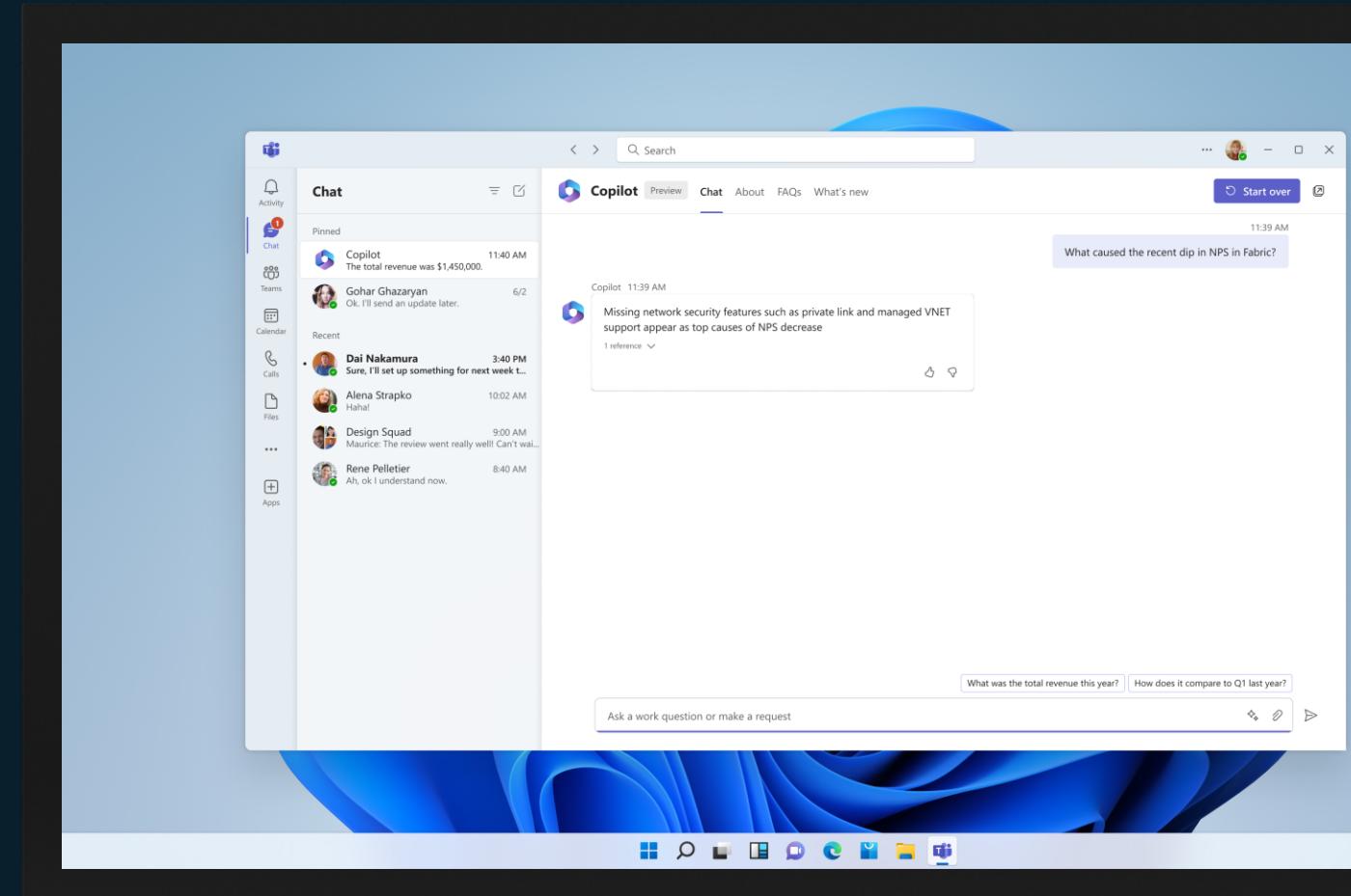
Enable custom Q&A on your
data in Fabric



Define custom business semantics
and grounding **unique to your org**



Scale the custom experiences to
M365 Chat, Copilot Studio, and
Azure AI Studio





Home



Create



Browse



OneLake

data hub



Monitoring

hub



Workspaces



Contoso

Outdoors...

New

Current workspace: Contoso Outdoors Sales

Items will be saved to this workspace.

Show less ^



ML model



Experiment



Notebook

Environment
(Preview)

AI Skill (Preview)



Import notebook



Use a sample

Recommended



My workspace

You frequently open this



Open

Notebook 6

You frequently open this



Open

Contoso Sales Excellence

You frequently open this



Open

Copilot Demo

You frequently open this



Open

Quick access

Recent

Favorites

Filter by keyword

Filter ▾

	Name	Type	Opened	Owner	Endorsement	Sensitivity	Location
	Contoso Outdoors Sales	Workspace	now	—	—	—	Workspaces
	Contoso Sales Excellence	Workspace	now	—	—	—	Workspaces

Public preview

Microsoft Fabric Workload Development kit

Acquire new customers with your own Fabric workload

Seamless user
experience

OneLake
integration

Enhanced customer
discoverability

Marketplace-based
monetization



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Data
Factory



Data
Engineering



Data
Warehouse



Data
Science



Real-Time
Intelligence



Power BI



AI



OneLake



Purview



Microsoft Fabric

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AI



OneLake



Purview



Microsoft Fabric

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AI



OneLake



Purview

Ideas

Creating your own generative AI requires...

A unified platform to explore,
build, test, deploy, and monitor
generative AI applications



A single platform for your data
gravity across your organization
to ground your AI on your data



1. You need an AI platform with AI models, like LLMs and tools
2. You also need a data platform to integrate, clean, and prepare your data for AI

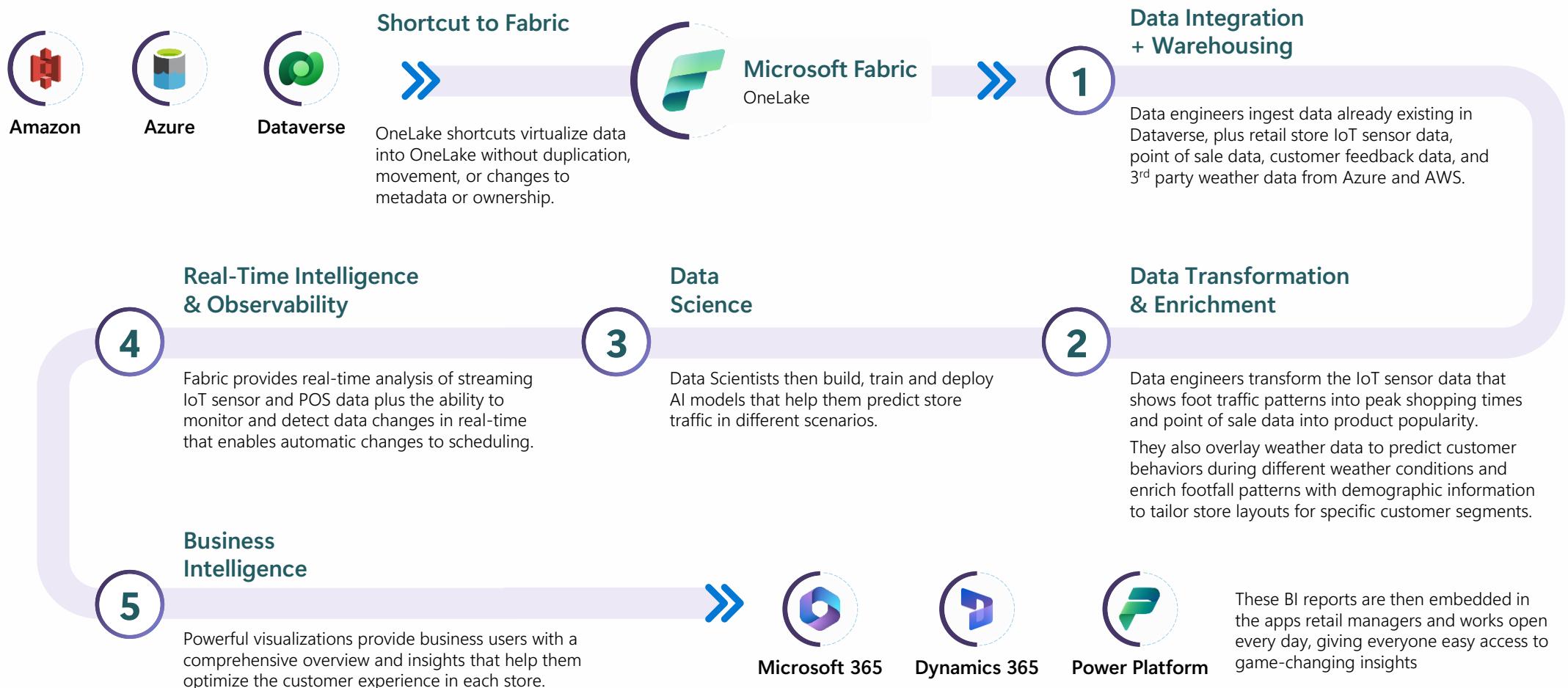
Ideas

Sustainability data solutions (SDS) in Fabric

The screenshot shows the Microsoft Fabric interface with a dark theme. On the left, there's a sidebar with icons for Home, Create, Browse, OneLake data hub, Monitoring hub, Workspaces, and SDS_23rd. The main content area has a teal header bar with the title "Sustainability solutions". Below the header, there's a section titled "Improve the efficiency and value of your sustainability data" with a brief description and a bulleted list: "Learn about sustainability solutions" and "Terms & Conditions". Underneath this, there's a section titled "Solution capabilities" with a sub-section "Select each capability to learn about it and build your data transformation solution." Four cards are listed:

- ESG data estate (preview)**: Compute, analyze and disclose ESG metrics by centralizing and transforming disparate data into standardized ESG data lakes.
- Microsoft Azure emissions insights (preview)**: Report and analyze Microsoft Azure emissions data by collecting and processing subscription and resource level emissions data in a data lake.
- Environmental metrics and analytics (preview)**: Build custom reports, environmental metrics, and insightful analytics for carbon, water, and waste by connecting to your data in Microsoft Sustainability Manager.
- Social and governance metrics and reports (preview)**: Compute, analyze and disclose social and governance metrics by combining and transforming disparate social and governance data into a standardized data lake.

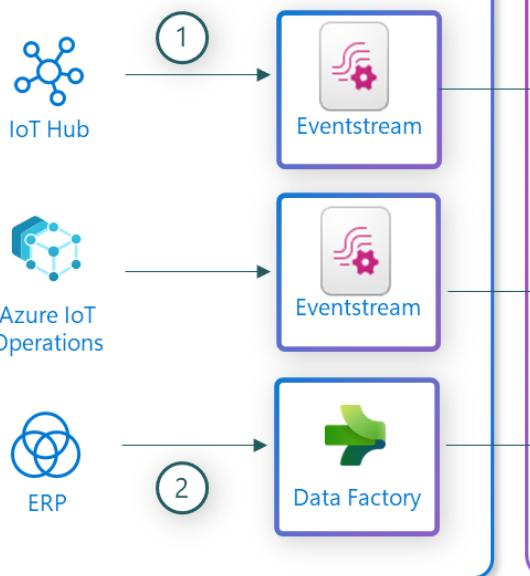
An illustrative retail example



An end-to-end Real-Time Intelligence experience – Connected Factory

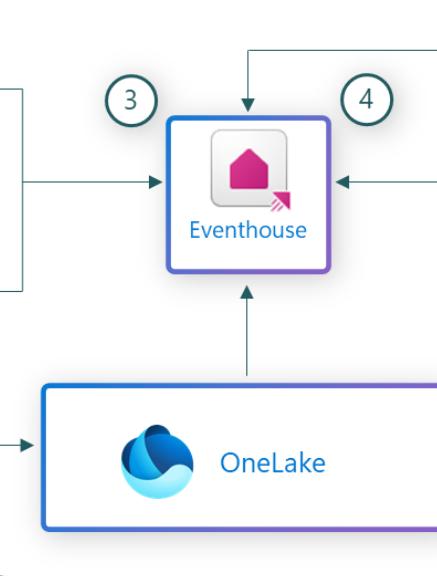
Ingest & process

1. Over 1M/1 HR IIoT events, 30k tags, from 40 factories are streamed in real time with sub-second latency
2. Contextualization data (OPC asset metadata, shift details, weather, component cost, etc.) mirrored into Fabric OneLake



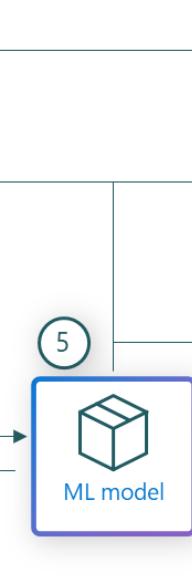
Analyze & transform

3. IIoT events are enriched in-motion with the Contextualization data and asset hierarchy from OneLake, providing clean and meaningful views
4. Enriched data is aggregated on the fly for long-term view



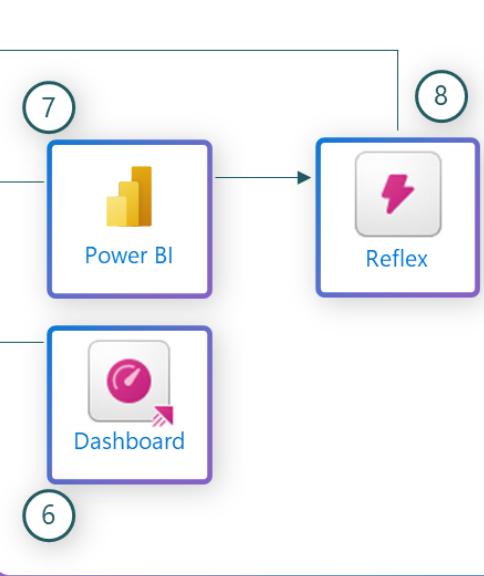
Train

5. Build, train, and score ML models in real time, persisting the scored data in OneLake



Visualize and activate

6. Real time dashboard of all factories with ability to easily shift from low granularity to high granularity view
7. Enhance organizational BI reports with high granularity enriched data
8. Notify users and activate automation in response to live indications from the factory floor



Announcing



Microsoft Fabric

Community Conference 2024



4 days of Microsoft Fabric Learning, Connection and Inspiration

24-27 September 2024

Stockholm, Sweden

Learn more:
<https://aka.ms/FabCon-Europe>





Q&A

Grazie!