



Microsoft Fabric

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#FABCONSQLCON2026

FABCON

Microsoft Fabric
COMMUNITY CONFERENCE

SQLCON

Microsoft SQL
COMMUNITY CONFERENCE

ATLANTA MARCH 16 - 20, 2026

Open interoperability: integrating Azure Databricks and OneLake

Josh Caplan

Partner Director of Product, OneLake
Microsoft

Anavi Nahar

Group PM Manager, Azure Databricks & Azure Data Lake Storage
Microsoft

What We Announced at Ignite



Expanding support for OneLake in Unity Catalog

Deepening interoperability through open standards



All data managed by **Azure Databricks** is available in **OneLake** today



Agenda

One copy of data across analytics engines



1



Integrating OneLake and Azure Databricks – what exists & what's coming

2



Use Fabric Data Factory to orchestrate Azure Databricks

3



PowerBI integration



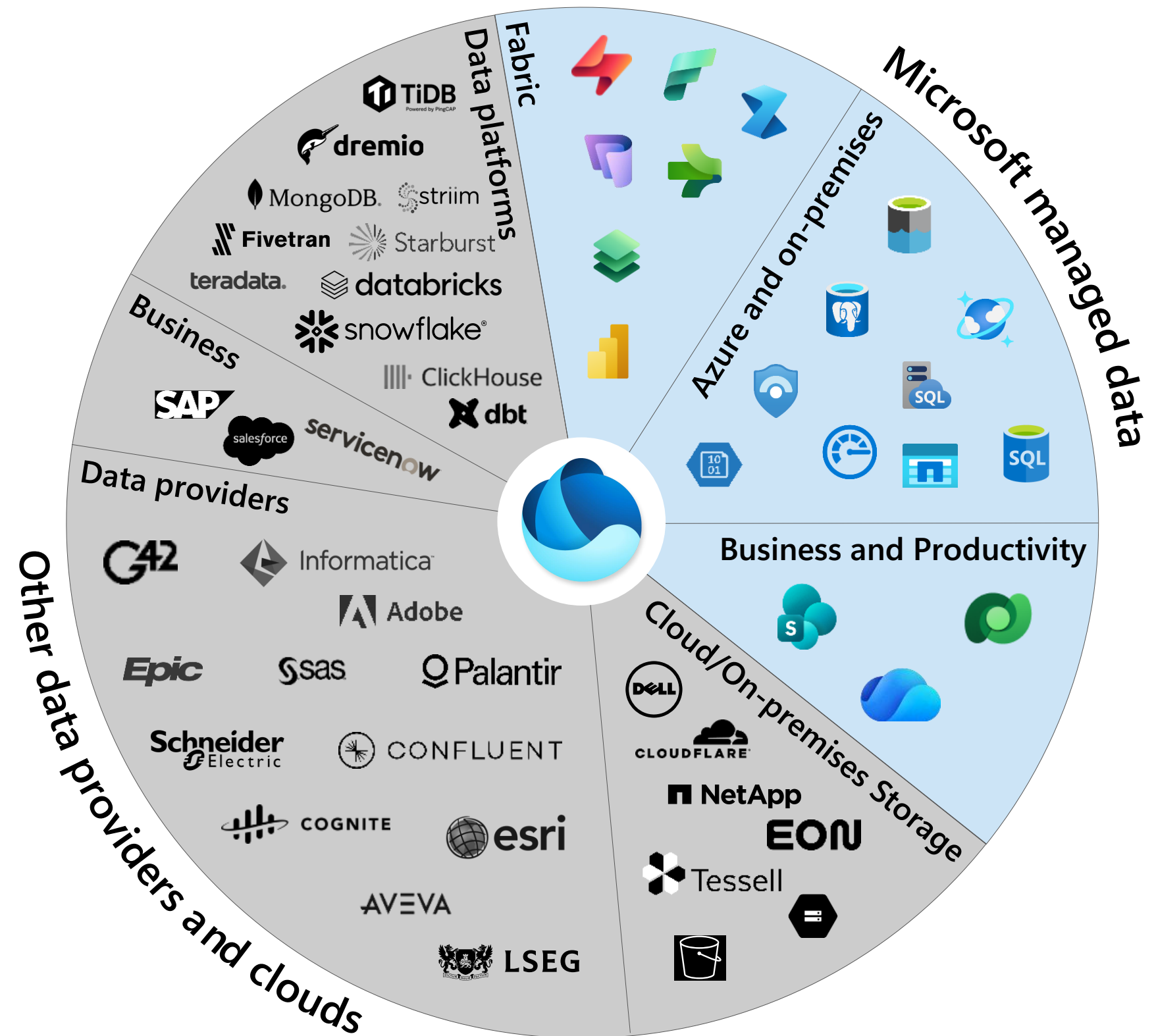
A vast fragmented data landscape

Data comes from all over

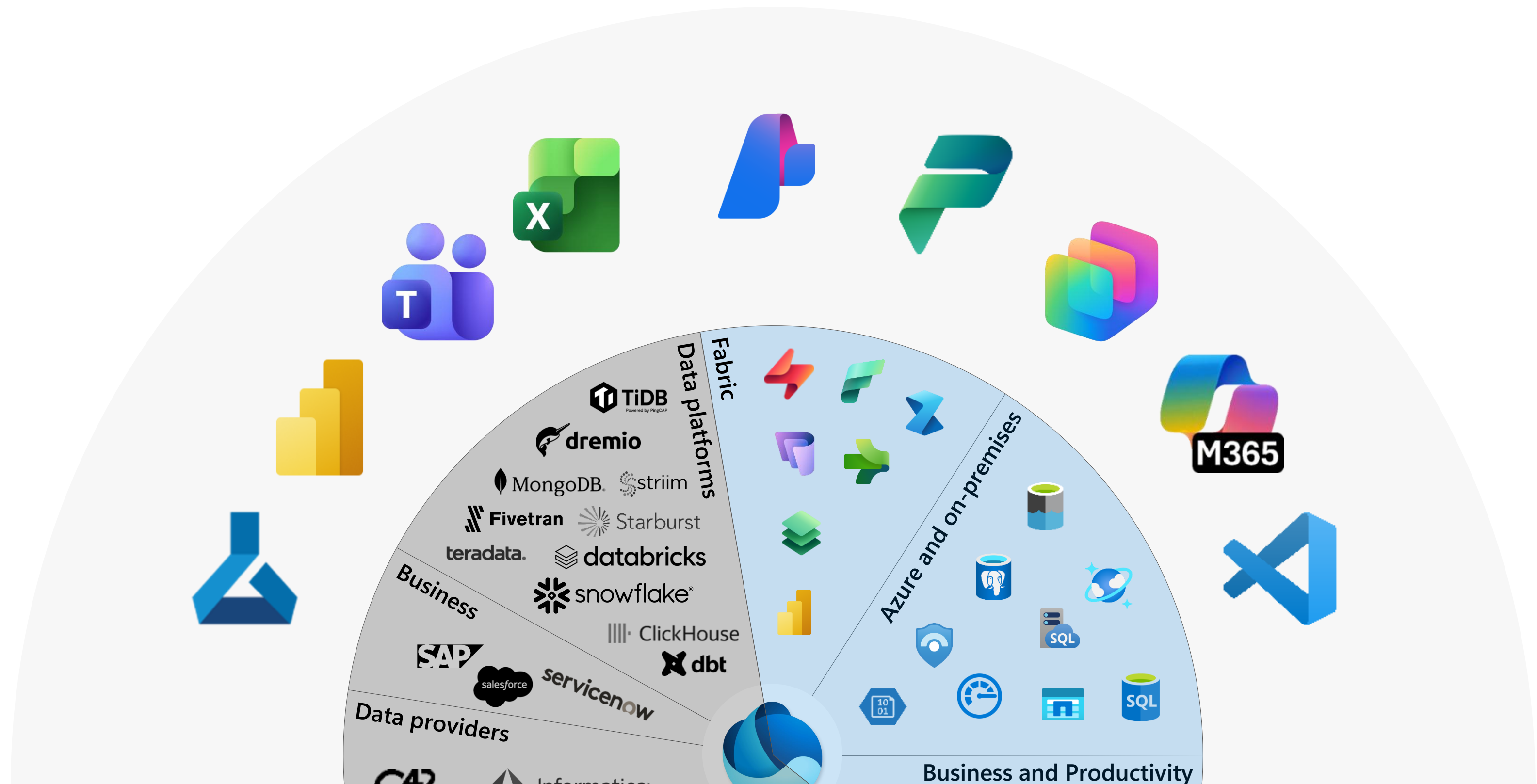


OneLake unifies the world's data

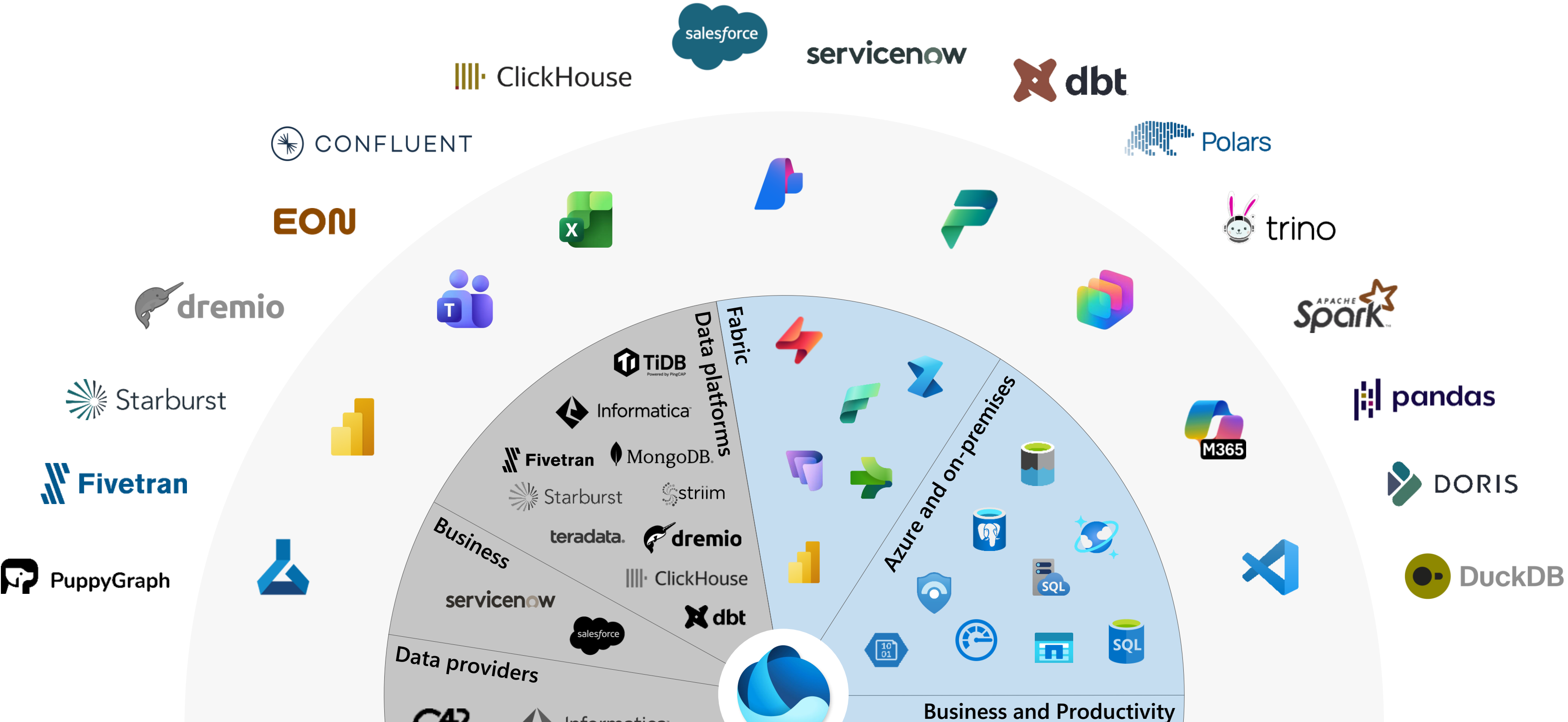
All clouds, on-prem, all
databases, apps and files
with zero ETL



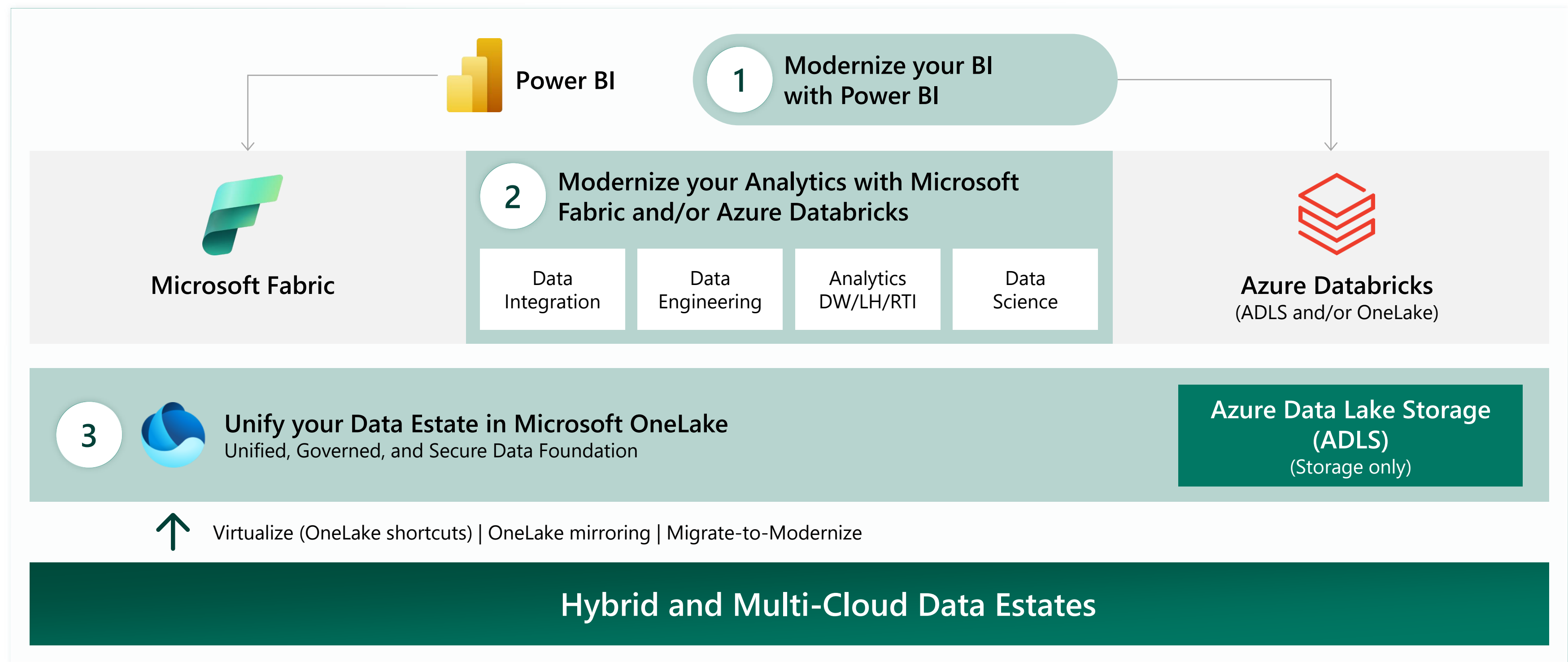
OneLake data is available everywhere

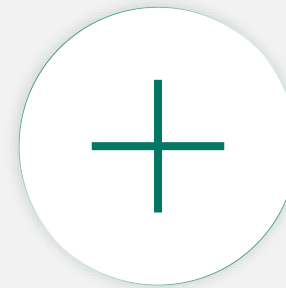


OneLake data is available everywhere



Create a unified data foundation with Fabric and Azure Databricks





Bringing Fabric and Azure Databricks together



Unify external Catalogs into OneLake

Mirroring

Connect **external** catalogs (Operational DBs, Lakes, Business platforms)

Metadata is automatically **synchronized** (Tables, columns)

Data connected through **shortcuts** when stored in open storage or CDC replication and landed in open storage formats (storage is free)



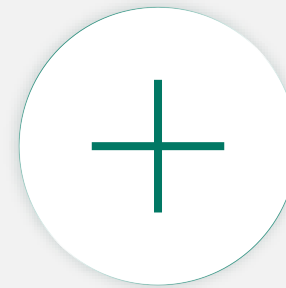
Microsoft OneLake

OneLake security





 Generally available!



Azure Databricks **Mirrored** **Catalog**

Azure Databricks Mirrored Catalog



Microsoft Azure databricks

Search data, notebooks, recents, and more...

New

Workspace

Recents

Catalog

Workflows

Compute

SQL

SQL Editor

Queries

Dashboards

Alerts

Query History

SQL Warehouses

Data Engineering

Job Runs

Data Ingestion

Delta Live Tables

Machine Learning

Playground

Experiments

Features

Catalog

Starter Warehouse Pro S

Type to filter

marketing

sales

default

categories

customers

employee_territories

employees

order_details

orders

products

regions

shippers

suppliers

information_schema

samples

system

Catalog Explorer > sales > default >

orders

Overview Sample Data Details

Filter columns...

Column	Type	Comment
orderId	bigint	
customerID	string	
employeeID	bigint	
orderDate	timestamp	
requiredDate	timestamp	
shippedDate	string	
shipVia	bigint	
freight	double	
shipName	string	
shipAddress	string	
shipCity	string	
shipRegion	string	
shipPostalCode	string	
shipCountry	string	



sales Confidential\Microsoft Extended

Search

Home

Manage catalog Monitor catalog

Explorer

sales

Tables

default

categories

customers

employee_territories

employees

order_details

orders

products

regions

shippers

orders

	ABC	orderId	customerID	employeeID	orderDate
1	10248	VINET	5	7/4/1996	
2	10249	TOMSP	6	7/5/1996	
3	10250	HANAR	4	7/8/1996	
4	10251	VICTE	3	7/8/1996	
5	10252	SUPRD	4	7/9/1996	
6	10253	HANAR	3	7/10/1996	
7	10254	CHOPS	5	7/11/1996	
8	10255	RICSU	9	7/12/1996	
9	10256	WELLI	3	7/15/1996	
10	10257	HILAA	4	7/16/1996	
11	10258	ERNSH	1	7/17/1996	
12	10259	CENTC	4	7/18/1996	
13	10260	OTTIK	4	7/19/1996	
14	10261	QUEDE	4	7/19/1996	
15	10262	RATTC	8	7/22/1996	
16	10263	ERNSH	9	7/23/1996	
17	10264	FOLKO	6	7/24/1996	
18	10265	BLONP	2	7/25/1996	
19	10266	WARTH	3	7/26/1996	
20	10267	FRANK	4	7/29/1996	

Azure Databricks Mirrored Catalog

 **One copy of your data with no ETL needed:** Data in Azure Databricks is immediately available in Fabric with no ETL pipelines, reducing time and complexity

 **Seamless integration with full OneLake and other Fabric capabilities:** Mirrored Unity Catalog tables function like native Fabric tables, that can be queried, are secure, and ready for use with semantic models, and AI tools, all without duplication. You can even create OneLake shortcuts from a Fabric lakehouse to your Mirrored Azure Databricks Unity Catalog item

 **Reduced data sprawl and optimizes cost efficiency:** Remove unnecessary data duplication and reduce additional data pipelines with this seamless, no-copy integration—saving time and reducing data storage costs



Demo: Azure Databricks Mirrored Catalog

Your mission: You are on the marketing team at a company. Build a data agent within Fabric that is capable of reasoning over data in OneLake and Azure Databricks



New

Workspace

Recents

Catalog

Jobs & Pipelines

Compute

Marketplace

SQL

SQL Editor

Queries

Dashboards

Genie

Alerts

Query History

SQL Warehouses

Data Engineering

Job Runs

Data Ingestion

Catalog

Serverless Starter Warehouse Serverless S

Type to search...

My organization

mirroreddbdemo

system

<testcatalog>

contosoretail

consumerinsights

customerfeedback

inventorylevels

marketingcampaigns

salestransactions

default

information_schema

nipuneth

performancetest

amber-uc

hyphenated-catalog

testprivateendpoint

Delta Shares Received

Catalog Explorer > contosoretail >

consumerinsights

Use with BI tools Share Create

Overview Details Permissions

Description

Add description

Filter tables

Tables 4 Volumes 0 Models 0 Functions 0

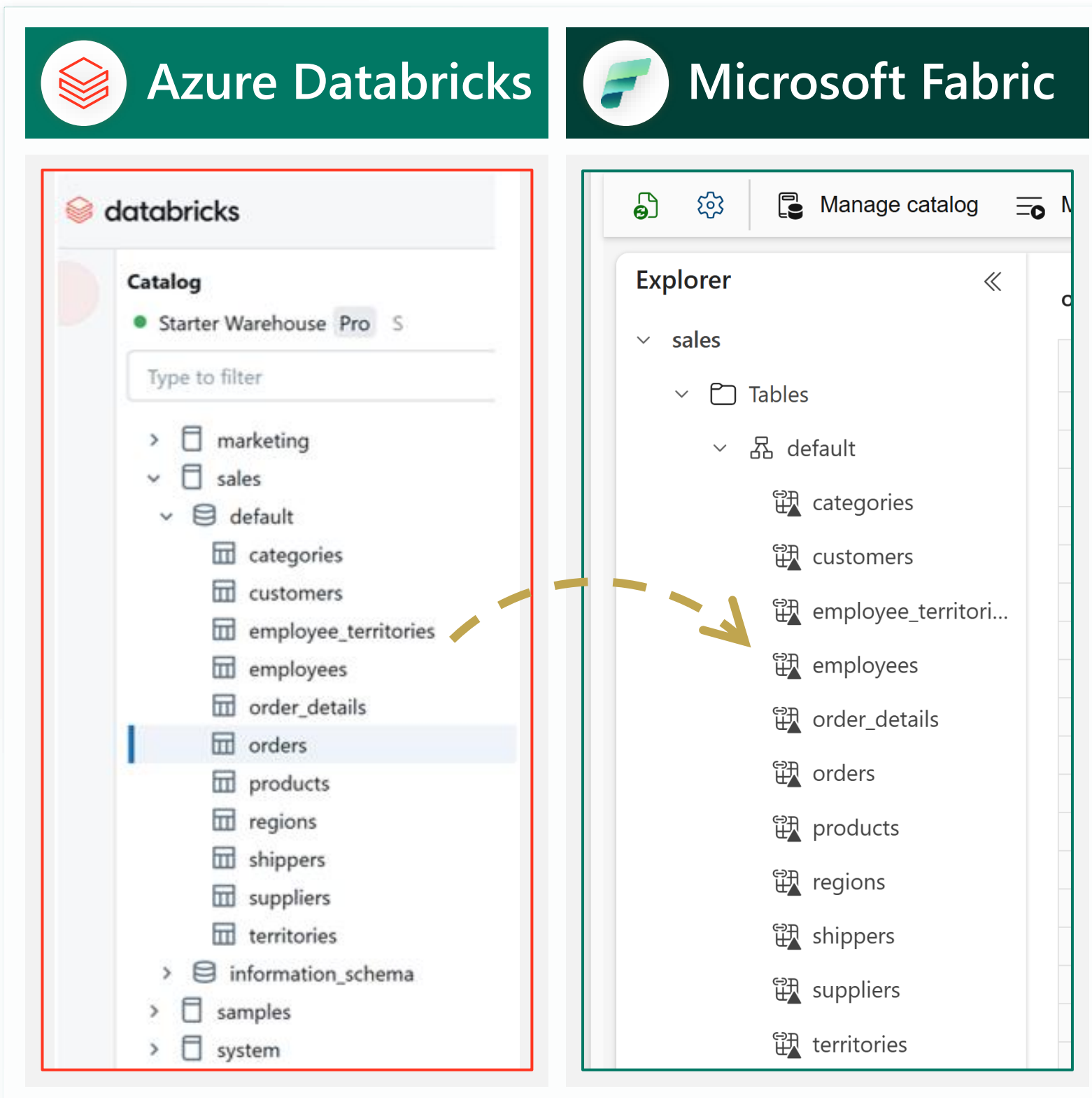
Sort

Name	Owner	Created at	Popularity
customerfeedback	preshah@microso...	Aug 29, 2025, 01:...	
inventorylevels	preshah@microso...	Aug 29, 2025, 01:...	
marketingcampaigns	preshah@microso...	Aug 29, 2025, 01:...	...
salestransactions	preshah@microso...	Aug 29, 2025, 01:...	

About this schema

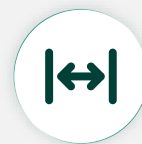
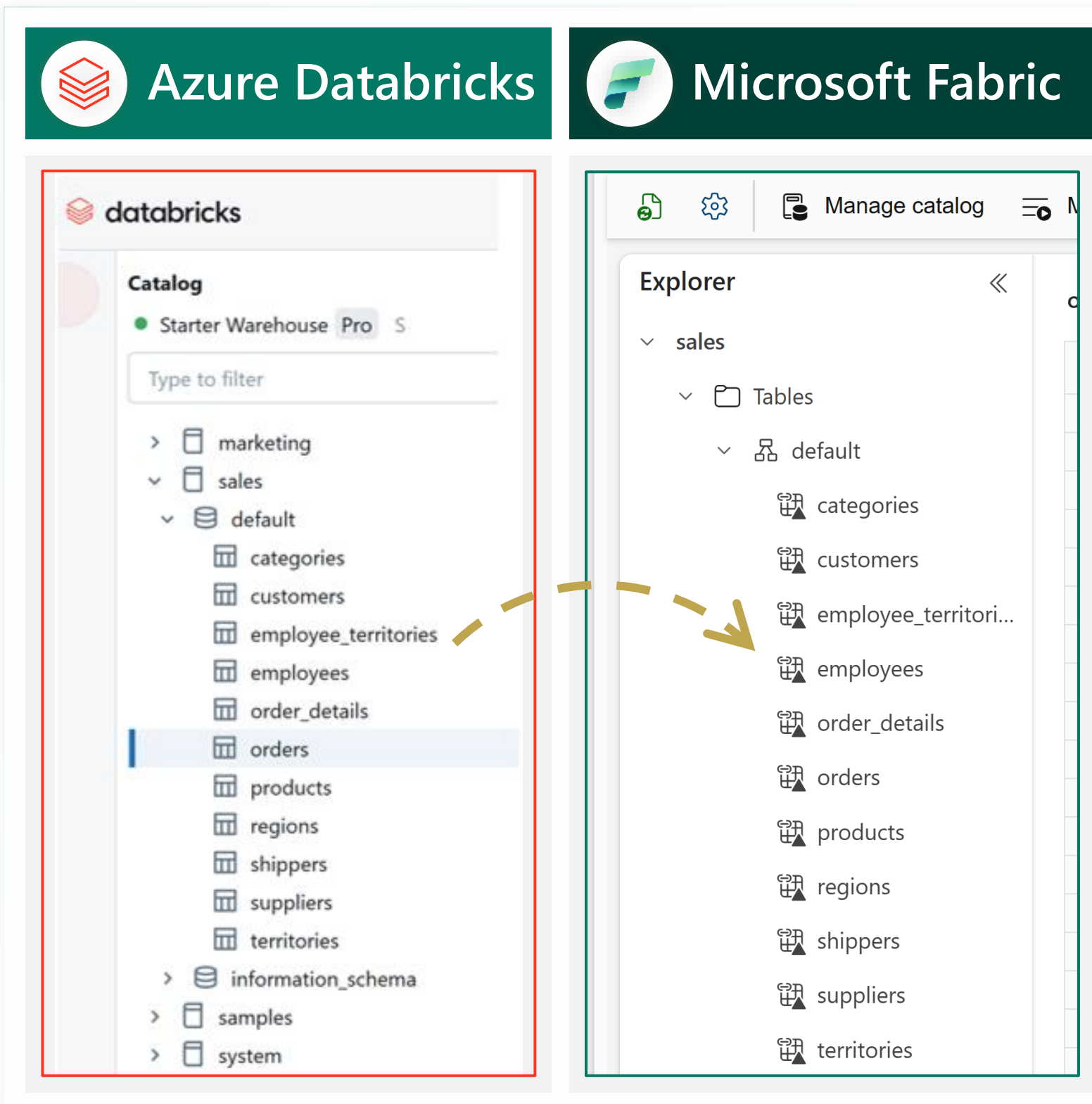
Owner Premal Shah

Metadata mirroring Databricks Catalogs



- Only metadata is mirrored. Shortcuts are used to bring the data over
- Each Mirrored Azure Databricks Catalog item maps to a single catalog within UC
- Catalog structure is replicated. **Data is never copied** yet it is **always in sync**
- Mirror the entire catalog or any combination of schemas and tables
- Set static mapping to only mirror a subset of objects
- Set dynamic mapping to automatically mirror added and removed schemas and tables
- No compute required on Azure Databricks at runtime

Catalog Sync – Supported Object Types



UC **Managed** and **Unmanaged** delta tables will be mirrored into Fabric



Unsupported Objects:

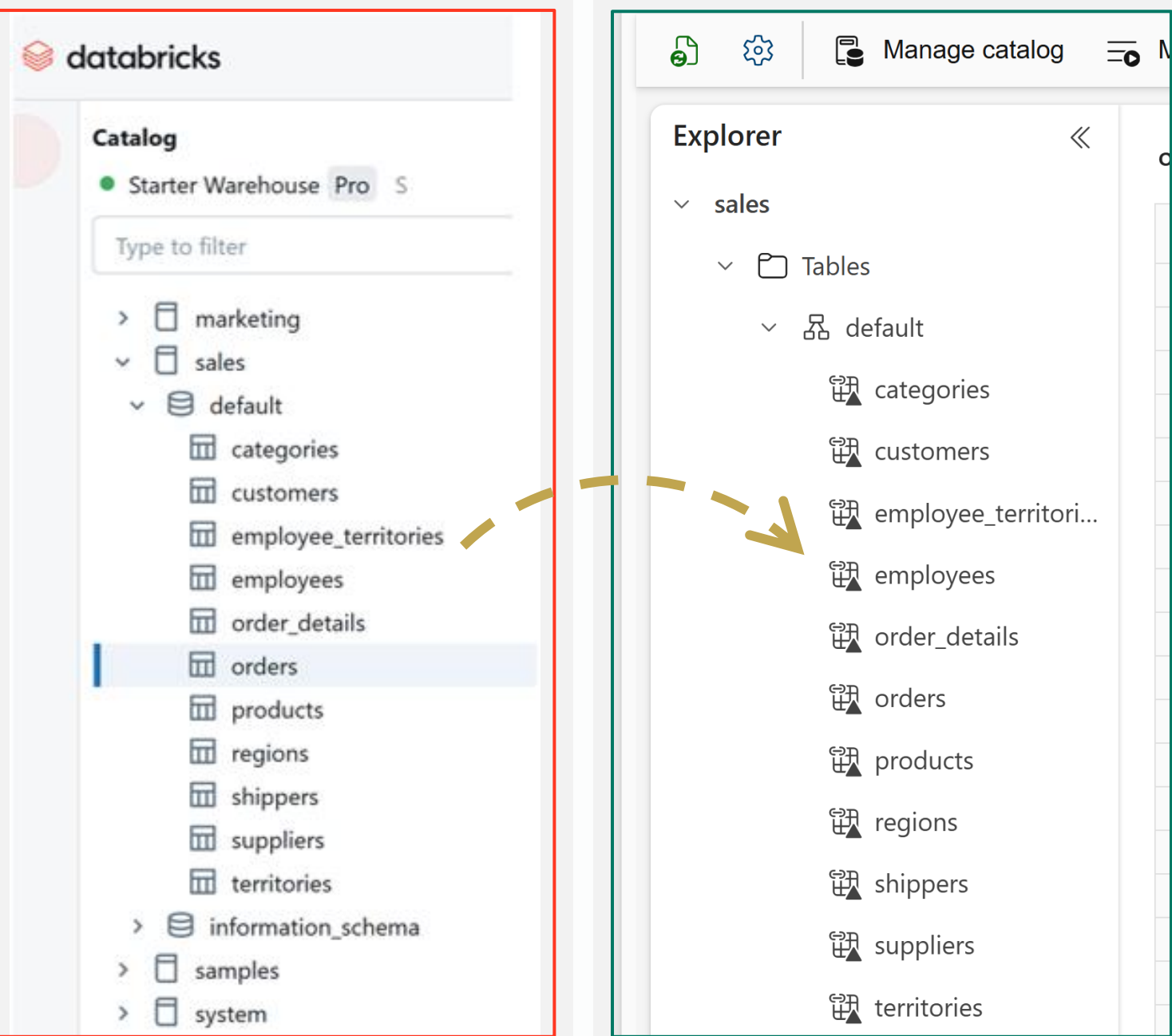
- Streaming tables
- Materialized views
- Tables with RLS\CLM policies
- Lakehouse federated tables
- Delta sharing tables
- Other non-table object types



What's new since GA?

 **Azure Databricks**

 **Microsoft Fabric**



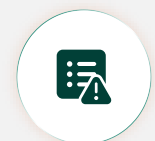
The image shows a side-by-side comparison of the catalog interfaces for Azure Databricks and Microsoft Fabric. On the left, the Databricks Catalog interface is shown with a red border. It displays a 'Starter Warehouse' and a list of tables under a 'default' schema, including 'orders'. On the right, the Fabric Explorer interface is shown with a green border. It displays a similar list of tables under a 'default' schema, also including 'orders'. A dashed yellow arrow points from the 'orders' table in the Databricks catalog to the 'orders' table in the Fabric Explorer, indicating integration or synchronization.



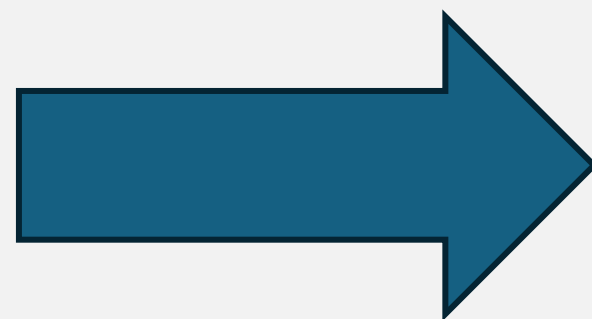
Private endpoint support: Supports Azure Databricks workspaces that are behind a private endpoint



Public APIs for automation and CI/CD: Offers public APIs to create, manage, and monitor mirrored catalog items, simplifying integration with enterprise workflows and CI/CD pipelines

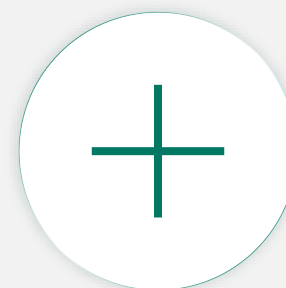


OneLake security integration: Set OneLake security, allowing workspace admins to enforce fine-grained, enterprise-grade access controls and compliance. Policies in Unity Catalog can be replicated





 Public Preview



Azure Databricks OneLake Catalog Federation



Unify Catalogs into Azure Databricks

Catalog Federation

Create a connection from your Azure Databricks workspace to any **external** connection

Centralized access control, lineage, search and more

Directly access **foreign** catalog in object storage

Query is executed using Azure Databricks compute



 **Azure databricks**
Data Intelligence Platform



Home

Copilot

Create

Browse

Workspaces

FabConDem o26WS

databricksr itestoonel...

FabCon26D emoLH

FabCon26D emoLH

FabConDem o26WH

...

Power BI

FabCon26DemoLH

Search

Power BI trial: 57 days left

Home

Lakehouse

Share

Get data

New semantic model

Open notebook

Add to data agent

Manage materialized lake views (preview)

Manage OneLake security (preview)

Update all variables

A SQL analytics endpoint for SQL querying was created with this item.

Explorer

«

🔍

Add lakehouses

▼ FabCon26DemoLH

▼ Tables

🏠 dim_category

🏠 dim_customer

🏠 dim_date

🏠 dim_employee

🏠 dim_product

🏠 dim_promotion

🏠 dim_store

🏠 dim_supplier

🏠 fact_inventory_snap...

🏠 fact_loyalty_points

🏠 fact_order

🏠 fact_order_item

🏠 fact_payment

🏠 fact_return

🏠 fact_shipment

▼ Files

dim_supplier

dim_category

dim_customer

dim_product

dim_employee

fact_inventory_s...

dim_product

Table view

Showing 900 rows

	123	product_id	ABC	sku	ABC	product_na...	ABC	brand	123	category_id	123	supplier_id	12	unit_cost	12	list_price	📅	launch_date	123	is
1	18			SKU-00018		Contoso Max Sn...		Contoso	21		33		12.53		26.94		2026-03-25	0		
2	21			SKU-00021		Northwind Sport...		Northwind	6		19		16.5		38.94		2027-01-21	0		
3	58			SKU-00058		Proseware Pro D...		Proseware	24		25		24.89		64.22		2026-06-04	0		
4	70			SKU-00070		Proseware Max J...		Proseware	12		26		14.56		21.55		2027-11-01	0		
5	80			SKU-00080		Tailspin Max Dress		Tailspin	13		17		5.49		12.41		2027-05-24	0		
6	115			SKU-00115		Fabrikam Premiu...		Fabrikam	2		28		14.94		29.88		2027-07-15	0		
7	148			SKU-00148		Adventure Work...		Adventure Works	20		2		11.32		14.83		2027-11-22	0		
8	175			SKU-00175		Northwind Lite P...		Northwind	16		3		6.18		15.33		2027-11-01	0		
9	192			SKU-00192		Northwind Sport...		Northwind	3		33		10.22		16.56		2027-06-09	0		
10	196			SKU-00196		Woodgrove Trav...		Woodgrove	8		36		5.65		11.75		2027-05-28	0		
11	229			SKU-00229		Northwind Pro Y...		Northwind	17		30		7.01		16.05		2027-12-20	0		
12	246			SKU-00246		A. Datum Essenti...		A. Datum	17		32		7.8		9.98		2026-11-04	0		
13	267			SKU-00267		Fabrikam Essenti...		Fabrikam	17		32		24.35		57.95		2026-05-02	0		
14	271			SKU-00271		Woodgrove Urb...		Woodgrove	7		27		25.68		63.94		2026-09-05	0		
15	280			SKU-00280		Northwind Prem...		Northwind	23		9		5.85		11.64		2026-08-20	0		
16	283			SKU-00283		A. Datum Travel ...		A. Datum	6		38		8.12		10.56		2026-08-25	0		
17	285			SKU-00285		Litware Lite Back...		Litware	23		9		7.46		11.94		2026-05-11	0		
18	302			SKU-00302		Proseware Eco S...		Proseware	7		31		18.66		28.36		2025-12-03	0		
19	303			SKU-00303		Proseware Premi...		Proseware	13		10		10.33		21.59		2027-03-10	0		

🟢 Succeeded (0 sec 785 ms)

Columns 10 Rows 900

Azure Databricks OneLake Catalog Federation

 Azure Databricks

 databricks

Catalog

OneLakeTestUser1@trendredmond.onmicrosoft.com

Type to search...

For you All

onlakedemocatalog

dbo

inventory_snapshot

product_catalog

sales_transactions

path-with-space

perfonelakecatalog

dbo

premaltestcatalog

premaltestcatalog2

salesforce360_catalog

test

test-path-with-space

testonelakereadscatalog

winhttpdelete

 Microsoft Fabric

Explorer

Add lakehouses

analytics_lh

Tables

inventory_snapshot

product_catalog

sales_transactions

Files



Zero copy access: Query OneLake data directly from Azure Databricks without pipelines, duplication, or data movement



Cross-platform analytics: Combine Fabric's governed data estate with Azure Databricks analytics, AI, and ML workloads



Unified governance: Securely access OneLake data from Azure Databricks while maintaining centralized Fabric governance and permissions



Always up to date access: Analyze the latest OneLake data in Azure Databricks without data synchronization



Demo: Azure Databricks OneLake Catalog Federation

Your mission: You work at a property management company and want to get insights via AI based on data in OneLake and Azure Databricks



Microsoft Azure databricks

Search data, notebooks, recents, and more...

field-eng-east

New

Workspace

Recents

Catalog

Jobs & Pipelines

Compute

Discover Beta

Marketplace

SQL

SQL Editor

Queries

Dashboards

Genie

Alerts

Query History

SQL Warehouses

Data Engineering

Runs

Data Ingestion

AI/ML

Playground

Agents

Experiments

Features

Models

Serving

Catalog

Shared Endpoint Serverless XL

Type to search...

For you All

visteon_corporation

vj_dbdemos

vjs_demo

vm186007

vm186007_lakebase

vm186007_lakebasedemo_uc

vpashte_demos

vtdemo

vtsai

wagner_santos

wajdi_bounouara

wanderbricks

wanderbricks_data

wanderbricks_fabcon

wanderbricks_lakehouse

wanderbricks_sql_server_cata...

wangyi_catalog

ward_demo

watchtower

wbb_demo

week8_datawarehousing

welch

wg_personal

wholesale_supplier_business

will_block

will_chow

Catalog Explorer

wanderbricks_fabcon

OverviewDetailsPermissionsPoliciesWorkspaces

Description

AI generateAdd

Filter schemas1 schema

Name	Owner	Created at
dbo	isaac.gritz@databricks.com	Mar 10, 2026, 01:54 PM

About this catalog

OwnerIsaac Gritz

TypeForeign

Connectionwanderbricks_onelake_3

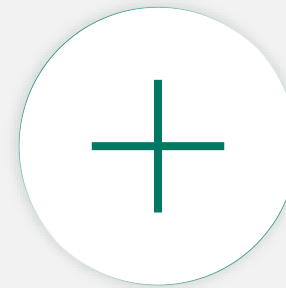
Tags

Add tags

Policies

New policy

 Private preview



Storing Unity Catalog Managed Tables in OneLake



Storing Unity Catalog Managed Tables in OneLake



Zero copy persistence: Write Unity Catalog managed tables directly to OneLake without additional pipelines or data duplication



Publish to Fabric: Unity Catalog tables can be surfaced as mirrored items in Fabric



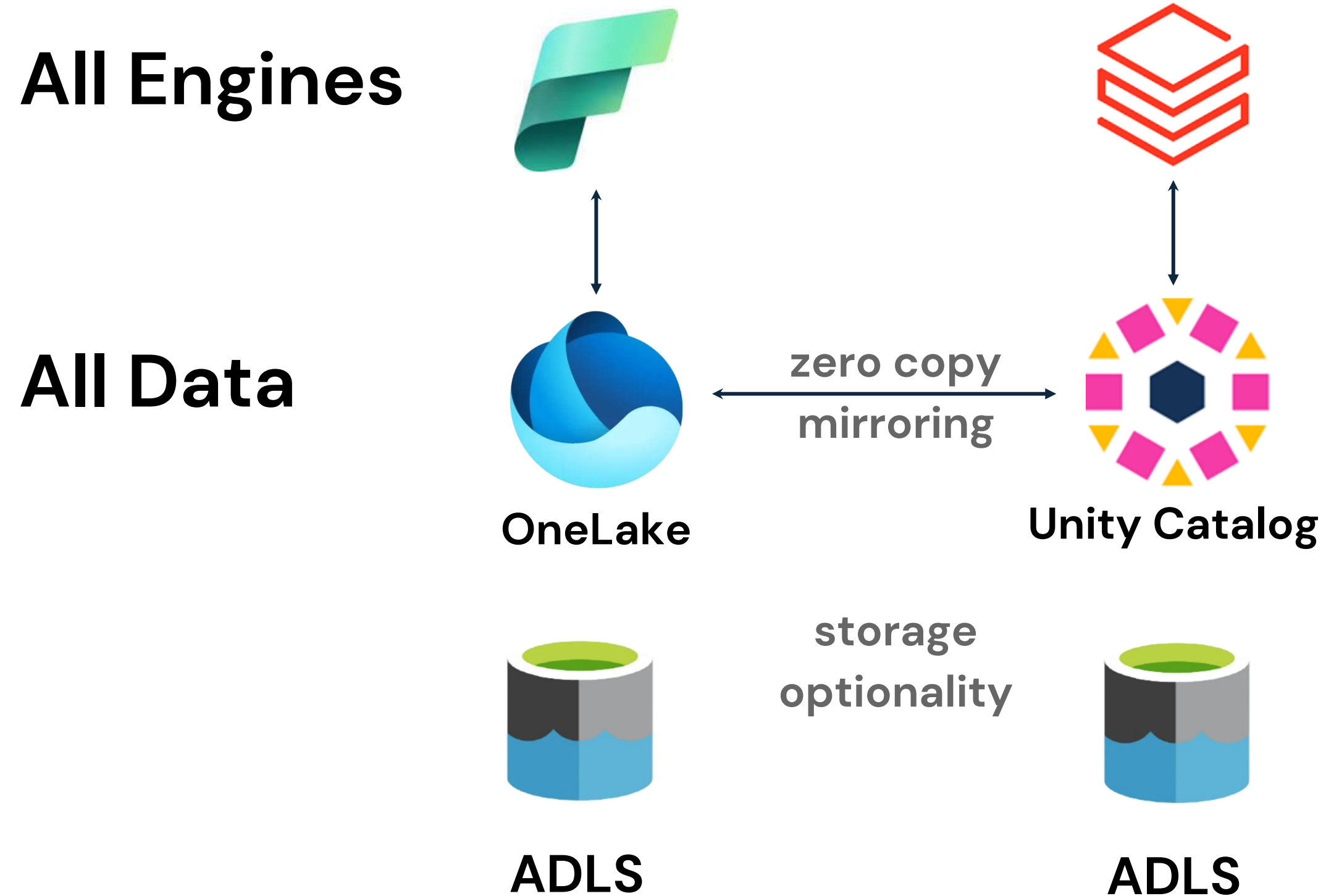
Unified governance: Maintain centralized governance across Databricks and Fabric



Open table format: Write Delta and Iceberg tables for interoperability across Fabric engines



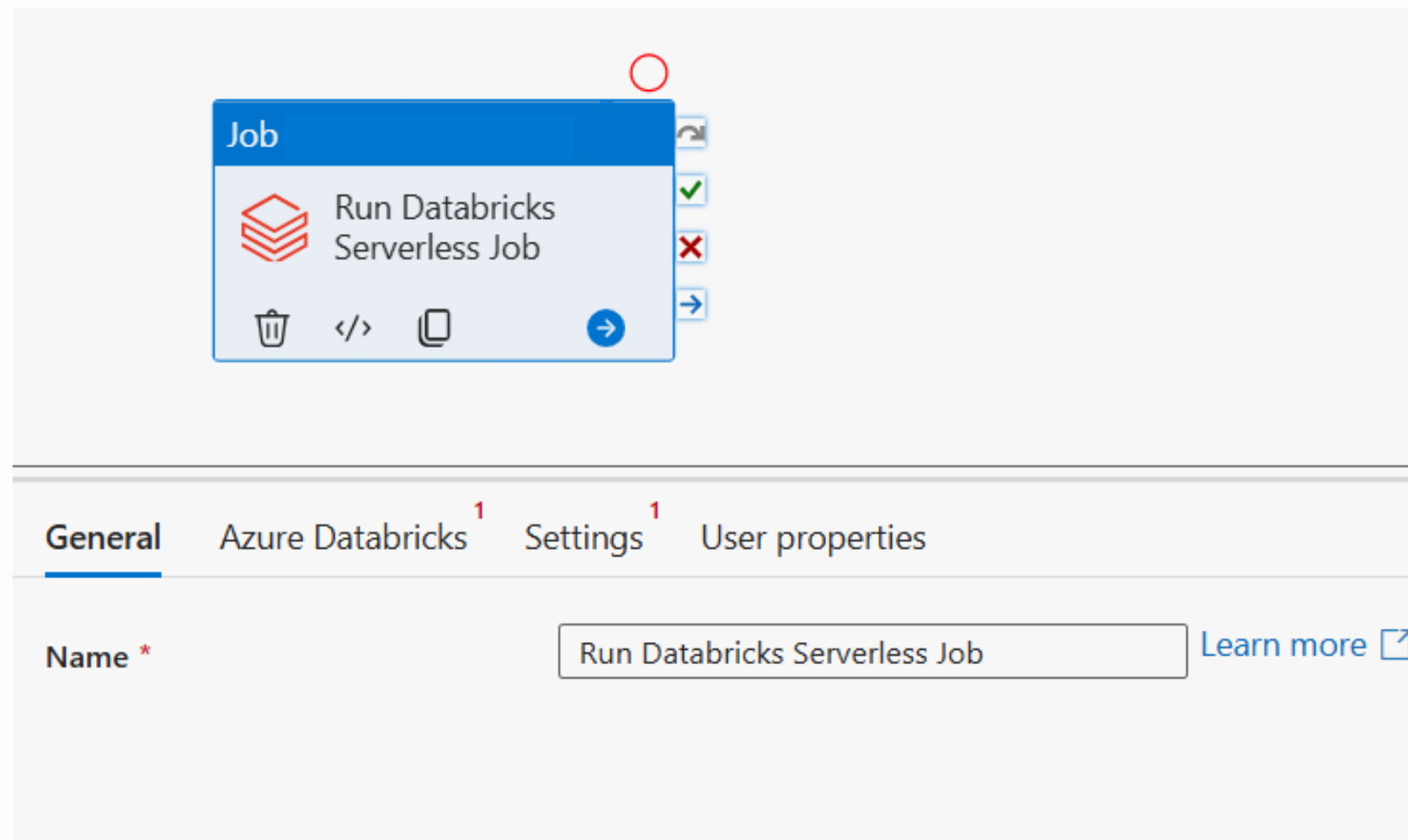
OneLake and Azure Databricks – it just works!



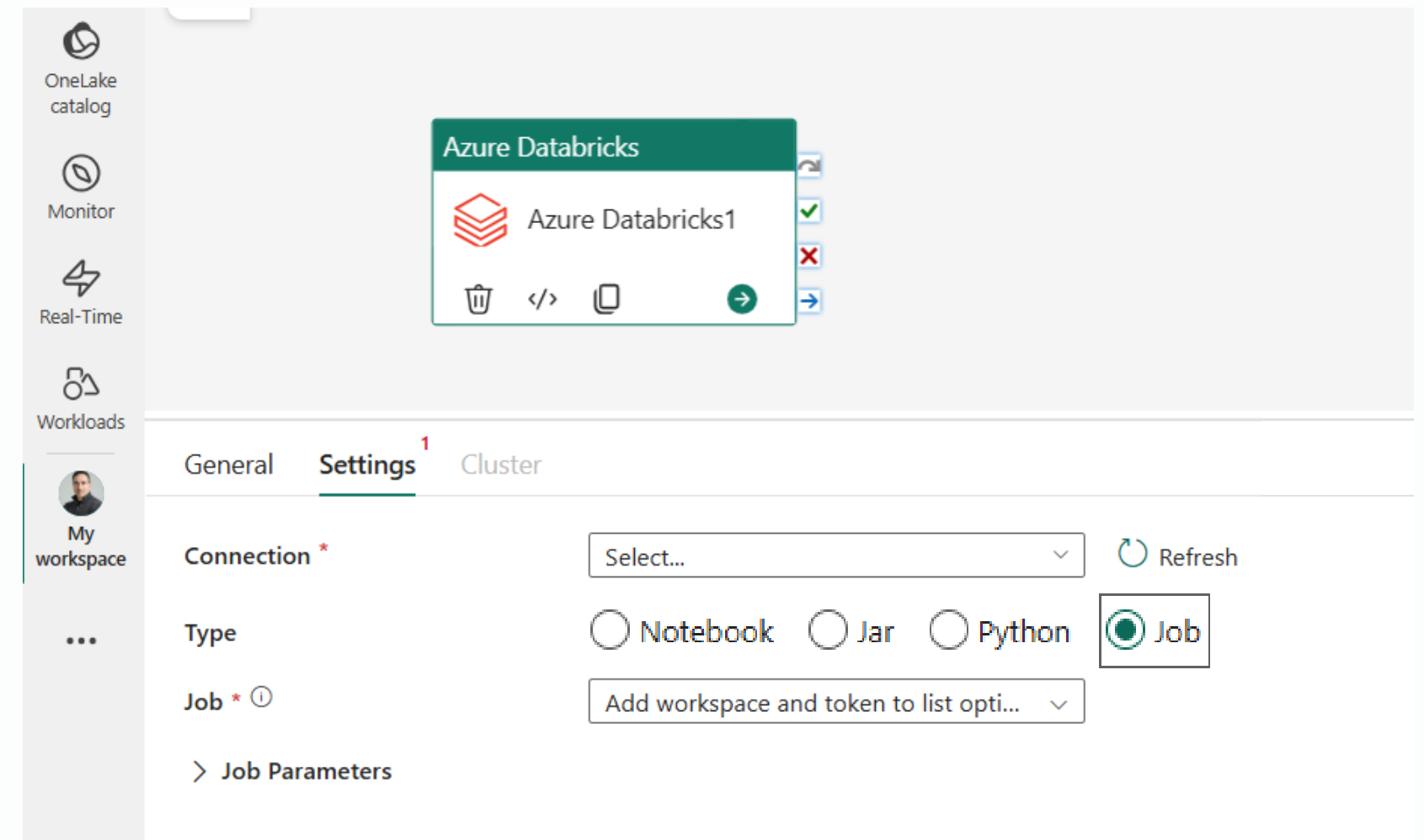
Fabric Data Factory and Azure Databricks



Orchestrating Azure Databricks Serverless Jobs is Built into Data Factory



Azure Data Factory



Fabric Data Factory

- True serverless execution — no cluster management required
- First-class orchestration of Databricks Jobs from both ADF & Fabric Data Factory
- Reusable, parameterized, enterprise-grade pipeline support for Databricks Jobs

Demo set up: ETL with Fabric Data Factory and Azure Databricks



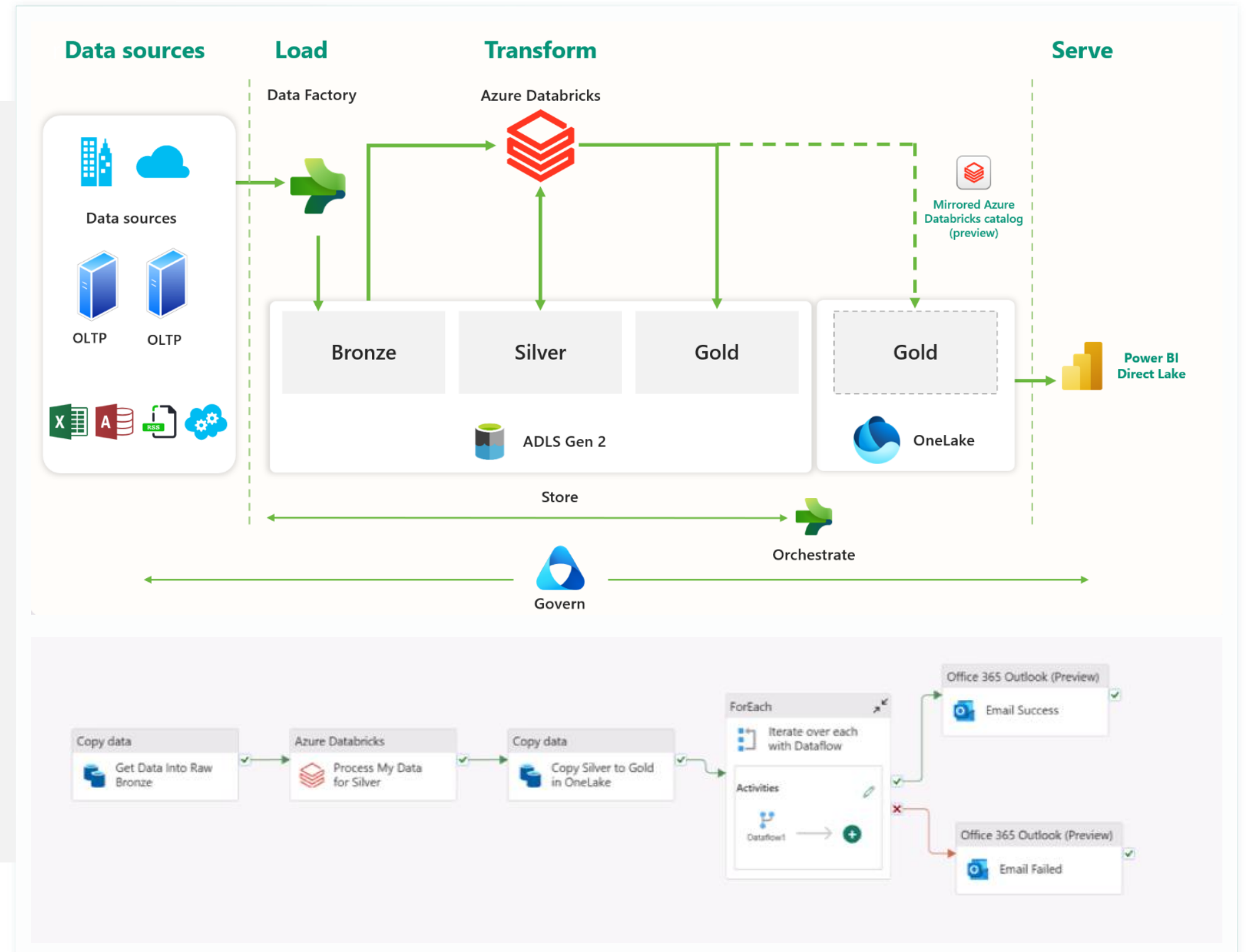
Use Data Factory in Fabric to ingest data into ADLS for **bronze** layer processing



Process data using Azure Databricks jobs pipeline activity in Fabric Data Factory (**Silver**)



Copy or mirror processed data into OneLake for Power BI serving layer (**Gold**)





Home



Workspaces



OneLake



Monitor



Real-Time



Workloads



BugBashWorkspace



DataPipeline



...

Home

Activities

Run

View



Validate



Run



Schedule



Add trigger



View run history



Copy data



Dataflow



Notebook



Lookup



Invoke Pipeline (Preview)



Copy data

Get Data Into Raw Bronze

Azure Databricks

Process My Data for Silver

Copy data

Copy Silver to Gold in OneLake

ForEach

Iterate over each with Dataflow

Activities

Dataflow1

Office 365 Outlook (Preview)

Email Success

Office 365 Outlook (Preview)

Email Failed

Parameters

Variables

Settings

Output

Library variables (preview)

+ New



Fabric

main

Power BI and Databricks

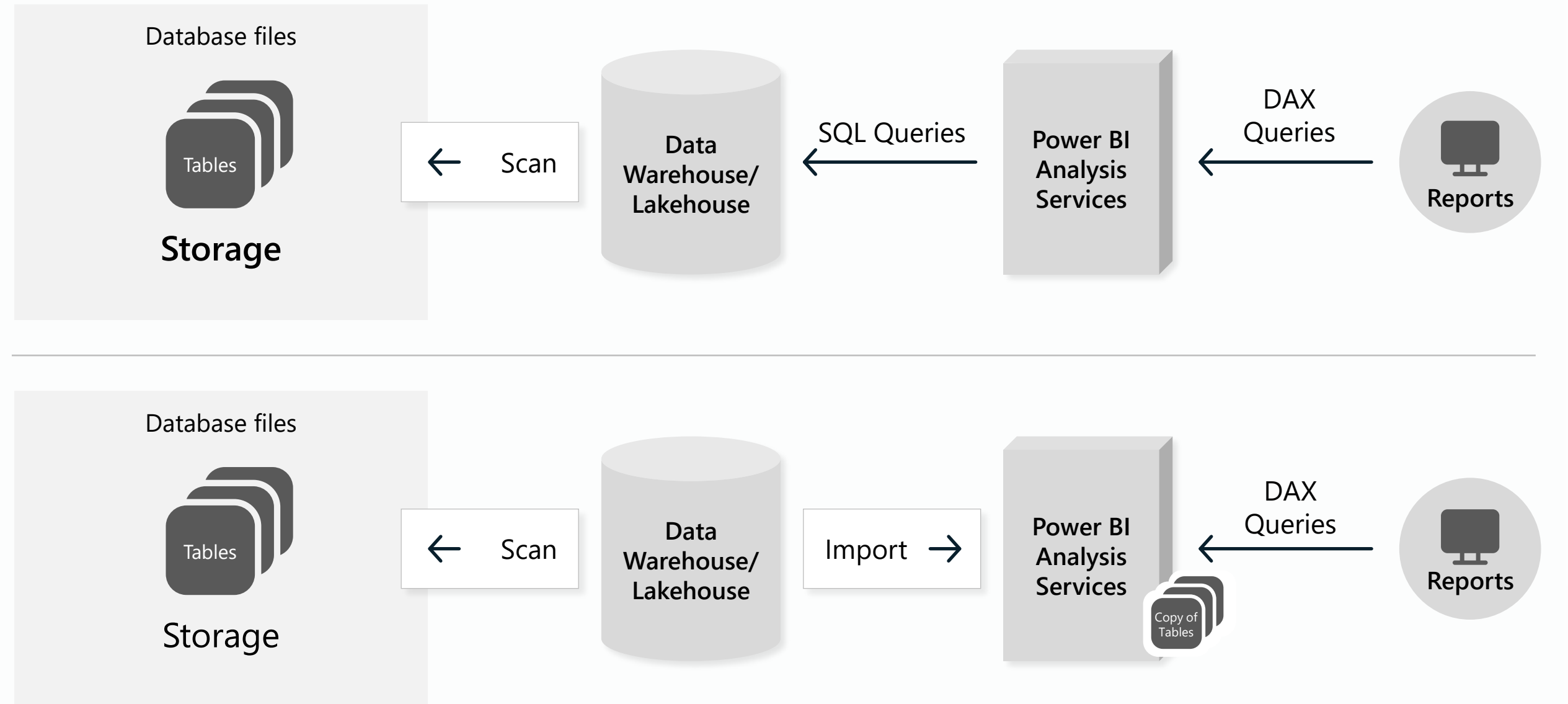


Direct Query Mode

Slow, but real time

Import Mode

Fast, but duplicative



Direct Query Mode

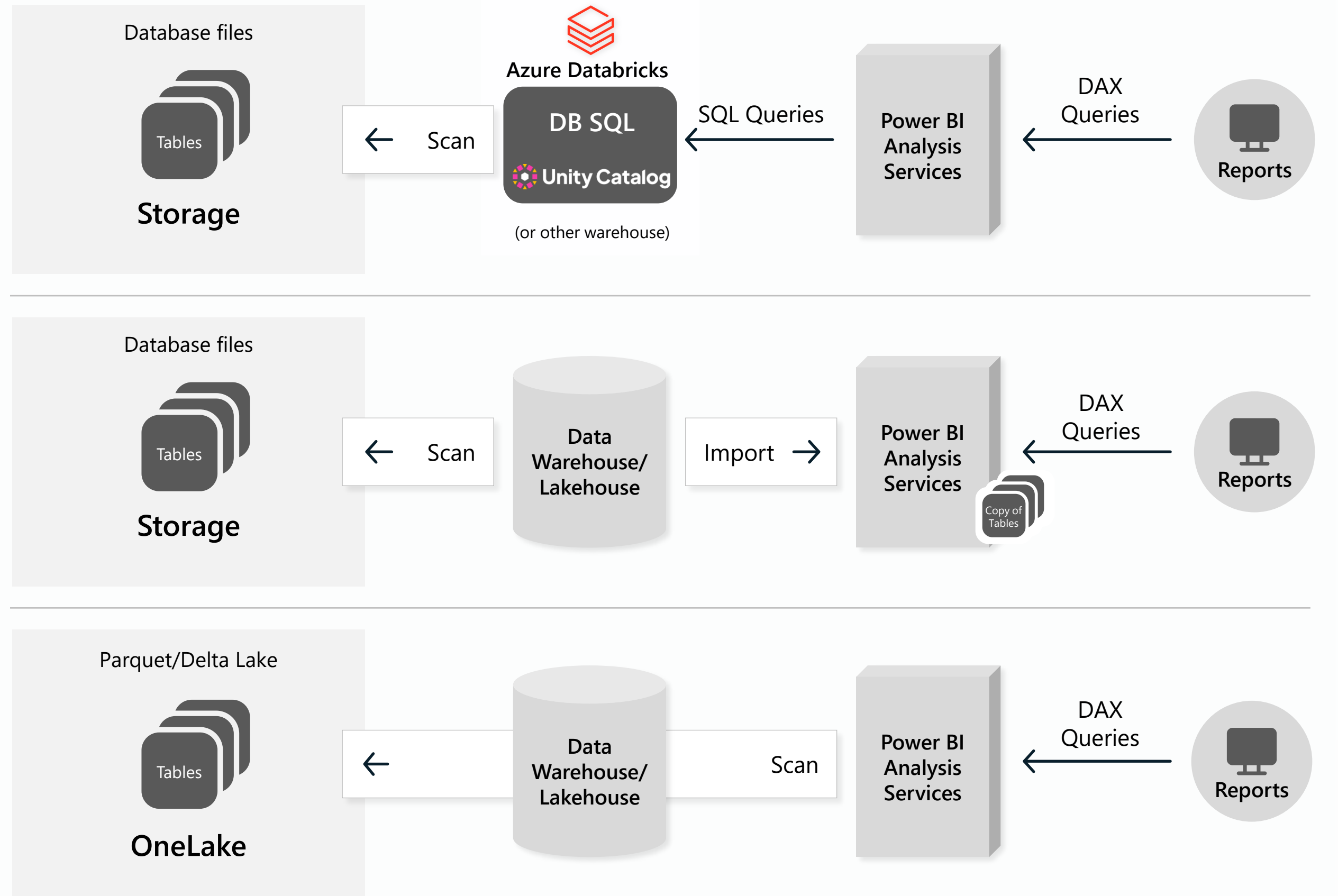
- Real-time
- Slow
- **Allows for Unity RLS passthrough**

Import Mode

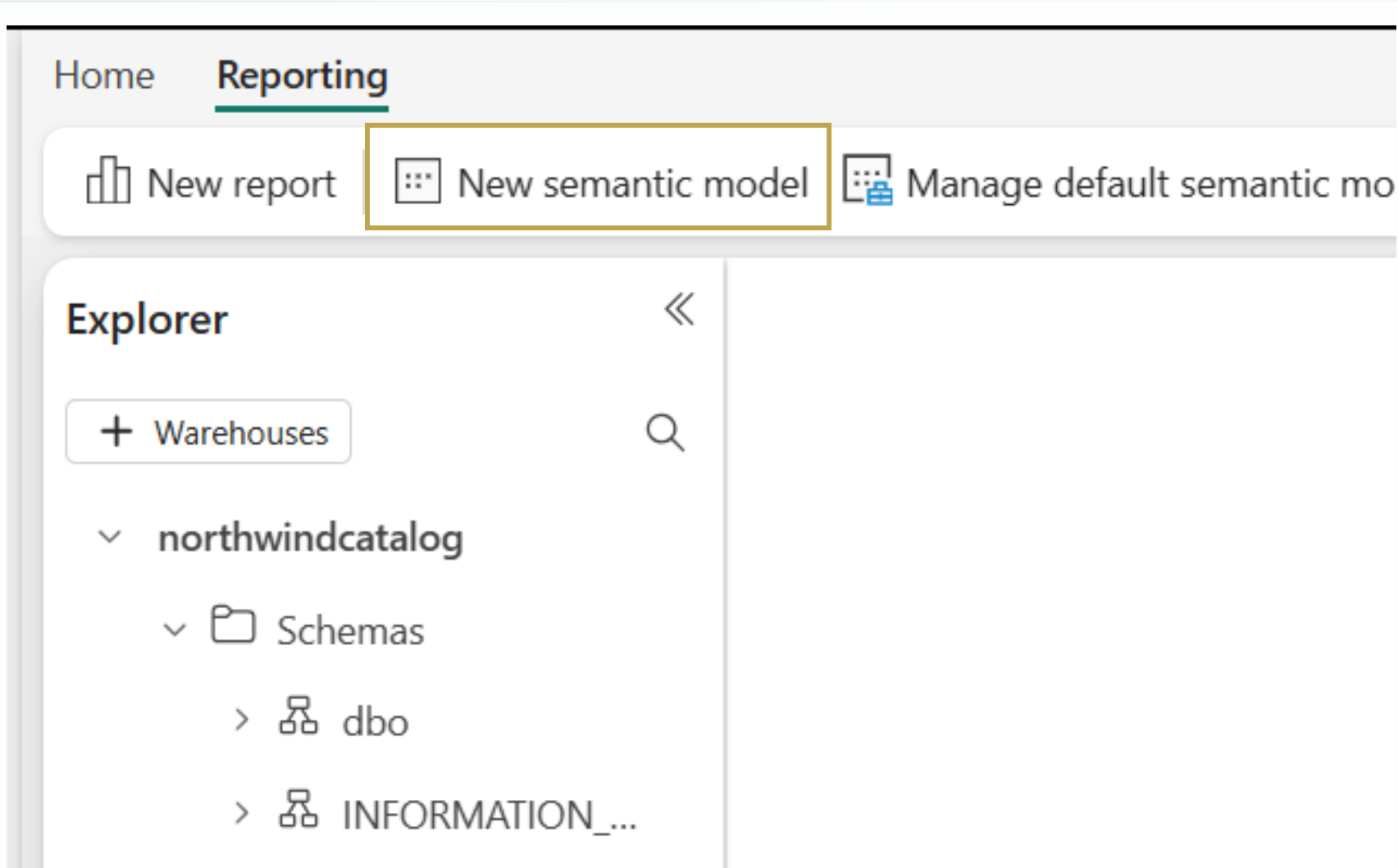
- Fast
- Duplicative

Direct Lake Mode

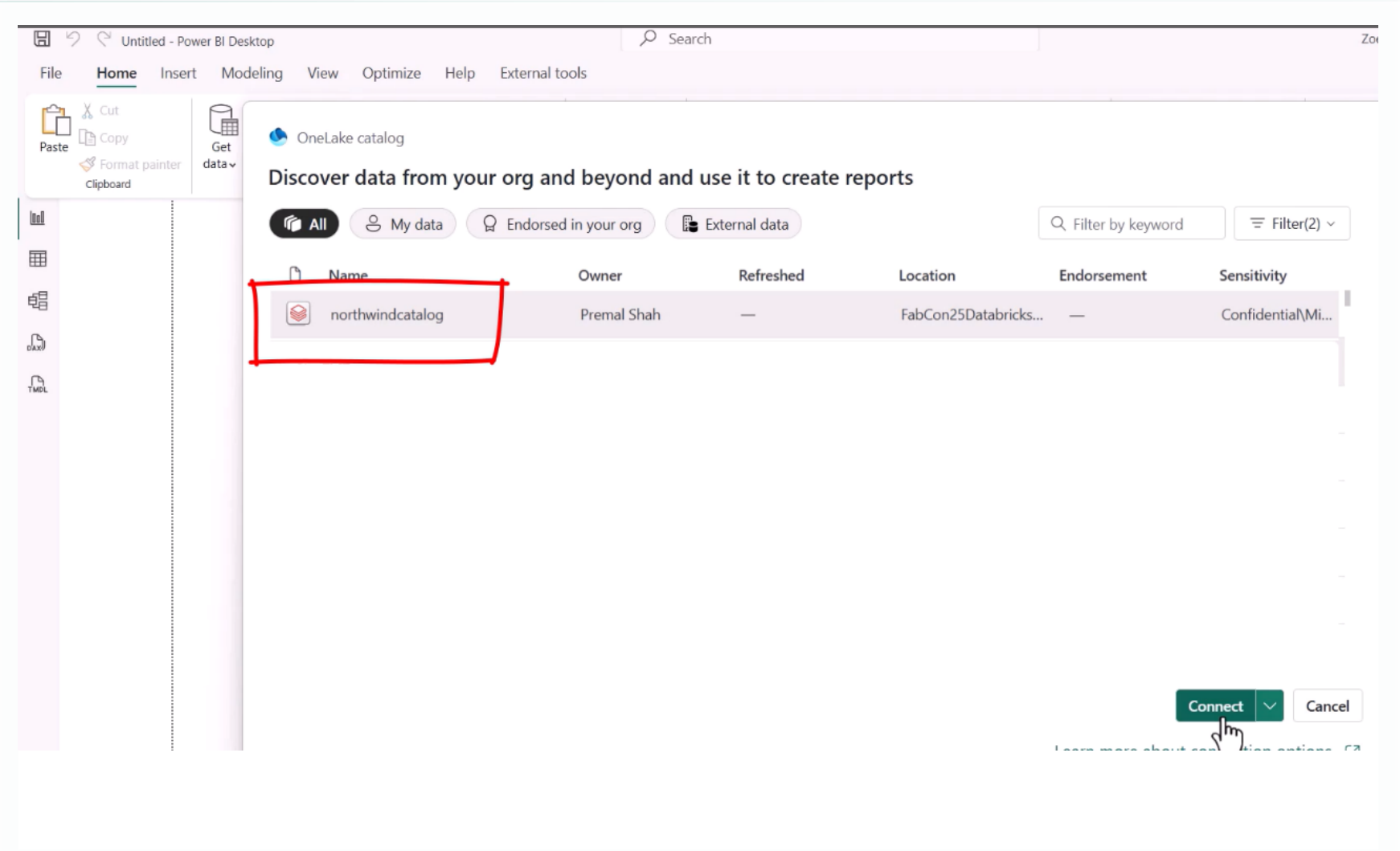
- Fast and Real time
- No data duplication



Power BI semantic models



From Fabric workspace
Direct Lake on SQL



From Power BI Desktop
Import, Direct Query, & Direct Lake on OneLake

Direct Lake in Power BI Desktop & web modeling



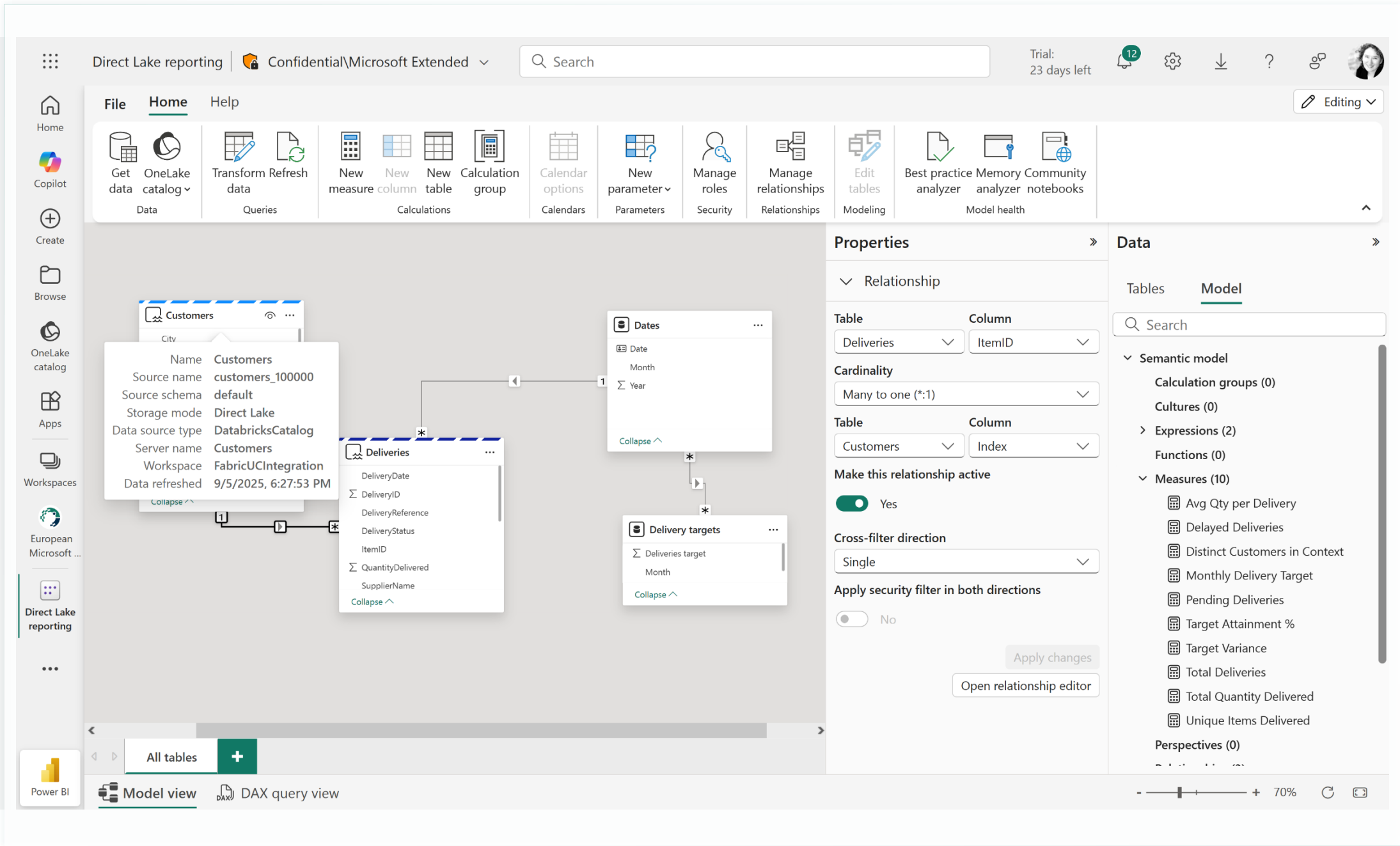
Available now for Mirrored Azure Databricks Catalog feature

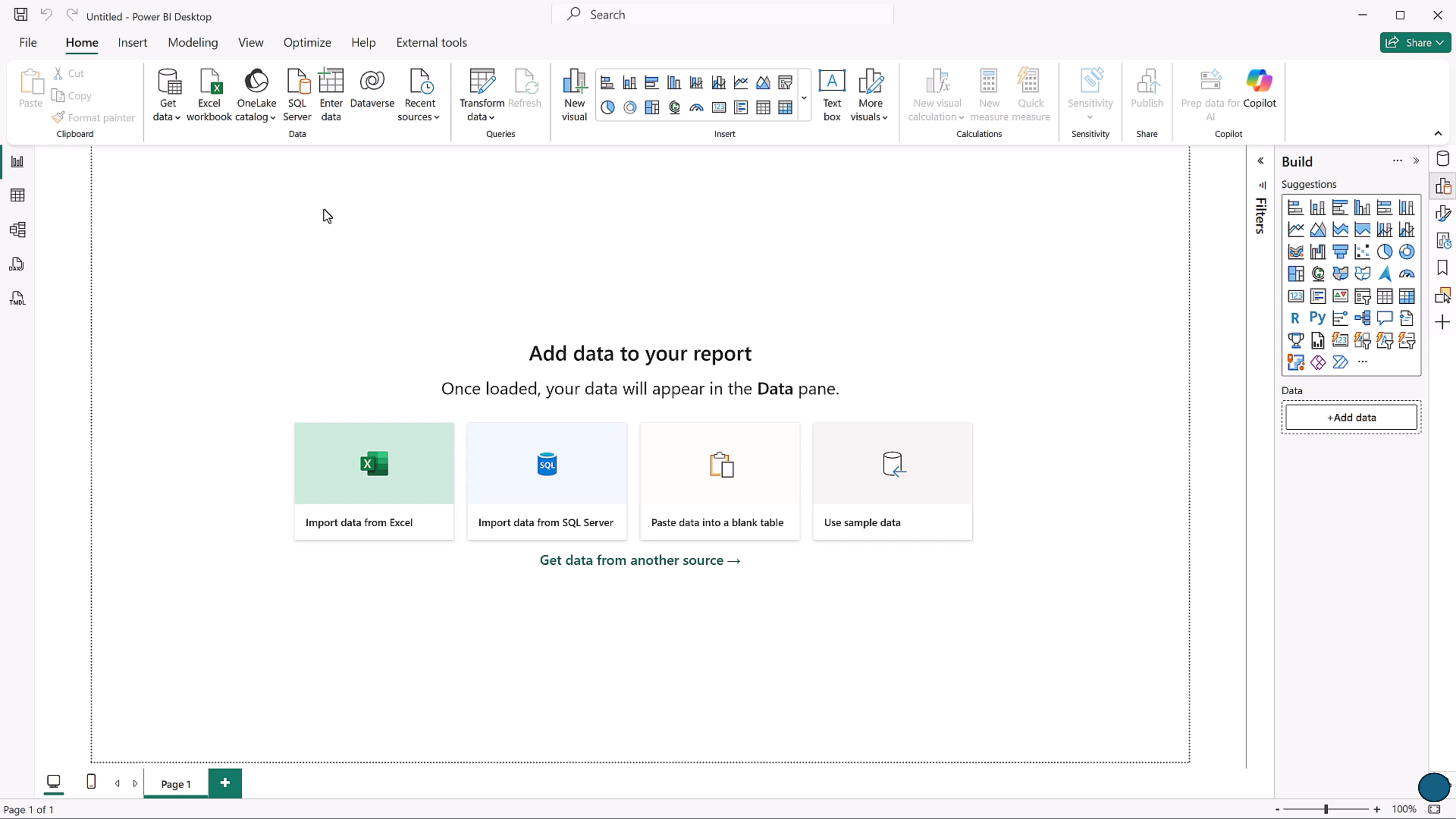


Add in tables from other OneLake Fabric artifacts natively

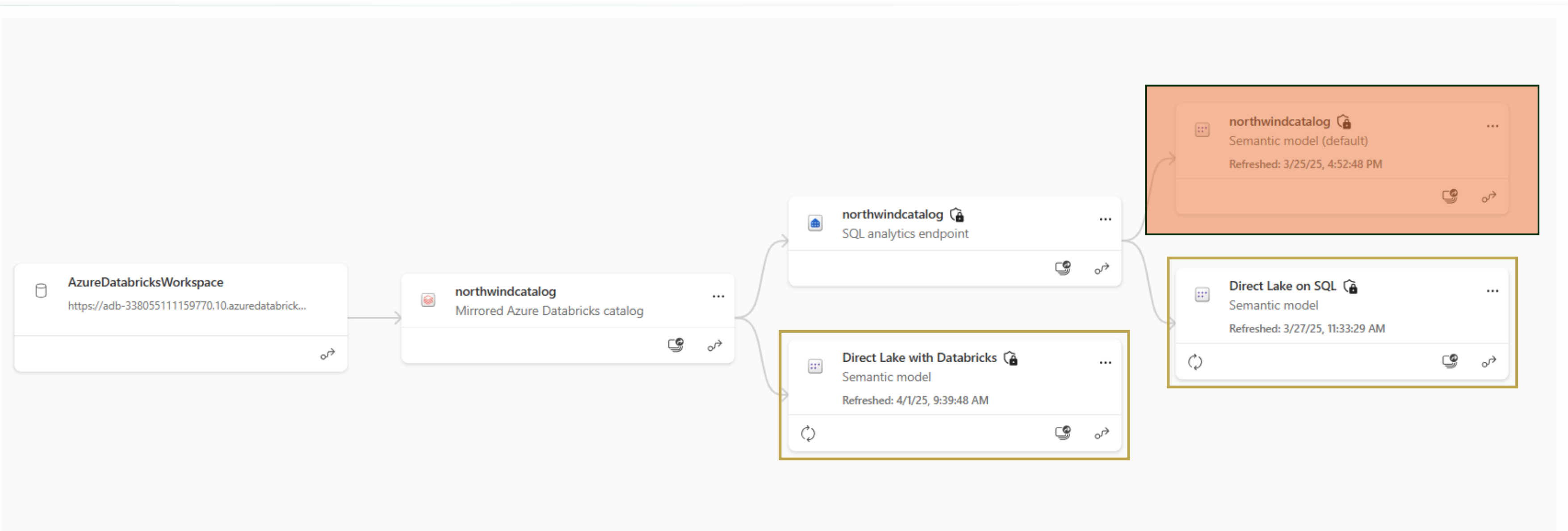


Add in import tables from all other data sources with Direct Lake tables





Direct Lake flavors



Direct Lake only

Add tables from other Fabric data artifacts

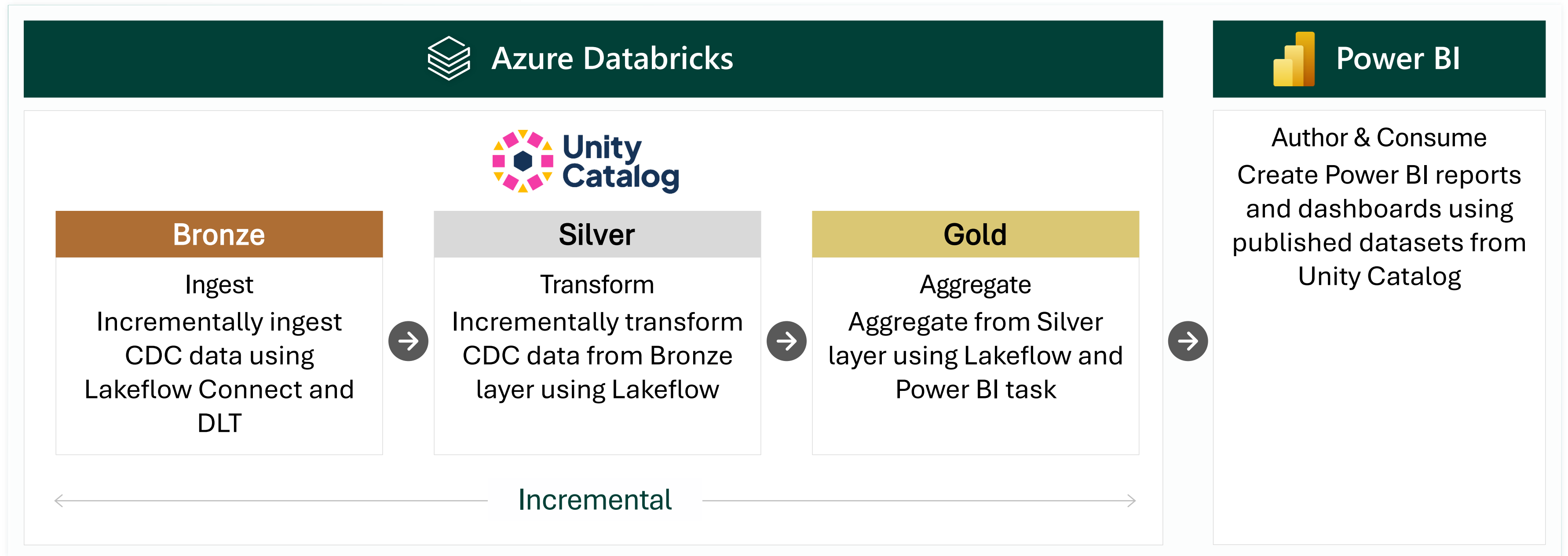
Create in Desktop

Additional integration features for Azure Databricks and Power BI



Incrementalization = efficiency

Do you have all of the tools you need to build an incremental lakehouse?



Power BI Tasks in Azure Databricks Lakeflow

Bringing the power of orchestration with Lakeflow to Power BI

Direct integration

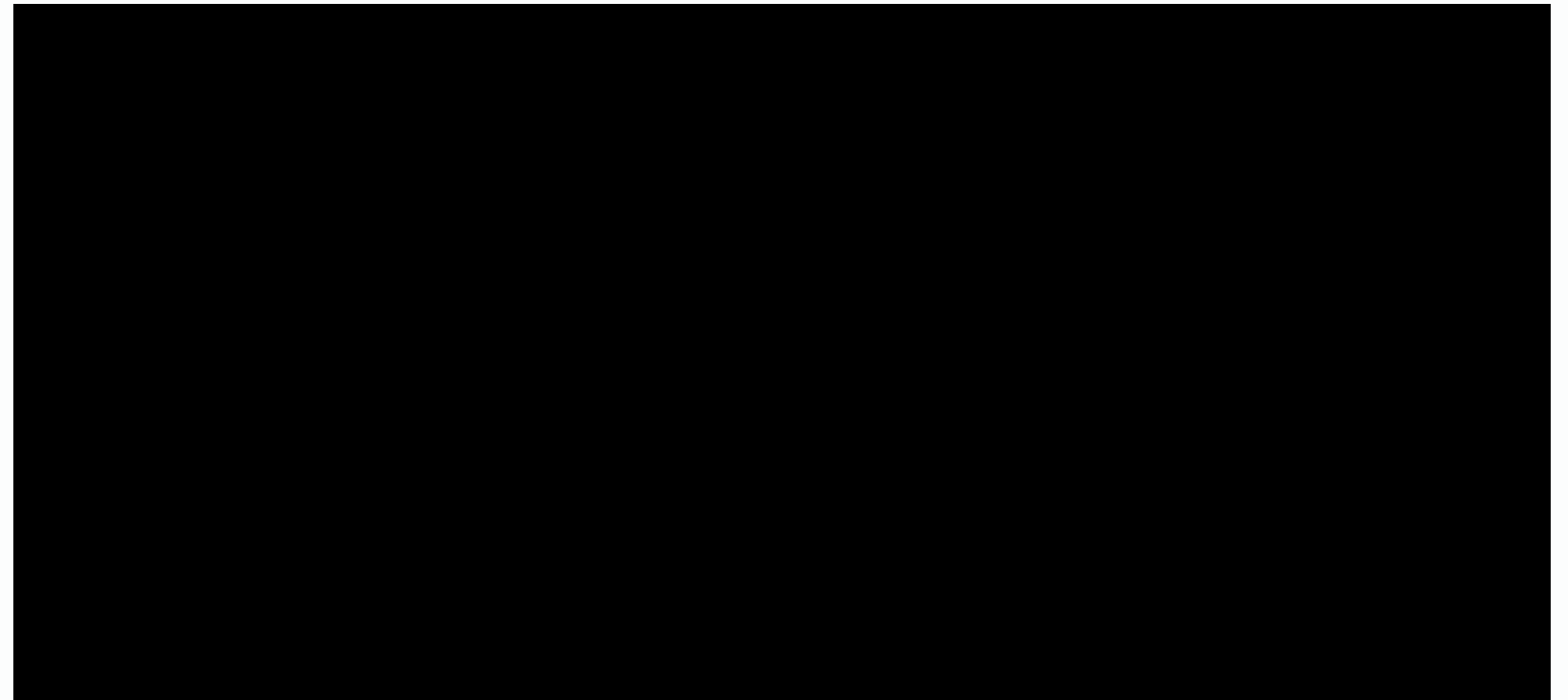
Publish datasets from Unity Catalog to Power BI directly from your data pipelines

Update Power BI when your data updates

By updating Import mode semantic models only when data changes, you can significantly reduce refresh costs

Data Freshness for BI

Push changes to underlying tables and their relationships automatically



Open in Power BI Desktop



Full Modelling Experience, Flexible Storage Options

Open UC datasets in Power BI desktop:

- Zero-configuration setup

Enterprise Security: Native integration with Entra ID (AAD) + Databricks Table ACLs + support for Row & Column Level Security + Data Masking

Flexible storage options:

- Support for **Import**, **DirectQuery**, and even **Composite Models**; can also create Hybrid tables using both storage modes
- Import large data leveraging Cloud Fetch and incremental refresh

Full Power Query last-mile **modeling experience**

The image shows a 'Connect to partner' dialog box in the foreground. The dialog has a title bar with a close button. Below the title, there is a Microsoft Power BI logo and the text: 'You can use Partner Connect to connect Power BI to a Azure Databricks cluster or SQL warehouse. Download and open the connection file (.pbids) to start Power BI. You must have Power BI version 2.99.563.0 or above installed.' There is a 'Learn more' link and a 'Compute' button with an information icon. Below these, the text 'ah_test' is visible. At the bottom of the dialog are 'Download connection file' and 'Cancel' buttons. An arrow points from the 'Download connection file' button to the Power BI Desktop interface in the background. The Power BI Desktop interface shows a 'Sales Report Option 1' with various visualizations including a table of sales data, a bar chart of units by country, a treemap of sales by brand, and a line chart of sales by year and manufacturer. The interface includes a ribbon with tabs like File, Home, Insert, Modeling, View, and Help, and a sidebar with filters and visualizations.

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Thu, Mar 19
2:00–3:00 PM

B308-B309

Enterprise security in OneLake

Thu, Mar 19
2:00–3:00 PM

B405-B406a

Interoperable by design: managing Iceberg and Delta tables in OneLake

Thu, Mar 19
Timing: 4:15-5:15 PM

B405-B406a

Interoperable by design: managing Iceberg and Delta tables in OneLake

Fri, Mar 20
Timing: 10:10-11:10 AM

C113-114

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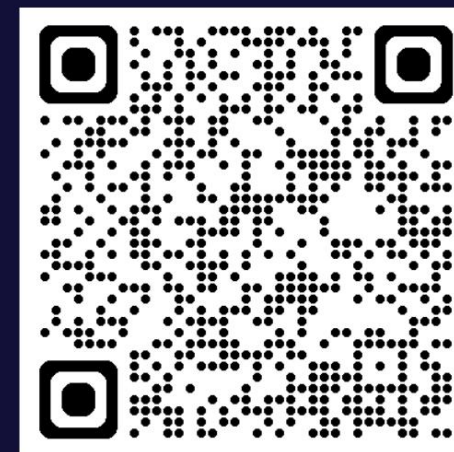
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