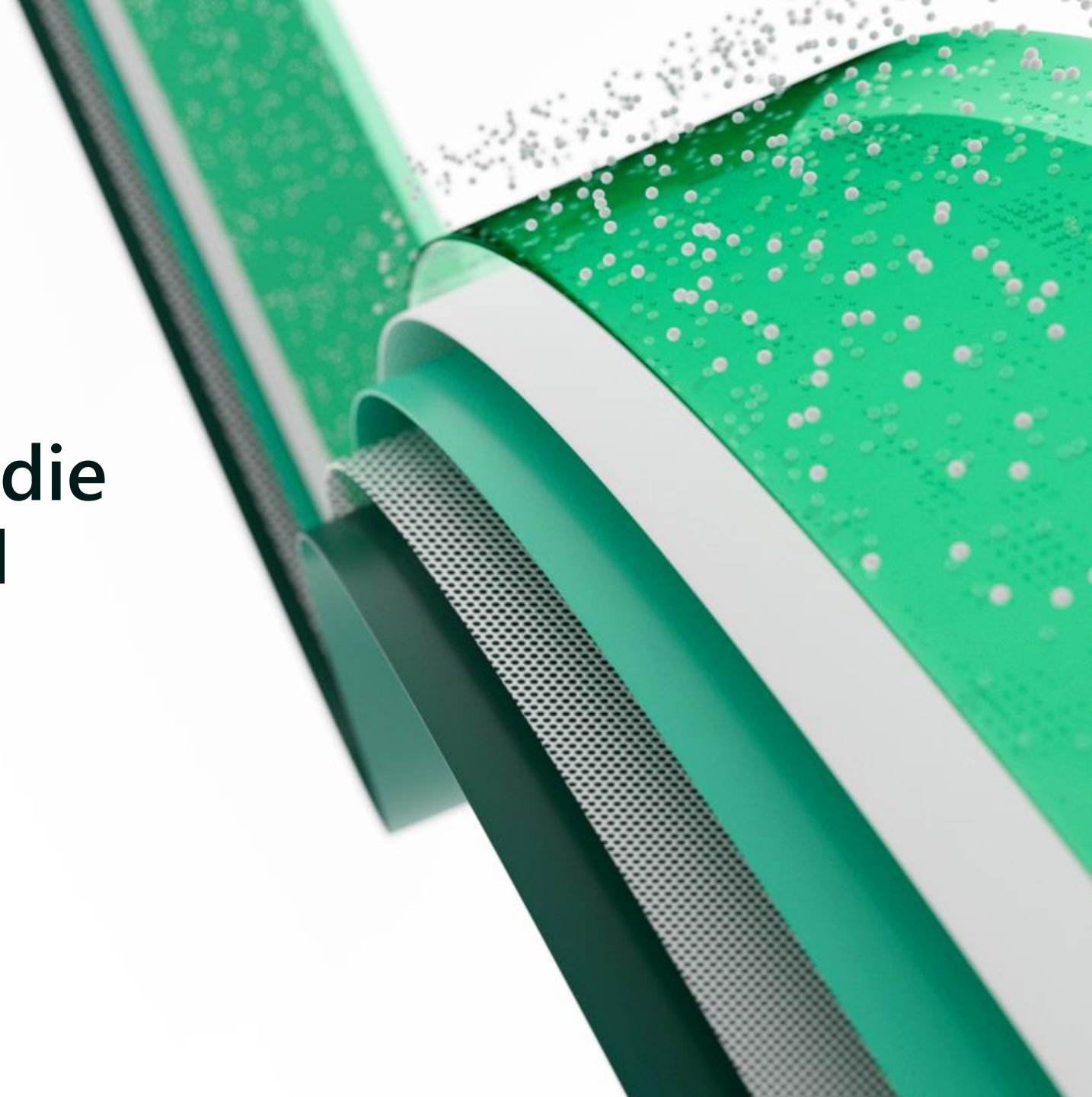


D1 Spin-off Session I Microsoft Fabric und die Zukunft von Power BI



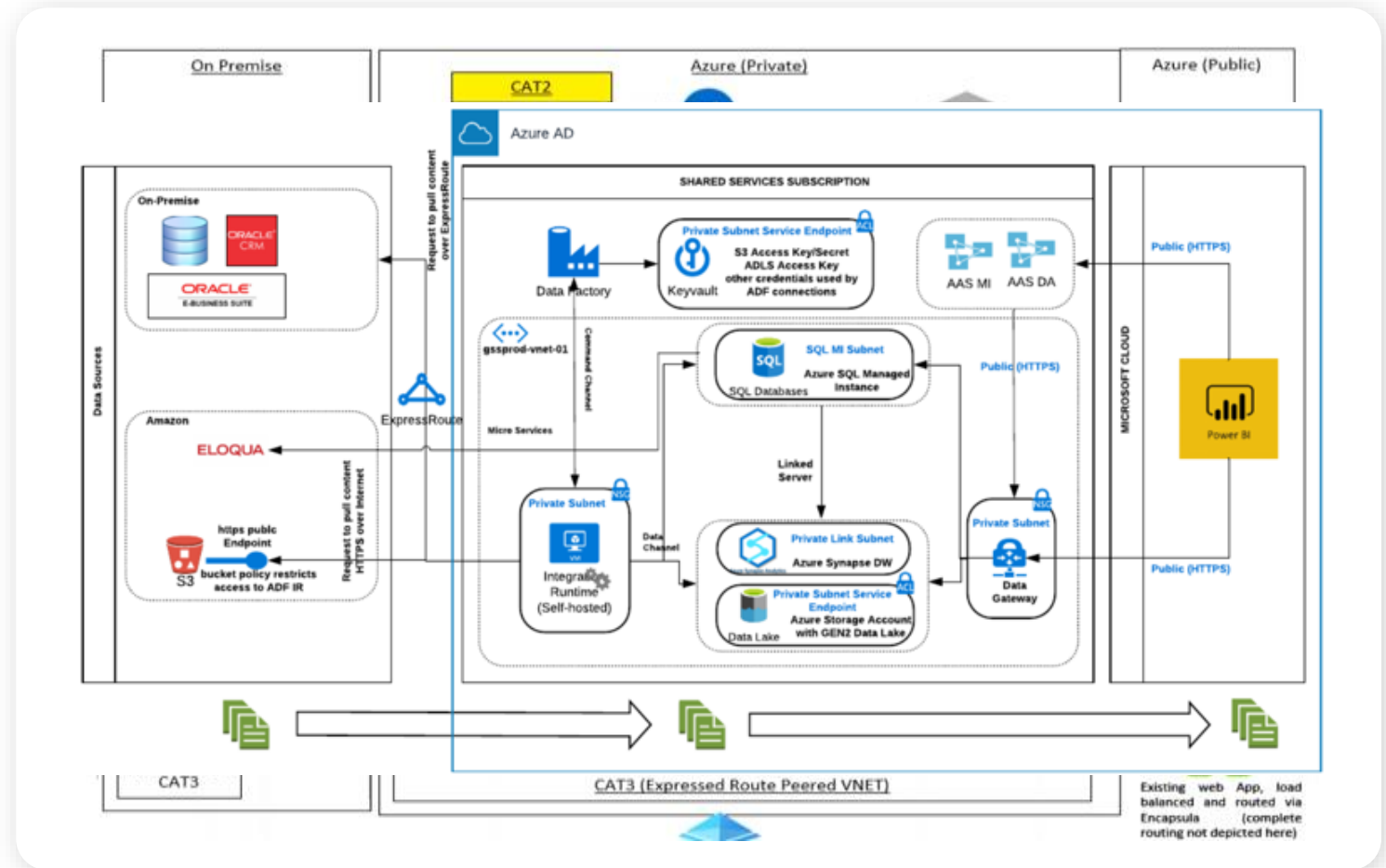
Analytics is complex and fragmented

Every project has many subsystems

Every subsystem need a different class of product

Products often comes from multiple vendors

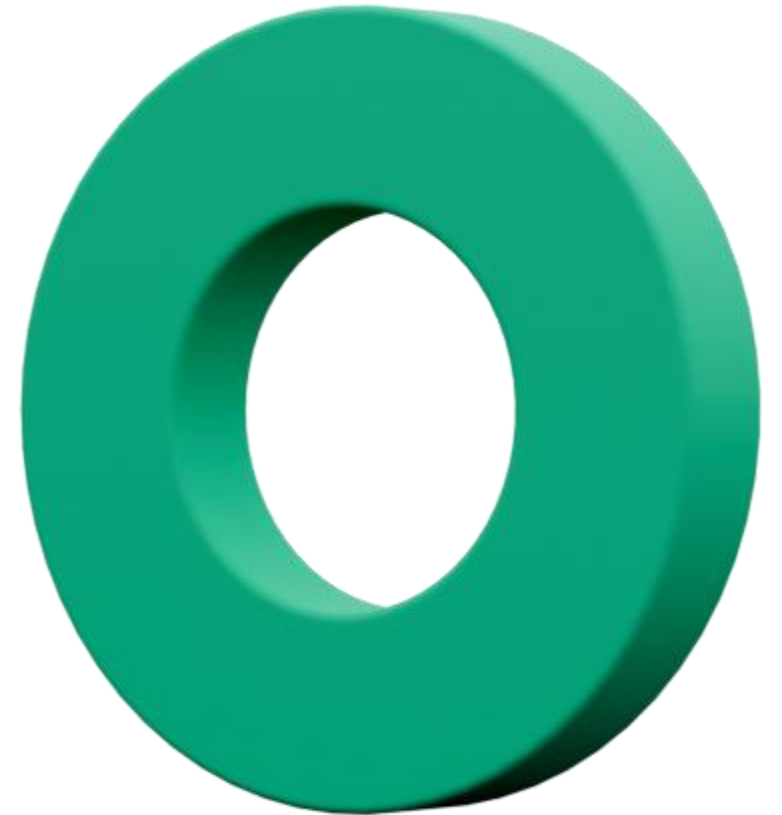
Integration is complex, fragile and expensive



“Simplify,

**I am the Chief Data
Officer and don’t want
to be the Chief
Integration Officer.”**

– Every CDO, Every Enterprise



A silver lining?

Analytics has very predictable patterns

Microsoft has all the products with the right scale needed to build a complete analytics system



Data
Integration



Data
Engineering



Data
Warehousing



Real Time
Analytics



Data
Science



Business
Intelligence



Data Lake



Governance and Administration

Still far too complex

Many Products

Different Experiences

Proprietary and Open

Dedicated and Serverless

PaaS and SaaS

Different Business Models

Steep Learning Curves

Deep Expertise Needed

High Integration Effort



Purview



Power BI



Kusto



Data Factory



Azure AI



Synapse DW



Synapse Spark

Announcing



Microsoft Fabric

The data platform for the era of AI



Microsoft Fabric

The data platform for the era of AI

Complete Analytics Platform



Microsoft Fabric

The data platform for the era of AI

**Complete
Analytics
Platform**

**Lake Centric
and Open**



Microsoft Fabric

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**Complete
Analytics
Platform**

**Lake Centric
and Open**

**Empower Every
Business User**



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Complete
Analytics
Platform

Lake Centric
and Open

Empower Every
Business User

AI
Powered



Microsoft Fabric

The 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

ChatGPT on your data

AI driven insights



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Data
Factory



Synapse Data
Engineering



Synapse Data
Science



Synapse Data
Warehousing



Synapse Real
Time Analytics



Power BI



Data Activator



OneLake



Microsoft Fabric



Data
Factory



Synapse Data
Engineering



Synapse Data
Science



Synapse Data
Warehousing



Synapse Real
Time Analytics



Power BI



Data
Activator

AI Assisted

Shared Workspaces

Universal Compute Capacities

OneSecurity



OneLake

Intelligent data foundation

Single...

Onboarding and trials
Sign-on
Navigation model
UX model
Workspace organization
Collaboration experience
Data Lake
Storage format
Data copy for all engines
Security model
CI/CD
Monitoring hub
Data hub
Governance & compliance

DEMO: Getting started with Fabric





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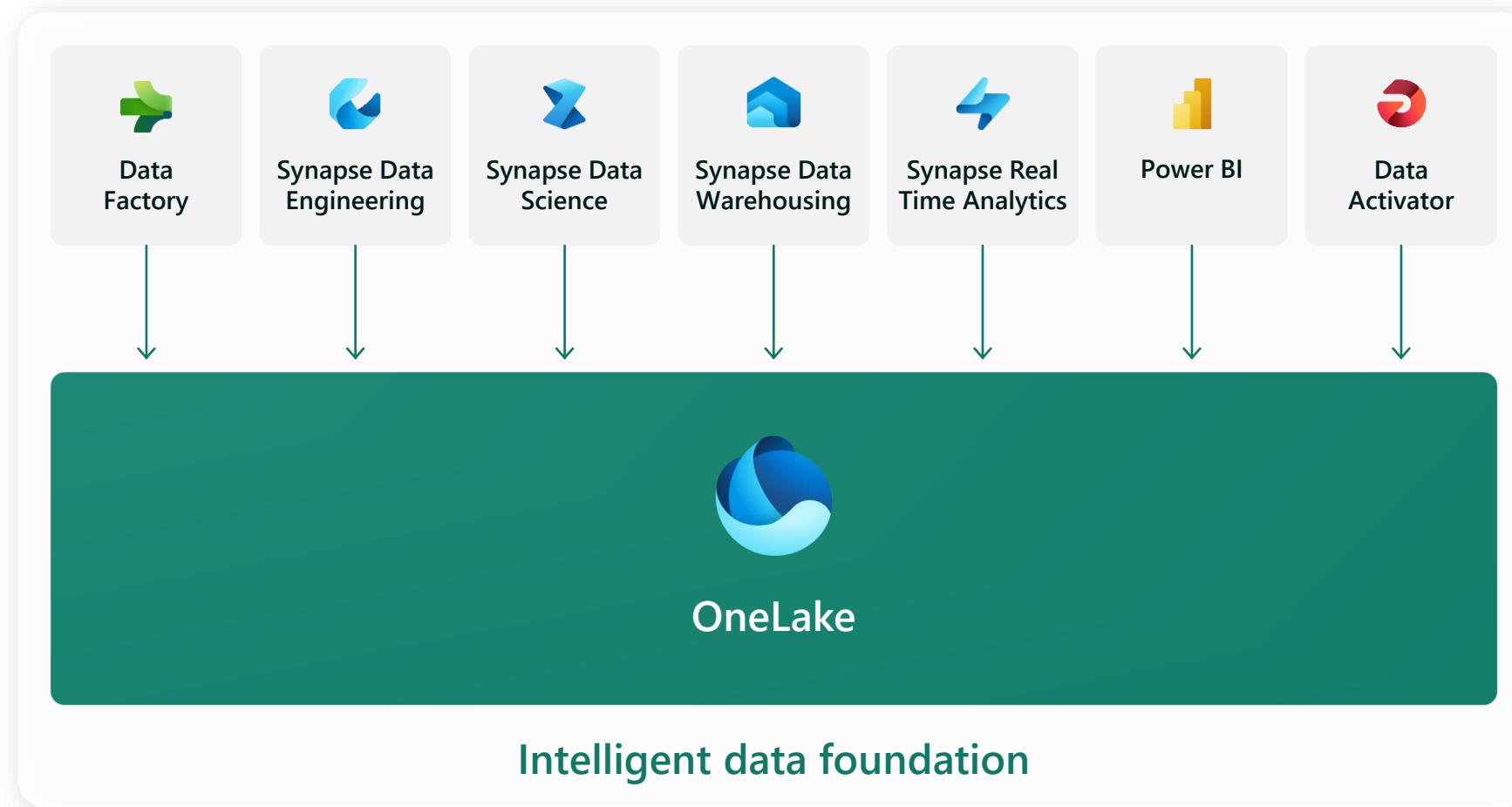
Copilot accelerated

ChatGPT on your data

AI driven insights

OneLake for all Data

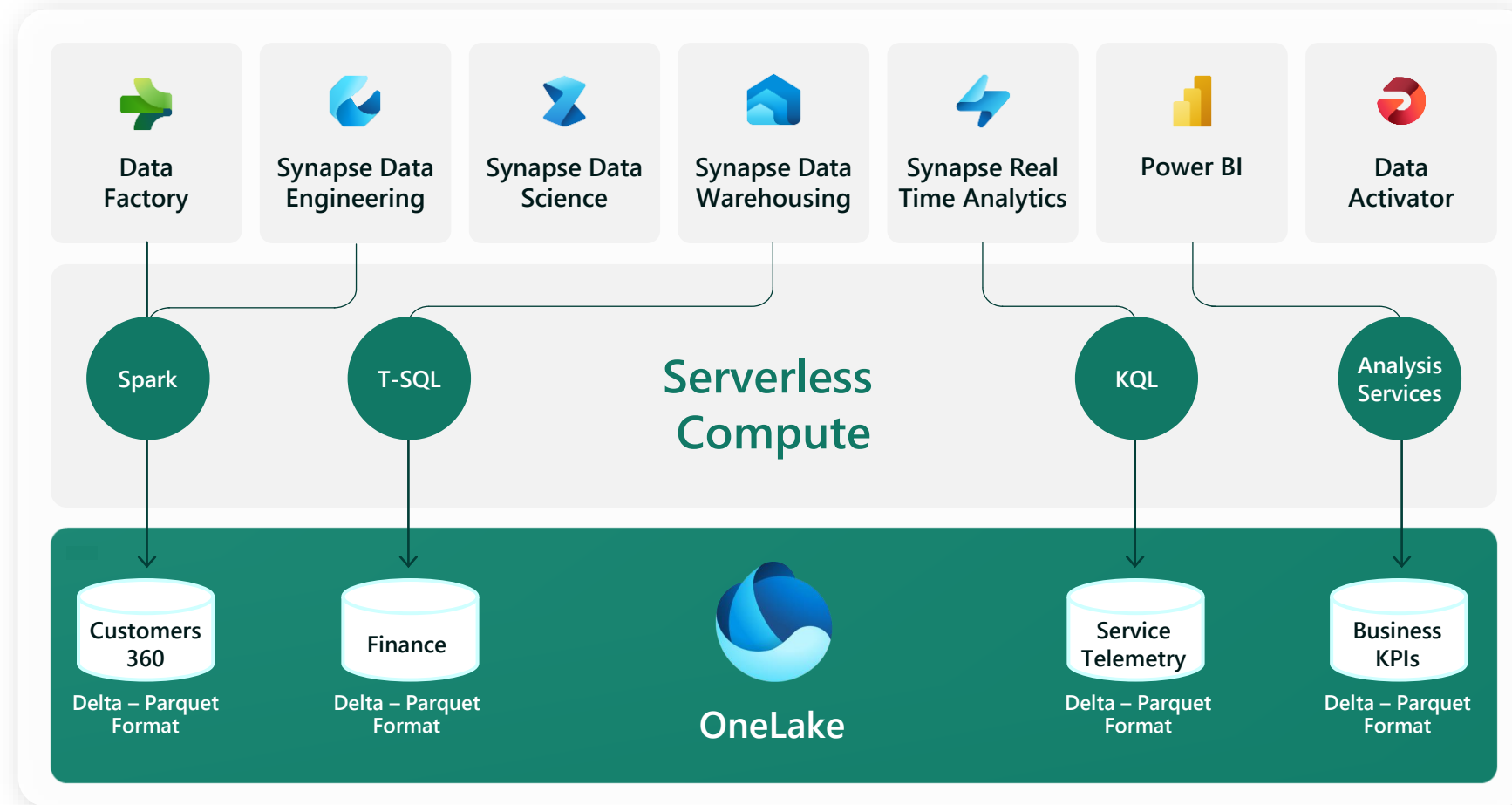
"The OneDrive for Data"



- A single SaaS lake for the whole organization
- Provisioned automatically with the tenant
- All workloads automatically store their data in the OneLake workspace folders
- All the data is organized in an intuitive hierarchical namespace
- The data in OneLake is automatically indexed for discovery, MIP labels, lineage, PII scans, sharing, governance and compliance

One Copy for all computes

Real separation of compute and storage



- All the compute engines store their data automatically in OneLake

- The data is stored in a single common format

- **Delta - Parquet**, an open standards format, is the storage format for all tabular data in Analytics vNext

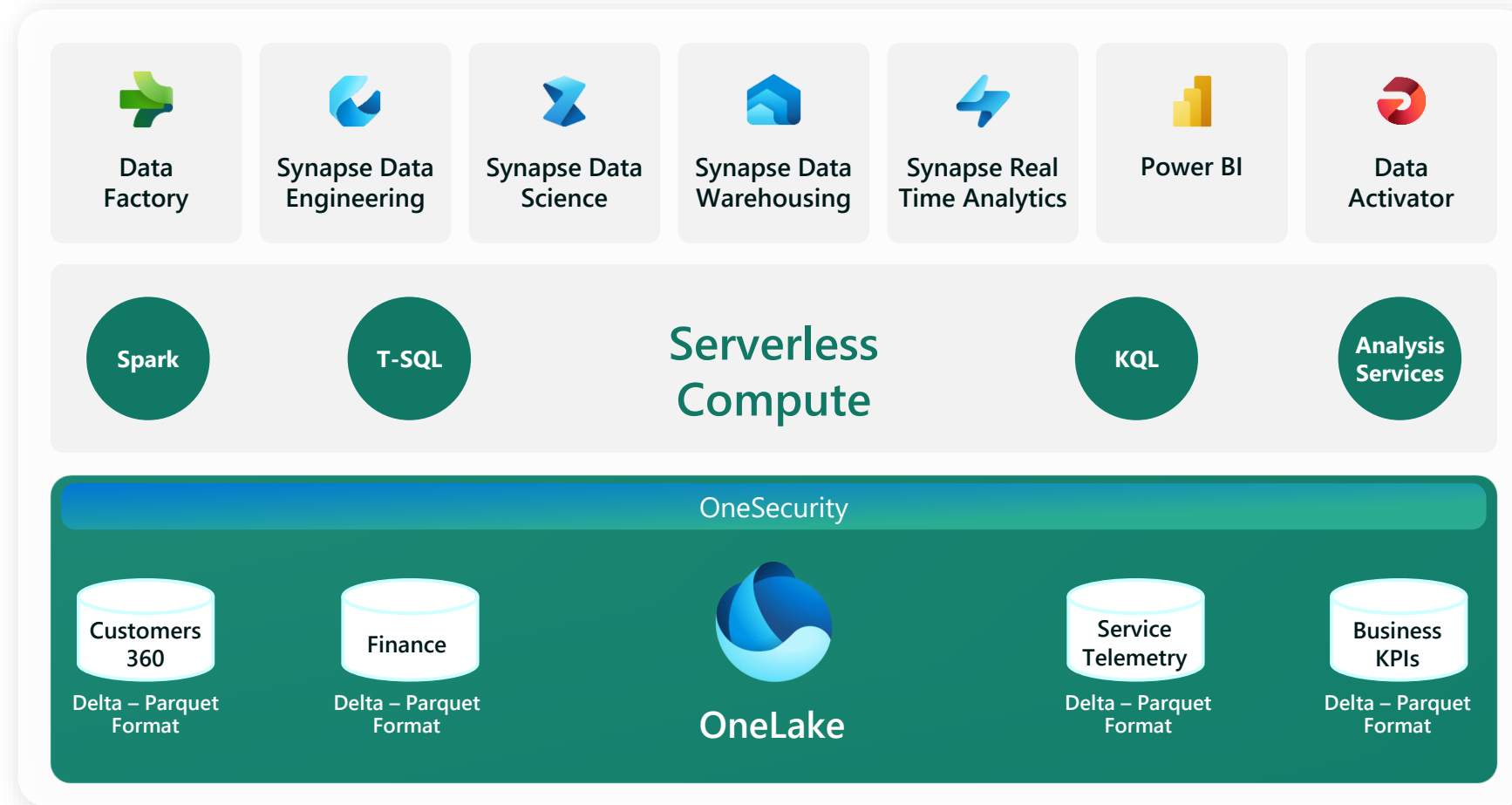
- Once data is stored in the lake, it is directly accessible by all the engines without needing any import/export

- All the compute engines have been fully optimized to work with Delta Parquet as their native format

- Shared universal security model is enforced across all the engines

One Copy for all computes

Universal security makes it real



All the compute engines store their data automatically in OneLake

The data is stored in a single common format

Delta – Parquet, an open standards format, is the storage format for all tabular data in Analytics vNext

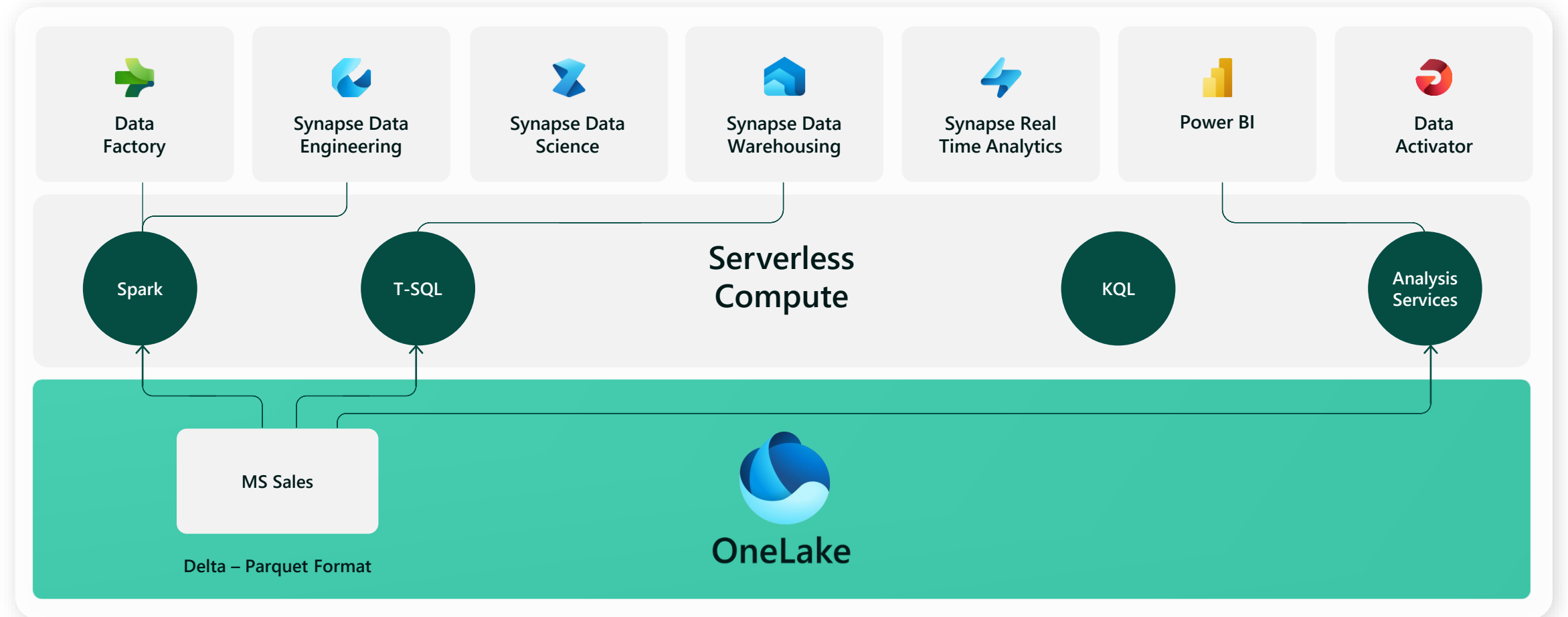
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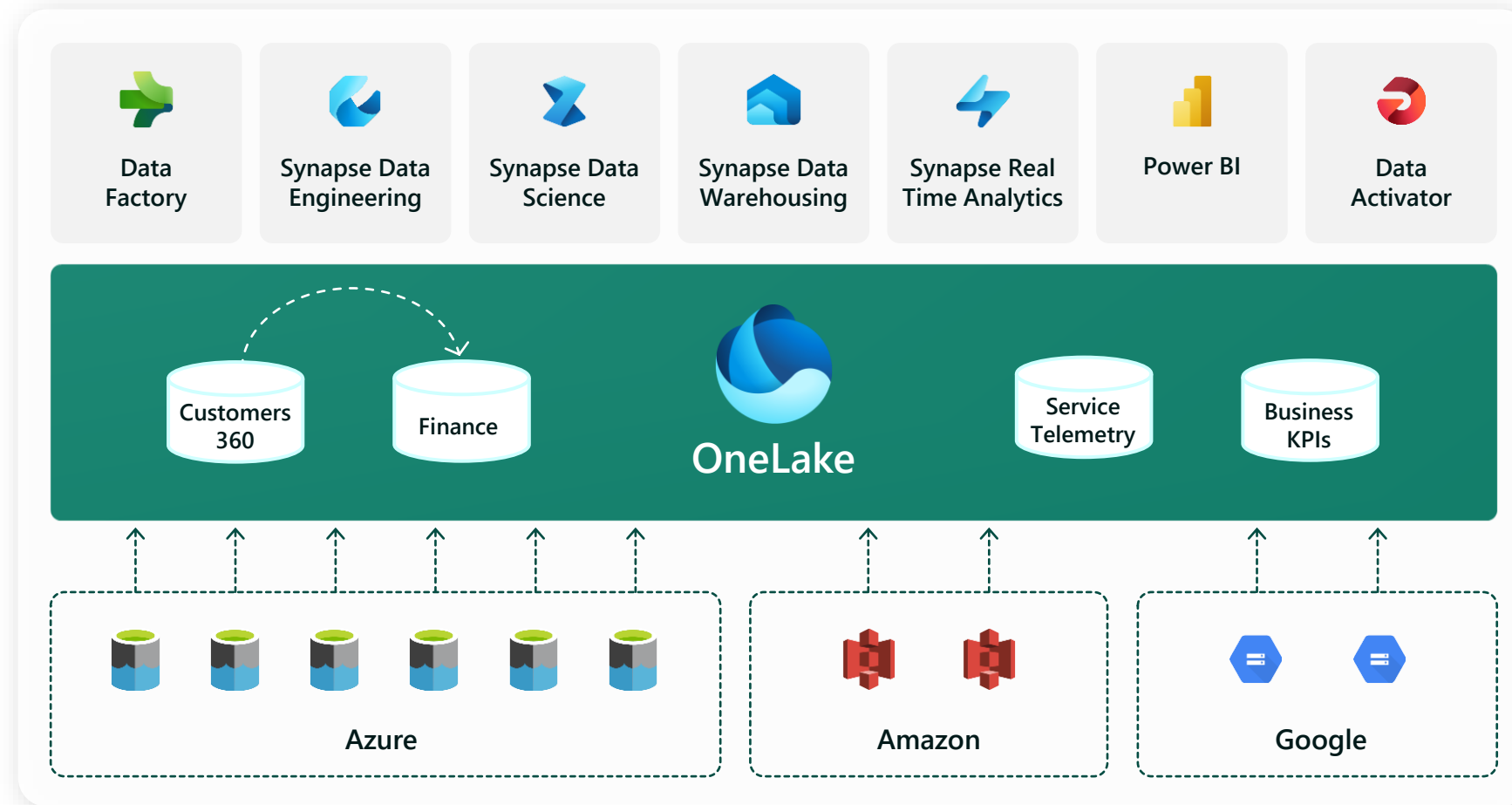
One Copy for all computes

Using the Lakehouse



Taking One Copy to the Next Level

Shortcuts



Sharing data in OneLake is as easy as sharing files in OneDrive, removing the needs for data duplication

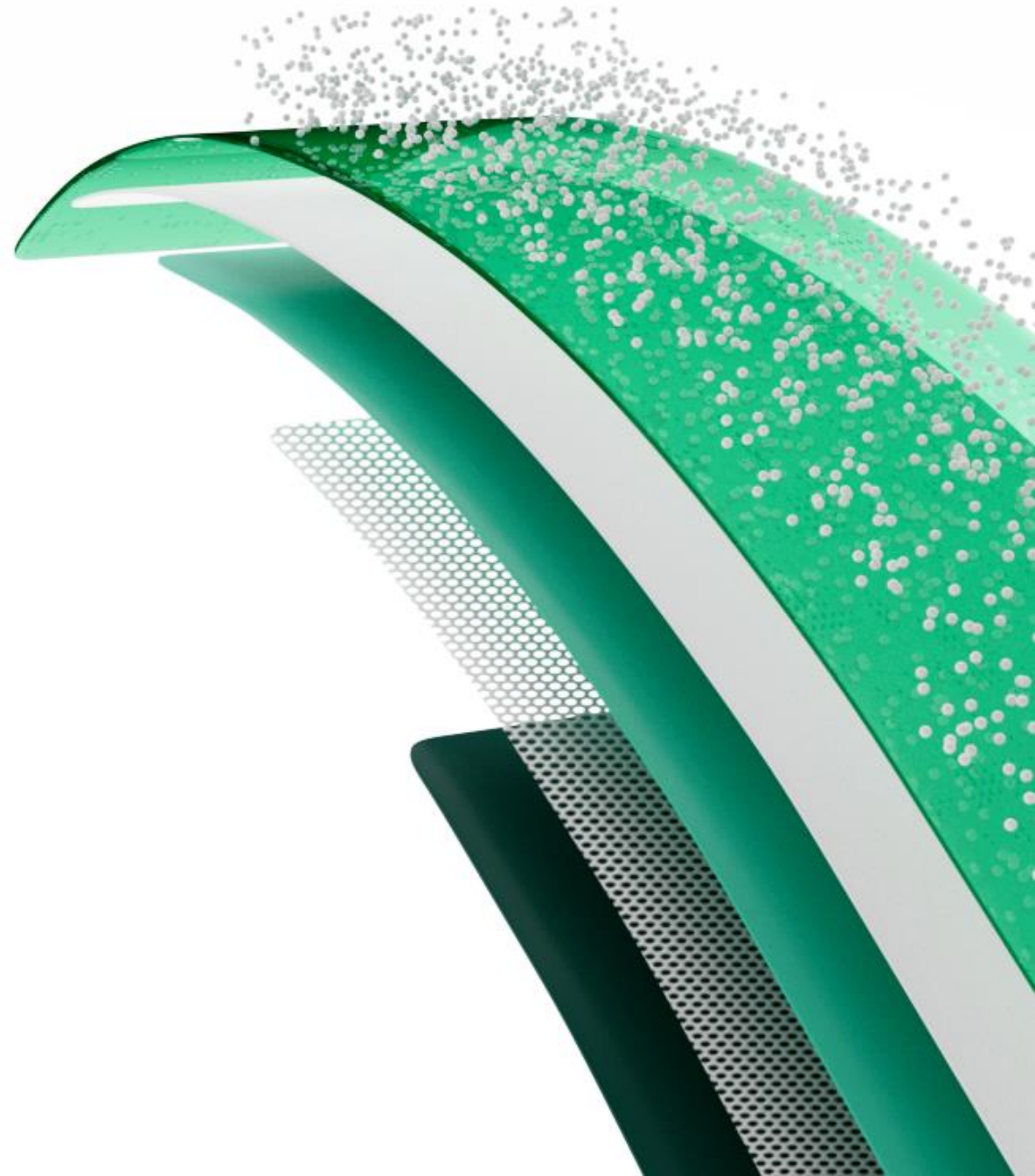
With **shortcuts**, data throughout OneLake can be composed together without any data movement

Shortcuts also allow instant linking of data already existing in Azure and in other clouds, without any data duplication and movement, making **OneLake the first multi-cloud data lake**

With support for industry standard APIs, OneLake data can be directly accessed by any application or service

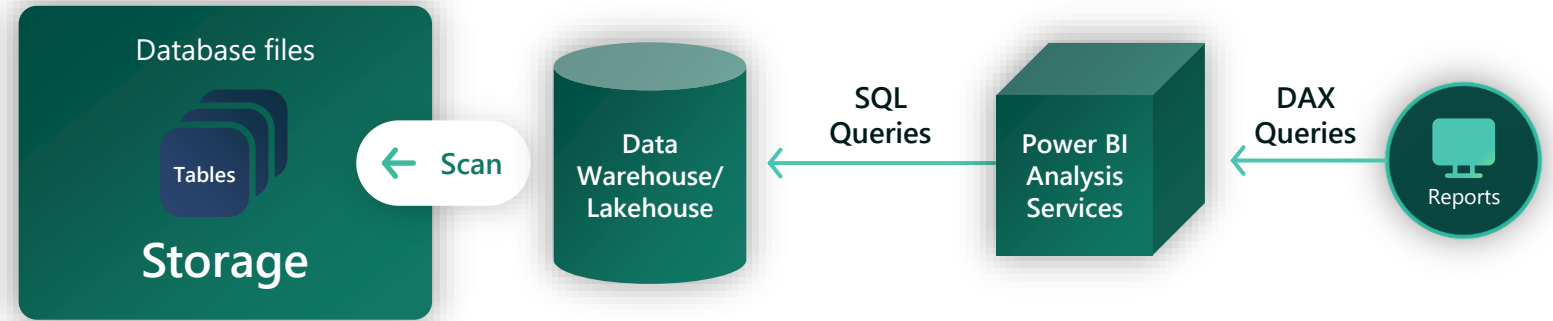
DEMO: One Copy in Action

- Using the Lakehouse



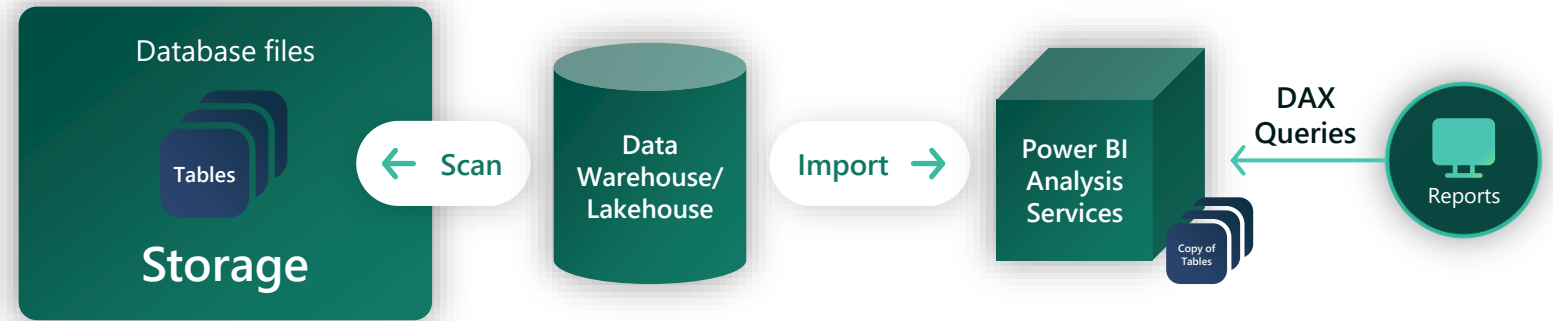
"Direct Query Mode"

Slow, but real time



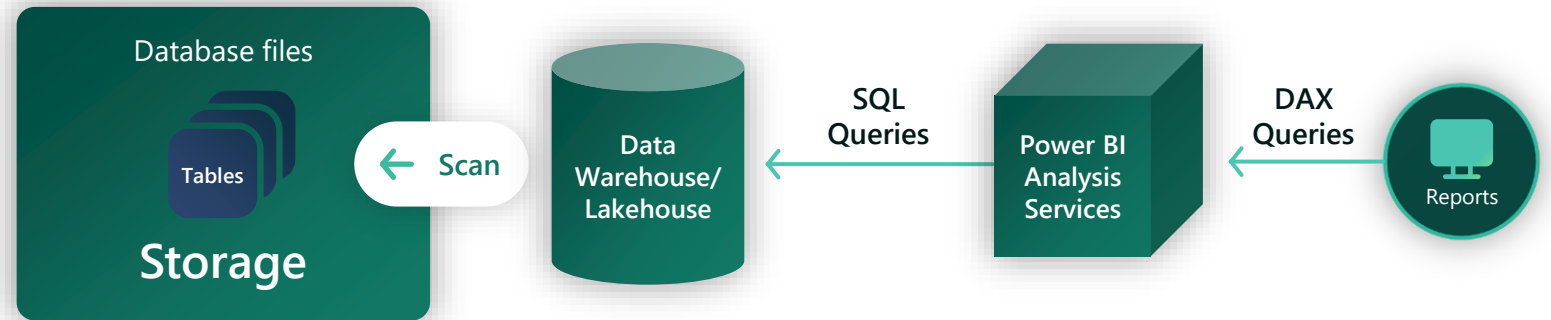
"Import Mode"

Latent & duplicative but fast



"Direct Query Mode"

Slow, but real time



"Import Mode"

Latent & duplicative but fast



"Direct Lake Mode"

Perfect!





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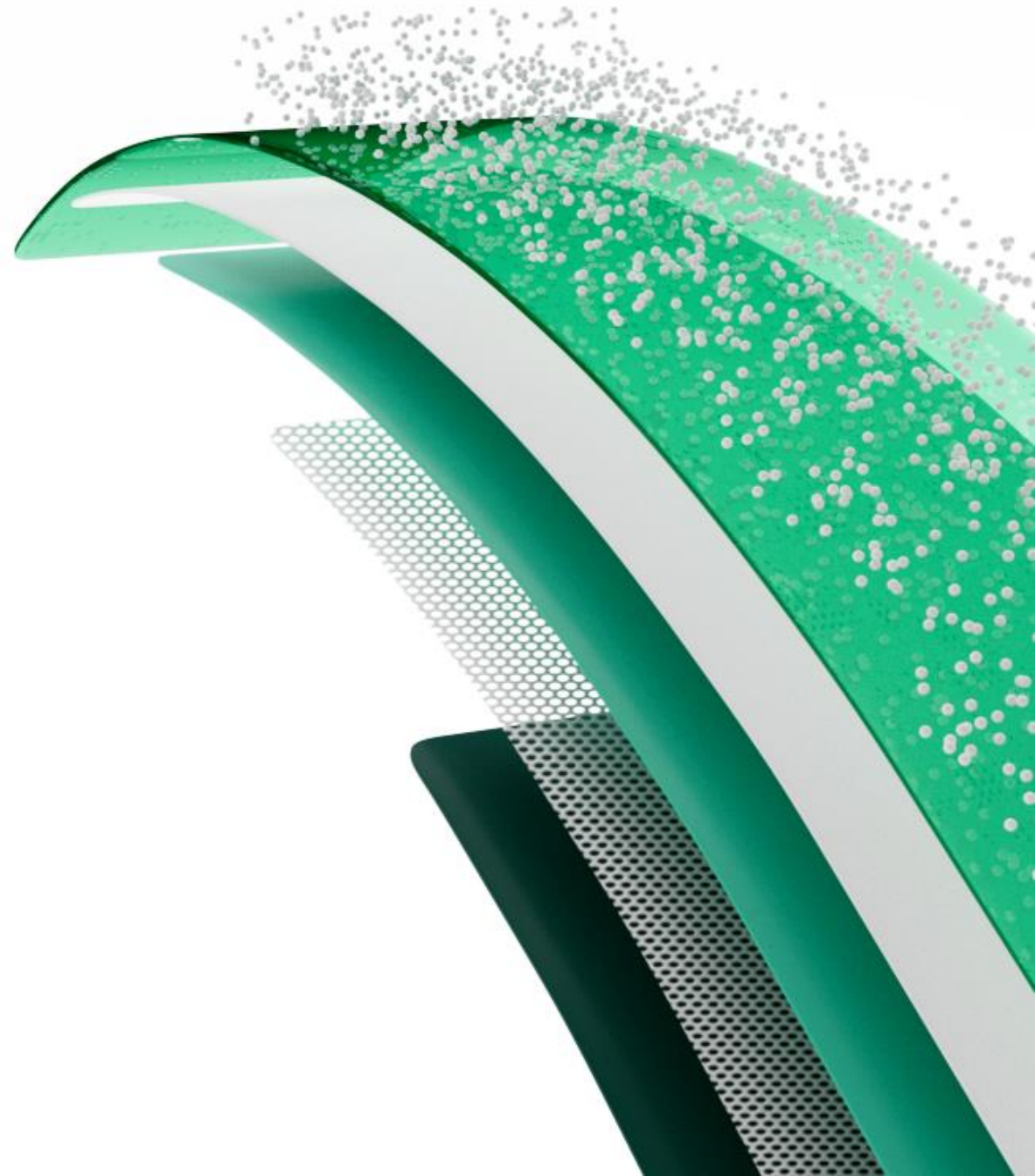
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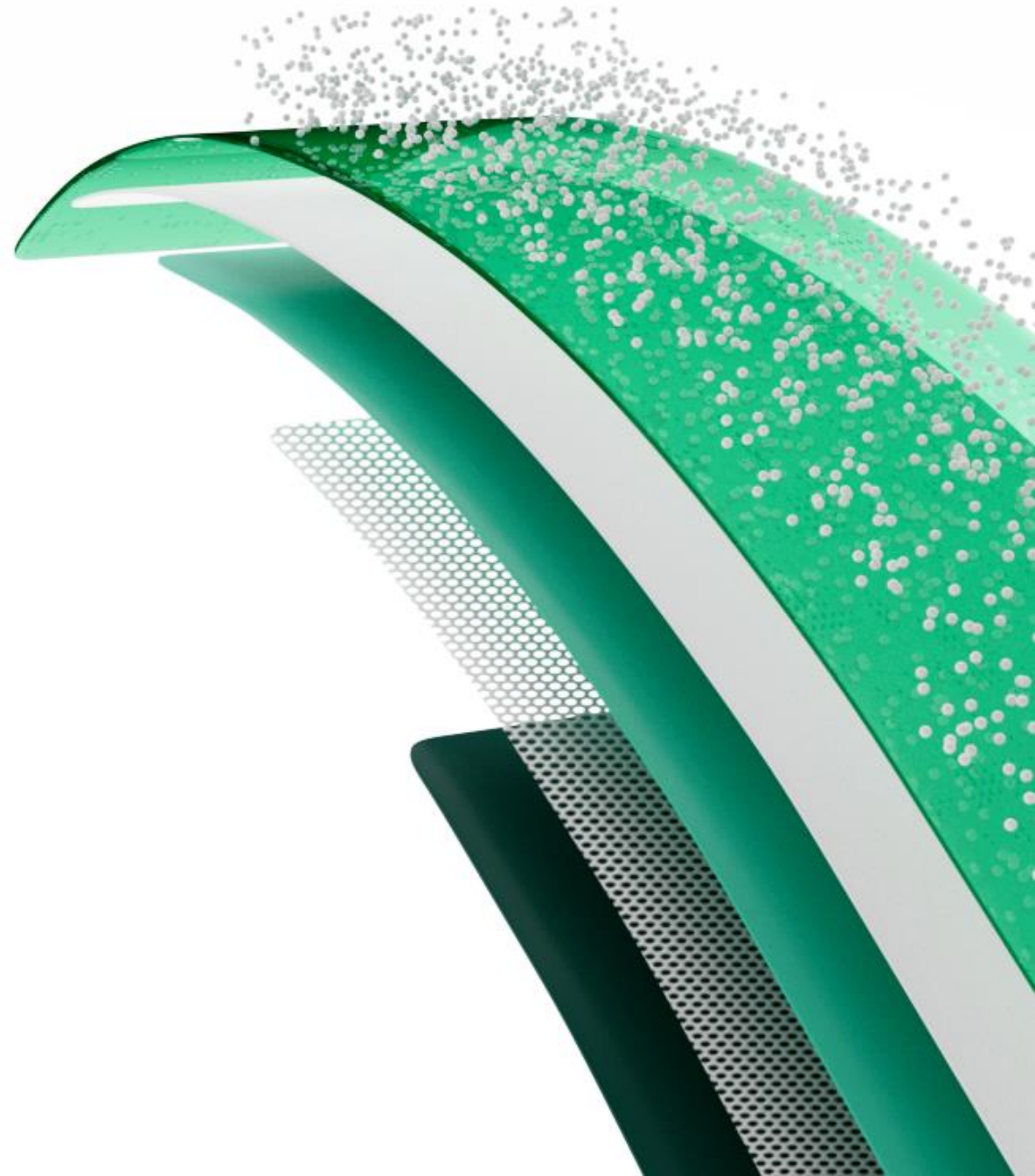
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Sizzle Video (Video) AI Powered Fabric

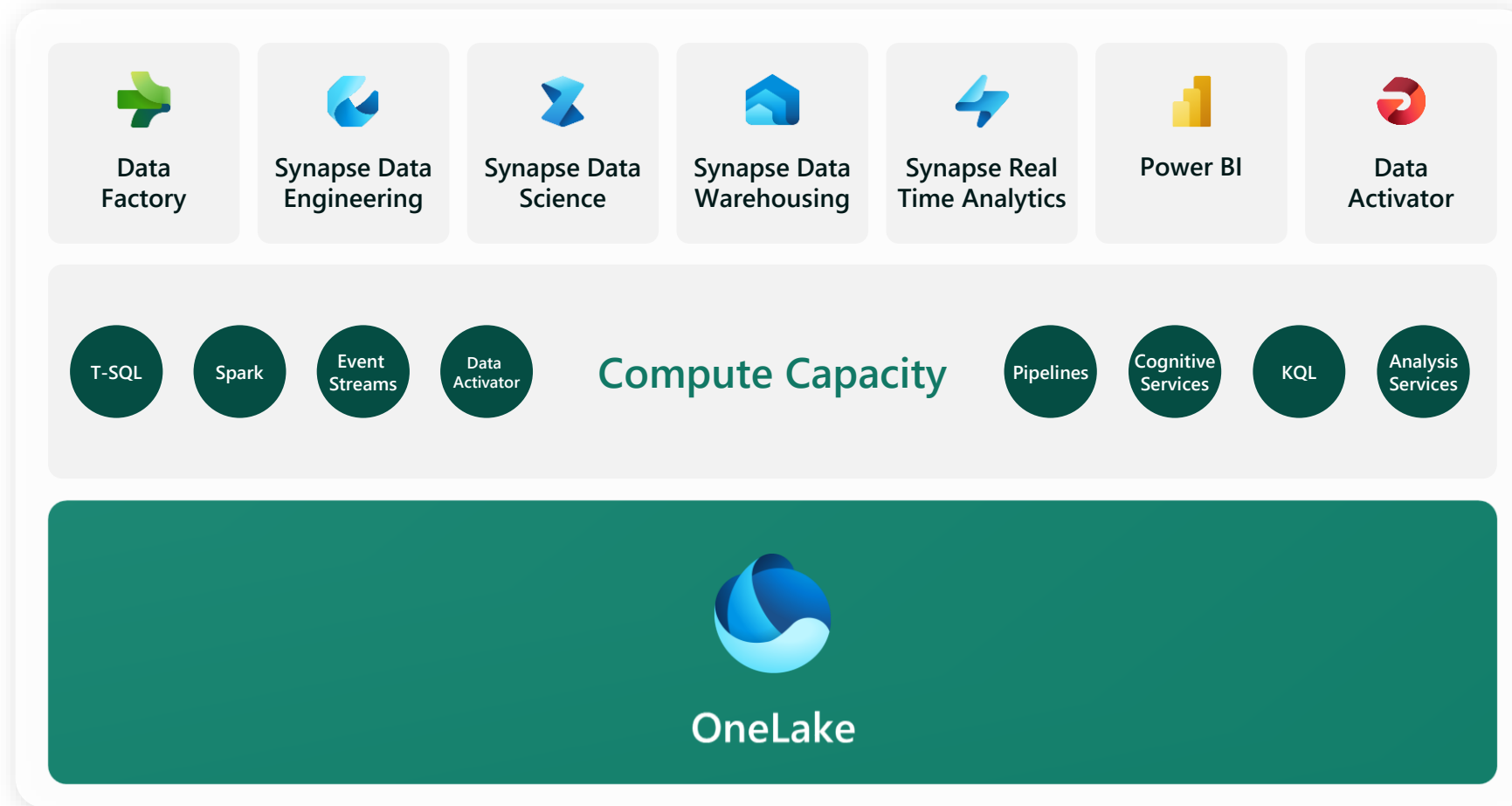


Fabric Capacities: Universal Compute



Universal compute capacities

"All in one"



Analytics vNext comes with a rich set of compute engines

Universal Compute Capacities provide the power to the various engines

"All in One" – Each of the compute capacity can power all the engines

There is no need to size in advance the individual engines, or to split the capacity across the engines

All Power BI Premium capacities are upgraded automatically to the Universal Compute Capacities, no additional purchase required

Microsoft Fabric simplicity

Microsoft Fabric is a unified product for all your data and analytics workloads. Rather than provisioning and managing separate compute for each workload, with Microsoft Fabric, your bill is determined by two variables: the amount of compute you provision and the amount of storage you use.

COMPUTE

A shared pool of capacity that powers all capabilities in Microsoft Fabric, from data modeling and data warehousing to business intelligence.

Pay-as-you-go (per sec billing with one minute minimum).

STORAGE

A single place to store all data.
Pay-as-you-go (\$ per GB / month).

How it works

Capacity units (CUs) = Compute power

Capacity units (CUs) are units of measure that represent a pool of compute power needed. Compute power is required to run queries, jobs, or tasks.

CU Consumption

The CU consumption is highly correlated to the underlying compute effort needed for the tasks performed during the processing time by the capability.

Each capability with the associated queries, jobs, or tasks has a unique consumption rate.

Sample of consumption rates:

F64 SKU provides a set of 64 capacity units

| Capability | CUs utilized for each processing time |
|----------------|---------------------------------------|
| Data Warehouse | 1 |
| Power BI | 8 |
| Spark | 0.5 |
| Dataflows | 16 |

This means a Data Warehousing job will utilize 1 CU while a Power BI query will utilize 8 CUs at the same processing time.

Microsoft Fabric Licensing

- PAYG model
- P1 = F64
- F64 and above → Microsoft Fabric Free license for viewers enough
- F32 and below → Power BI Pro license for viewers required

<https://learn.microsoft.com/en-us/fabric/enterprise/licenses>

| SKU | Capacity unit (CU) | Pay-as-you-go (hourly) | Pay-as-you-go (monthly) |
|--------|--------------------|------------------------|-------------------------|
| F 2 | 2 | \$0.36 | \$262.80 |
| F 4 | 4 | \$0.72 | \$525.60 |
| F 8 | 8 | \$1.44 | \$1,051.20 |
| F 16 | 16 | \$2.88 | \$2,102.40 |
| F 32 | 32 | \$5.76 | \$4,204.80 |
| F 64 | 64 | \$11.52 | \$8,409.60 |
| F 128 | 128 | \$23.04 | \$16,819.20 |
| F 256 | 256 | \$46.08 | \$33,638.40 |
| F 512 | 512 | \$92.16 | \$67,276.80 |
| F 1024 | 1024 | \$184.32 | \$134,553.60 |
| F 2048 | 2048 | \$368.64 | \$269,107.20 |

Table 1: Pricing of Fabric capacity SKUs at US west 2

Available Now

Generally available

Power BI

Public preview

Data Factory

Synapse Data Engineering

Synapse Data Science

Synapse Data Warehousing

Synapse Real Time analytics

Power BI Copilot for DAX

OneLake

Private preview

Data Activator

Microsoft Fabric Copilot

Thank You!

<https://aka.ms/FabricGuy>

<https://aka.ms/FabricGuyBlog>

This is
my
thank you
dance!

