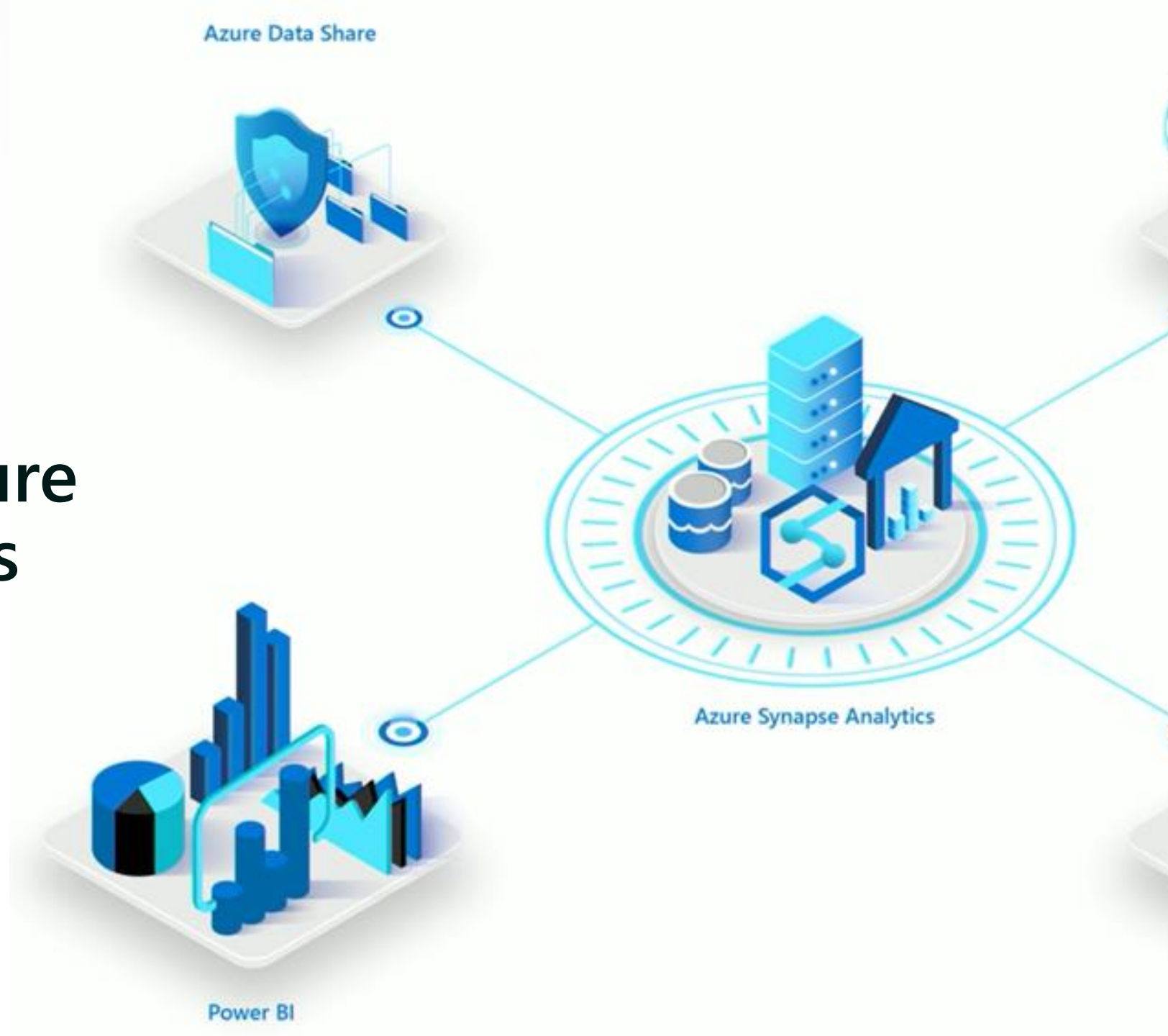


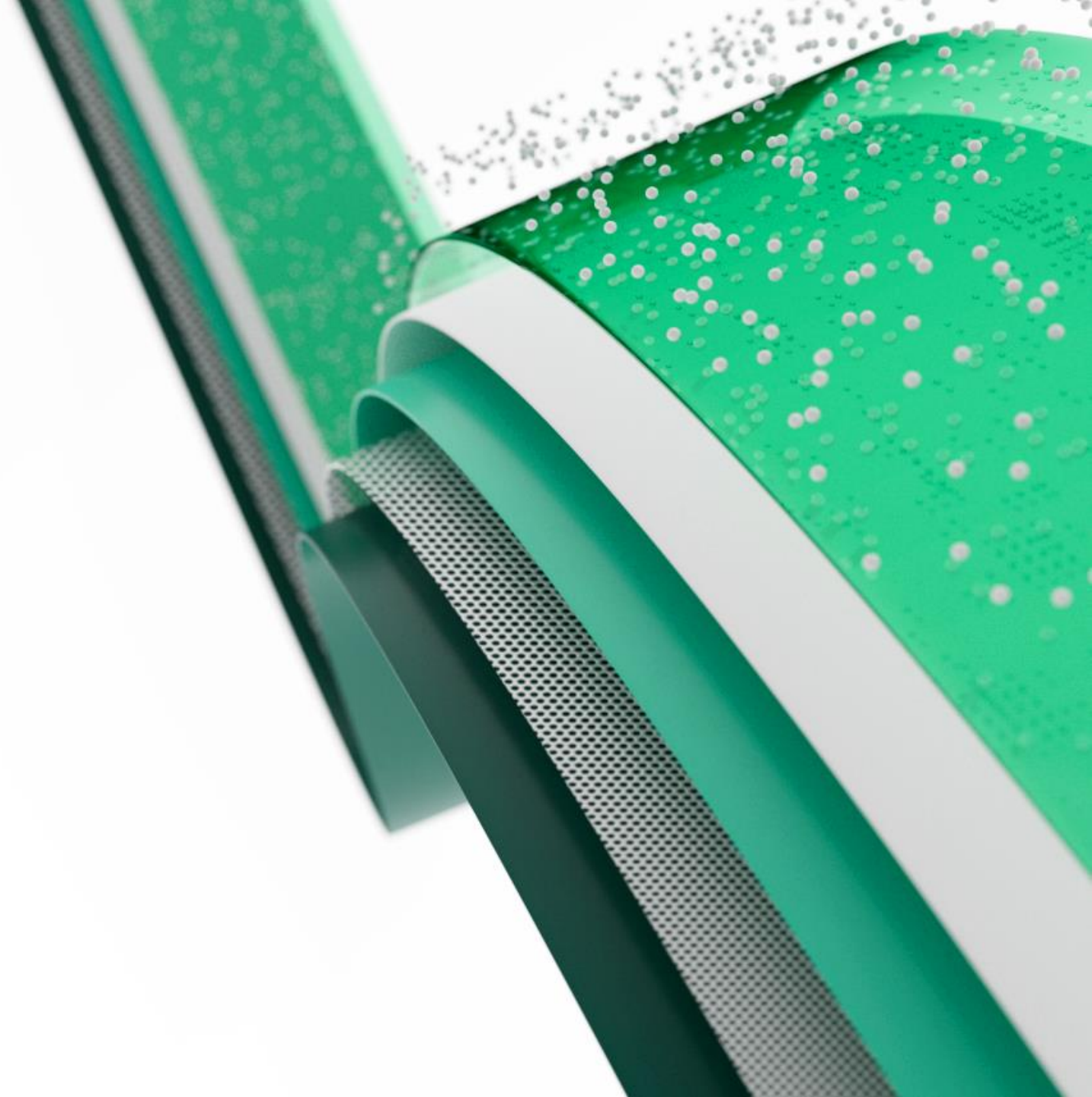
# Power BI and Azure Synapse Analytics

The dream team



# Fabric Fantastic

The Best of Power BI and Synapse



# EVENT SPONSORS, THANKS!!!

## GOLD

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**span**



**TRIA**

## SILVER

---

**::: bonsai.tech**

## BRONZE

---



GETHYNELLIS.COM



**unitfly**

**DATA SENSE**  
WHERE IT SPEAKS BUSINESS



**comminus**  
FOR EVERY STEP OF THE WAY, THERE'S DATA



**redgate**



**infobip**

**BUG**

**SSUGCRO**

**DATA**  
SATURDAYS

# Speaker bio(s)

Who are we?

- **Microsoft MVP**, Data Platform
- **FTRSA Power BI**
- **MCT**
- **Sergeant**, Royal Danish Air Force
- Rides motorcycles, Coffee geek

- **Microsoft MVP**, Data Platform
- **MSc in Product Development and Innovation**
- **Certified Associate in Project Management (CAPM)®**
- **Sergeant**, Royal Danish Air Force
- Parent, Foodie, Casual Gamer, Tech-aficionado



Brian Bønck  
Principal Architect



[www.linkedin.com/in/brianbonk](https://www.linkedin.com/in/brianbonk)



[www.linkedin.com/in/mhalkjaer](https://www.linkedin.com/in/mhalkjaer)



Mathias Halkjær  
Principal Architect







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What is Fabric?

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End-to-end data platform  
(Demo)

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Data-Driven  
Organizations

---

Wrap-up and Key  
considerations

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Collaboration

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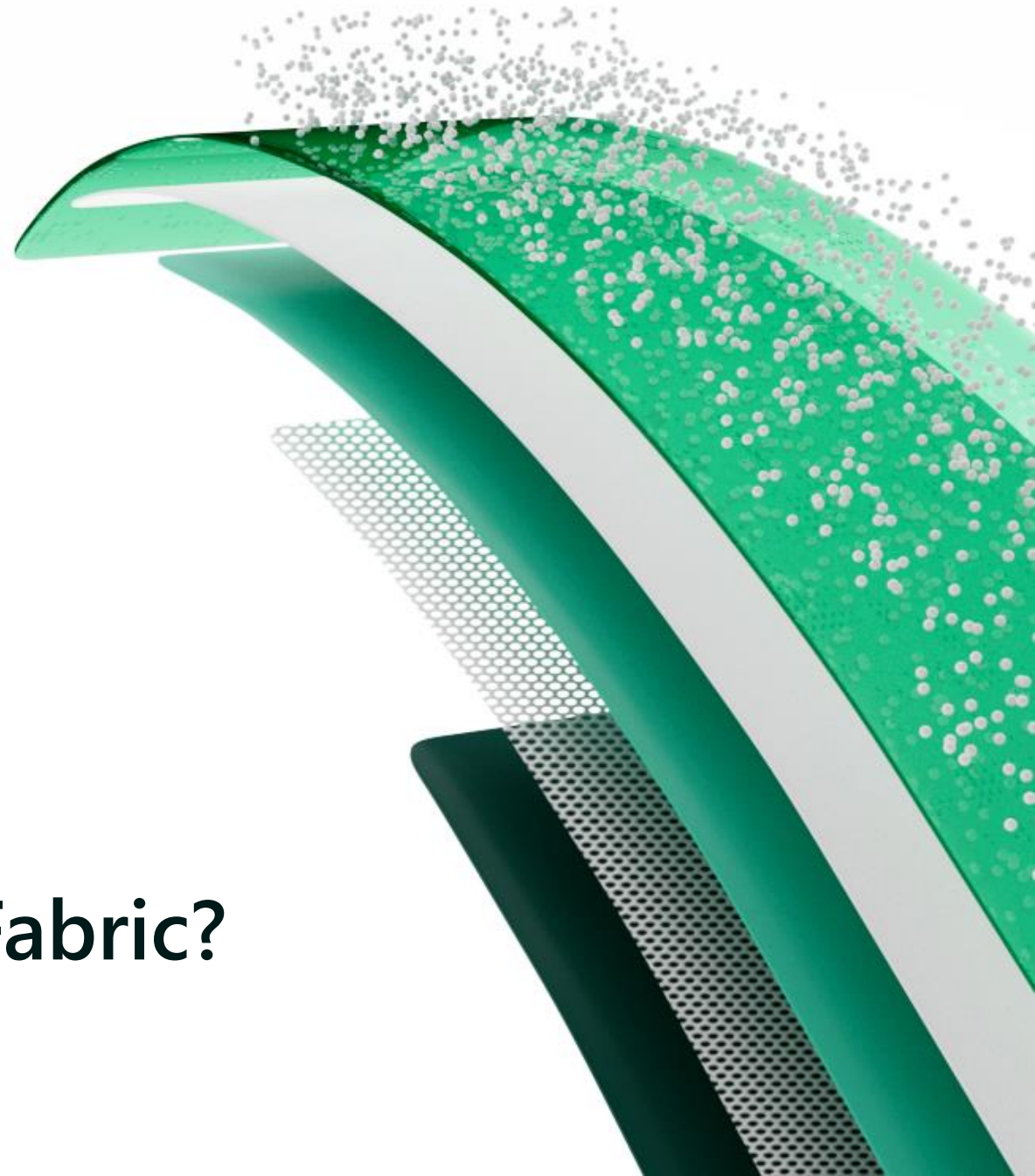
Questions

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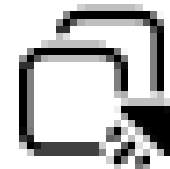
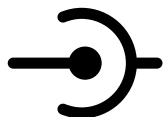
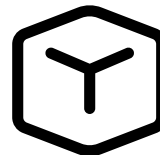
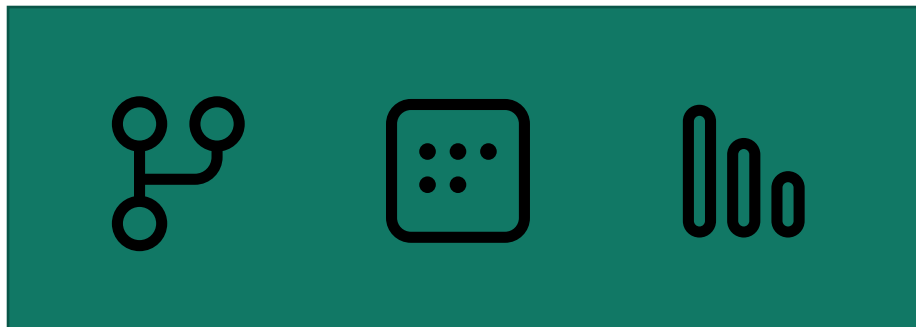
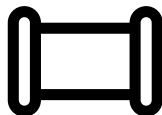
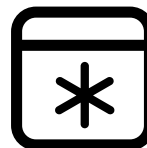
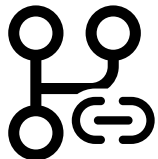
Architecture blueprints



# What is Microsoft Fabric?











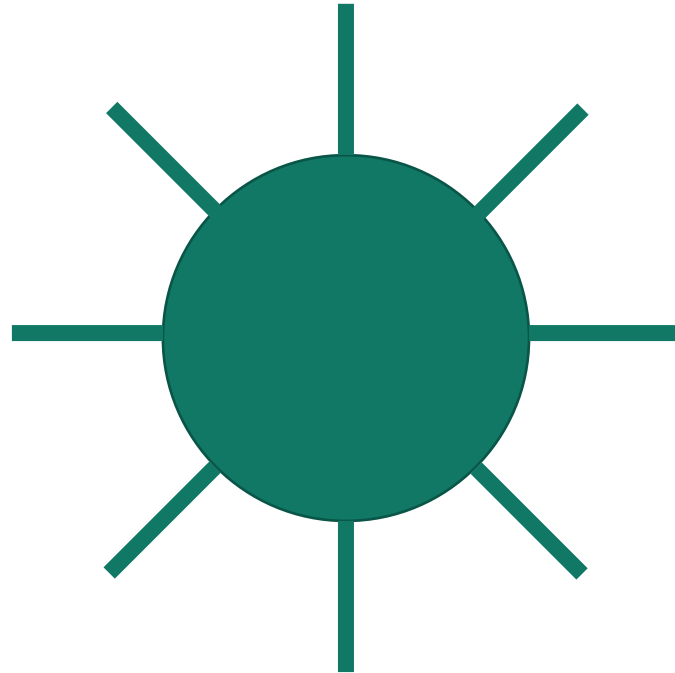
# 2

## Data-Driven Organizations



# Data driven organisations

There is no single and best version of a data warehouse



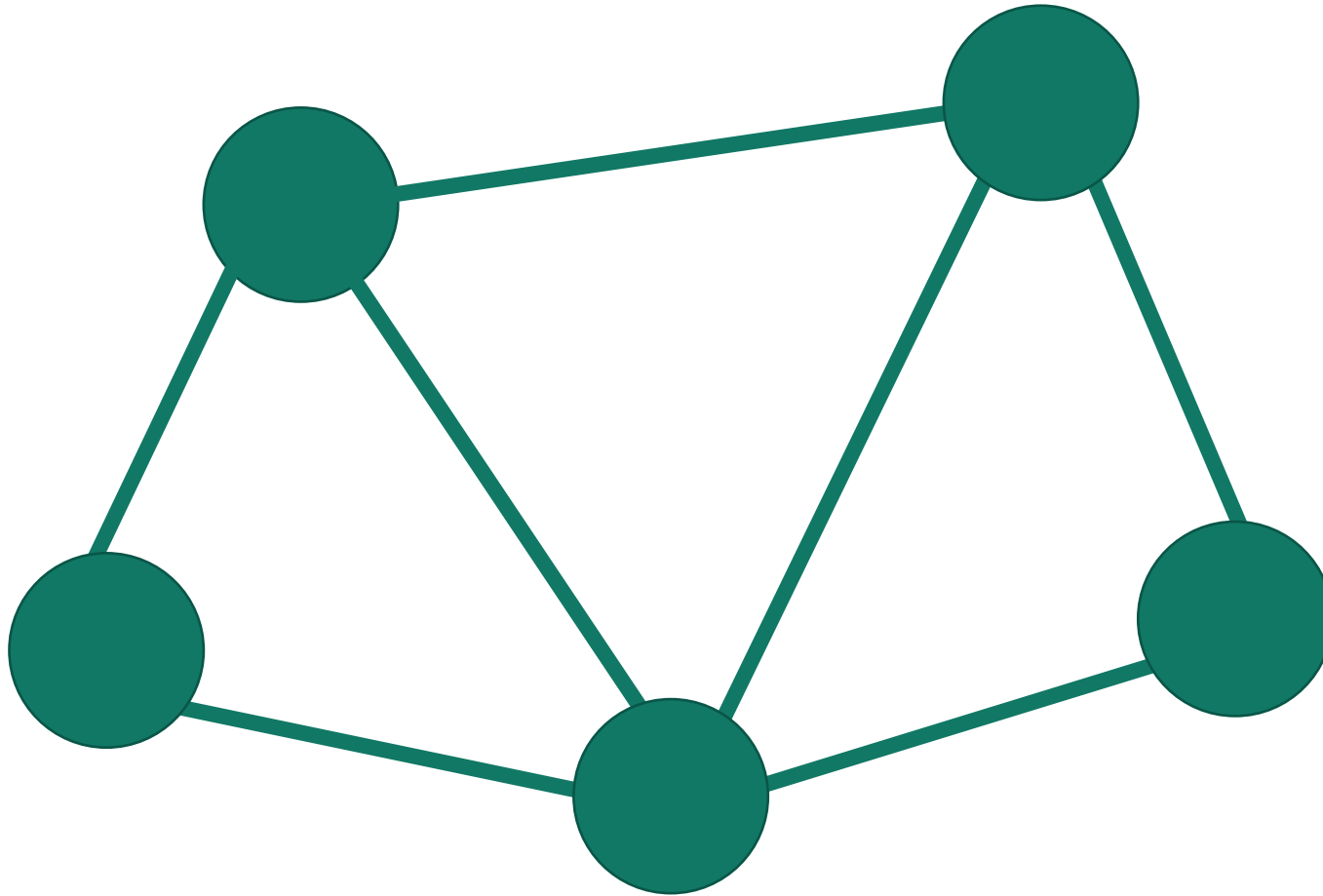
One centralized data & analytics team services all management and operational needs.



**Centralized**

# Data driven organisations

There is no single and best version of a data warehouse

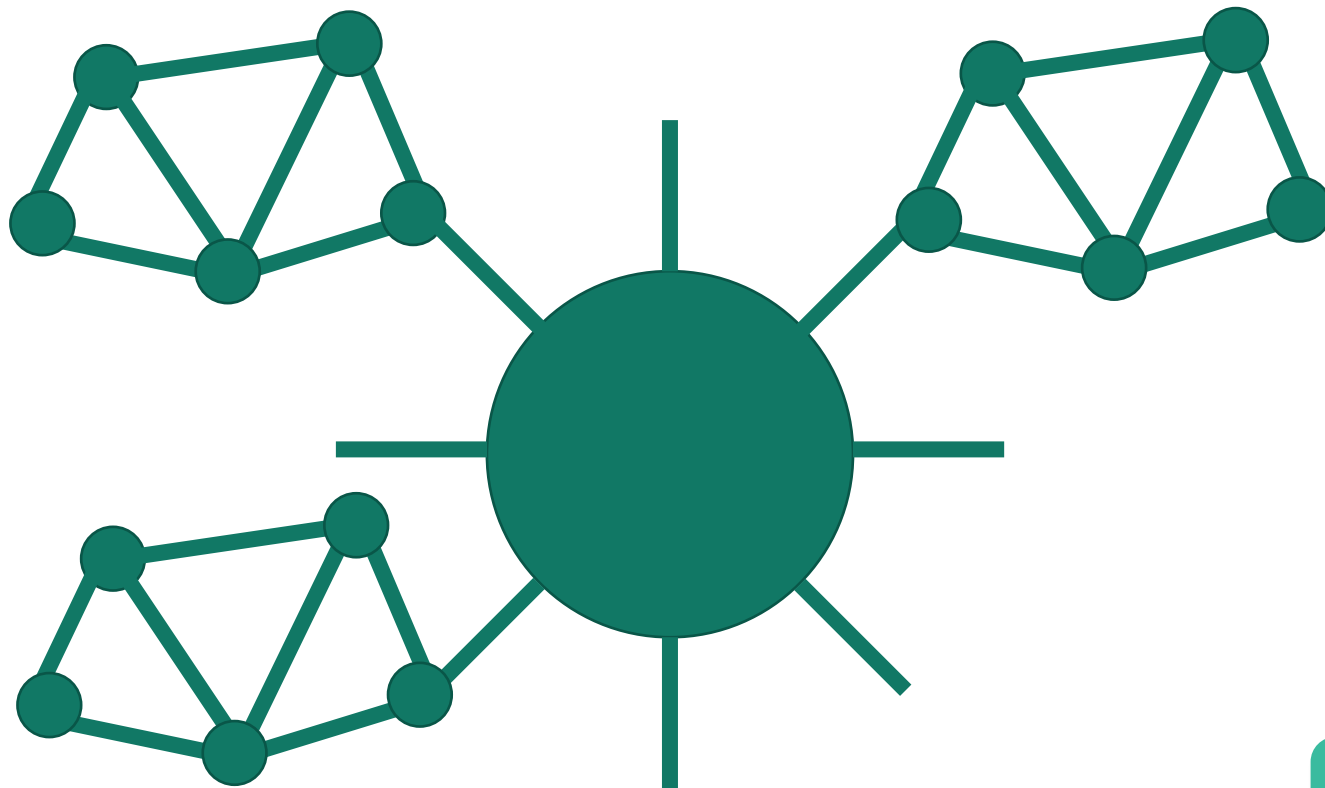


Decentralized activities  
within each unit, with  
uneven quality and ad-hoc  
governance

 **De-Centralized**

# Data driven organisations

There is no single and best version of a data warehouse



Hybrid of centralized and distributed collaboration;  
Centers of excellence promotes best practice

 **Hybrid**



# 3

Collaboration



# Collaboration



**OneLake**

With OneLake at its core, Microsoft Fabric unifies data disciplines and enhance collaboration across all data professionals.

OneLake both ties together all the tools, experiences and technologies – and by doing so the people working in it.

Never has it been as easy to share ones important and impactful work instantly with the right colleagues.



# Collaboration

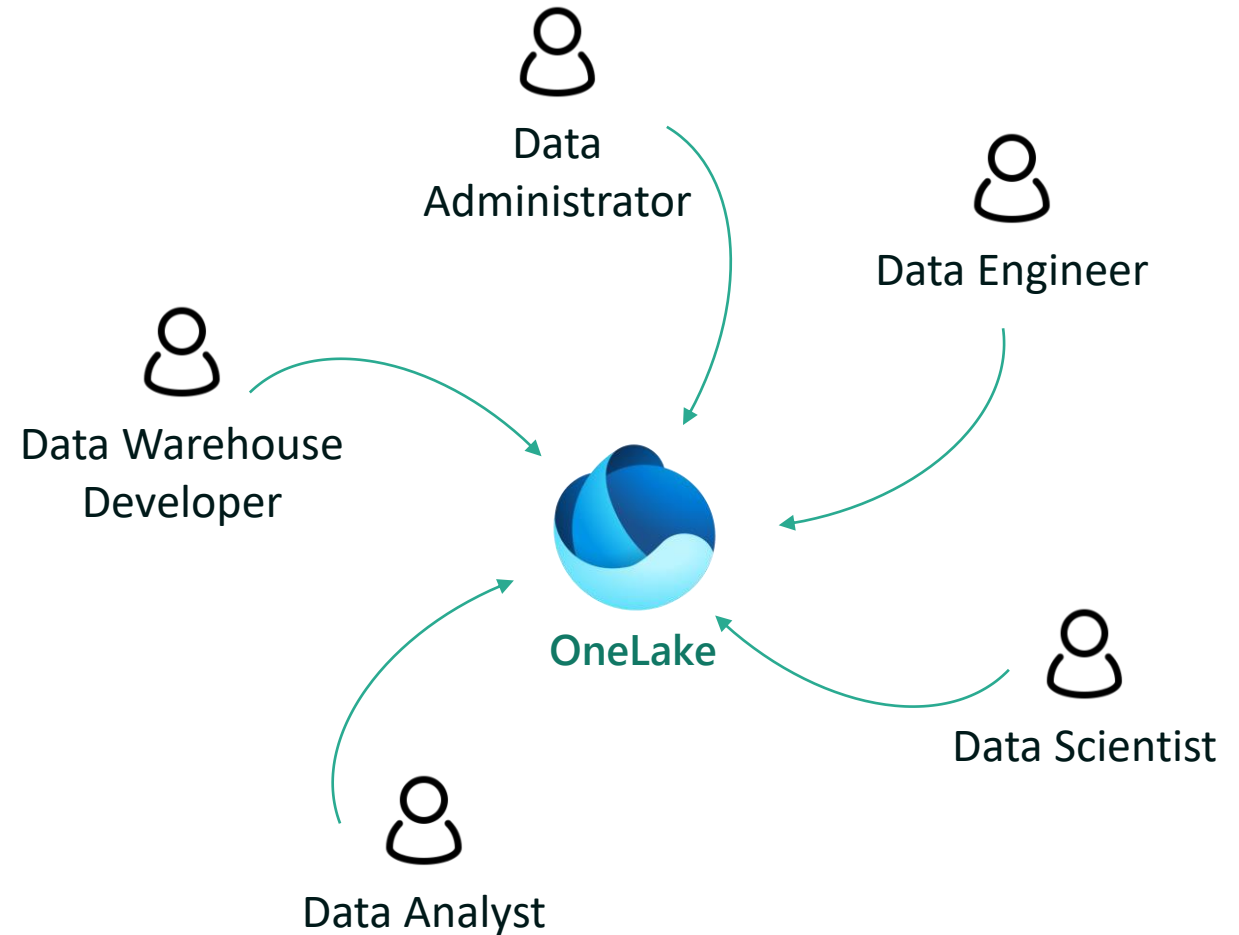


**OneLake**

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# Data Factory

Ingestion and orchestration

## Dataflows gen 2

Power Query (M) engine from Power BI to prepare, clean and transform your data

## Data Pipelines

Ingest data, orchestrate your dataflows and execute Jupiter Notebooks



# Data Engineering

Write notebooks, Store data in lakehouse and define spark jobs

## Lakehouse

The traditional data lake to store huge amounts of data in various formats

## Notebooks

Apache Spark Jupiter Notebooks to explore data and build Machine Learning Models

## Spark Jobs

Define execution of Notebooks





# Data Science

## Machine Learning

### Experiments

Use multiple models to track and validate thesis' and govern your models for accuracy

### Model

Build Machine Learning models

### Notebooks

Apache Spark Jupiter Notebooks to explore data and build Machine Learning Models



# Data Warehouse

The "SQL" server for delivering data to the business



## Warehouse

The "SQL" server to provide capabilities like tables, views, stored procedures, functions and security to the business users and applications



# Real-time Analytics

Get near-real-time insights from IoT devices and other streaming sources

## KQL Database

Extremely fast storage and querying of structured and unstructured data

## KQL Queryset

KQL queries in the data to provide new insights in near-real-time delivery

## Eventstream

Capture data from various streams, transform it and store it several places – all at once



# Power BI

Reporting and analytics based on OneLake and the new Direct Lake storage mode

## Direct Lake

Instant rendering with Direct Lake, the most ambitious data processing engine ever.

## Power BI

Reports and visualisations (as we are used to)

## Copilot

Chat GPT engine to help us build reports and visualisations (not available yet)



# Copilot in Power BI



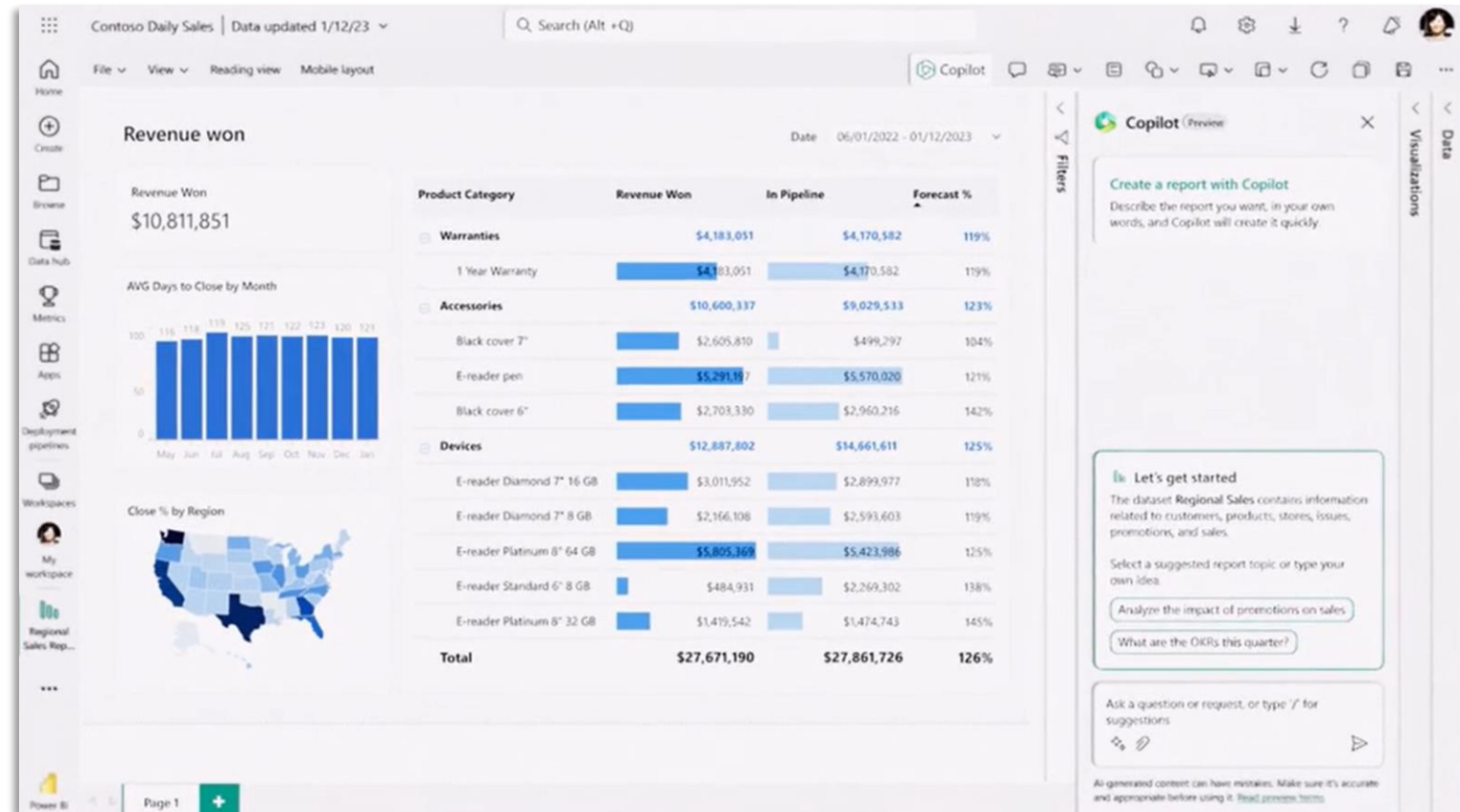
REPORT



COPILOT

Create a report, from a simple text prompt with Copilot for Power BI – and much more!

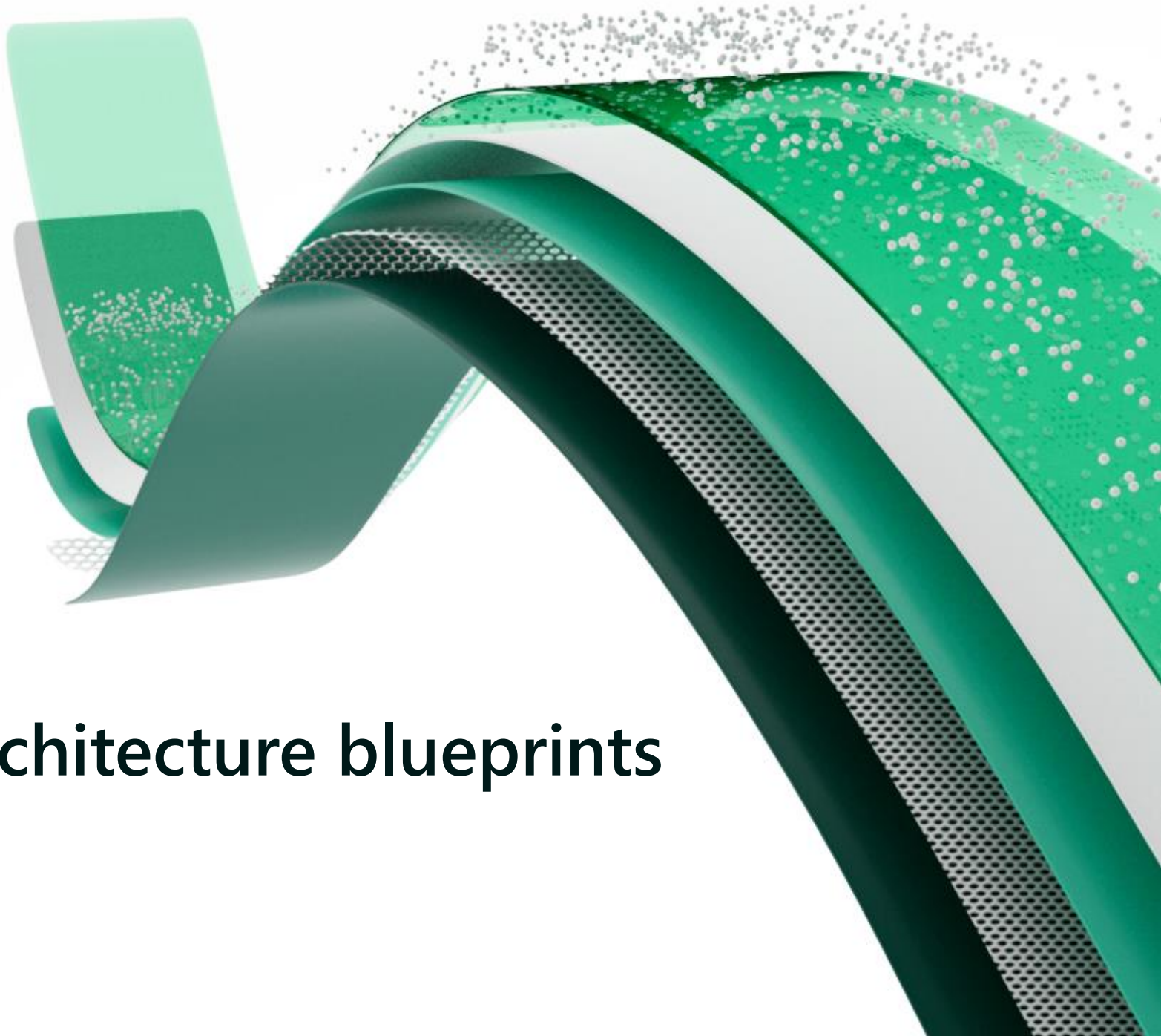
Using Copilot, you can simply describe the visuals and insights you're looking for, and Copilot will do the rest – Enabling you to get more done and create more value from their data.





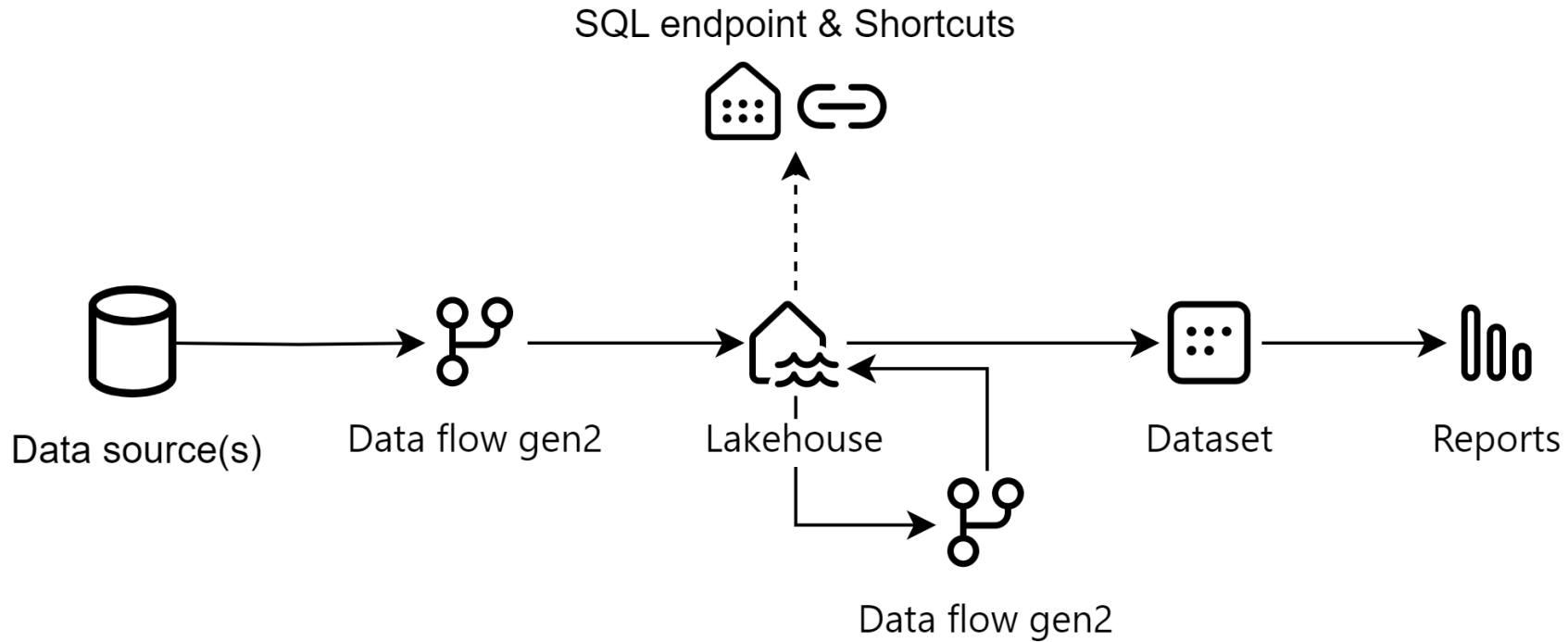
# 4

Architecture blueprints



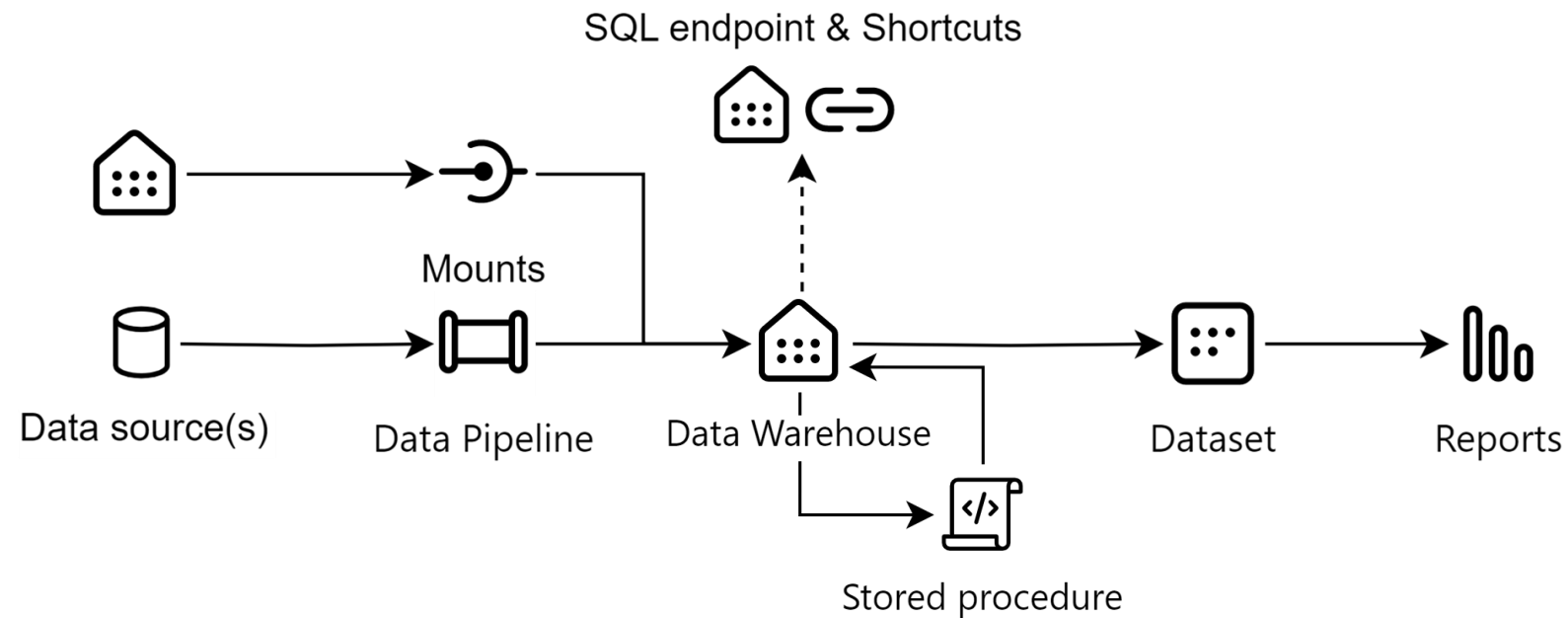
# Architecture Blueprints

## Simple Solution



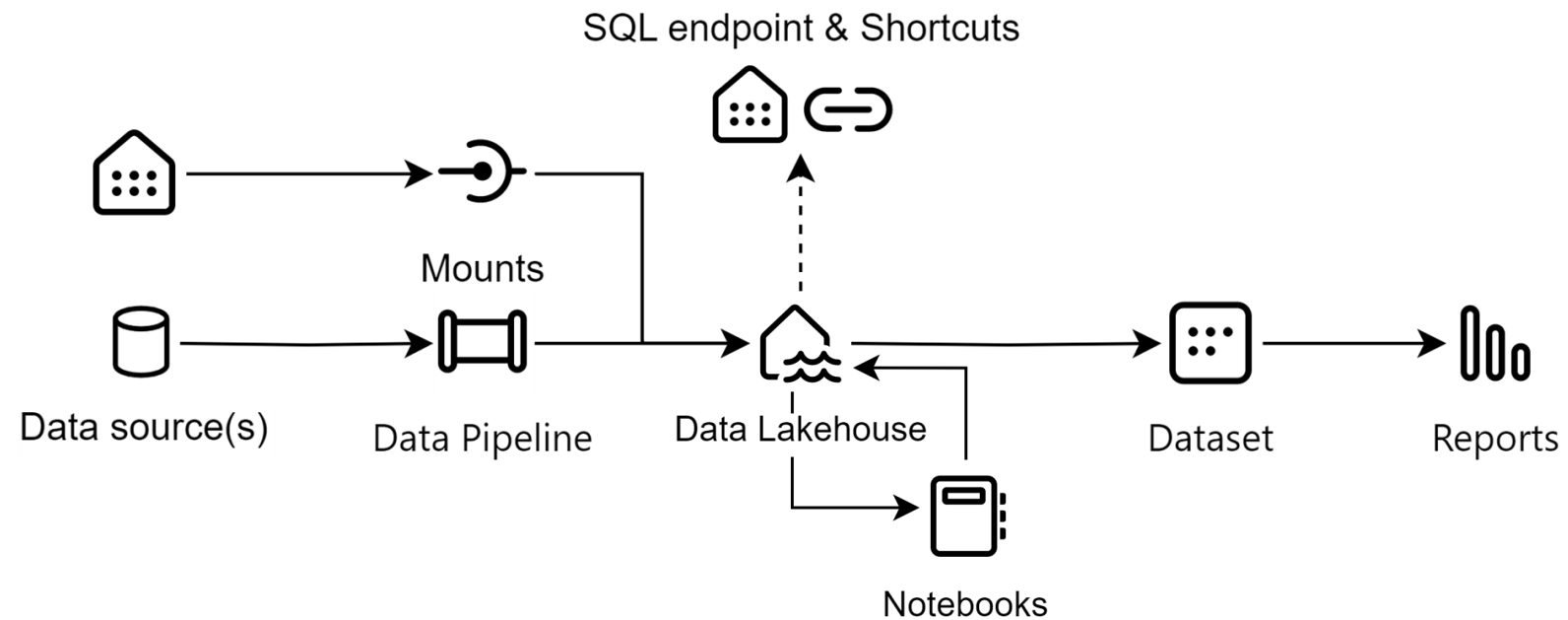
# Architecture Blueprints

## SQL-based Enterprise Data Warehouse



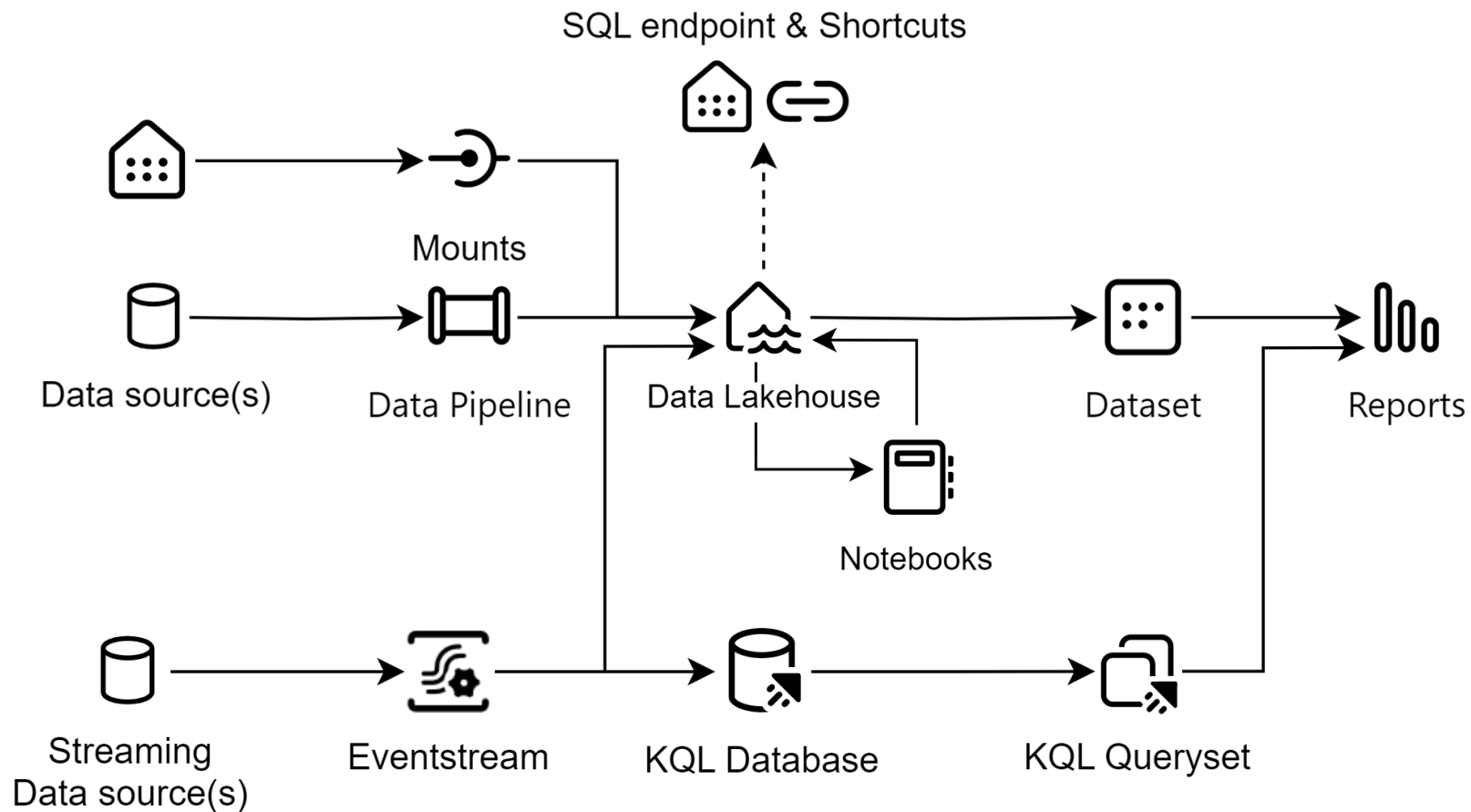
# Architecture Blueprints

## Data Lakehouse



# Architecture Blueprints

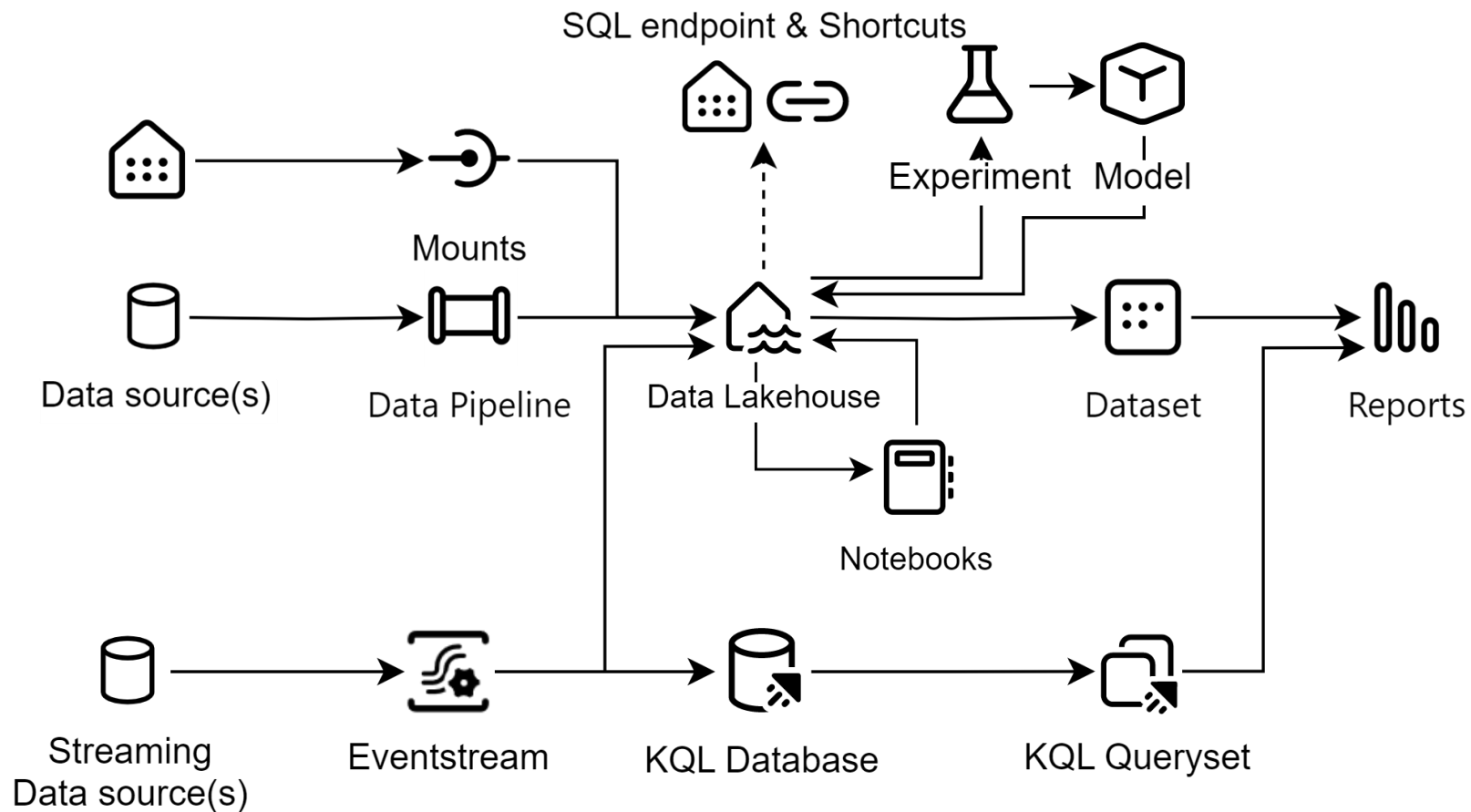
## Data Lakehouse + Real-time Analytics





# Architecture Blueprints

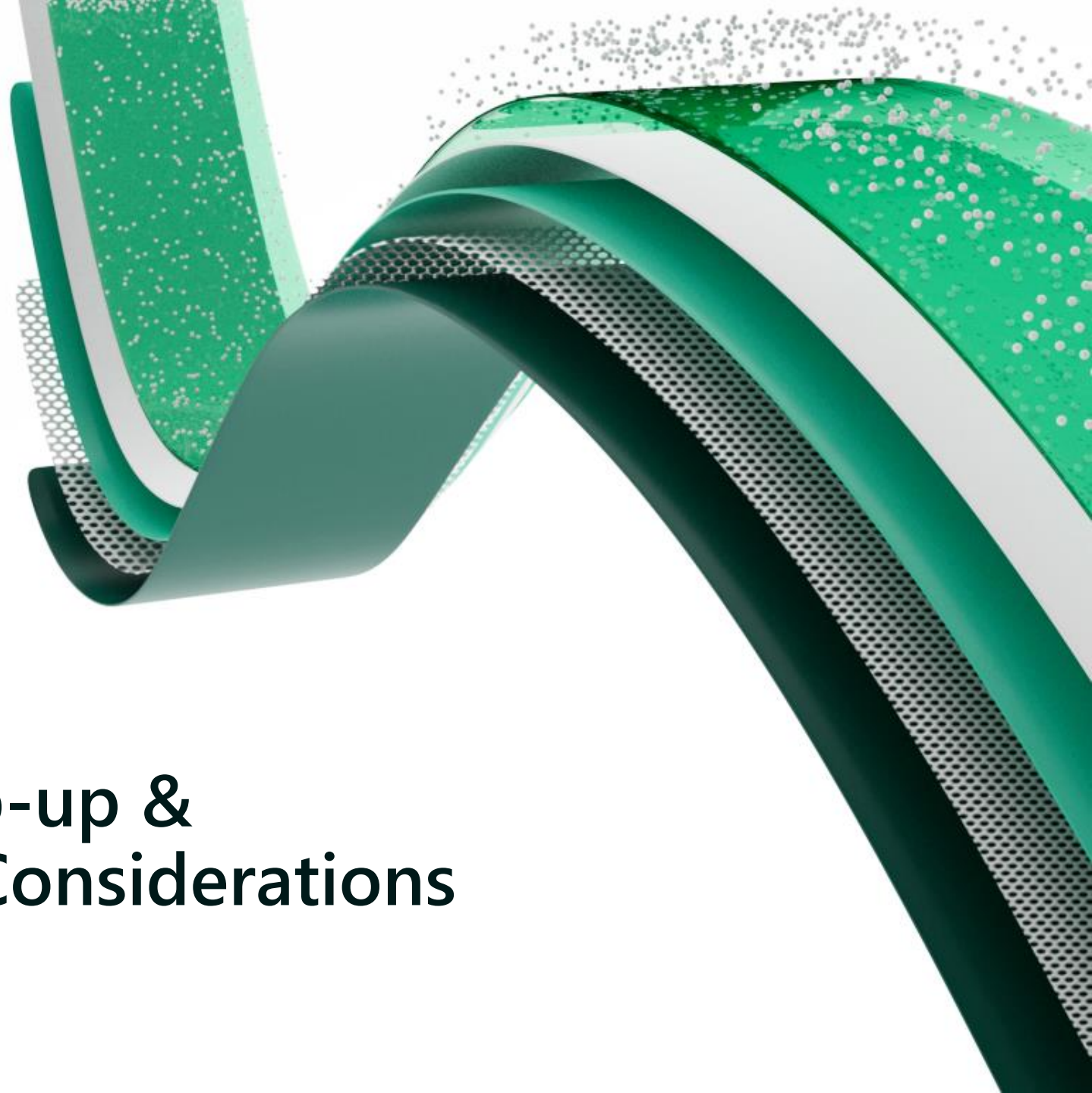
Data Lakehouse + Real-time Analytics + Machine Learning Workflow



# 5

End-to-end data platform  
(Demo)





6

## Wrap-up & Key Considerations

# Pricing and Consumption

Capacity planning

Storage:  
\$23 / TB / month



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