



envision
VIRTUAL SUMMIT SERIES
DATA & ANALYTICS

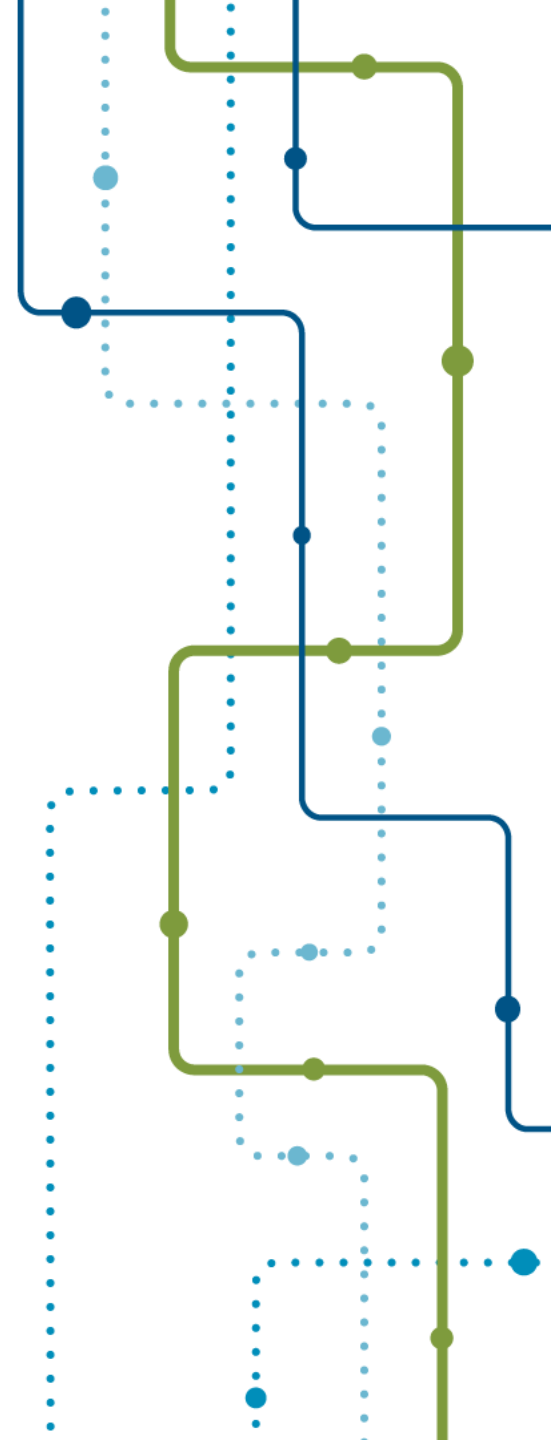
An End-to-End Journey through Microsoft Fabric

Wednesday, September 13, 2023

PRESENTED BY 3Cloud

Agenda

- What is Fabric
- Fabric Data Platform Journey





What is Fabric?

- Fabric is a **unified** and **simplified** platform for managing data and the various analytical **workloads** across the organization.
- Provides a single SaaS platform to increase time to insight and remove blockers for developers at all levels of the organization.

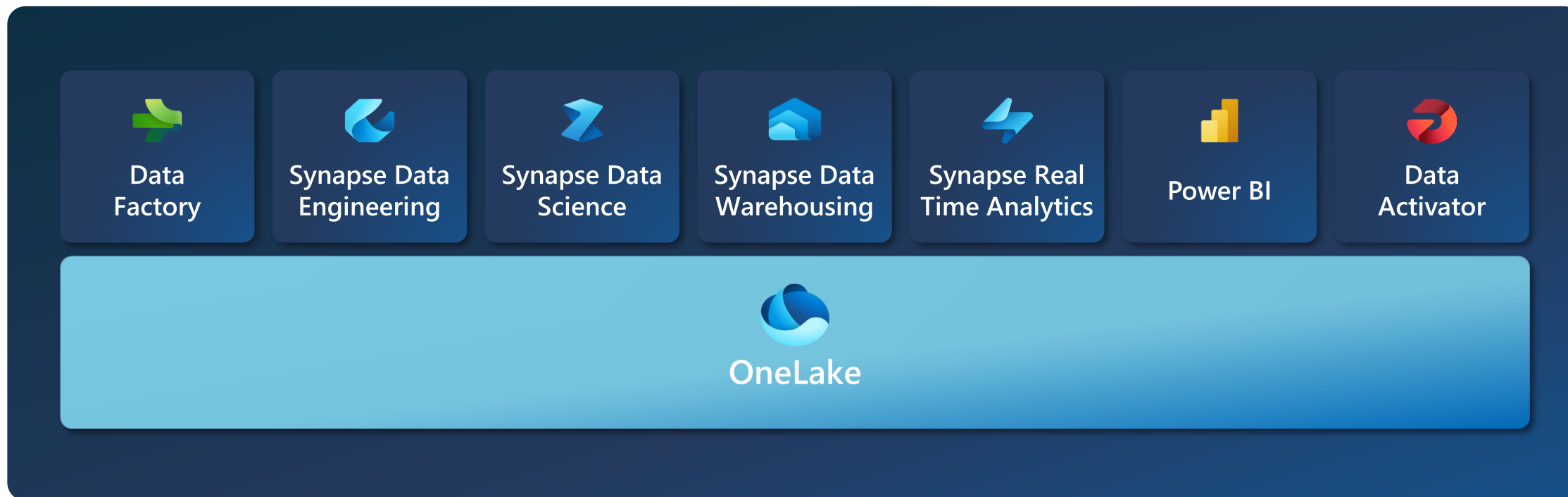


What is Fabric?

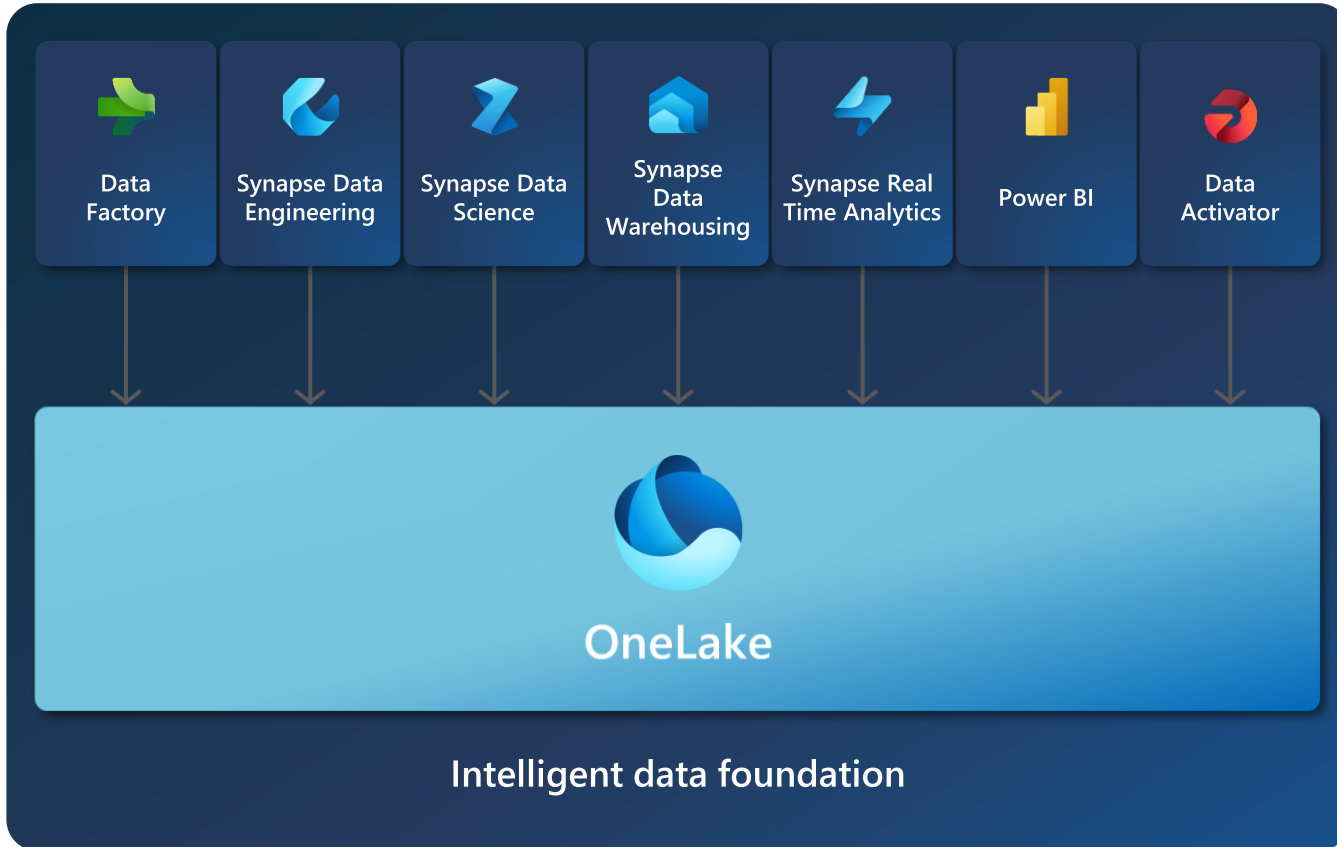
- Provide a **single source of truth** for your organizational data.
- Increase **data accessibility** and **democratization**.
- Improve **security, compliance, and governance** across different analytics workloads and processes.
- **Reduce management and integration overhead** by leveraging a shared platform.
- **Accelerate time to value** with open and flexible analytics solutions.

Fabric Workloads

Fabric streamlines existing Microsoft technologies into a single SaaS environment while leveraging a single data lake, OneLake.

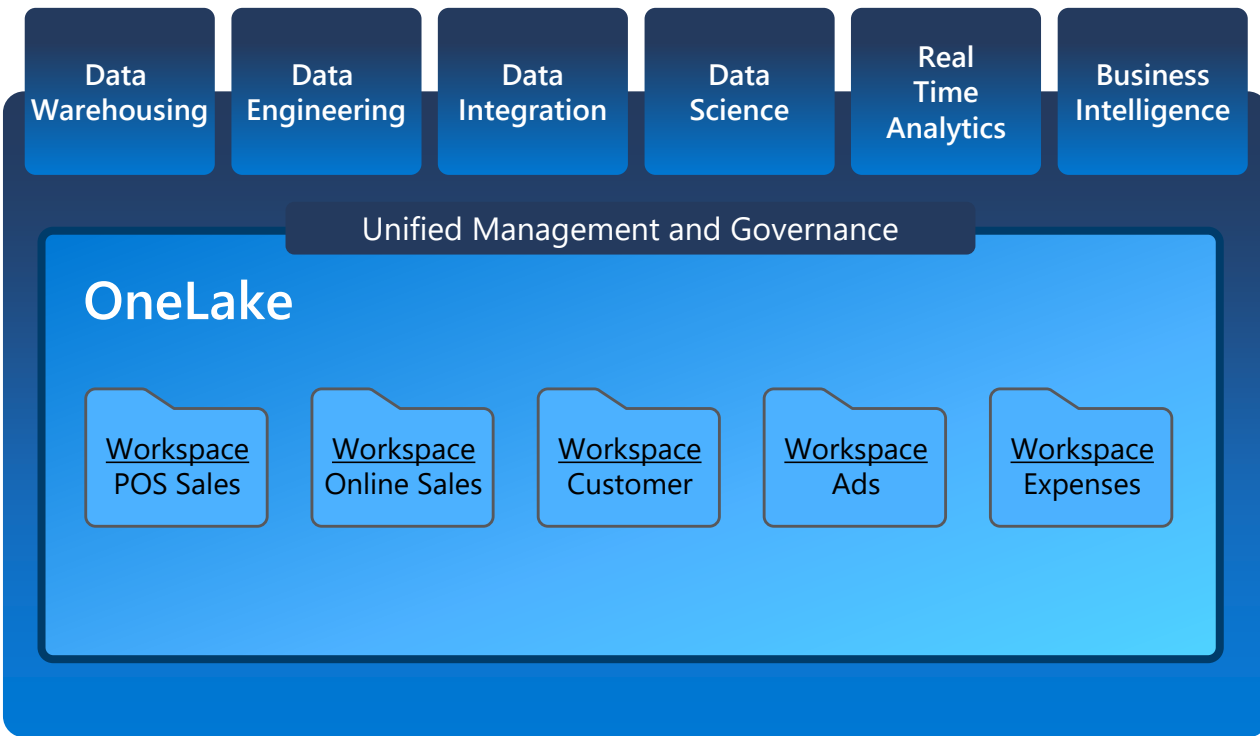


OneLake



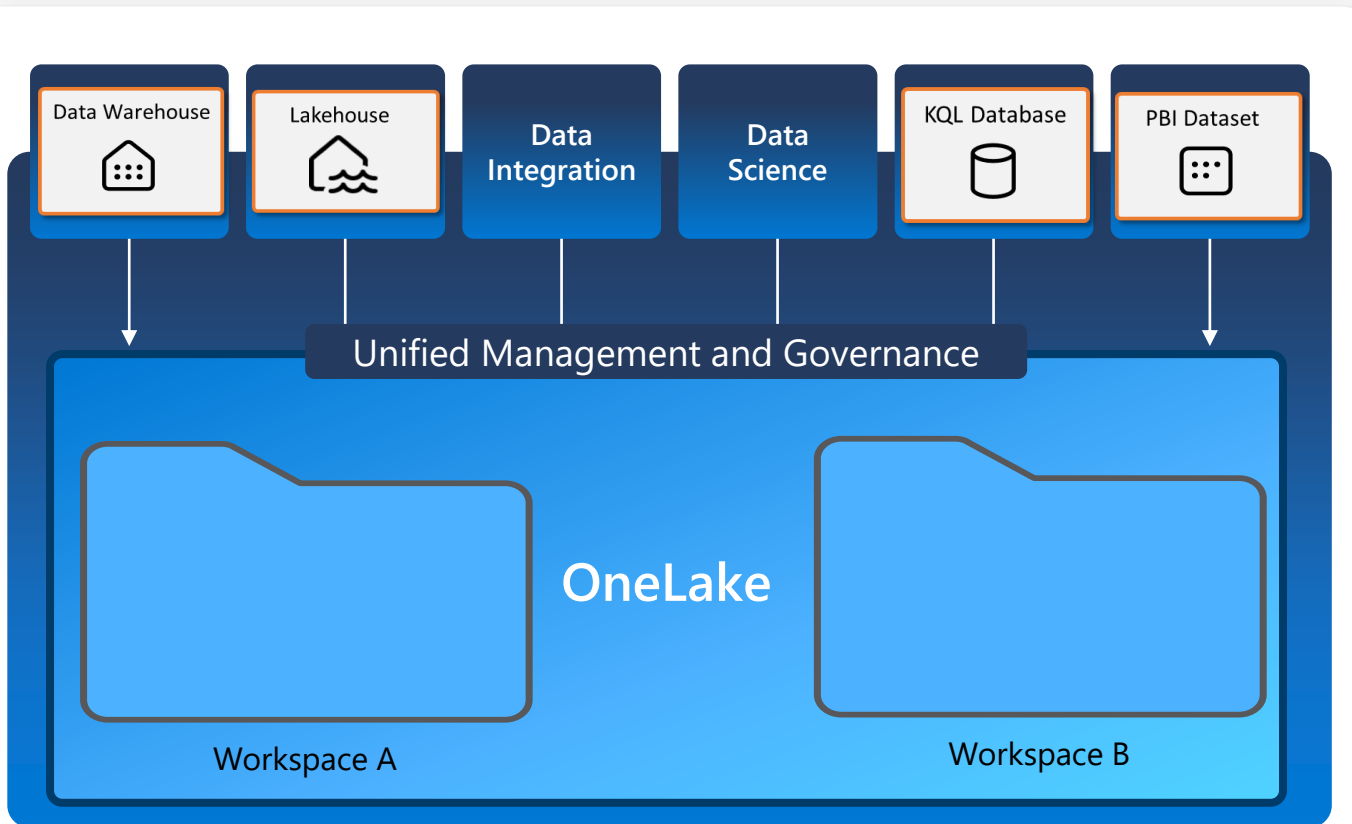
- Single, unified data lake for the entire organization, **removing data silos**.
- Enables all Fabric **workloads and users** to use the data from a single copy, **removing the need to duplicate data**.
- Full and **open access** using standard APIs and file formats.
- Data **automatically indexed** for discovery, governance, & compliance.

Workspaces



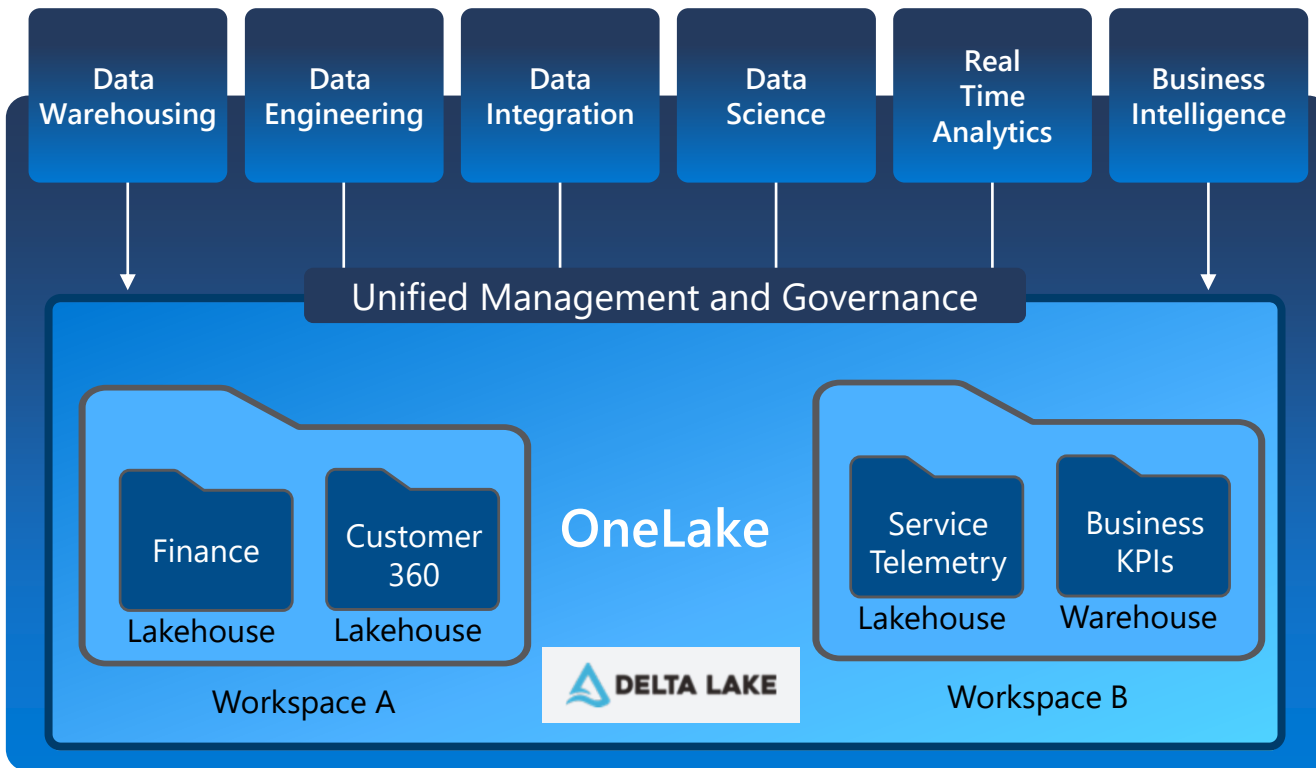
- OneLake enables distributed ownership through the use of workspaces.
- Workspaces can have their own administrator, access settings, geographical region, and capacity.
- Allows different users/business groups to contribute to OneLake, while maintaining control of their data.

Fabric Data Items



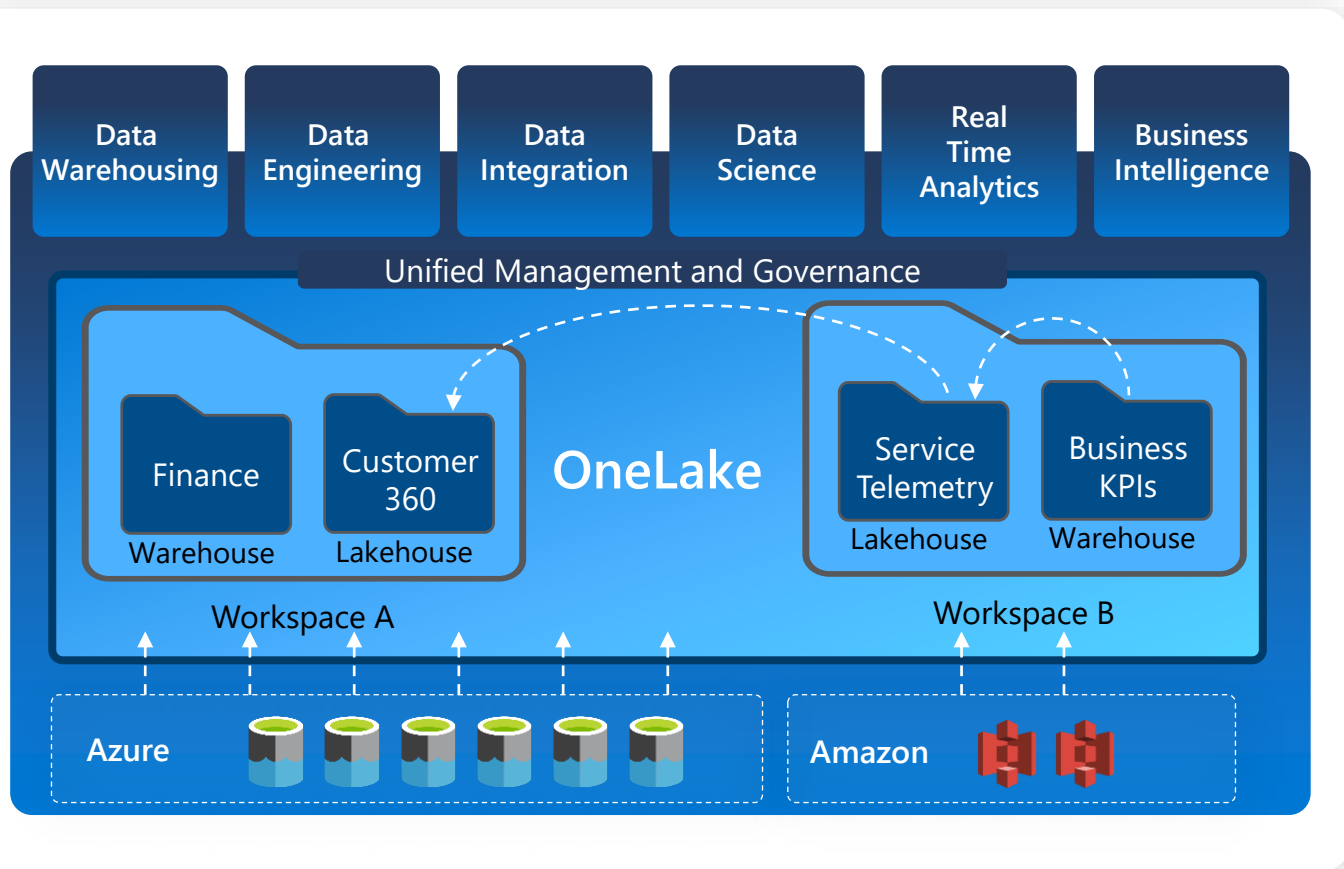
- All data is stored in **Fabric data items**, such as:
 - Data Warehouses
 - Lakehouses
 - KQL Databases
 - Power BI Datasets

Fabric Data Items



- Data is stored in a folder and files format, just like you experience in OneDrive.
- No proprietary data storage formats are used:
 - All data is stored in open file formats.
 - Tabular data uses **Delta Lake** format.

Shortcuts



- Shortcuts are **links** that point from one data location to another.
- Shortcuts allow for using **virtualized data** across items or workspaces **without duplication** or changing the ownership.
- Shortcuts can include data outside of OneLake and even **outside of Azure**.

Fabric Data Platform Journey

- Using a fictional scenario, we'll now take a data platform journey using Fabric to implement a data platform example using a medallion architecture pattern.



Fabric Data Platform Journey

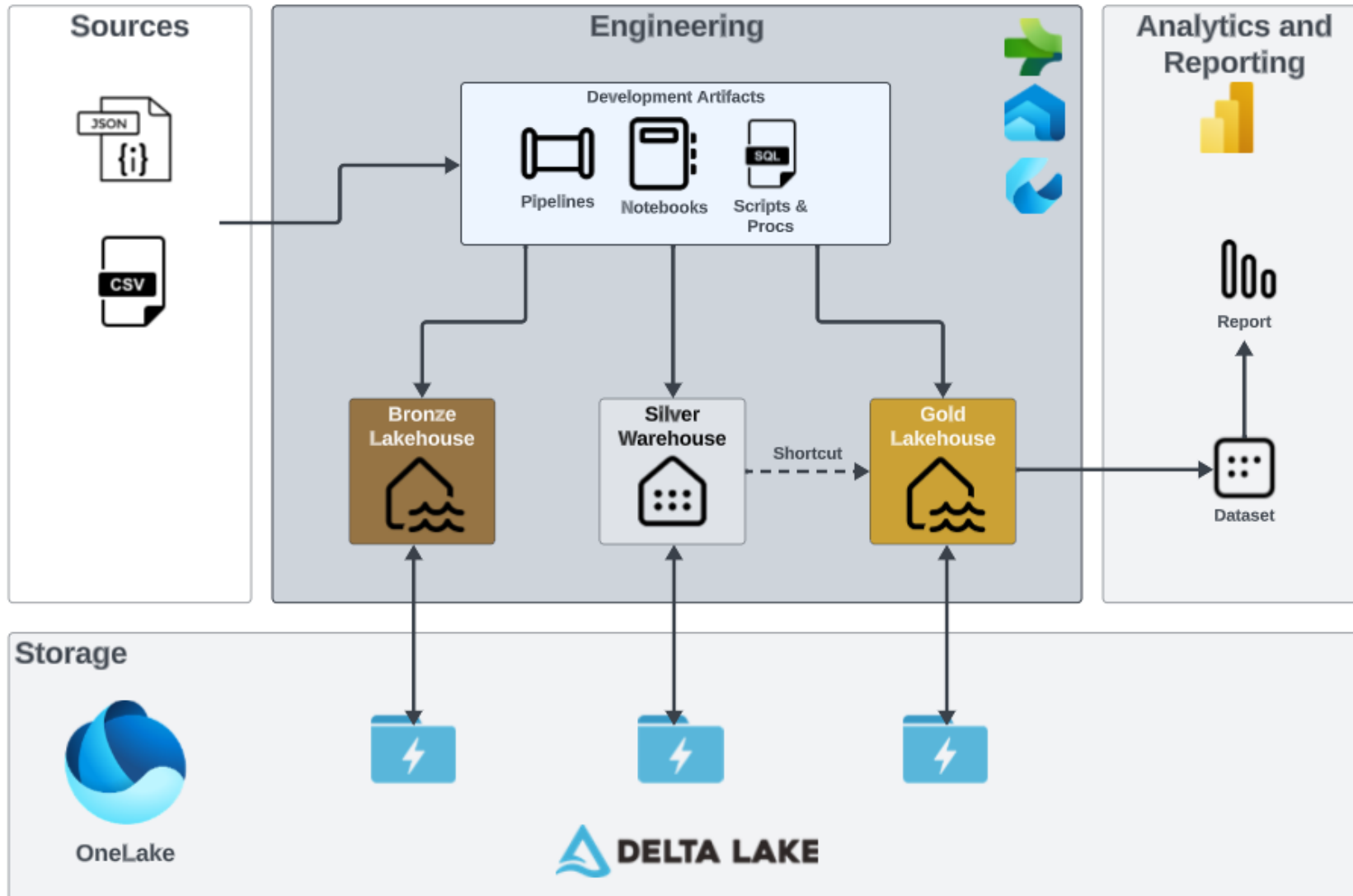
- Scenario
 - We're a Health Care organization that needs to assess the quality of care of our patients.
 - One of the ways we do that is by tracking the rate of routine procedures that our patient population is receiving. This is known as a Quality Measure.
 - We receive data feeds from multiple external organizations that report on the lab tests and results our patient population is receiving. This data can arrive in different formats with varying sets of attributes.

Fabric Data Platform Journey

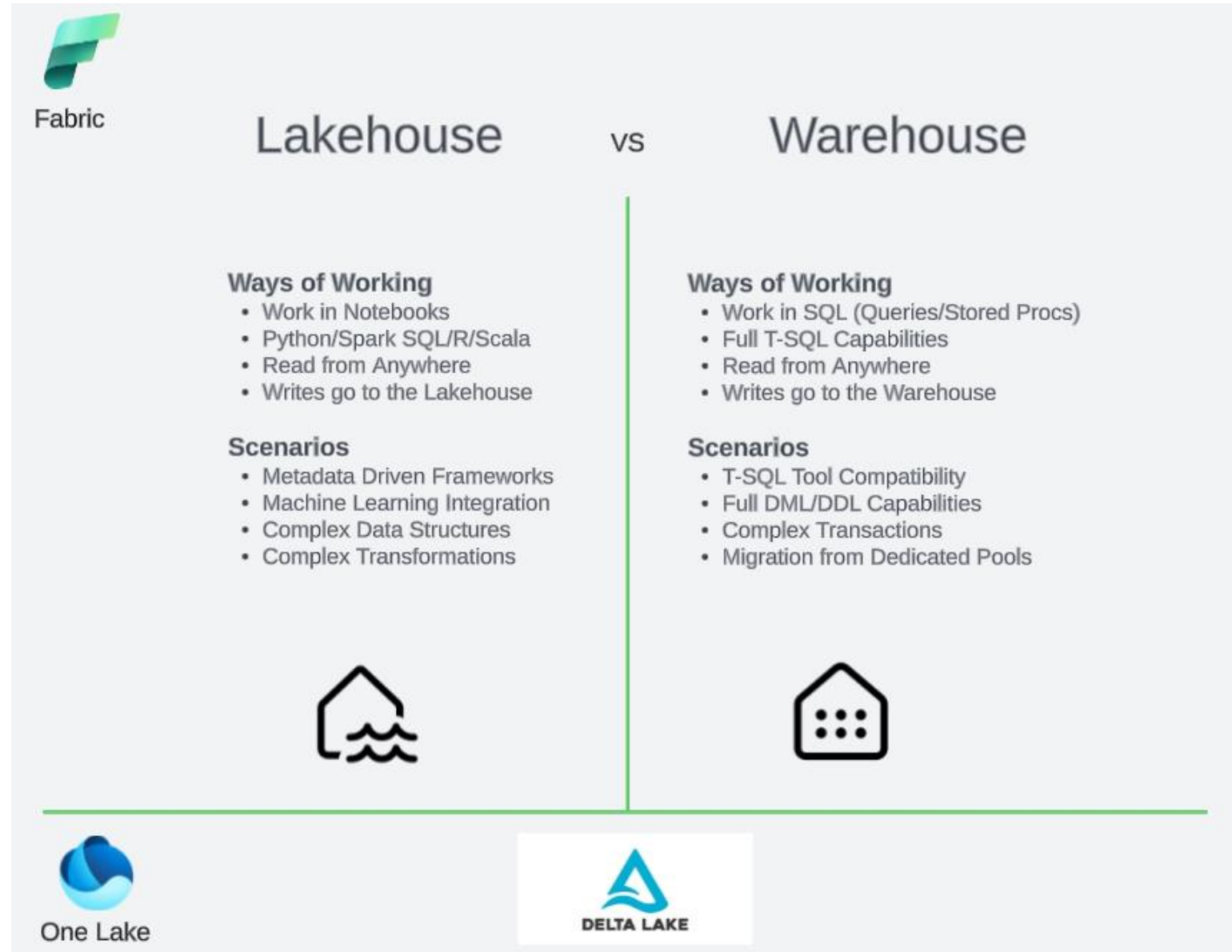
- Our Goal
 - Ingest the source data to a raw landing area
 - Transform the source data to a common model and relate it to existing organizational master data
 - Enrich the transformed data to a star schema enabling quality measure calculation and reporting
 - Publish a report tracking actual quality measures against goals



Fabric Data Platform Journey



Fabric Data Platform Journey



Fabric Data Platform Journey

Meet the Teams

Data Engineering Team

- Responsible for data ingestion and transformation
- Knowledge of data lakes, data modeling, python, and spark
- Works in Notebooks

Master Data Team

- Responsible for maintaining master data
- Knowledge of relational databases, data modeling, and SQL
- Works in SQL

Reporting and Analytics Team

- Responsible for report and visualization
- Knowledge of visualization design, DAX, M, and data modeling
- Works in Power BI

Fabric Data Platform Journey

- Build Plan

- Build Bronze

- Upload files to Bronze Lakehouse Files location
 - Load file data to Bronze Lakehouse Tables

- Build Silver

- Load master data to Silver Warehouse
 - Create Shortcut to Bronze Lakehouse
 - Transform Bronze data to Silver data

- Build Gold

- Load Dimension Tables in the Gold Lakehouse
 - Load Fact Tables in the Gold Lakehouse
 - Create Gold Reporting Model

- Build Report

- Build Quality Measure report from Gold model

- Artifacts

- Lakehouses
 - Warehouses
 - Data Factory Pipelines
 - Data Engineering Notebooks
 - Power BI Datasets
 - Power BI Reports

Fabric Data Platform Journey

- We'll be using the following Fabric Experiences for the Demonstration:
 - Data Factory
 - Data Engineering
 - Data Warehousing
 - Power BI
- We're not looking at everything
- Let's Go!!



Liked what you saw? Join us for a Fabric Workshop



3CLOUD SOLUTION

Microsoft Fabric Workshop

Microsoft Fabric reshapes how everyone accesses, manages and acts on data and insights by connecting every data source and analytics service together – on a single, AI-powered platform.

Your organization no longer needs to stitch together individual analytics services from multiple vendors. Instead, use a streamlined solution that's easy to connect, onboard and operate. All your data in one place, that is accessible to all teams across the business.

Unpack Microsoft Fabric and reshape how your entire team uses data for a competitive advantage.

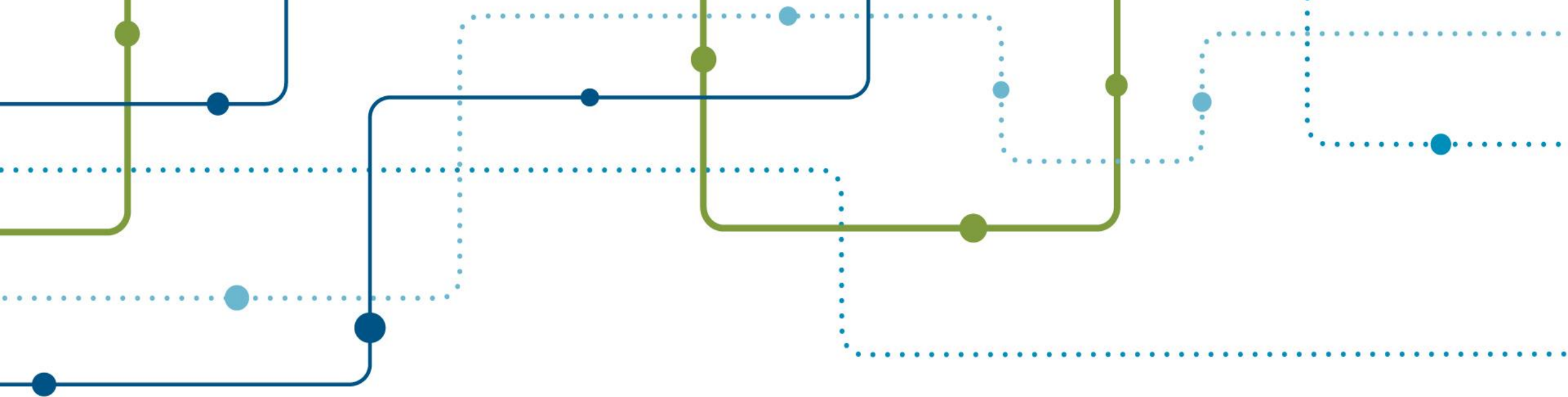
LEARN MORE

BOOK NOW

[Microsoft Fabric Workshop \(3cloudsolutions.com\)](https://3cloudsolutions.com)



Q & A



Thank You

