

DP-203 Microsoft Azure Data Engineer

Day9 – Azure Synapse Analytics

2nd Aug 2021

Vinodkumar Bhovi

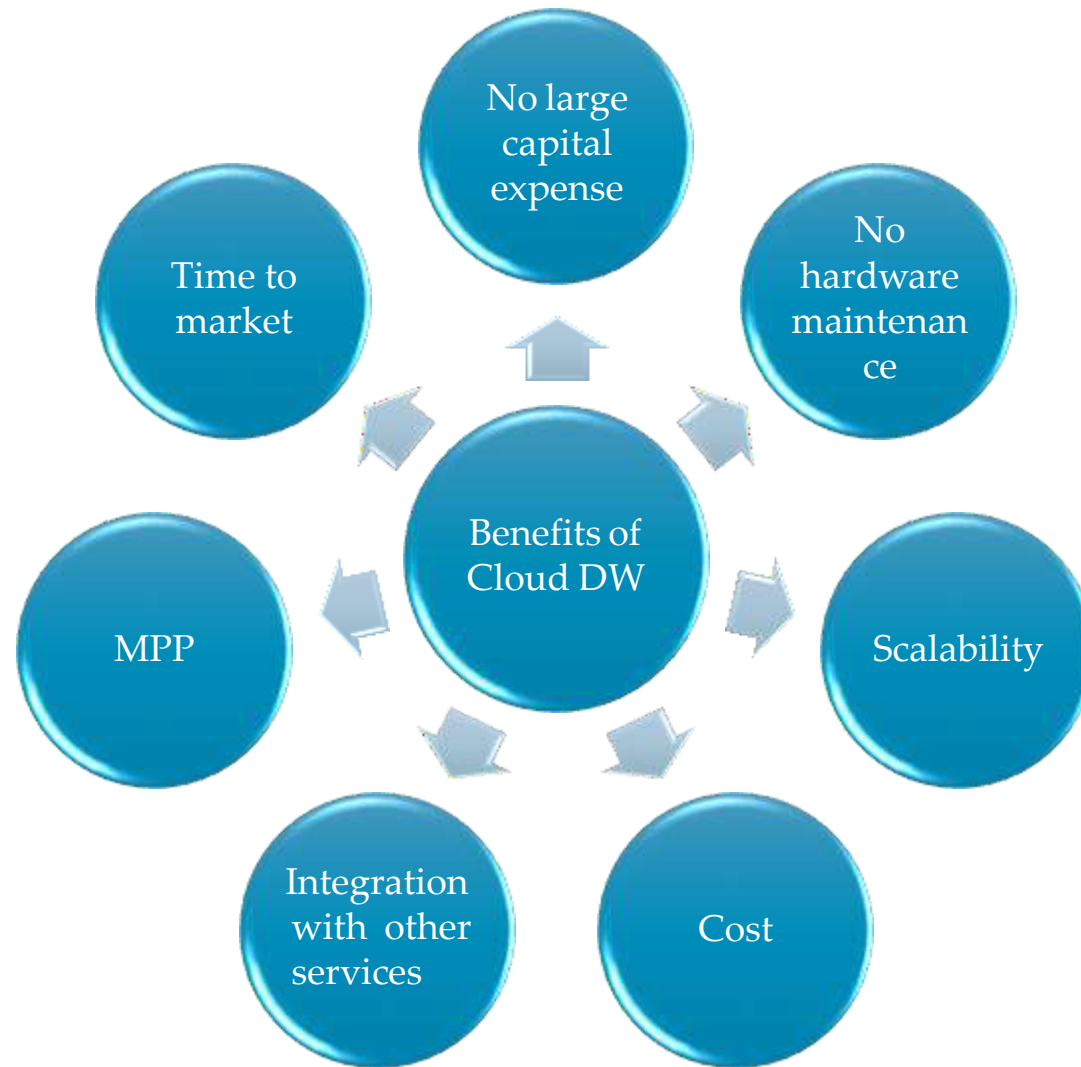
Introduction

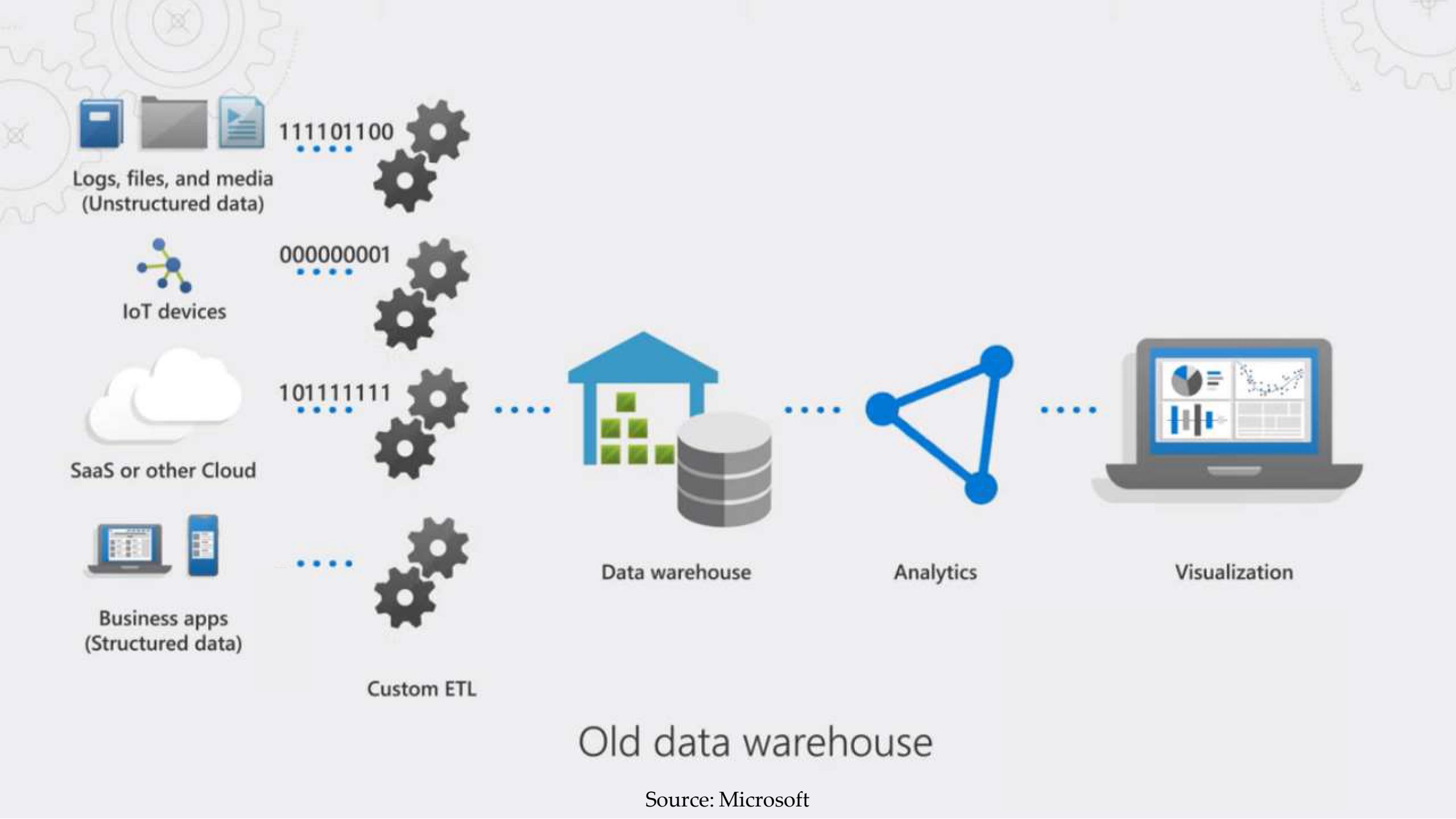
- Why Warehousing in Cloud
- Azure Synapse Service – a Game Changer
- Traditional vs Modern DW
- Architecture Modern vs Synapse DW
- Architecture Azure Synapse Studio – Unified Experience



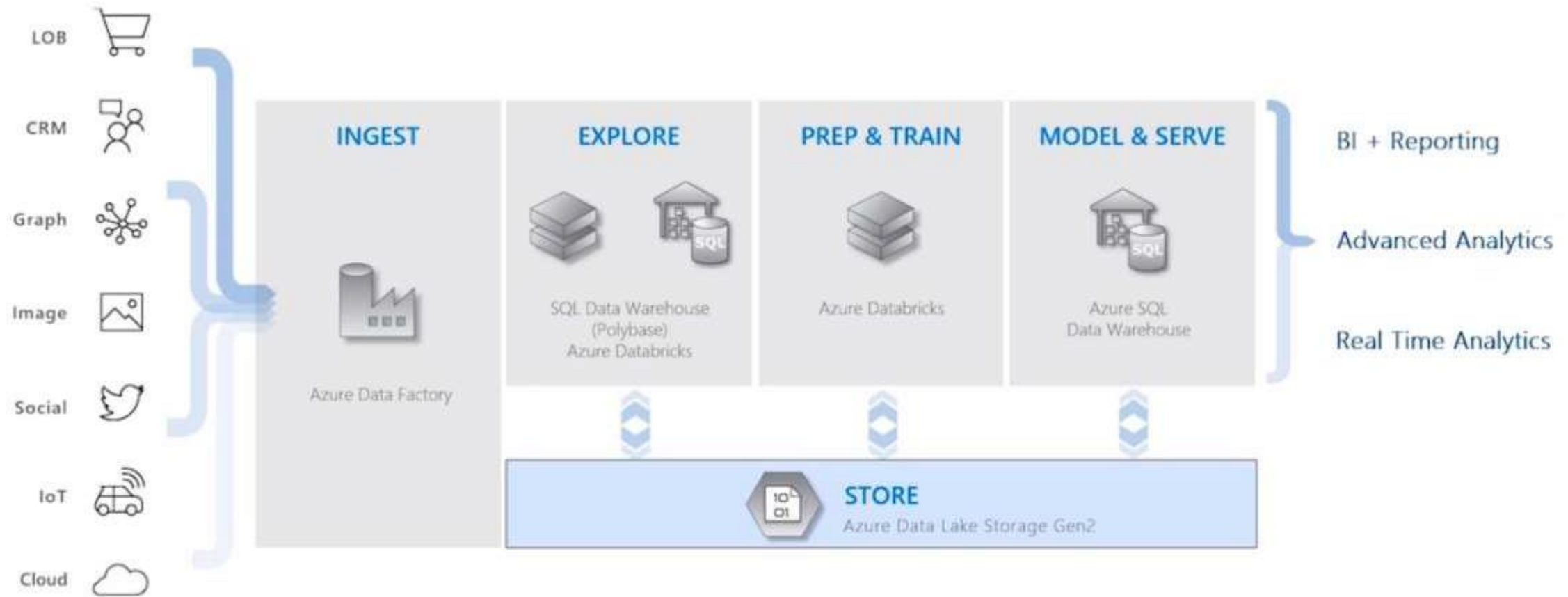
**Azure
Synapse
Analytics**

Why Warehousing in Cloud?

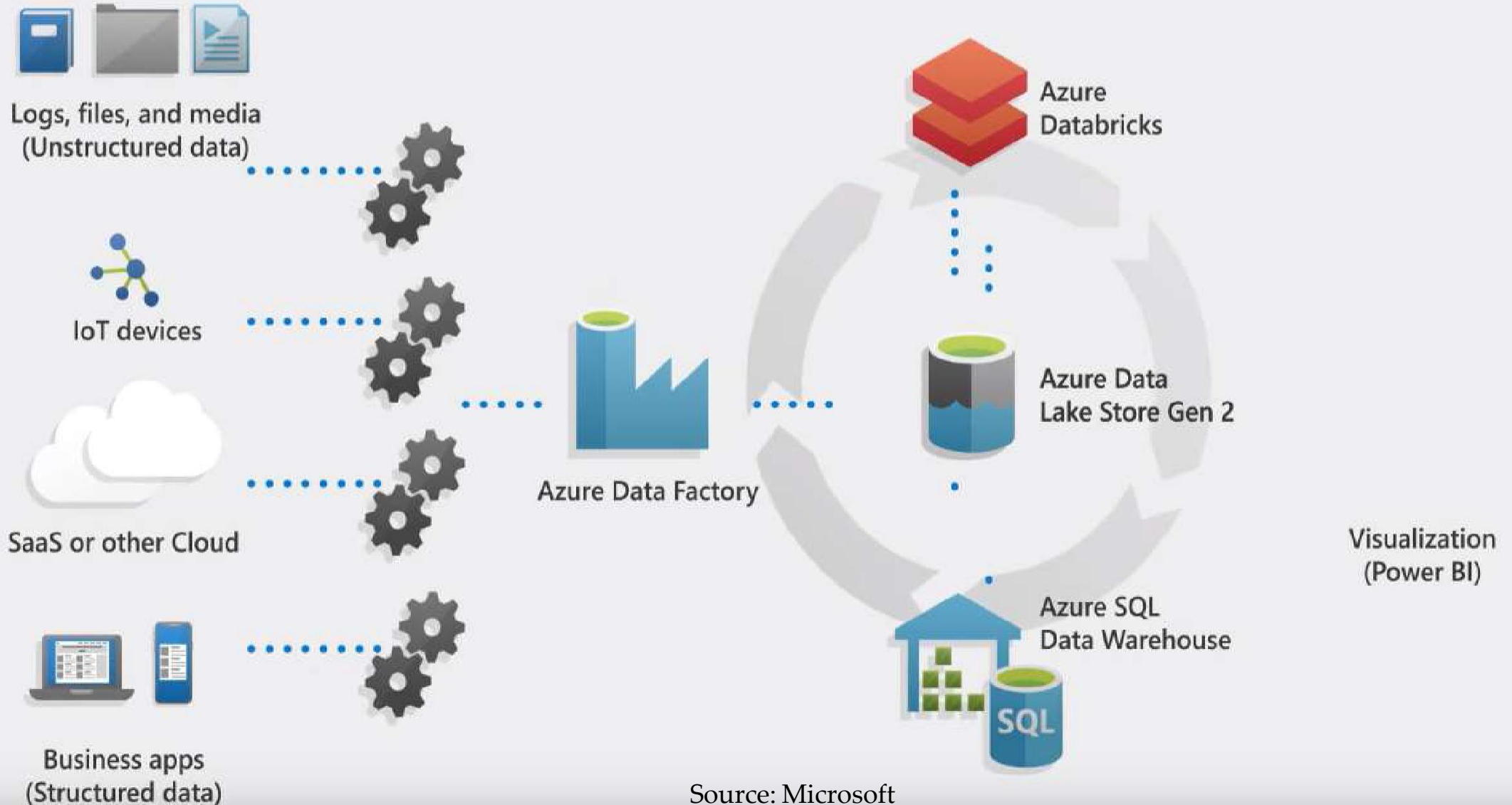




Modern Data Warehousing



Modern Data Warehouse

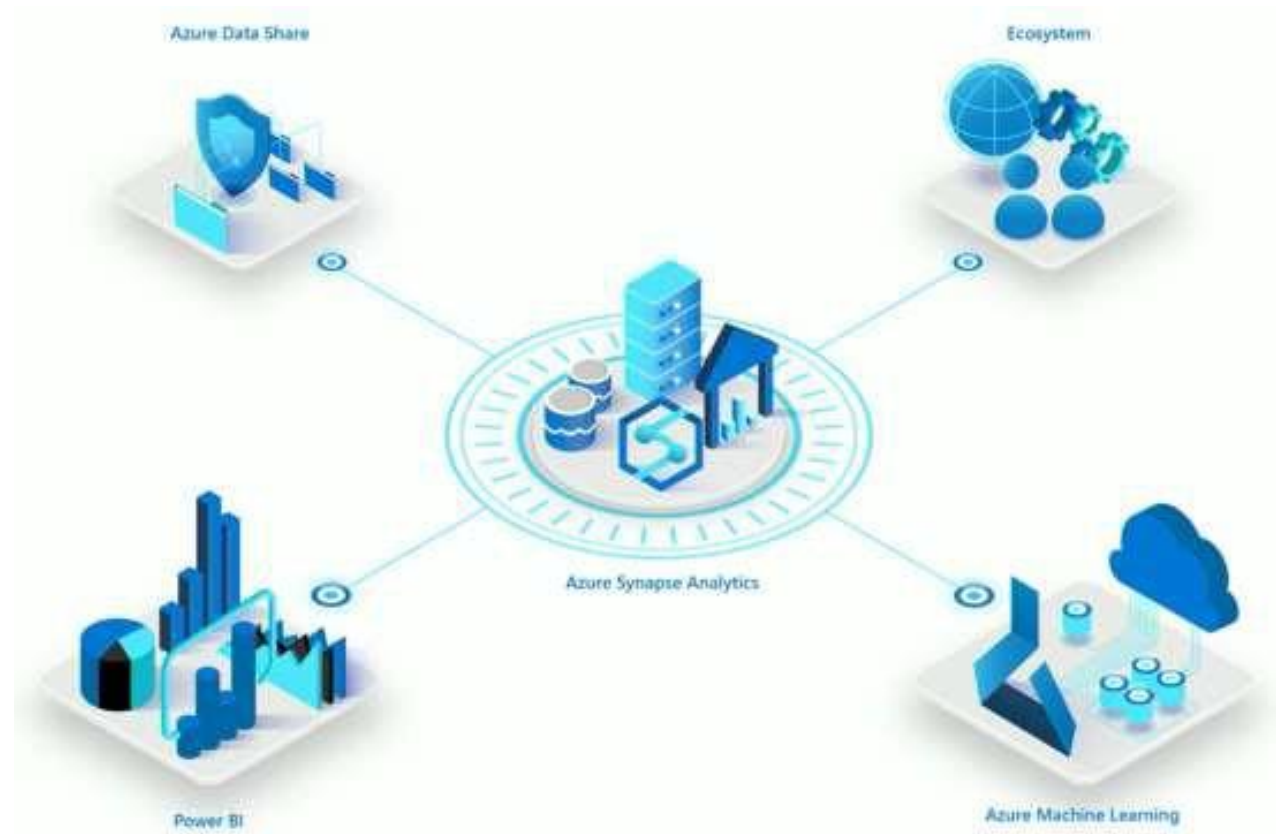


Source: Microsoft

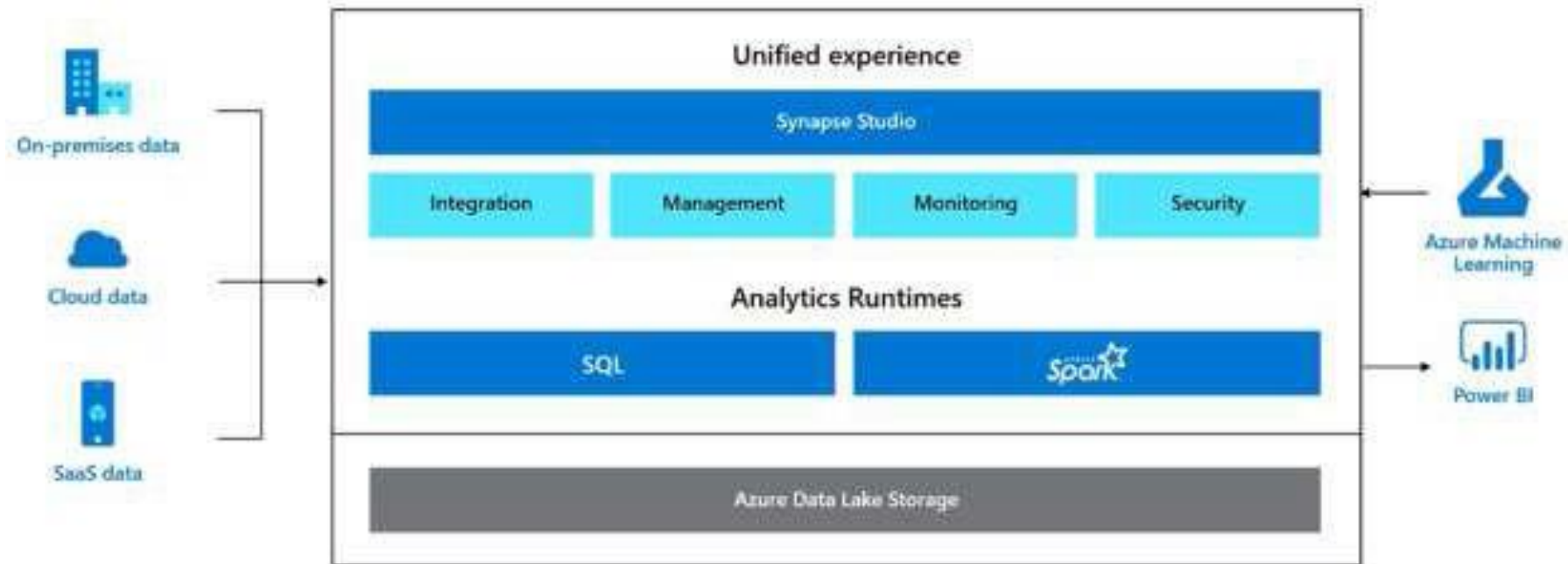
Azure Synapse Analytics

"Synapse is the next generation of Azure SQL Data Warehouse, blending big data analytics, data warehousing, and data integration into a single unified service that provides end-to-end analytics with limitless scale."

Azure Synapse Analytics



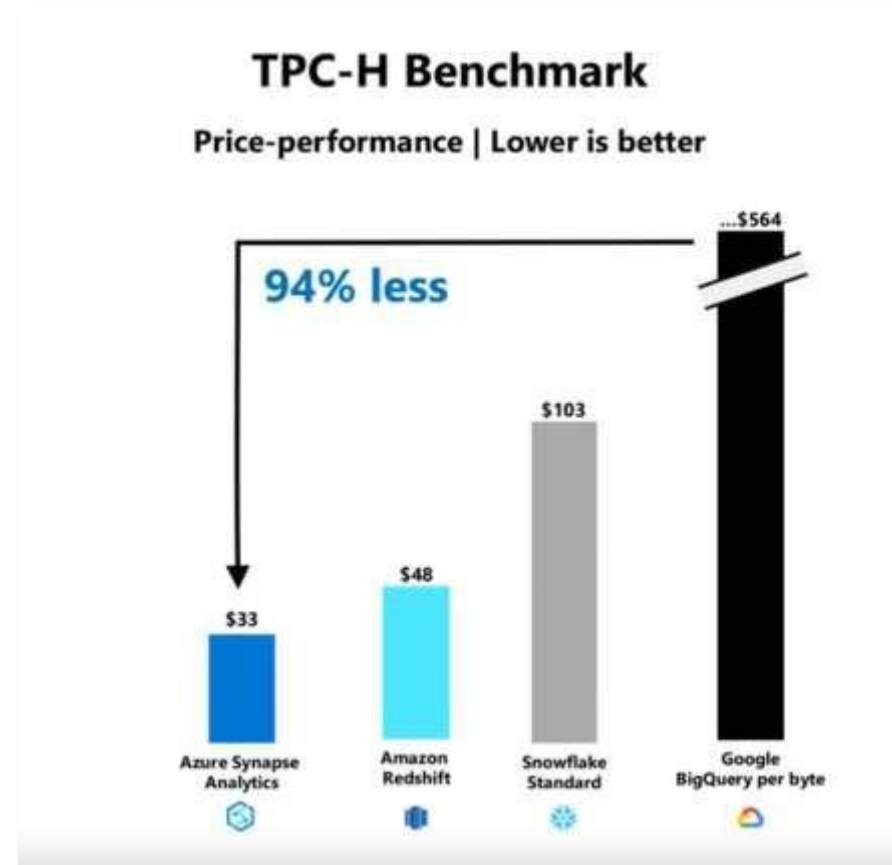
Azure Synapse Analytics



Unparalleled price-performance

Up to 14x faster

Costs 94% less than other cloud providers



Azure Synapse Analytics



Limitless Scale



Powerful Insight



Unified Experience



Security



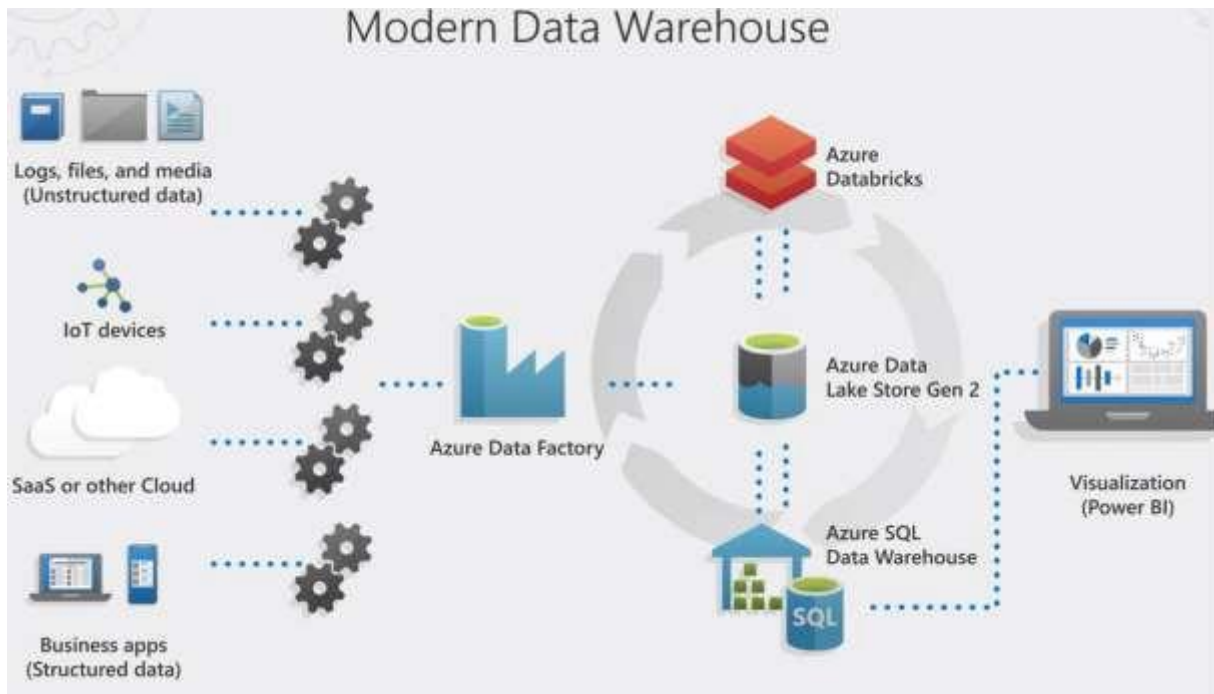
Code free data
orchestration



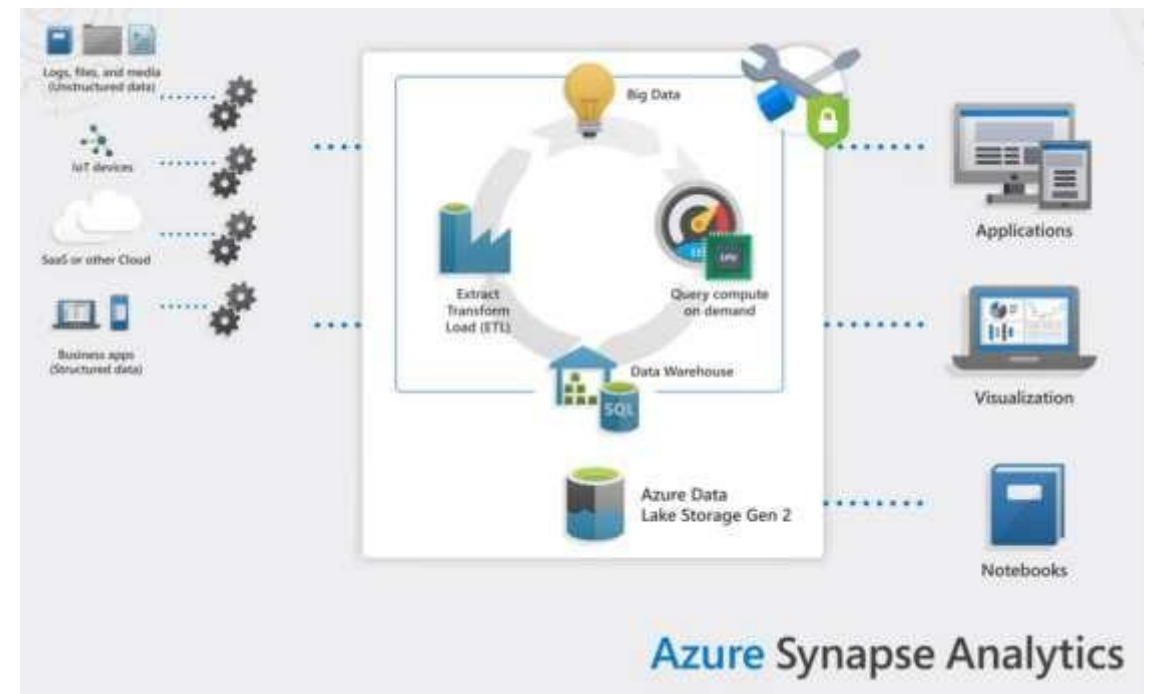
Choice of Language

Source: Microsoft

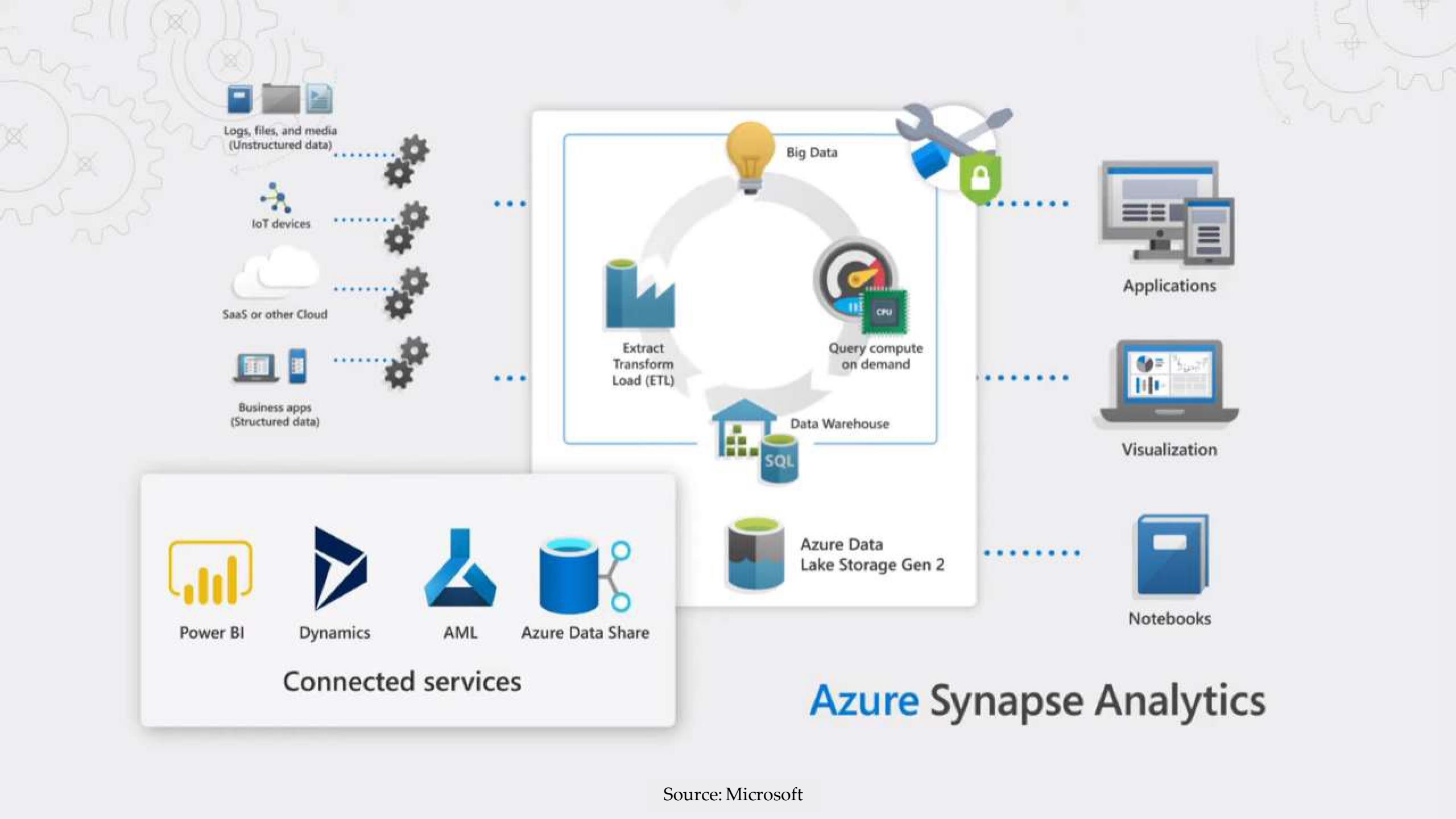
Modern vs Synapse Architecture



Modern Data Warehouse Architecture



Synapse Analytics Architecture



Logs, files, and media
(Unstructured data)

IoT devices

SaaS or other Cloud

Business apps
(Structured data)

Big Data

Extract
Transform
Load (ETL)

Query compute
on demand

Data Warehouse

Azure Data
Lake Storage Gen 2

Applications

Visualization

Notebooks



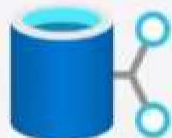
Power BI



Dynamics



AML



Azure Data Share

Connected services

Azure Synapse Analytics

Azure Synapse Analytics



On-premises data

Oracle, SQL, Teradata, fileshares, SAP



Cloud data

Azure, AWS, GCP



SaaS data

Salesforce, Dynamics



Azure Synapse Analytics

STORE

Azure Data Lake Storage

VISUALIZE



Power BI

Demo – Provision Azure Synapse Service

1. Create SQL Server
2. Create Synapse SQL Pool (Azure SQL Data Warehouse)
3. Pause/Resume Compute Node
4. Create Firewall Rule
5. Connect with Microsoft SQL Server Management Studio



Azure
Synapse
Analytics

Azure Synapse Studio



Azure
Synapse
Analytics



Synapse workspace contosodemo

New ▾



Ingest

Use the copy data tool to import data once or on a schedule.

Explore

Learn how to navigate and interact with your data.

Analyze

Learn how to use SQL or Spark to get insights from your data.

Visualize

Build interactive reports with integrated Power BI capabilities.

Resources

Recent Pinned

NAME	LAST OPENED BY YOU
AMLautoMLPredict	a minute ago
PrepTaxiData	a minute ago
DWSQLQuery1	2 minutes ago
ondemandSQLQuery	

Source: Microsoft

Useful links

[Synapse Analytics overview](#) 🔗
Discover the capabilities offered by Synapse and learn how to make the most of them.

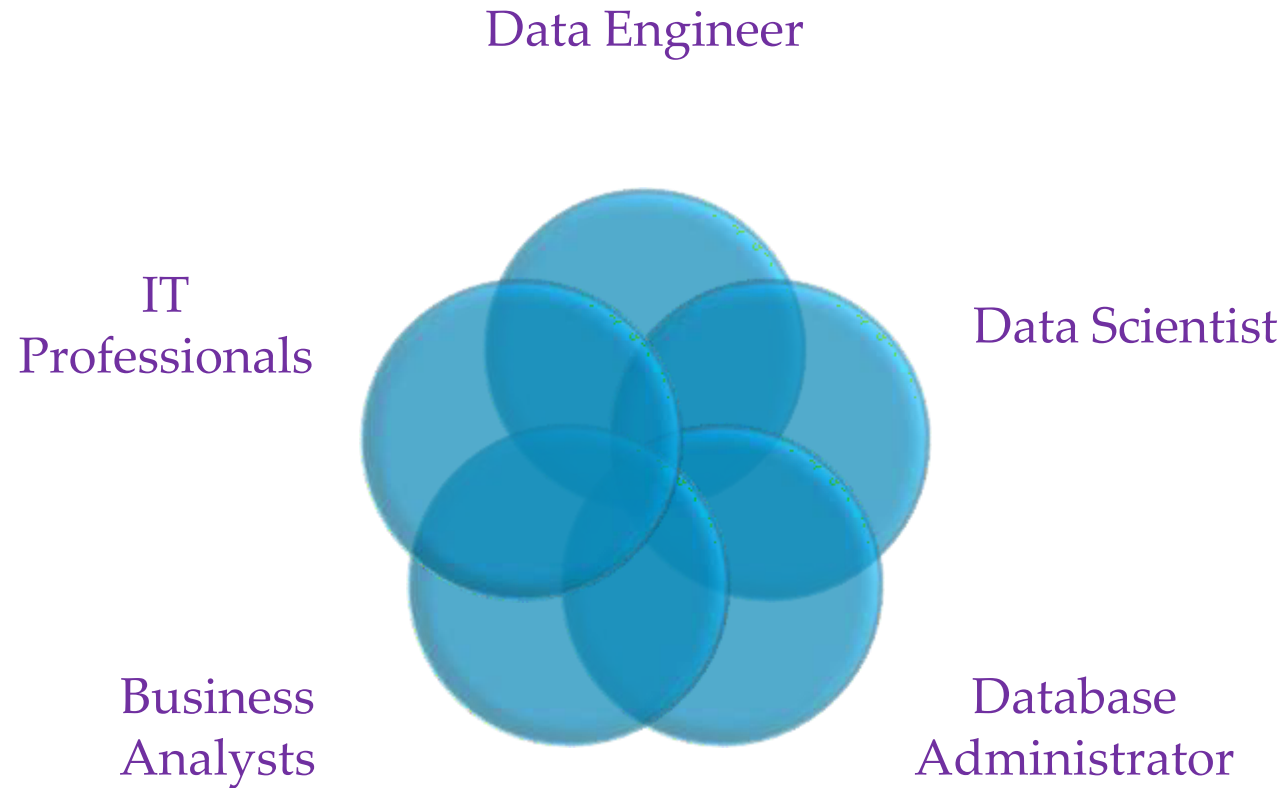
[Pricing](#) 🔗
Learn about pricing details for Synapse capabilities.

[Documentation](#) 🔗
Visit the documentation center for quickstarts, how-to guides, and references for PowerShell, APIs, etc.

[Give feedback](#) 🔗
Check your comments or suggestions with us to improve Synapse.

Azure Synapse Analytics

Unified experience for all data professionals



Thank you!