



Modern Data Platform on Microsoft Azure



Business Events that trigger Data Estate Modernization

Tactical



Reduce
TCO



Adopt
Open-Source



Security &
Compliance



Simplify
Operations



Optimize
Performance

Strategic



Unlock Insight from
latent Data



New Business
Initiatives



Digital
Transformation

Data is key... The digital feedback loop



Empower employees



Transform products



Optimize operations



Engage customers



With Azure, we not only get an intelligent cloud, we get an intelligent edge, which helps us automatically identify and respond to safety hazards in near real time.

DANIEL JEAVONS

General Manager for Data Science, Shell





**Embrace digital
transformation**

Azure Data

Powering the Modern Data Estate



Data modernization
to Azure



Cloud scale
analytics

Data Modernization to Azure

A Comprehensive Operational Data Portfolio

Relational



SQL Server



SQL Server VM
(any cloud)



Azure
SQL Database



Azure Database
for PostgreSQL



Azure Database
for MySQL



Azure Database
for MariaDB



Azure
Cosmos DB

Non-relational

20 million

downloads of SQL Server

5 million

instances of relational
databases in Azure

100 trillion

transactions per day on
Azure Cosmos DB

500 million

transactions per day on one app
in Azure Database for MySQL

Pathways to modernizing databases to the cloud

Azure SQL Database (Managed Instance for lift-and-shift)



Intelligent, fully-managed relational cloud database service
Easy lift-and-shift
Built-in security

SQL Server on Azure VMs

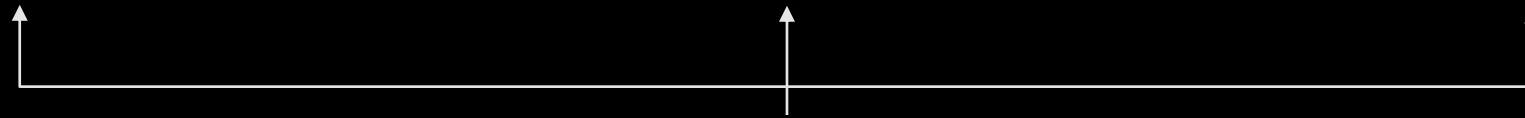


SQL Server installed and hosted in the cloud
Full control over database engine
Auto-patching and auto-backup

Azure Database for MySQL, PostgreSQL, and MariaDB



Managed services using language and framework of your choice
Built-in high availability
Dynamic scaling



Database Migration Service

On-premises proprietary

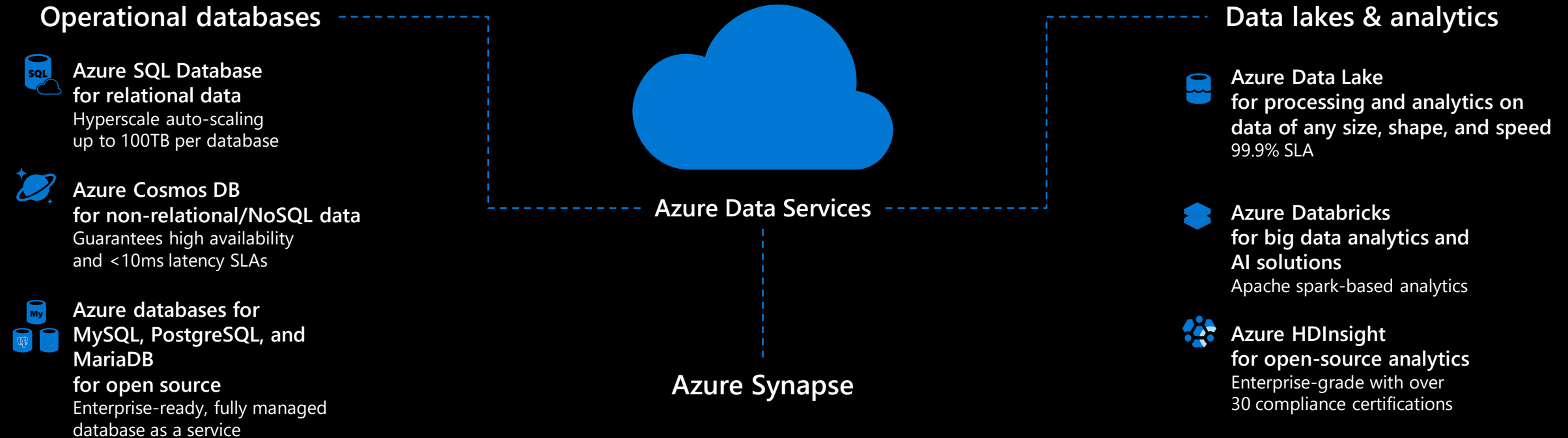
Legacy SQL Server
Oracle
Teradata
DB2

Open-source

MySQL
PostgreSQL
MariaDB

The modern data estate

Microsoft's cloud solution



Reason over any data, anywhere

Flexibility of choice

Security and performance

Azure Data

Powering the Modern Data Estate

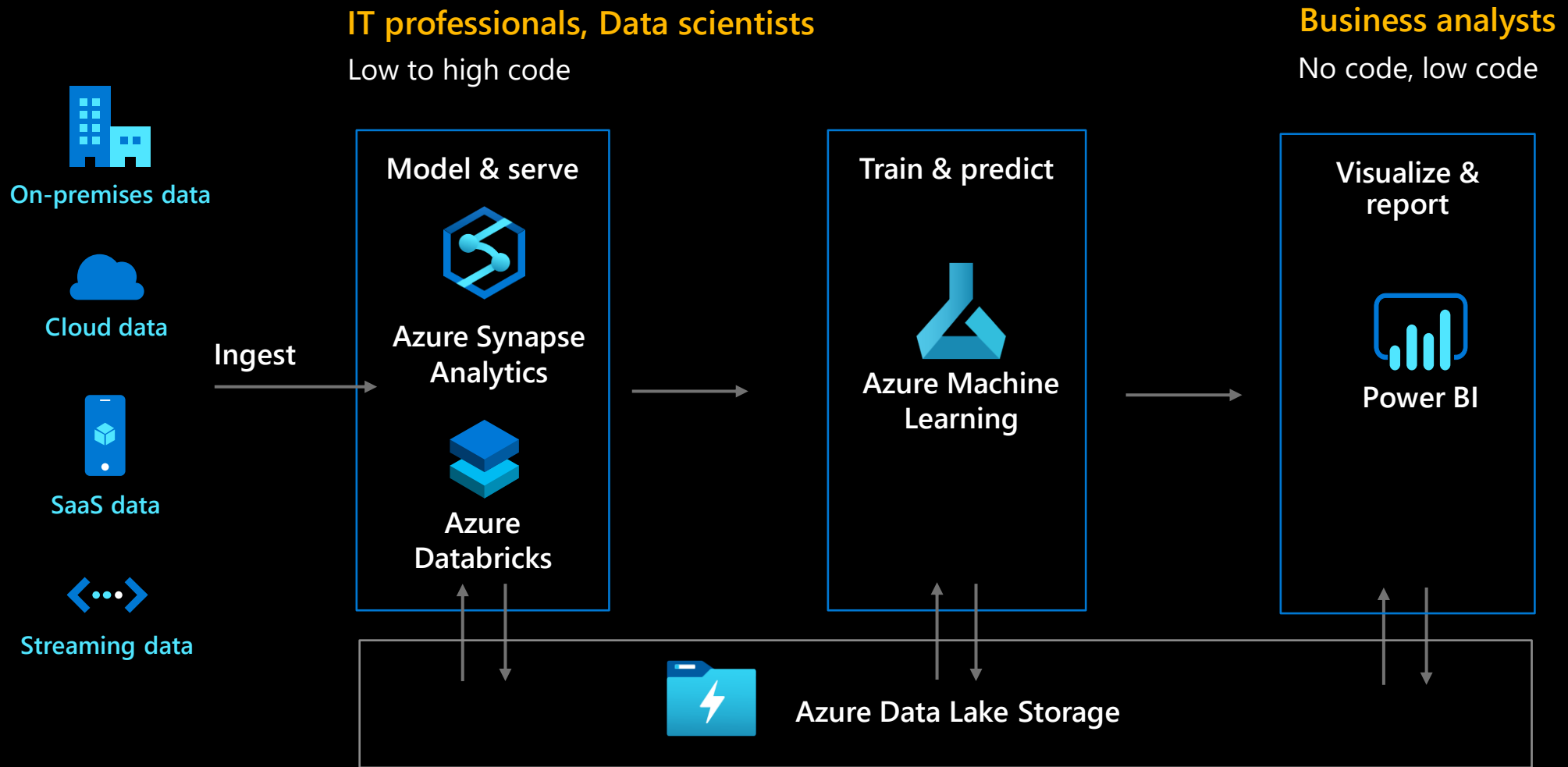


Data modernization
to Azure



Cloud scale
analytics

BI + Analytics paves the path for using emerging technologies, incorporating the latest innovations



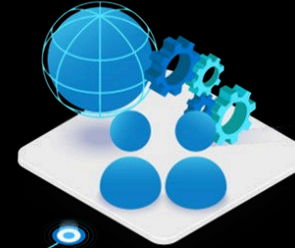
Seamlessly innovate

One Central Data Hub

Governance & Security



Partner & Ecosystem



Modern Data Estate
Cloud / Hybrid / Edge



Analytics & Visualization



Machine Learning & AI

Customer Challenges



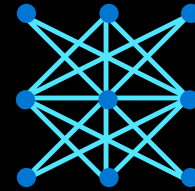
Quantity and format of data

shadow IT solutions, led to different numbers for the same reports



Speed required to move from data to decision

From idea to product, it took a long period of time including planning, integration and deployment.



Complex legacy Data Systems

operating three different systems (Teradata, Oracle & Cloudera), which all need to be maintained became more and more challenging.



Security, Compliance and Privacy Concerns

A new solution must ensure security certificates, the DSGVO compliance & DDoS protection capabilities

Customer Example for One Data Platform

GUIDING PRINCIPLES

- Hybrid platform capability & interconnectivity
- Cost efficient solution
- Central data platform – no data silos anymore
- Highest security principles applied – trusted cloud & dedicated services
- Self Service use cases – ad hoc insights

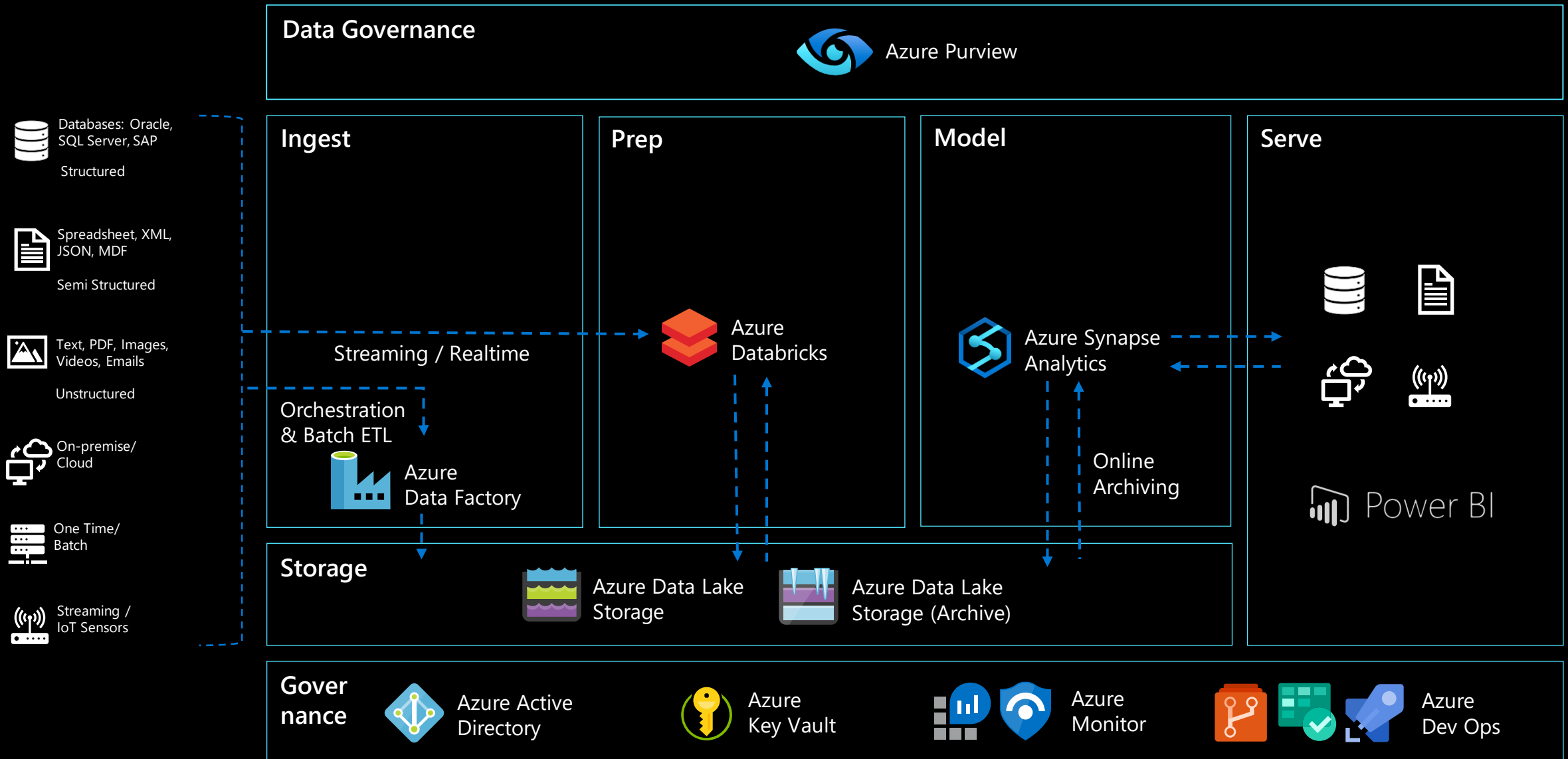
BUSINESS IMPACT

- Minimize risk for the business
- Fastest and most efficient approach – innovative ETL and analysis
- Drive innovation in collaboration between Business & IT
- Proven, mature and secure Azure foundation

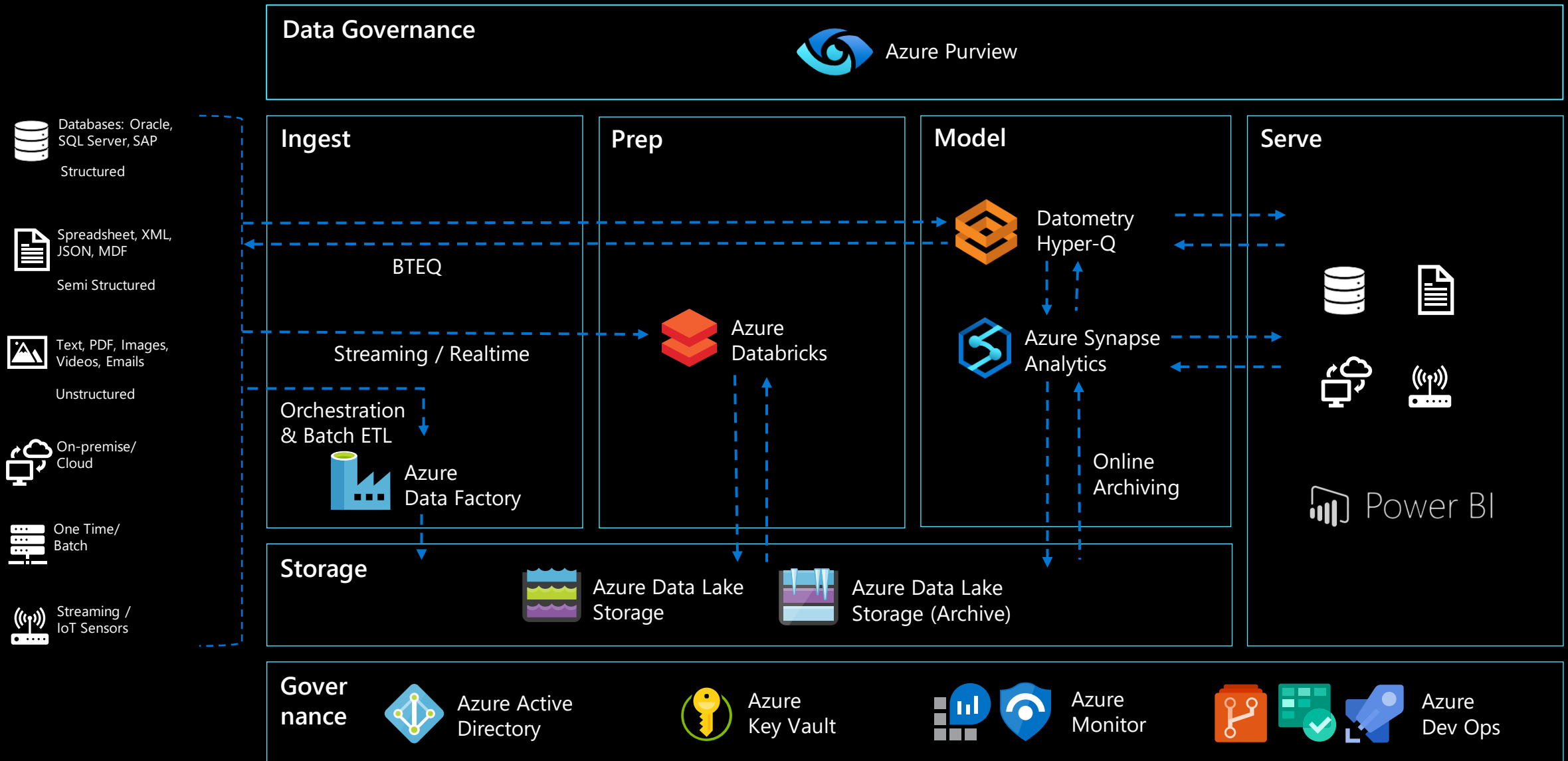
FUTURE PROOF

- Highly scalable Platform
- Enormous flexibility
- Single point of data truth & open data format
- Use the optimal service for the individual use case

Architecture



Architecture



Facts and Features

DATA MODERNIZATION

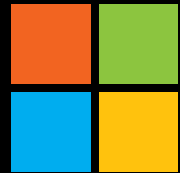
- Migration of existing legacy Data Warehouse solutions based on Teradata and Oracle
- ~1PB of uncompressed data
- Heavy lifting with Azure Data Box
- Delta Load via ExpressRoute
- Tool based migration

DATA INSIGHTS

- Benefit from data lake driven approach
- Data Citizen
 - Consumes Data faster
 - Builds new reports with Synapse Studio / Power BI
 - Cross domain data access

NEW DATA & AI USE CASES

- Data Engineer
 - Easy data discovery & modelling
- Data Scientist
 - Create new experiments
 - Build predictions and new AI models
- Feed Data back into the loop




Microsoft Azure


Be future
ready


Build on
your terms

Operate hybrid
seamlessly

Trust
your cloud

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