Azure Synapse Analytics and Power BI Datamarts
Better Together

Pawel Potasinski
Senior Program Manager

@pawelpotasinski
/in/pawelpotasinski

Pawel Potasinski

Microsoft

SCAN ME

- Senior Program Manager @ Microsoft
- Azure Synapse Analytics PG
- 20+ years of experience with data
- Former Microsoft MVP (Data Platform)
- Founder of Data Community Poland

Today's data realities

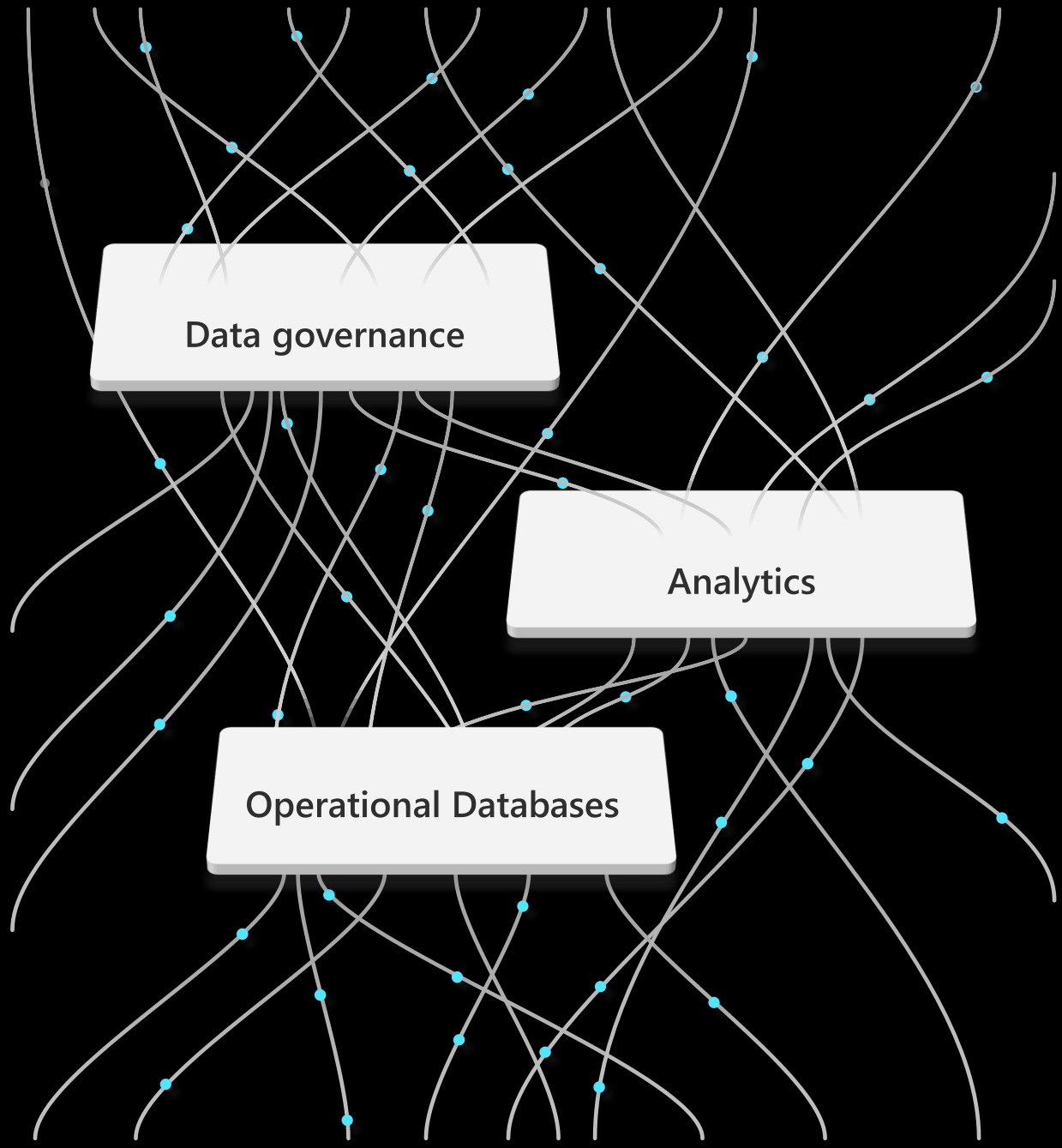
What data do I have?

Is it trustworthy?

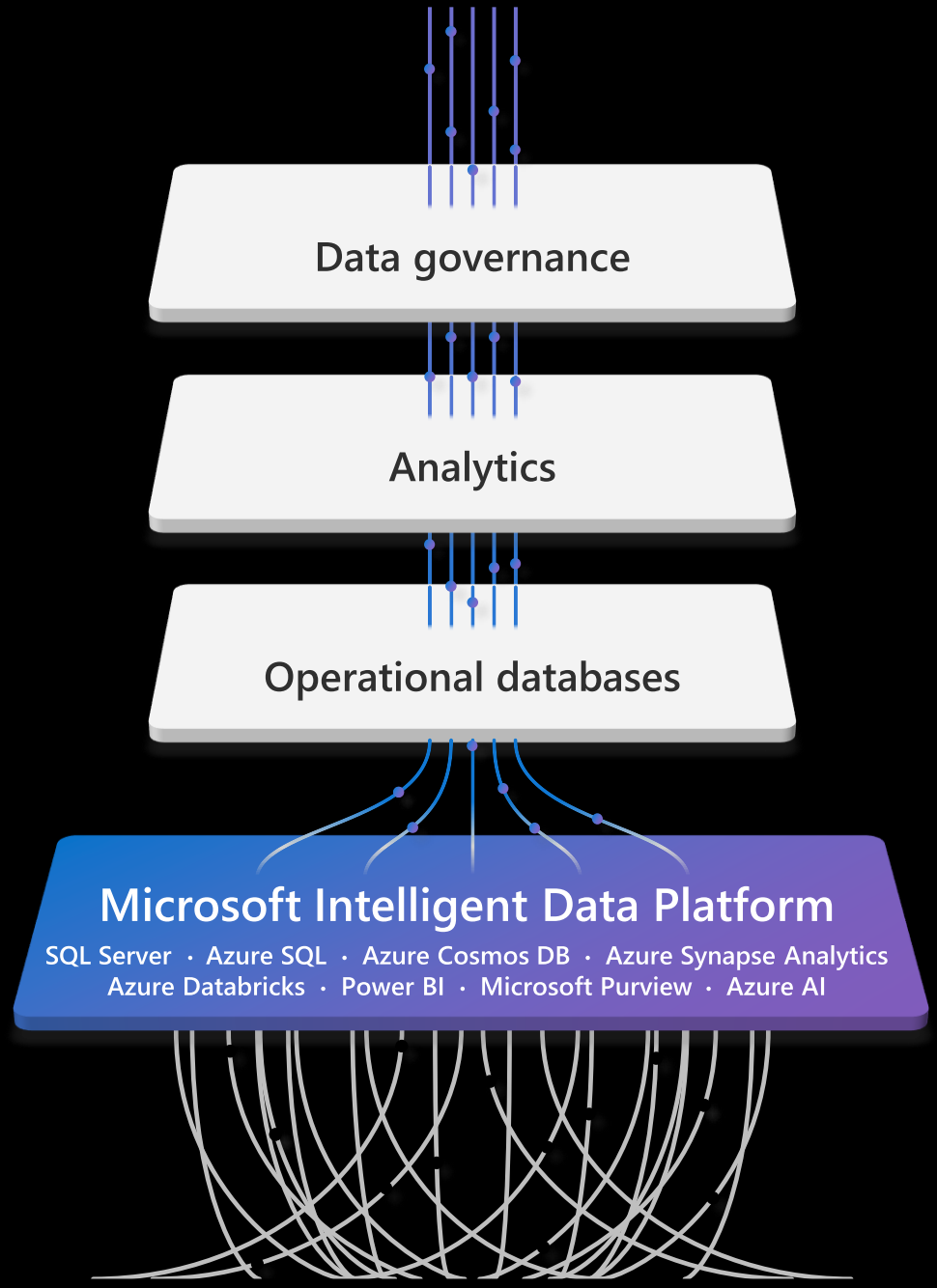
Can people access the data needed to make the right decisions?

How can I enable faster business insights?

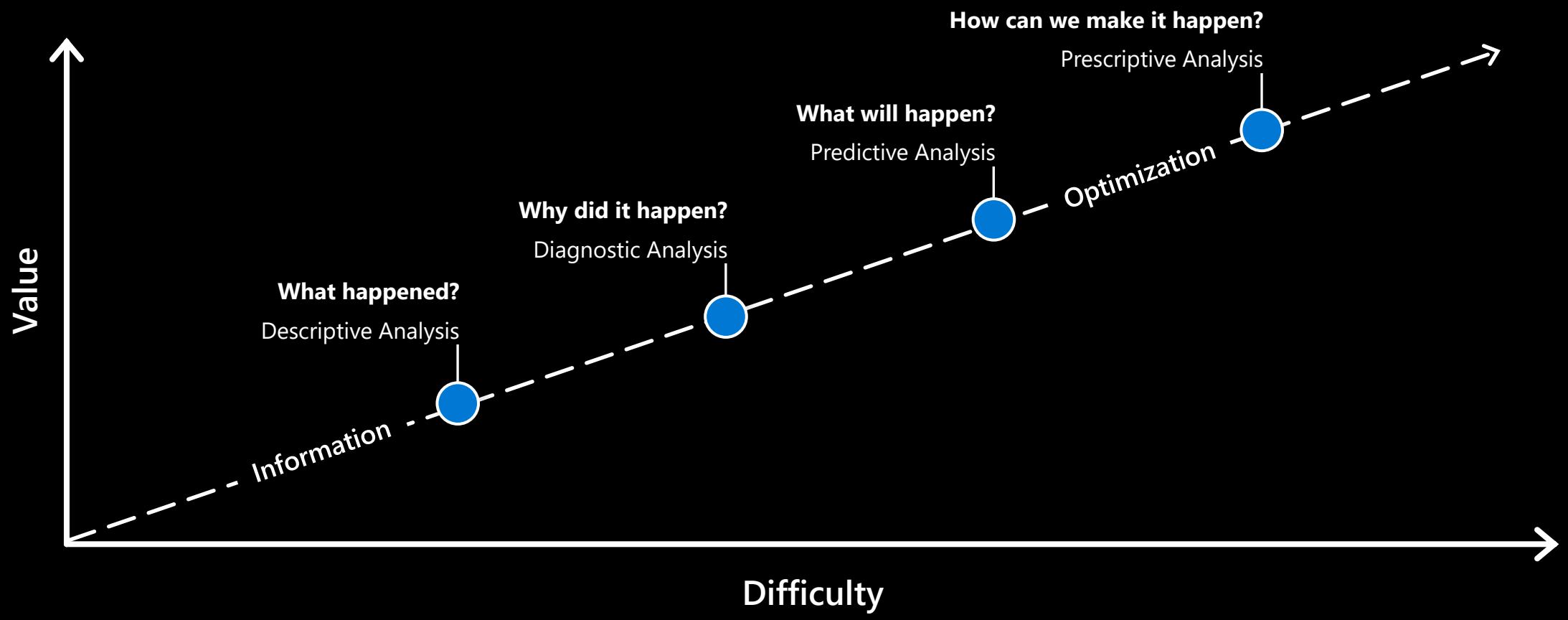
What's my compliance exposure?



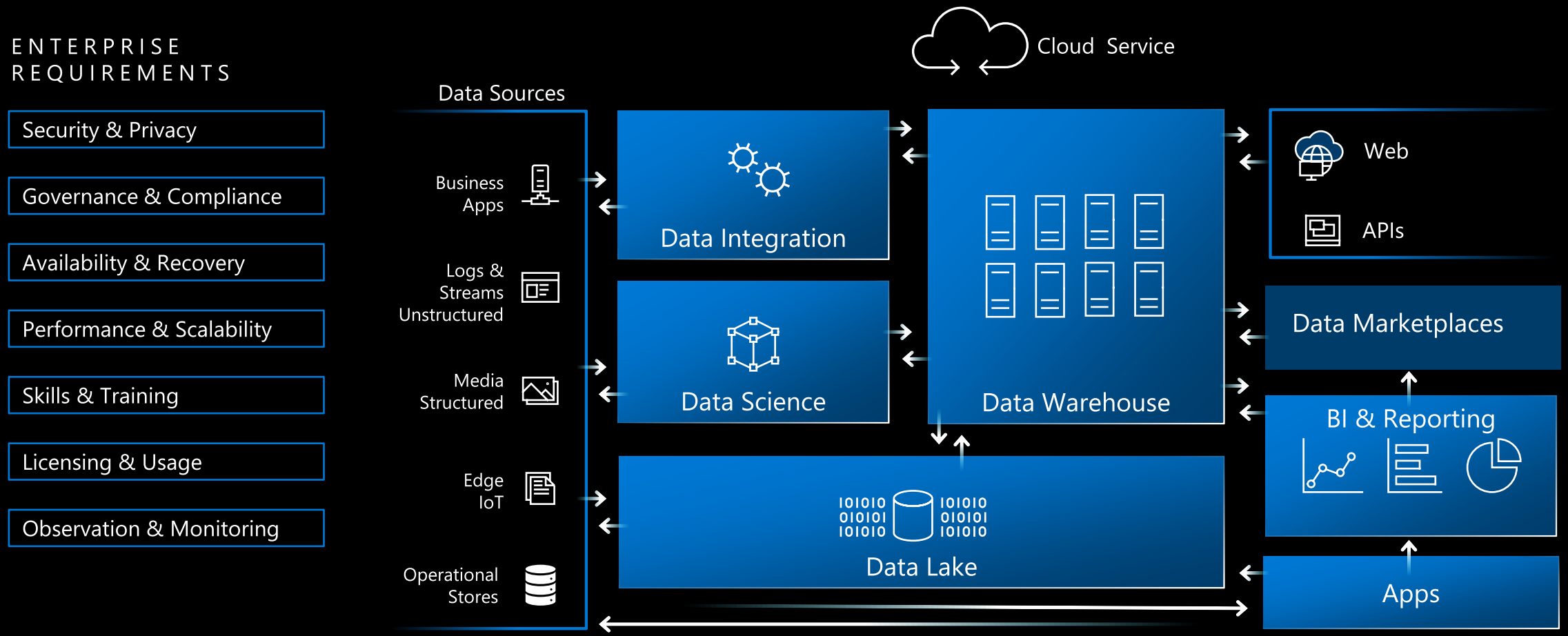
Introducing Microsoft Intelligent Data Platform



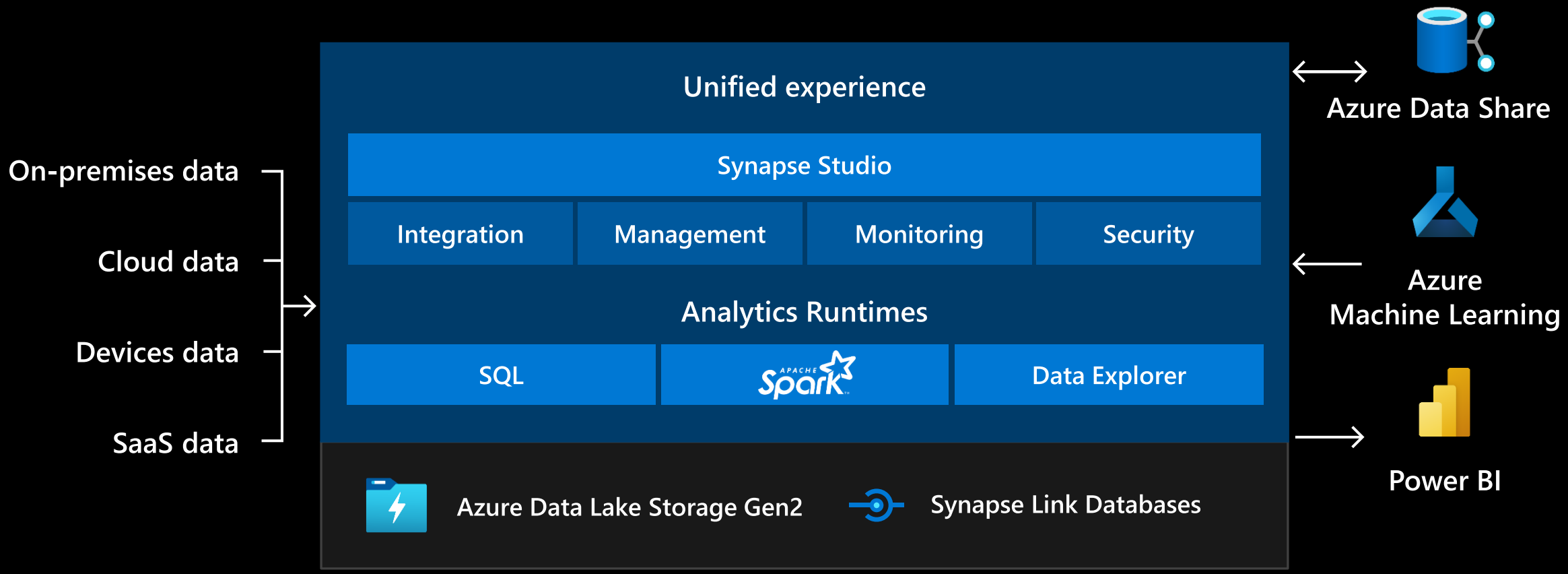
The Evolution of Analytics



The Burden of Data Architecture



Azure Synapse Analytics



Roger

Data Engineer

Ash

Data Analyst

- ☑ Ingest data
- ☑ Prepare/transform data
- ☑ Build and automate data pipelines
- ☑ Develop a data lake/warehouse/lakehouse
- ☑ Build enterprise data models
- ☑ Create BI reports

Roger
Data Engineer

- ☑ Know business domain
- ☑ Understand the needs of business users
- ☑ Explore data
- ☑ Analyze data for insights
- ☑ Create BI reports
- ☑ Share reports with business users

Ash
Data Analyst

Azure Synapse Analytics

Roger
Data Engineer

Microsoft Power BI

Ash
Data Analyst

- Data Warehouse / Data Lake / Lakehouse
- Pipeline
- Script (SQL/KQL) / Notebook
- Monitor (pools, activites, integration)
- Manage (pools, connections, integration, security)

Roger
Data Engineer

- Report (interactive or paginated)
- Dashboard
- Scorecard (metrics)
- Dataset
- Dataflow
- Datamart

Ash
Data Analyst

- Data Warehouse / Data Lake / Lakehouse
- Pipeline
- Script (SQL/KQL) / Notebook
- Monitor (pools, activites, integration)
- Manage (pools, connections, integration, security)

Roger
Data Engineer

What is Power BI Datamart?

- ✓ Simple (optionally no-code) **data ingestion**
- ✓ Power Query for Extract, transform and load (ETL)
- ✓ Load data into a **fully managed Azure SQL database** that requires no tuning or optimization
- ✓ Relationships and policies can be added to the **dataset** for business intelligence and analysis

Ash
Data Analyst

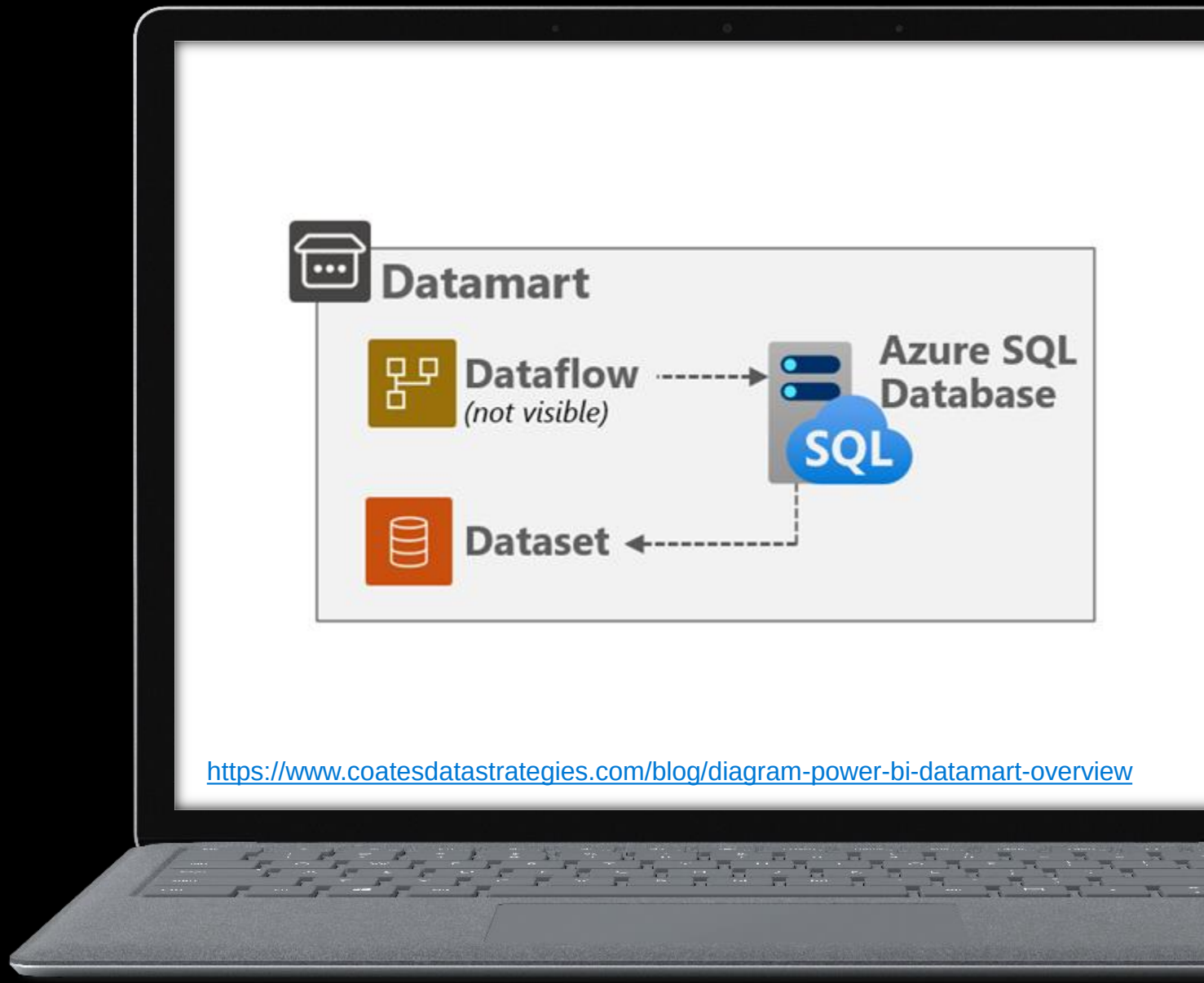
Power BI Datamart

Data management and serving

Dataflow
Ingest and transform data
Multiple data sources possible

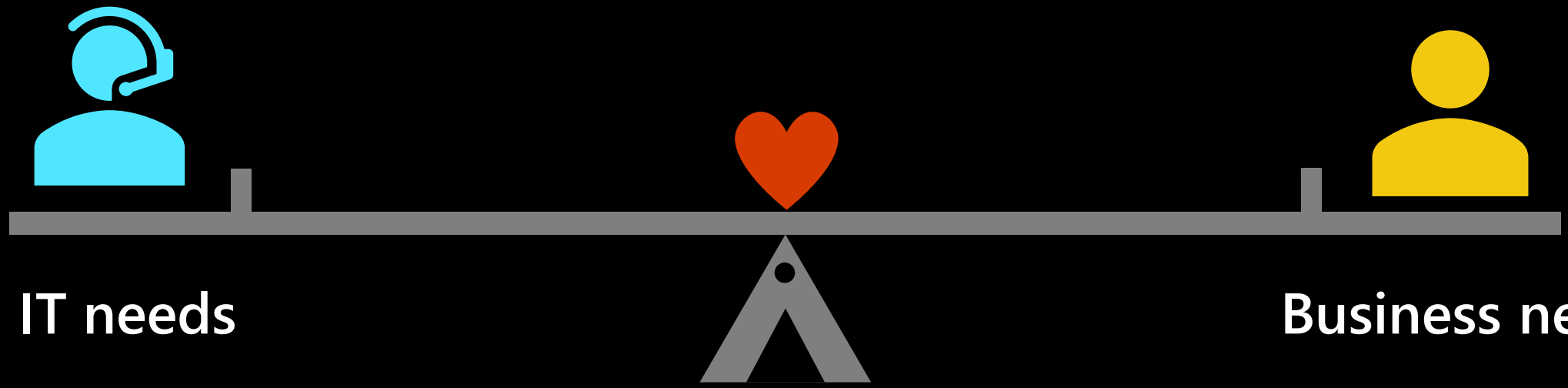
Azure SQL Database
Fully managed analytical store
Users can build queries visually and using SQL
Can be accessed with SQL tools

Dataset
Built on top of Azure SQL DB
Can be enriched with relationships, measures and RLS



https://www.coatesdatastrategies.com/blog/diagram-power-bi-datamart-overview

Datamarts Marry Self-Service BI & Ad-Hoc Analysis



IT needs

Governance

Security

Scalability

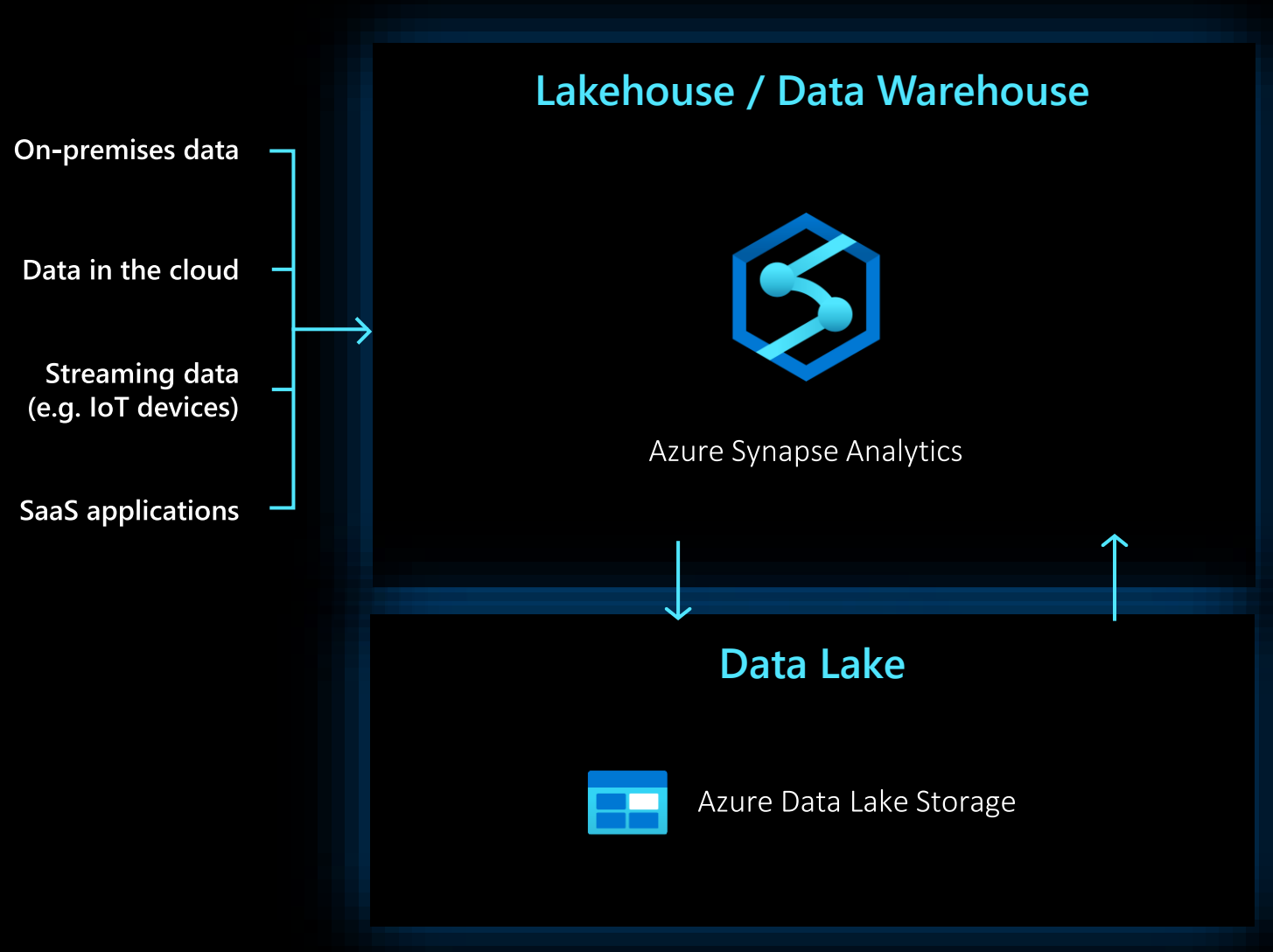
Business needs

Agility

Ease of use

Flexibility

Better Together



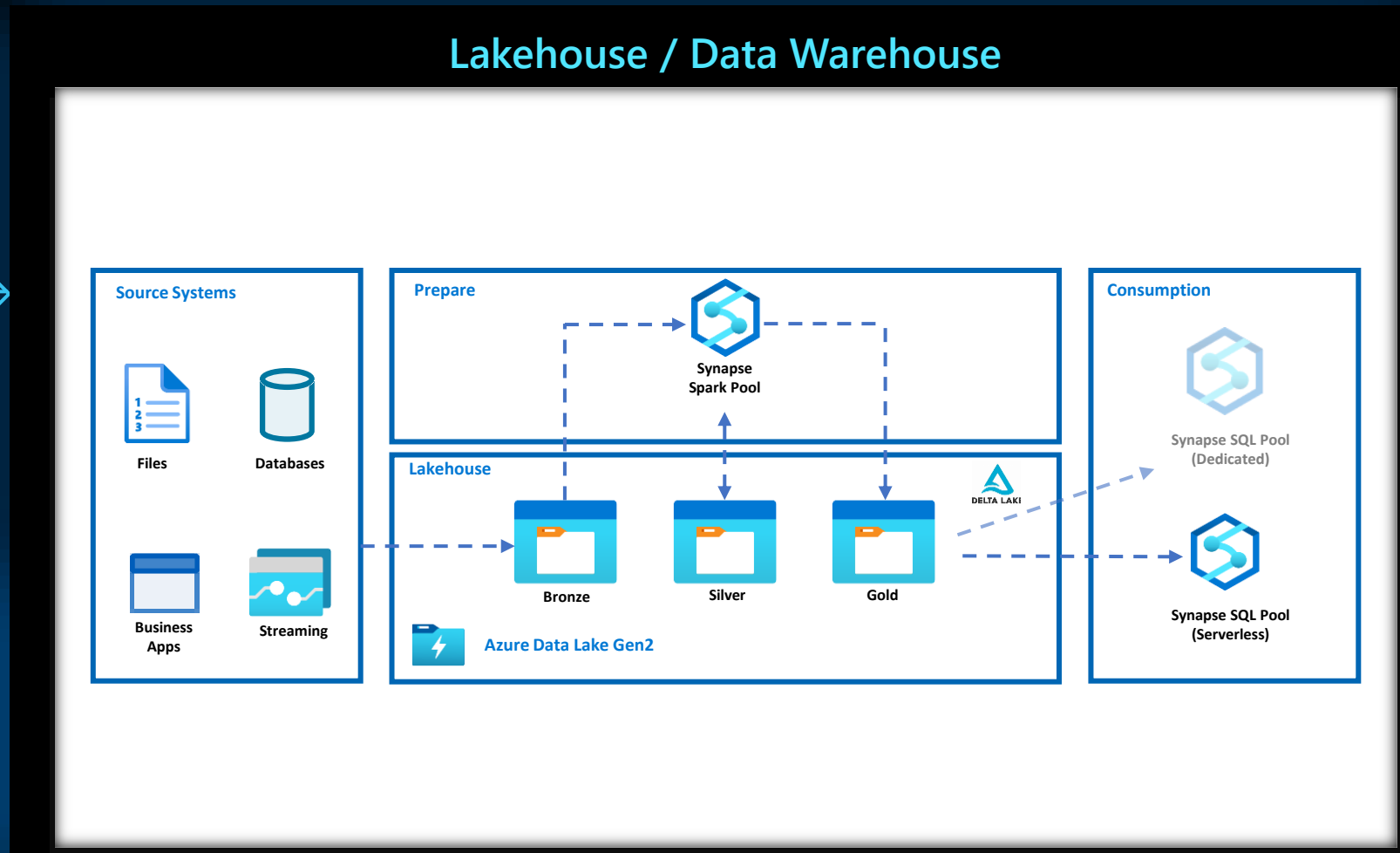
Better Together

On-premises data

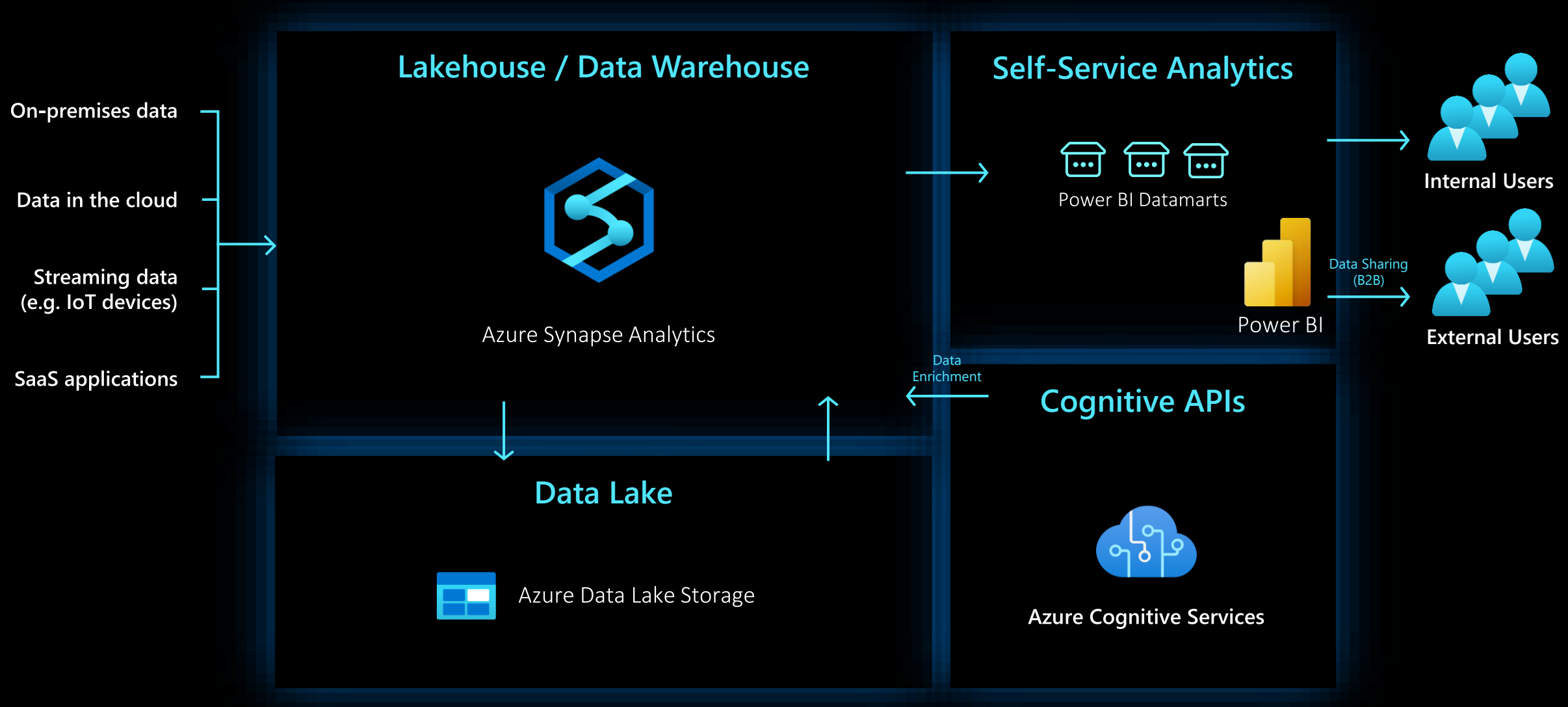
Data in the cloud

Streaming data (e.g. IoT devices)

SaaS applications



Better Together



Demo

Azure Synapse + Power BI Datamarts

Synapse + Power BI

- Data Integration
- Data Engineering
- Data Warehousing
- Data Science
- Observational Analytics
- Business Intelligence
- Governance

Microsoft

Azure Synapse Community

Azure Synapse Community Resources

Community Call to Action

- ☑ Follow us on Twitter: @Azure_Synapse
- ☑ Read and comment on our blog: https://aka.ms/SynapseBlog
- ☑ Check monthly updates blog: https://aka.ms/SynapseMonthlyUpdate
- ☑ Subscribe to YouTube channel: https://aka.ms/SynapseYouTube
- ☑ Share ideas and vote for them: https://aka.ms/SynapseIdeas
- ☑ Join Azure Synapse Influencers program: https://aka.ms/SynapseInfluencers

Product

- Product page: https://aka.ms/Synapse
- Documentation: https://aka.ms/SynapseDocs
- Reference architectures: https://aka.ms/SynapseArchitectures
- Security whitepaper: http://aka.ms/SynapseSecurity

Technical Discussions and Q&A

- Microsoft Q&A: https://aka.ms/SynapseQuestions
- StackOverflow: https://aka.ms/SynapseStackOverflow

Quickstart

- Get started in 60 minutes: https://aka.ms/SynapseGetStarted
- Azure Synapse Analytics Toolkit: https://aka.ms/SynapseToolkit

Free Learning

- MS Learn – learning paths: https://aka.ms/SynapseLearningPaths
- Synapse Practitioner: https://aka.ms/SynapsePractitioner
- Microsoft Virtual Training Days: https://aka.ms/SynapseMVTD
- 30-Day Cloud Skills Challenge: https://aka.ms/SynapseSkillsChallenge

Samples & Accelerators

- Samples on GitHub: https://aka.ms/SynapseSamples
- Azure Synapse Toolkit: https://aka.ms/SynapseToolkit
- Accelerator – End-to-End Analytics: https://aka.ms/azsynapsee2e-git

aka.ms/SynapseCommunityResources

Power BI Learning Resources

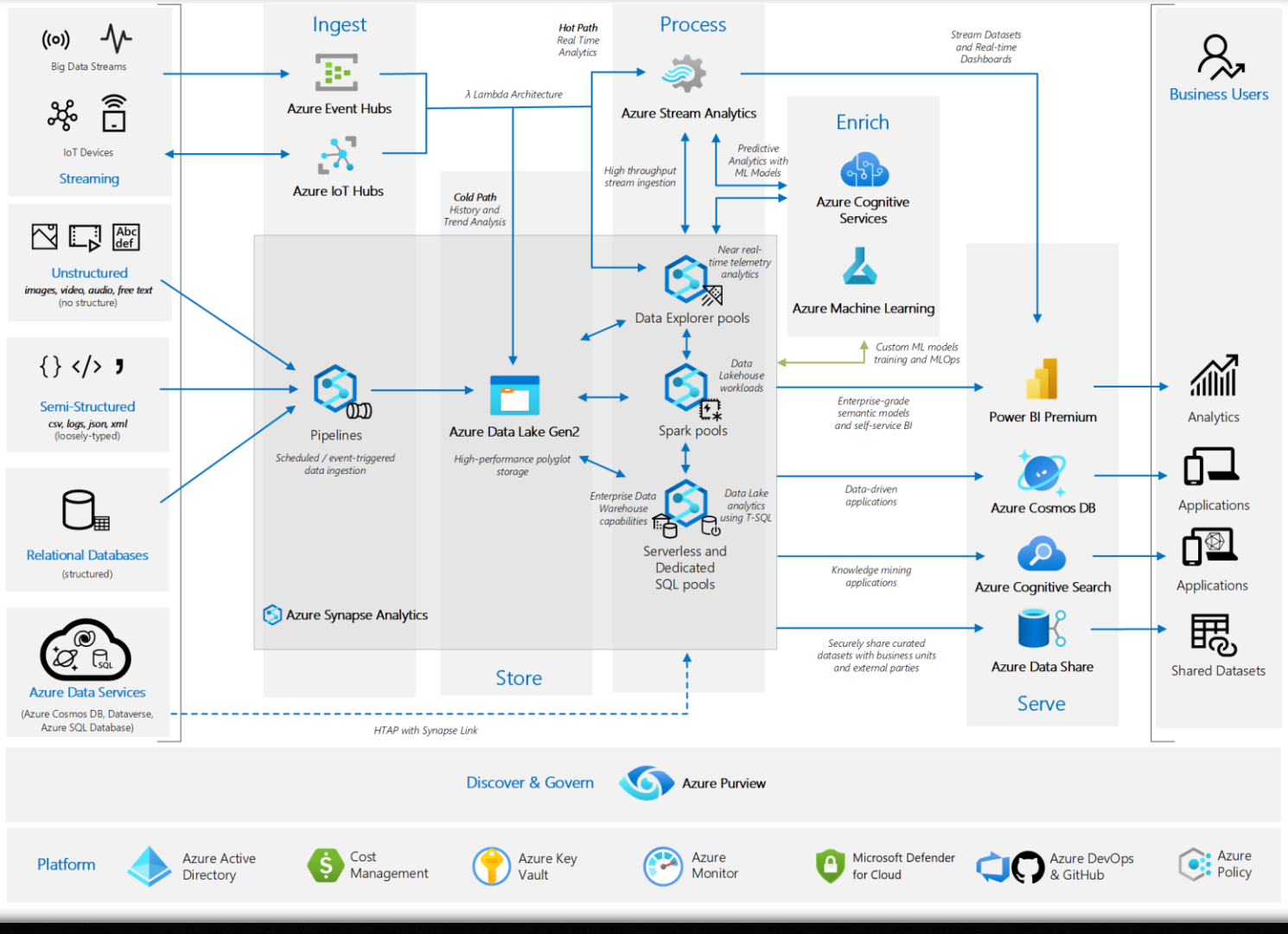
- Blog: https://powerbi.microsoft.com/en-us/blog/
- Documentation: https://docs.microsoft.com/en-us/power-bi/
- Datamarts documentation: https://learn.microsoft.com/en-us/power-bi/transform-model/datamarts/datamarts-overview
- Community: https://community.powerbi.com/
- YouTube: https://www.youtube.com/c/mspowerbi

- Microsoft Learn: https://docs.microsoft.com/en-us/learn/powerplatform/power-bi
- Instructor led training („in a day"): https://powerbi.microsoft.com/en-us/instructor-led-training/
- Guy in a Cube YouTube channel: https://www.youtube.com/c/GuyinaCube

- 2023 wave 1: https://aka.ms/Plan/2023RW1/PowerBI
- Power BI Release Plan: https://aka.ms/pbireleaseplan

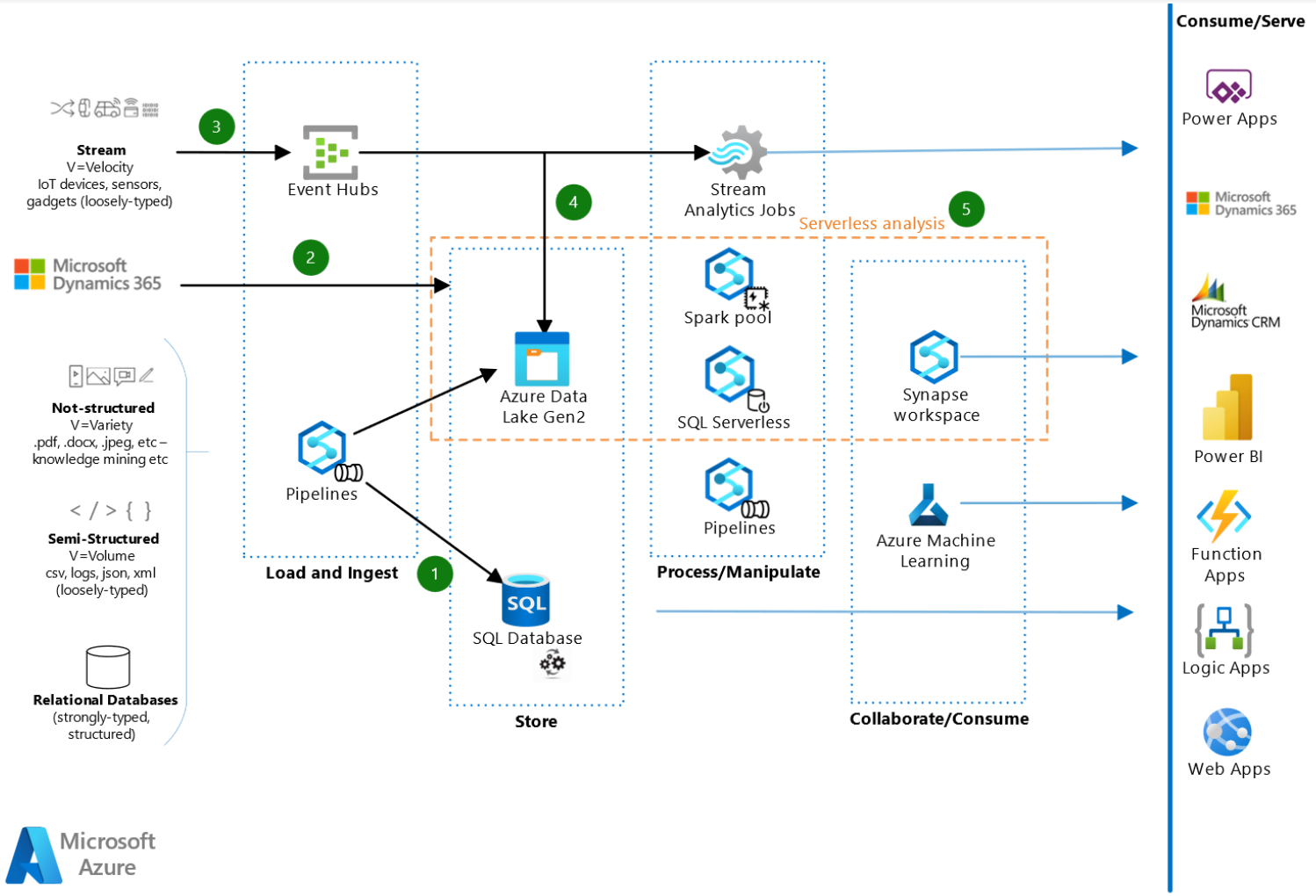
Analytics on Azure

End-to-end for Enterprise



Analytics on Azure

Small and Medium Business



Azure Synapse Analytics and Power BI Datamarts
Better Together

Pawel Potasinski
Senior Program Manager

@pawelpotasinski
/in/pawelpotasinski