



AZURE SYNAPSE ANALYTICS

Azure SQL Data Warehouse evolved

SIDNEY CIRQUEIRA

Upcoming Events



We are thrilled to say the first ever PASS Virtual Summit will be taking place this November!

PASSsummit.com



Save the date! On July 23, 2020, we will be hosting our next PASS Marathon: SQL Server Performance edition - stay tuned for [more details](#).



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Biography

+9 years of experience with Information Technology

+2 years working with emphasis on Data & AI Engineering using Microsoft Azure Cloud Platform

Big Data & Machine Learning Student and Enthusiast

Speaker and participant in the Microsoft Technical Community

Microsoft Trainer



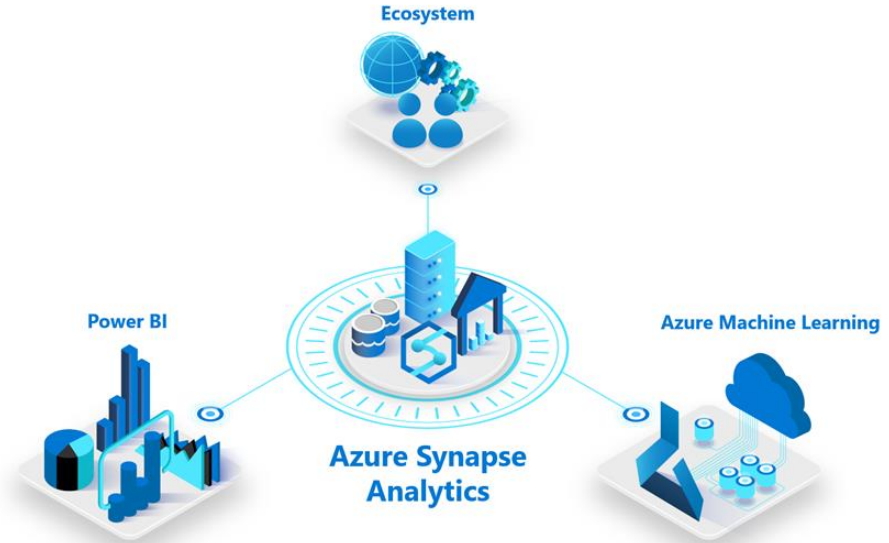
Agenda

- What is Azure Synapse Analytics?
- Key component of Modern Data Warehouse
- Synapse Analytics (formerly SQL DW) – GA – “v1”
- Synapse Analytics (preview) – “v2”
- Synapse Analytics Key Features
- Synapse Analytics Link for Azure Cosmos DB (preview)
- Demo
- Questions
- References

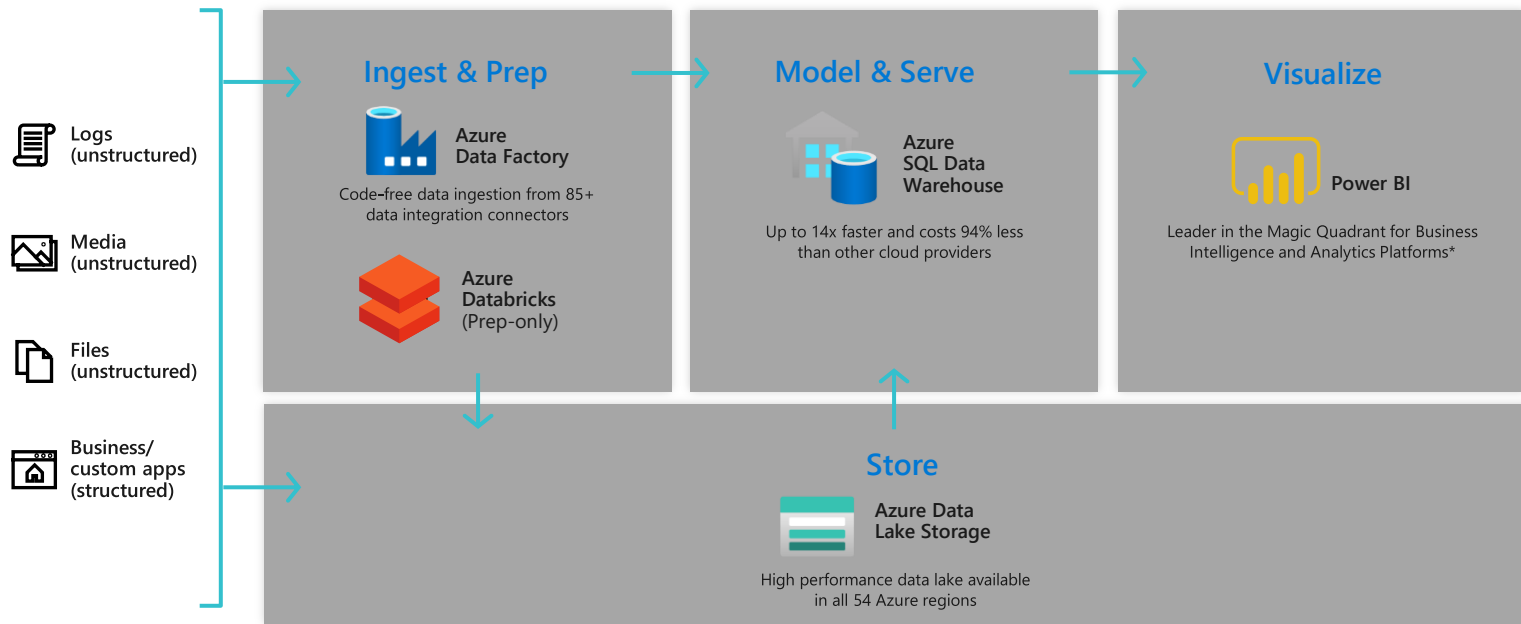
What is Azure Synapse Analytics?

Limitless Analytics Services

that brings together enterprise Data Warehousing and Big Data Analytics with a unified experience to ingest, prepare, manage, and serve data for immediate BI and machine learning needs.



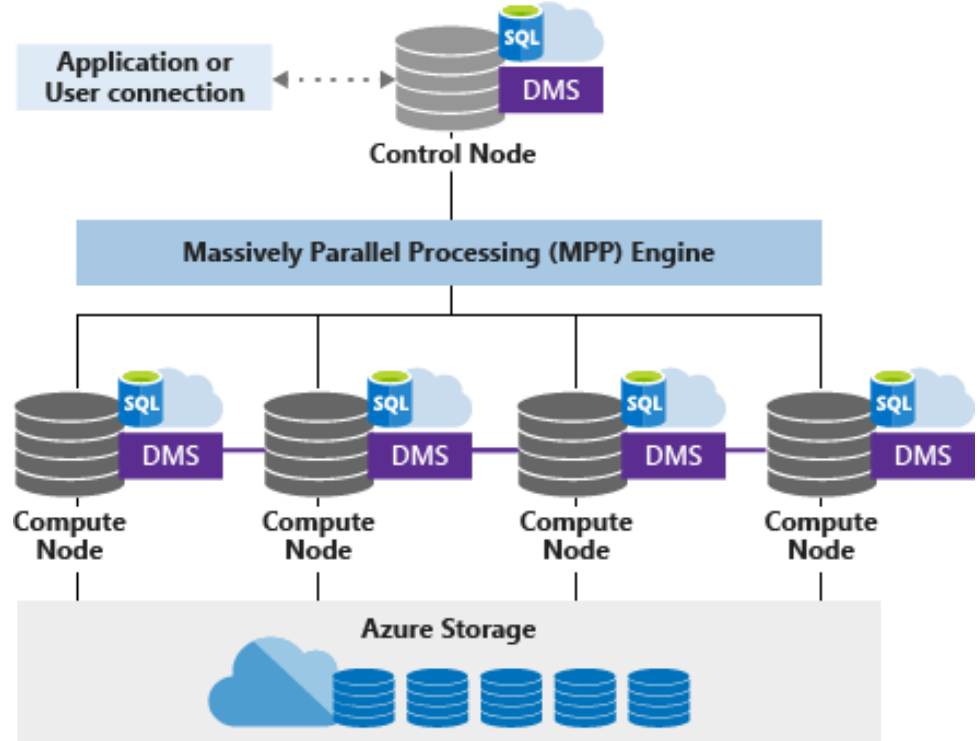
Key component of Modern Data Warehouse



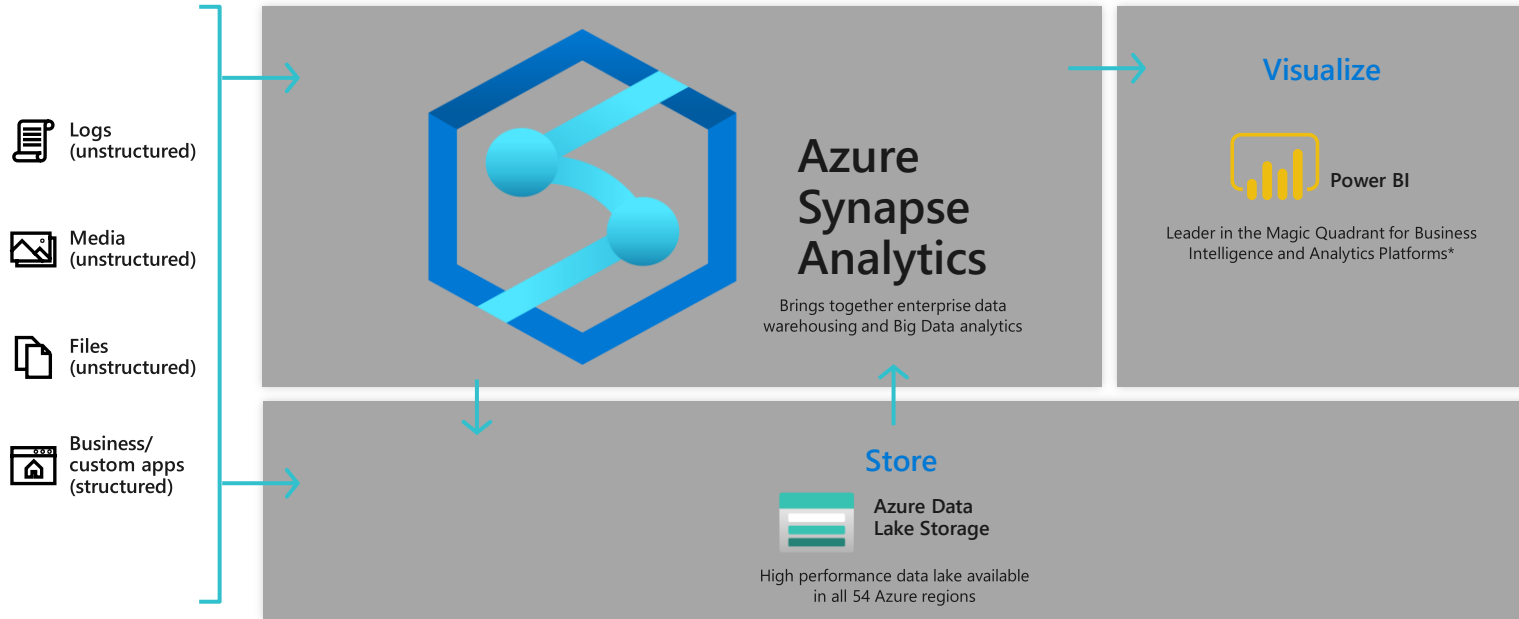
<https://azure.microsoft.com/en-us/services/synapse-analytics/compare/>

Azure Synapse Analytics (formerly SQL DW)

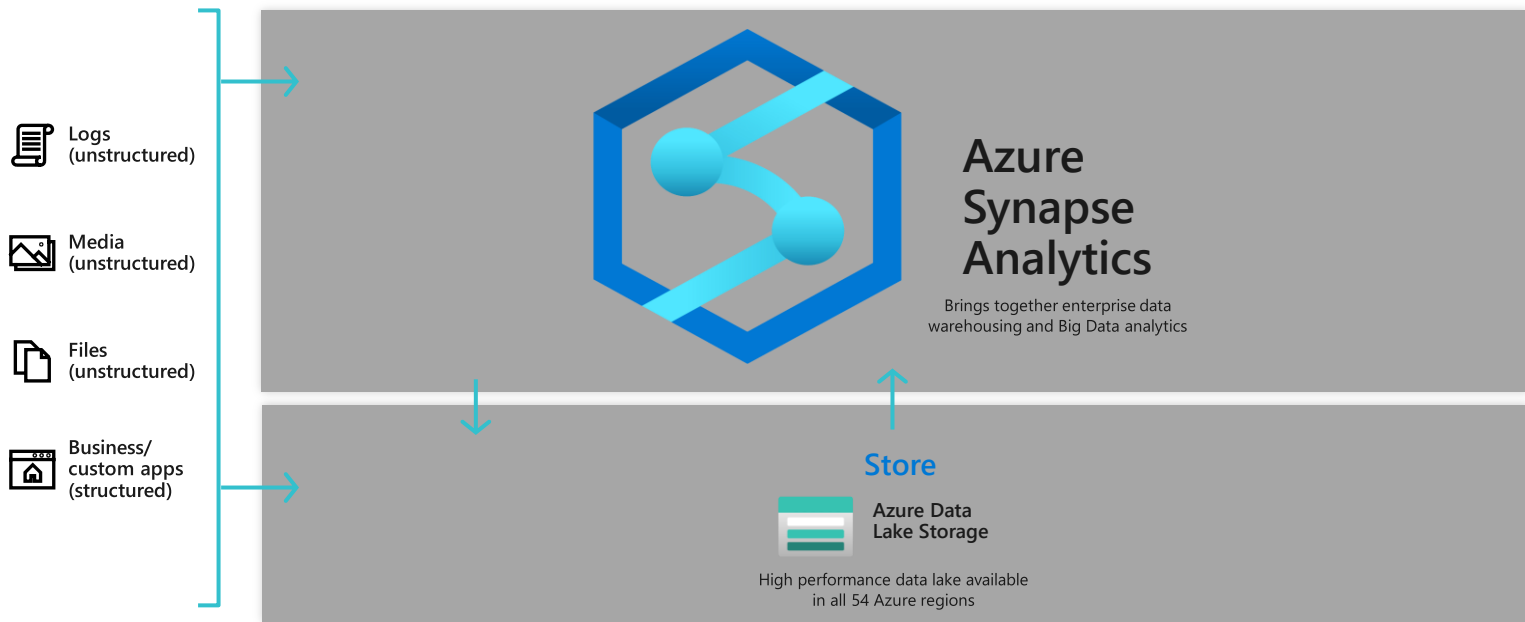
MPP – Massively
Parallel
Processing



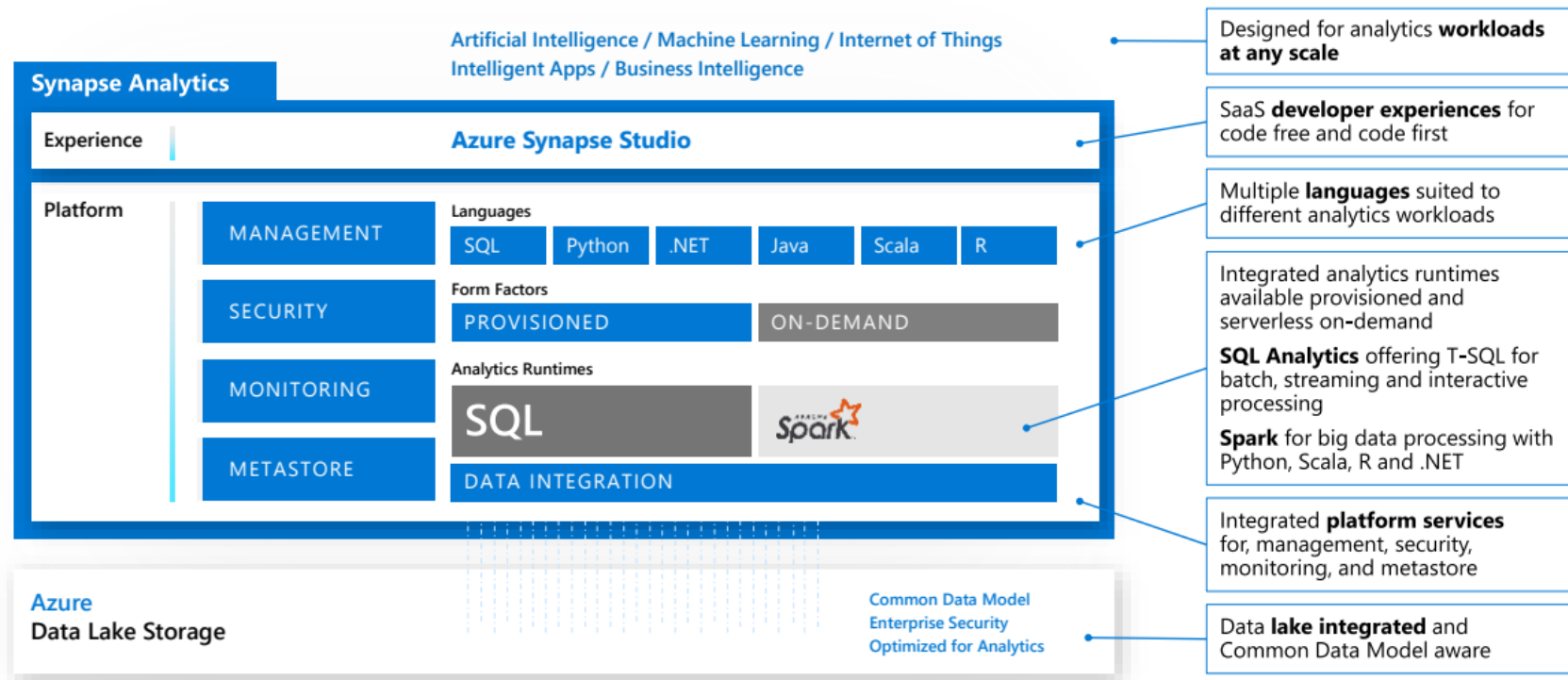
Azure Synapse Analytics – Data Lakehouse



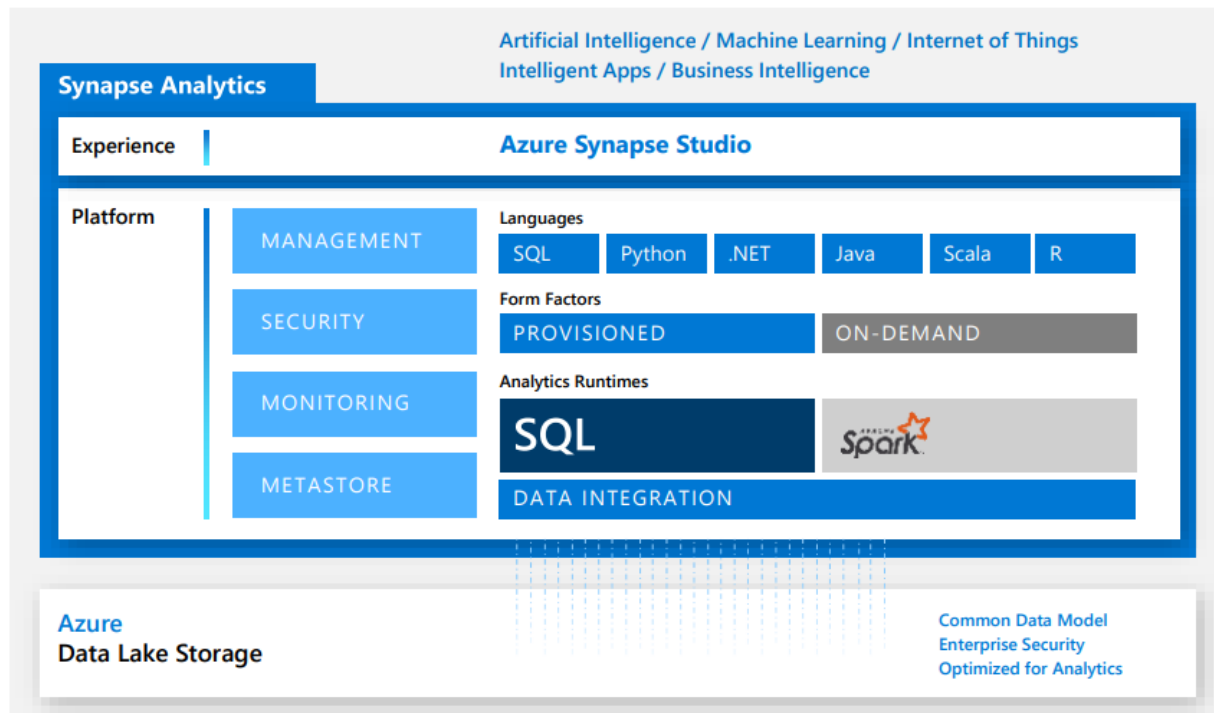
Azure Synapse Analytics



Azure Synapse Analytics



Azure Synapse Analytics



Connected Services

Azure Data Catalog
Azure Data Lake Storage
Azure Data Share
Azure Databricks
Azure HDInsight
Azure Machine Learning
Power BI

3rd Party Integration

Azure Synapse Analytics - Features



SQL ANALYTICS



APACHE SPARK



STUDIO



DATA INTEGRATION

Limitless Scale **GA**

Provisioned Compute
Materialized views
Result-set cache
Workload importance
Workload isolation

Preview

Serverless data lake Exploration

Powerful insights **Preview**

Power BI integration
Azure Machine Learning integration
Stream analytics (data warehouse)
Apache Spark integration

Unified experience **Preview**

Hybrid data ingestion
Azure Synapse Studio

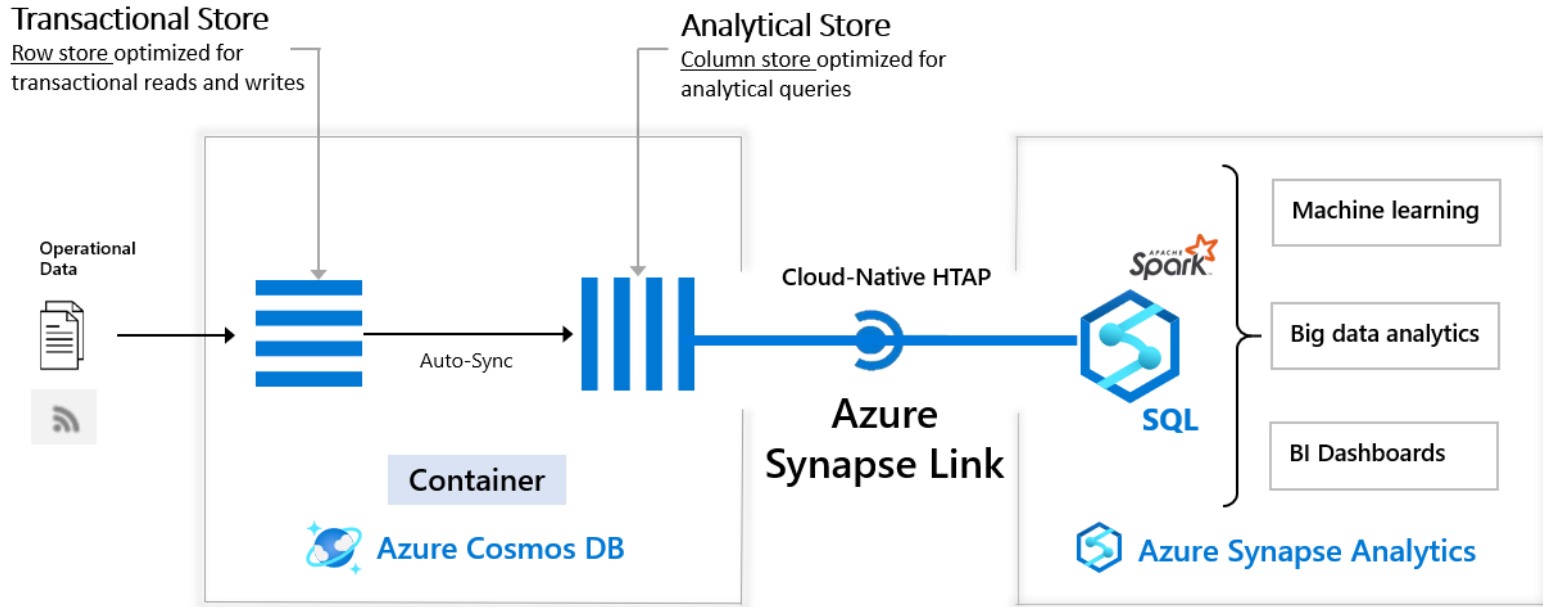
Instant Clarity **Preview**

Azure Synapse Link

Unmatched security **GA**

Column and row-level security
Dynamic data masking
Private endpoints

Azure Synapse Link for Cosmos DB (preview)



References

- Synapse Analytics(workspaces): <https://docs.microsoft.com/en-us/azure/synapse-analytics/overview-what-is>
- Synapse Analytics(SQL DW): <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/>
- Modern Data Warehouse: <https://azure.microsoft.com/en-in/solutions/architecture/modern-data-warehouse/>
- MPP Architecture: <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/massively-parallel-processing-mpp-architecture>
- Product: <https://azure.microsoft.com/en-us/services/synapse-analytics/>
- Synapse Link: <https://docs.microsoft.com/en-us/azure/cosmos-db/synapse-link>
- Benchmark Cloud DW: <https://azure.microsoft.com/en-us/services/synapse-analytics/compare/>
- Synapse Analytics Toolkit: <https://azure.microsoft.com/en-us/resources/azure-synapse-analytics-toolkit/>

Questions?



Thank you for attending

Learn more from Sidney Cirqueira



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<https://github.com/sidneyocirqueira/azure-synapse-analytics>



@sqlpass #sqlpass



@PASScommunity



*PASS

MARATHON