Azure Synapse Analytics

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About me

- Data Architect @ icubed

- Working with SQL Server since 2005 edition

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Agenda

- What’s Azure Synapse Analytics
- Key features
- Demo - Azure Synapse Studio

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What’s Azure Synapse Analytics

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What’s Azure Synapse Analytics

The first unified, cloud native platform for converged analytics

Azure Synapse is the only unified platform for analytics, blending big data, data warehousing, and data integration into a single cloud native service for end-to-end analytics at cloud scale.

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What’s Azure Synapse Analytics

Powered by a new cloud native distributed SQL engine

Built-in Apache Spark engine

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What’s Azure Synapse Analytics

Serverless + dedicated SQL

Serverless pay-per-query ideal for ad-hoc data lake exploration and transformation

Dedicated clusters optimized mission-critical data warehouse workloads

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Key features

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Key features – Hybrid data integration

Cloud native ETL/ELT

95+ connectors available

Secure connectivity to on-premise data sources, other clouds, and SaaS applications

Code-first and low/no code design interfaces

Schedule and Event based triggering

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Key features – Data warehousing

Fully-managed elastic platform

Elastic compute that can be easily optimized to different classes of workload

All features available in a single tier

Infinite cost effective PAYG storage

Department	Organization	Enterprise
Gigabytes of data	Terabytes of data	Petabytes of data
10’s of users	100’s of users	1000’s of users
Weekday usage	24/7 usage	Tier-0 Availability

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Key features – Synapse Studio

Very comprehensive web interface

Automatic code completion (Intellisense)

Script collaboration within the Workspace

Built-in visualizations

Easily switch between clusters

Code-free data discovery and integration

Explore, code, design, manage, and monitor – all in a single place

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Key features – Support for industry standards

Data + Languages

Languages such as SQL, PySpark, Scala and C# in support of data science and data warehouse workloads

The data lake supports and unlimited set of file formats including Parquet, ORC and Json as well as audio, image, and video formats

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Key features – Azure Synapse Link

Real-time operational analytics

One-click enablement in Azure Portal

No data integration pipelines required

Near-zero impact on operational systems

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Key features – Stream ingestion

IoT ingestion without aggregation

Ingress up to 720 gigabytes/hour of raw events

Analyze data in-flight using SQL language Azure Stream Analytics

Join streaming data with other data assets in the data warehouse and data lake

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Key features – Machine Learning (1/2)

Many different approaches to ML

Notebooks provides a code authoring experience for complex predictive models

Automatic ML graphical interface provides a no-code experience for creating ML models

Native integration with Azure Cognitive Search provides access to pre-built models

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Key features – Machine Learning (2/2)

In-engine ML scoring

Machine learning models executed using SQL

"In-engine" for performance and scalability

No data leaves the platform for scoring

No additional cost for scoring

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Key features – Power BI integration

Build reports in Synapse Studio

Code-free experience for development rich visualizations

One-click publishing to for secure consumption across the enterprise

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Key features – Knowledge Center

Accelerate time to solution

Azure Open Data sets

Pre-built samples to accelerate development

- SQL Scripts
- Notebooks
- Data Pipelines

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Demo time!

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Grazie!

Il materiale sarà online nei prossimi giorni su
http://www.communitydays.it

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