# Azure Synapse Analytics Service

#### **Eshant Garg**

Data Engineer, Architect, Advisor eshant.garg@gmail.com



#### Introduction

Why Warehousing in Cloud

Azure Synapse Service – a Game Changer

Traditional vs Modern DW Architecture

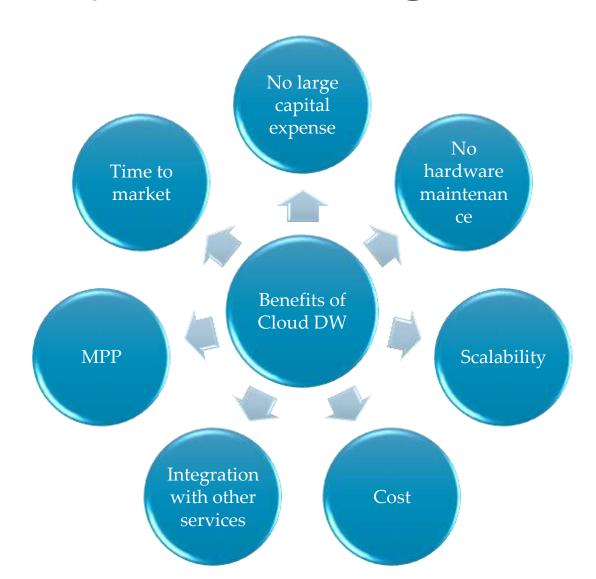
Modern vs Synapse DW Architecture

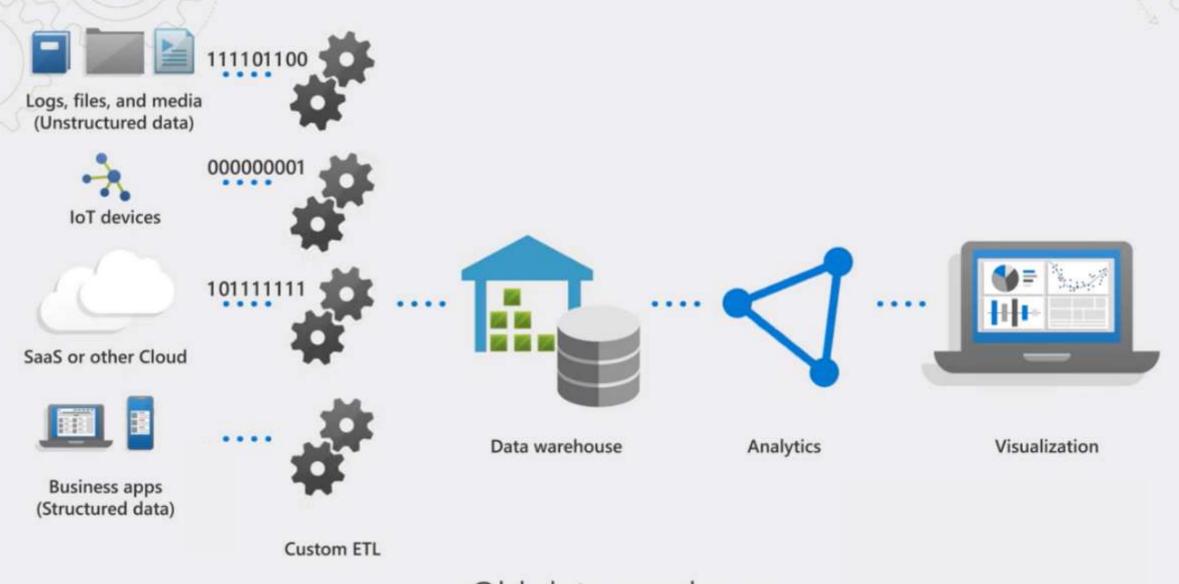
Azure Synapse Studio – Unified Experience

Demo – Provision, Scale, Pause, Firewall settings



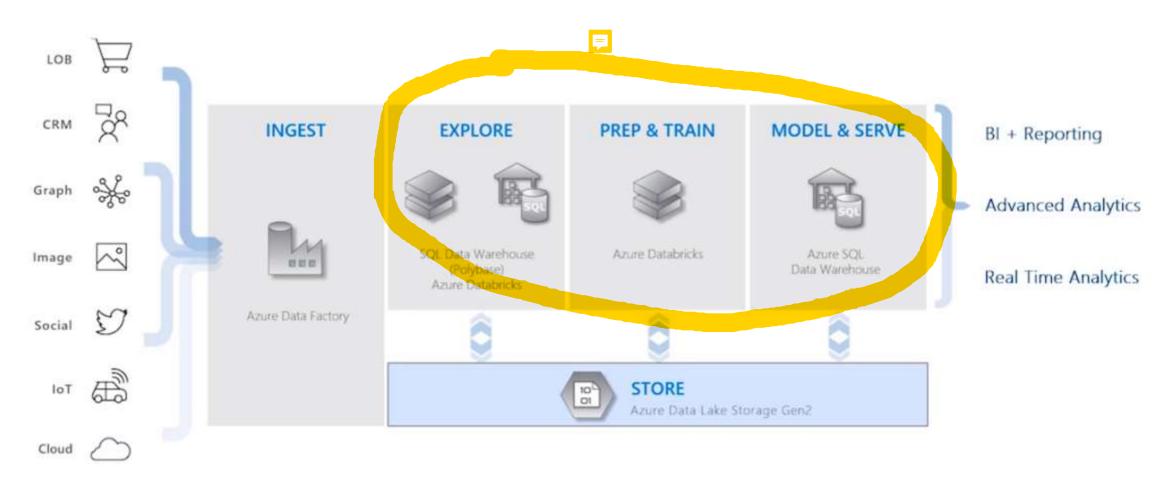
#### Why Warehousing in Cloud?



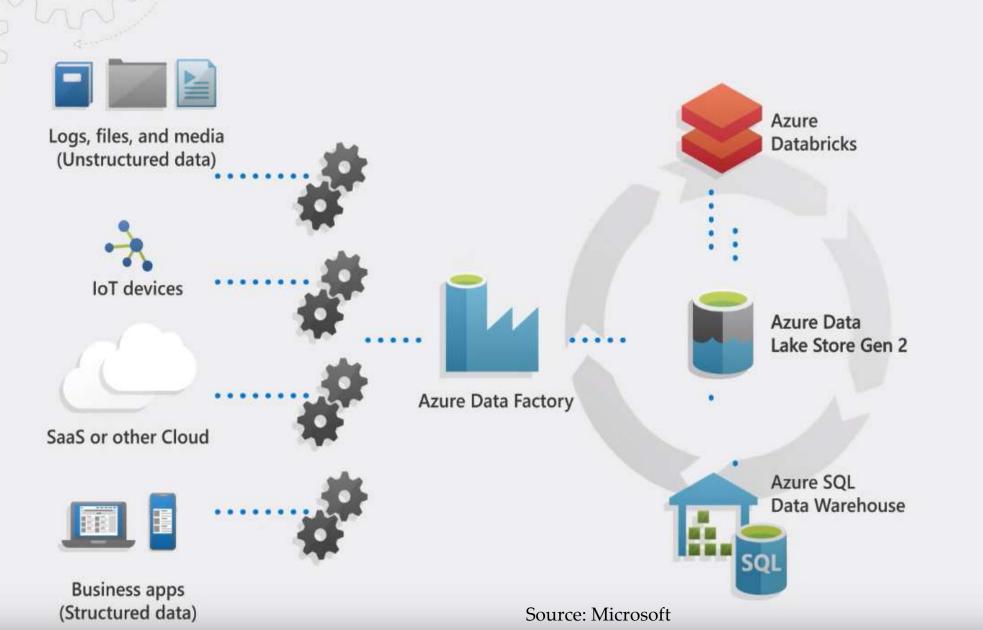


Old data warehouse

# Modern Data Warehousing

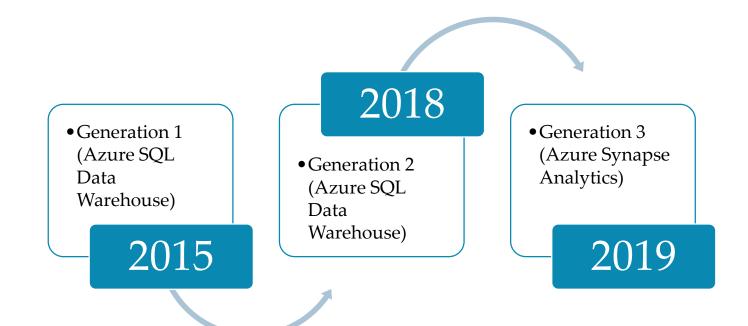


#### Modern Data Warehouse



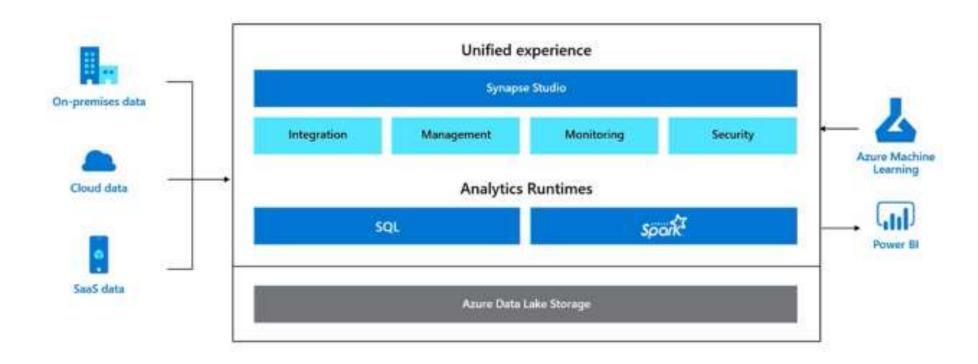
Visualization (Power BI)

# Azure SQL Data warehouse



"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."

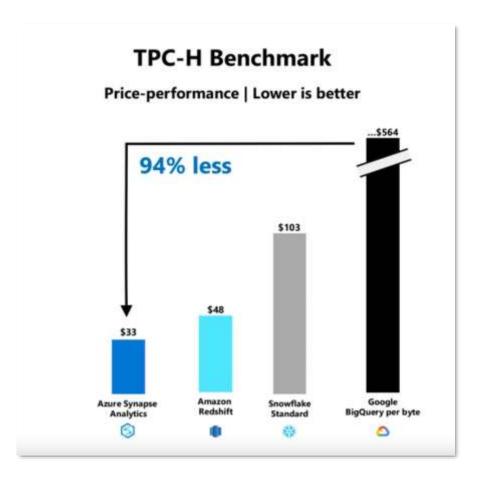




#### Unparalleled price-performance

Up to 14x faster

Costs 94% less than other cloud providers



# Azure Synapse



Structured and unstructured data



Data warehousing and big data analytics



**Cloud-native** 





Limitless Scale



Security



Powerful Insight



Code free data orchestration

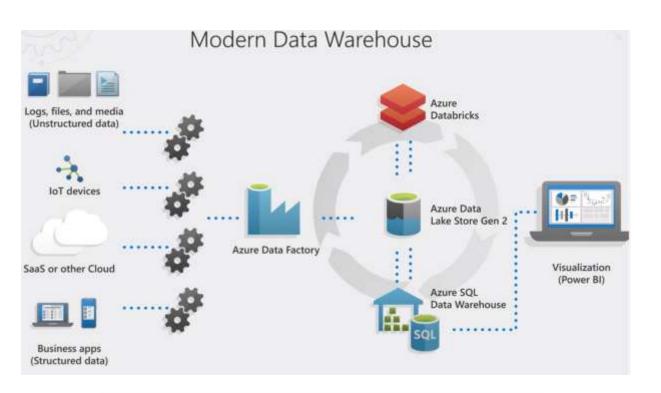


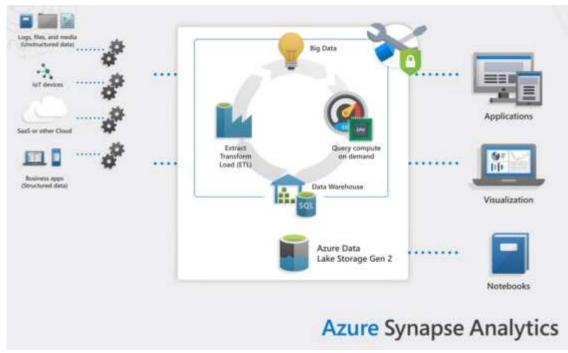
Unified Experience



Choice of Language

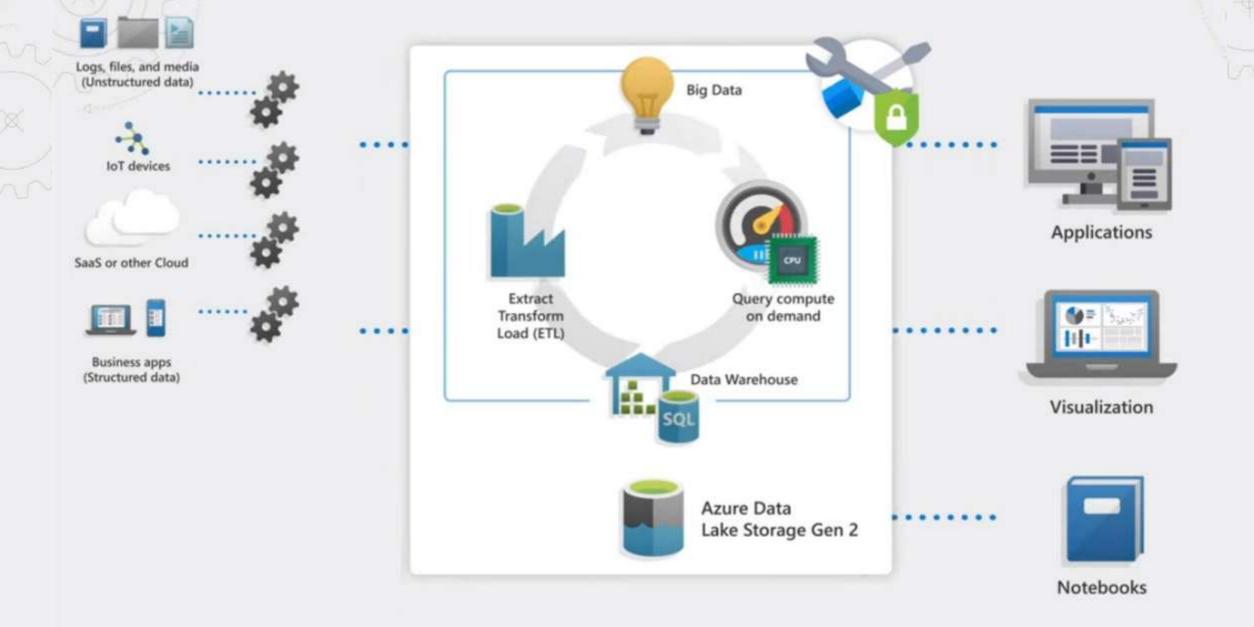
#### Modern vs Synapse Architecture

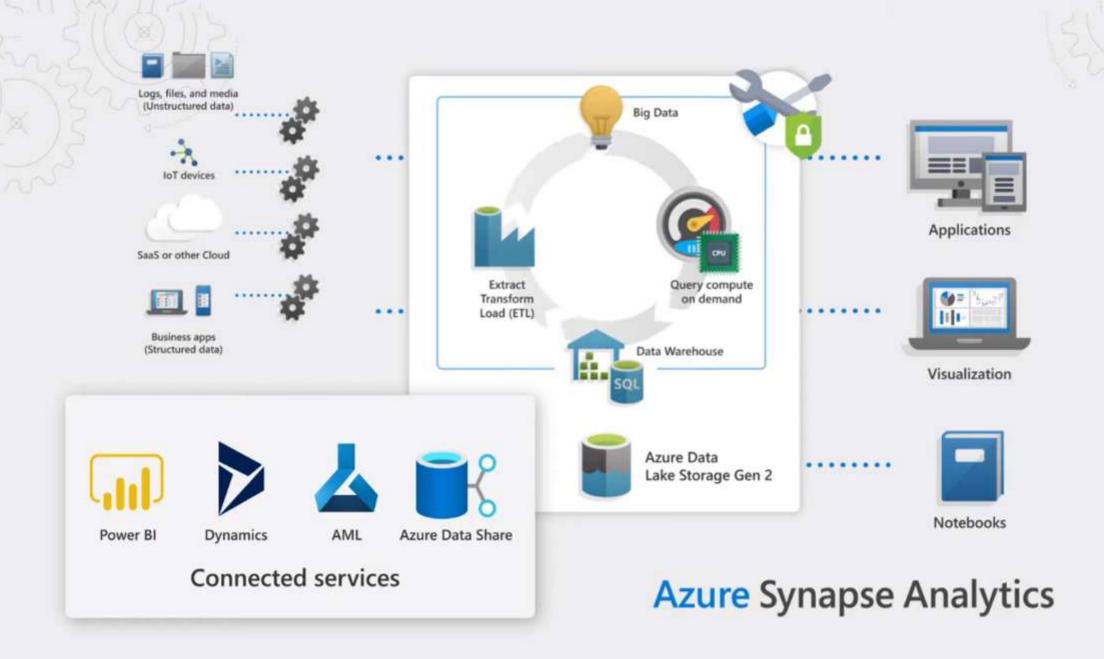




Modern Data Warehouse Architecture

Synapse Analytics Architecture







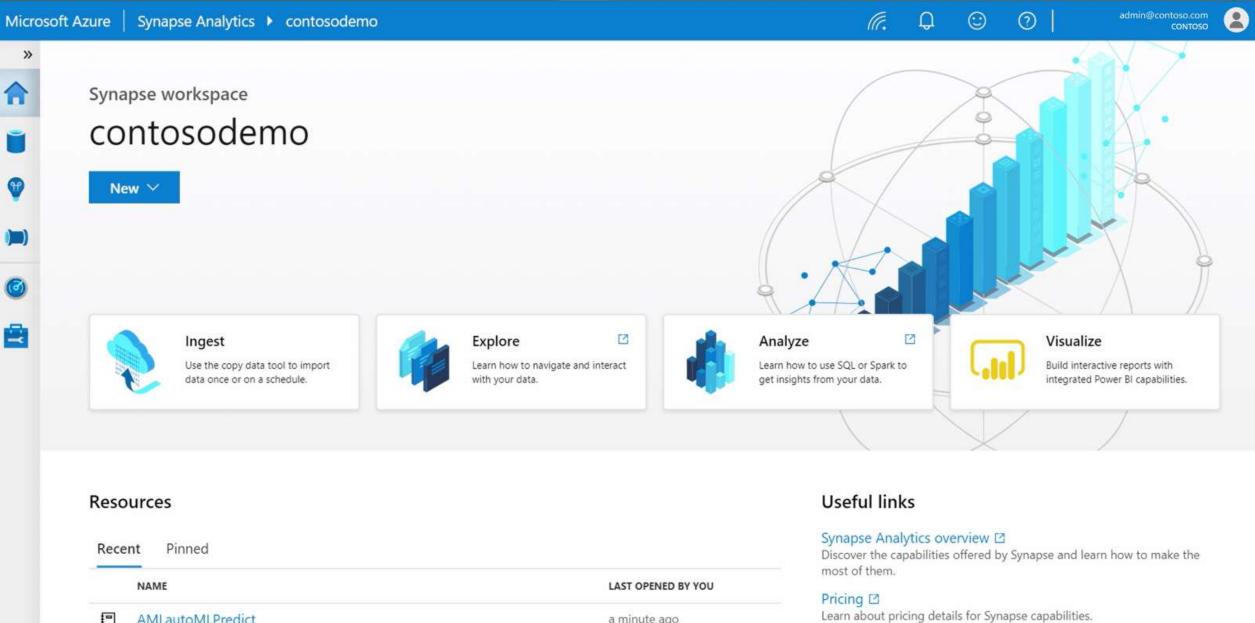
# Demo – Provision Azure Synapse Service

- 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 Studio





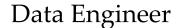
Recent Pinned		
	NAME	LAST OPENED BY YOU
	AMLautoMLPredict	a minute ago
	PrepTaxiData	a minute ago
	DWSQLQuery1	2 minutes ago
	ondemandSQLQuery	Source: Microsoft

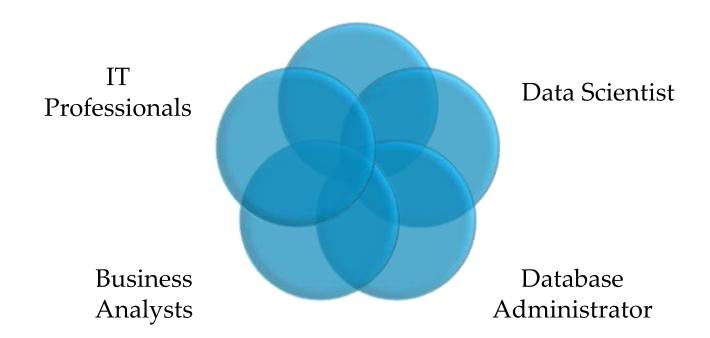
#### Documentation [2]

Visit the documentation center for quickstarts, how-to guides, and references for PowerShell, APIs, etc.

#### Give feedback ☑

Unified experience for all data professionals





# Summary

Advantages of Cloud Warehousing

Synapse Analytics - advantages

Why Synapse Analytics is Game changer in Cloud Analytics

Traditional vs Modern DW Architecture

Modern vs Synapse DW Architecture

Synapse Studio – Unified experience

Demo – Provision, Pause, Scale, Firewall settings etc.

