Legacy Teradata to Azure Synapse Analytics Migration Implementation

Re-platform your EDW to achieve the price, performance and agility benefits of Azure Synapse

Duration : 9 to 18 Months

The digital revolution is driving a huge growth in data volume. 70-80% of the data being generated today is unstructured and doubling every two years. At the same time, there is growing need to become intelligent enterprises – by leveraging advanced analytics, AI, ML and Cognitive Services.

Legacy Teradata, while an excellent and mature platform, was built keeping relational data and linear scalability in mind. The change in rules has posed a big challenge for organizations in terms of performance, cost, capability.

Challenges with the Legacy Teradata environment

High licensing cost & TCO

Cost of managing a TB can range from $30,000 - $90,000, considerably higher compared to Cloud pricing

Performance issues

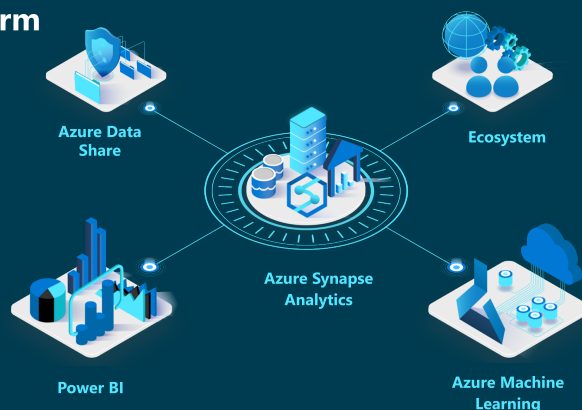Teradata is an MPP system that delivers linear scalability

New data sources

Legacy Teradata is a relational DBMS: Not architected to handle unstructured data

Migrate your Legacy Teradata workloads to Azure Synapse and take advantage of the unified, cloud native analytics platform

Azure Synapse Analytics is a powerful platform that delivers the full continuum of analytics, blending big data, data warehousing, and data integration into a single cloud native service, giving you a unified experience along with limitless scale, all at a lower cost than other platforms.

Analytics in Azure is simply unmatched

Up to 14 times faster and costs 95% less than other cloud providers

Azure Data Share

Ecosystem

Azure Synapse Analytics

Power BI

Azure Machine Learning

Proven delivery methodology to migrate Legacy Teradata workloads to Azure Synapse

Teradata EDWs have been developed and enhanced over 10-20 years and migrating them is a complex, multi-phase activity. Our proven process, involving careful upfront planning, phased execution and use of automation tools along with the experience of delivering it multiple times over, alleviates the risks and ensures smooth migration with complete control over cost and time.

Get in touch with us:

Tim Bauer
Microsoft Global Alliance Director, UST
tim.bauer@ust.com

Our 6-Step Legacy Teradata to Azure Synapse Delivery Process

Review and Plan
- Conduct a technical review of the existing ecosystem to build inventory and understand potential challenges, blockers and risks
- Create a detailed plan for the migration

Deliverable: Detailed report for the migration effort (activities, resource allocation and timelines)

Design and Build
- Identify Azure services and create a final architecture design along with migration approach and data models
- Implement and test the design

Deliverable: Design document with detailed target architecture, migration approach and data models.

Proof of Concept Pilot
- Identify a workload for running a PoC and define success criteria
- Validate the output

Deliverable: Fully operation pilot environment for a defined workload

Migrate
- Migrate remaining data workloads, metadata, ETL pipelines and other processes in an iterative fashion

Deliverable: Fully operational and secure modern data warehouse on Azure Synapse

Test
- Test all aspects to establish data accuracy and ensure the functional and non-functional requirements have been met accurately

Deliverable: Test and validate scripts and results

Change Management
- Migrate all production workloads to the new system and decommission Teradata assets

Deliverables: • Documentation of new environment: Scripts, credentials and any other knowledge transfer
  • Post migration documentation

	Small	Medium	Large
Implementation Cost	$2+ Million	$8+ Million	$12+ Million
ETL pipelines	1000+	5000+	10,000+
Storage Space	100+ TB	500+ TB	1 PB
Consumption Workloads	1,000+	5,000+	10,000+

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Microsoft Global Alliance Director, UST
tim.bauer@ust.com

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Case Study: Azure based data analytics and archival repository for a large retailer

Business Scenario

Migration triggered by a sale: As part of the sale of one of its biggest international business entities, this global retailer was required to migrate all the divested entity's sales data to the buyer's data lake solution hosted in GCP.

Migration requirements

1 **Time period:** Incremental data migration required from the transactional business systems during the cut over period of approximately 2 years.

2 **Compliance**: All the compliant data for 10 years, associated with the divested entity, must also be archived for legal and audit reasons.

3 **Access:** Legal personnel must be able to search/explore the divested branch business data for audit reasons.

4 **Analytics:** Divested entity data should be for future business analytics purposes.

5 **Cloud native:** The global retailer is in the process of its own cloud migration journey to Azure and expects a cloud native solution using Azure services.

Solution

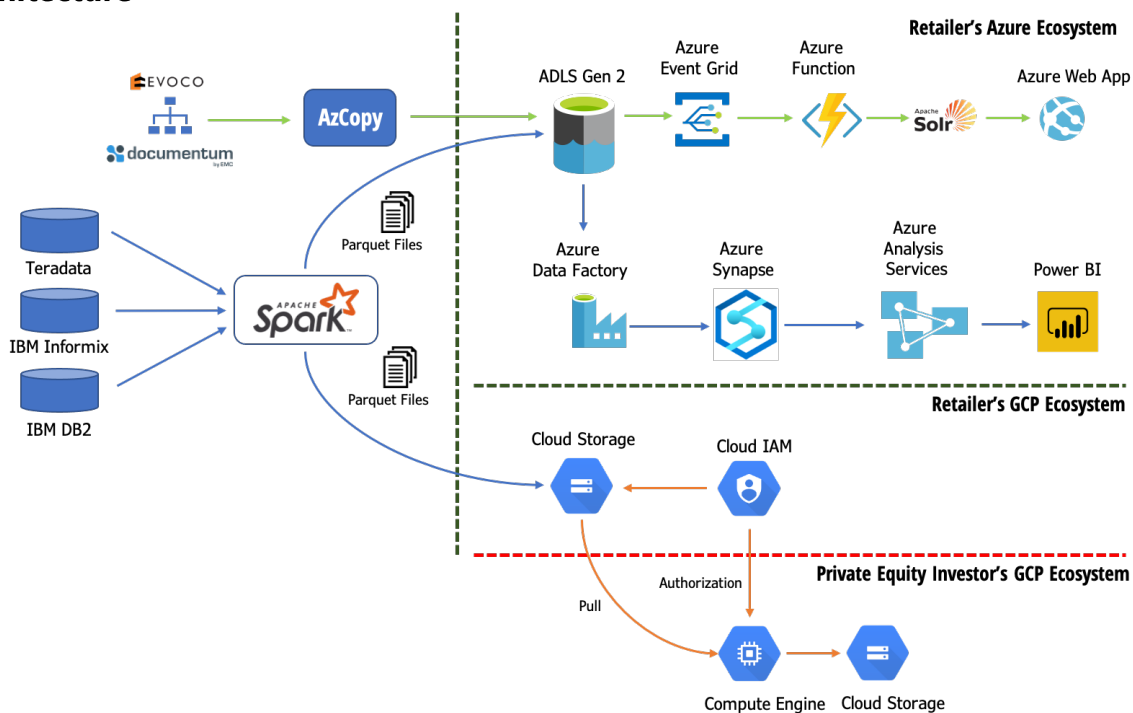**2TB** of structured data was copied daily to Cloud

Provided an easy-to-use web based interface to search compliance unstructured data **(~20 TB)**.

Implemented a modern data lake/warehouse ready to support future advanced analytics

Solution Architecture

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