



LIXAR

DRIVEN
BY DATA

PREMIER AI & DATA COMPANY

Jumpstart your Data Modernization Journey with SYNAPSE JUMPSTART

WHAT IS SYNAPSE JUMPSTART?



The **Synapse Jumpstart Proof-of-Concept (PoC)** is a pilot analytics project designed to start your data modernization journey off on the right foot. Leveraging the power of **Microsoft Synapse Analytics, Azure Purview, and Power BI**, this PoC will take you from web-based applications to the cloud, and show you how your most valuable resource — your data — can be turned into meaningful, interactive insights, in just a matter of weeks.

INGEST

- | Ingest data
- | Persist hybrid data in raw format

TRANSFORM

- | Process and curate the ingested data
- | Surface the data

ENGAGE

- | Create data visualizations and data insight driven by the curated data

WHY SYNAPSE JUMPSTART?



Key Value Propositions of the SYNAPSE JUMPSTART PoC:

- | **Lower the costs** of creating and maintaining a secure data engineering pipeline at scale
- | **Accelerate innovation** and increase business agility with data modernization success
- | Gain insights faster with reliable, **high-volume ingestion of hybrid data**
- | **Increase productivity** and do more with existing resources by leveraging the right partners and tools

THE DATA JOURNEY



Crawl

Firms with little to no experience in advanced analytics, BI, or data-driven decision-making

Walk

Experienced in BI. Decisions are data-driven. Have dabbled in advanced analytics

Run

Business models transformed by advanced analytics. All decisions are data-driven

Associated Activities

Data Visualization

Leveraging data visualization tools to explore your data

Data Advisory

Data workshops, consultation, and advice

Data Engineering / Infrastructure

Data Lake - Hadoop ecosystem, data pipeline, APIs
Cloud

Strategy & Roadmap Development

Data strategy written for the enterprise
AI use cases

Data Science

Proofs of Concept - Constrained projects to show what is possible, help build support for further projects, gain experience
Production Algorithms/AI to support decision-making

Advanced AI

Automation through Artificial Intelligence

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Synapse Jumpstart PoC

Synapse Jumpstart Phase 2

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SYNAPSE JUMPSTART



DATA
SOURCES



DATA
FACTORY



DATA LAKE
STORE



AZURE
SYNAPSE



POWER
BI

Ingest



Transform



Engage

Synapse's industry leading price-performance comes from leveraging the Azure ecosystem and core SQL Server engine improvements to produce massive gains in performance.

These benefits require no customer configuration and are provided out-of-the-box for every data warehouse

- **Gen2 adaptive caching** – using non-volatile memory solid-state drives (NVMe) to increase the I/O bandwidth available to queries
- **Azure FPGA-accelerated networking enhancements** – to move data at rates of up to 1GB/sec per node



Azure Synapse Data Warehouse securely exposes the data to Power BI

- **Instant data movement** – leverages multi-core parallelism in underlying SQL Servers to move data efficiently between compute nodes
- **Query Optimization** – ongoing investments in distributed query optimization



Synapse Jumpstart Objectives:

1

Synapse Jumpstart PoC platform based on state-of-the-art **cloud** services to illustrate the overall vision.

2

Establish an end-to-end flow including **ingestion**, **processing** to **normalize** and validate data, and visualization.

3

Securely store newly modelled data within **Synapse Data Warehouse** and Show advanced **visualization** capabilities available out of the box on **Power BI**.



Proposed Architecture

The proposed architecture for this PoC is based on the Microsoft Azure platform. Our aim is to set up and manage a lightweight and elastic platform that can ingest up to 3 data sources, persist it in raw format, process and curate the ingested data, surface the data, and create a data visualization driven by the surfaced data.

Milestone	Delivery Date
ANALYSE AND ADVISE Accelerated Technical Advisory, assessment of environment, infrastructure and data modernization and analytics readiness, establish areas of focus within Synapse - solidify data foundation, security, analytics and data governance.	Weeks 1-2
DEPLOY AND PRESENT ROAD MAP FOR PHASE 2 Architecture and design phase one, proof of Value/MVP where Synapse services based on established priorities are created and delivered, one power BI visual/dashboard, optional purview setup.	Weeks 3-4
Estimated Cost	\$50,000

Lixar will provision all of the required services to demonstrate the functionality of a working data pipeline.



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