

# UP AND RUNNING

How to make your Azure Synapse Analytics Proof of Concept a Success

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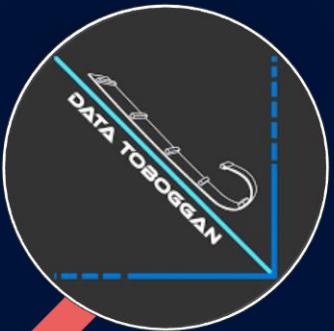
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# Implementation Success By Design

Not part of the PoC Playbook process, however this can be used to validate a Synapse Analytics implementation project.

## Evaluation Steps

-  Environment & Workspace analysis
-  Data Loading Design (ETL/ELT)
-  SQL Pools design
-  Spark Pools workload evaluation
-  Environment planning and setup
-  Project plan high-level review
-  Team Skills
-  Operational Readiness
-  User training
-  Monitoring review

# Session Overview



Proof of Concept Description

Success by Design & PoC Playbooks

Demo – Synapse Analytics Dedicated SQL Pools



# "A PoC is not a quick hack"

Matthew Adams, endjin



# proof of con·cept

[proof of concept]

NOUN

evidence, typically deriving from an experiment or pilot project, which demonstrates that a design concept, business proposal, etc. is feasible



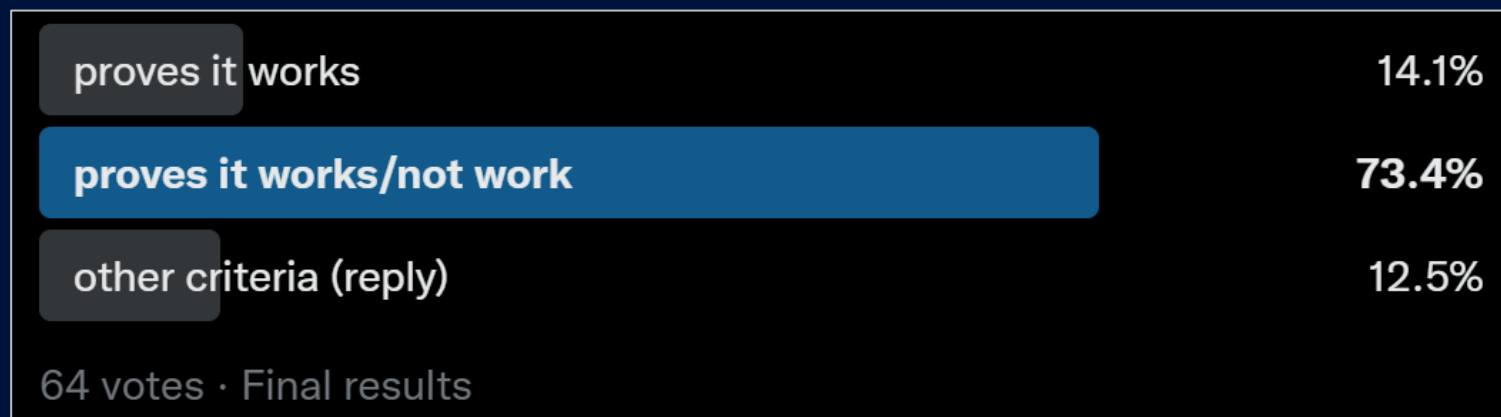
# Proof of Concept (PoC)

When engaging in a PoC with Synapse Analytics, we're looking to test whether the platform meets a set of requirements and goals set out by the business

We must define goals to assess the outcome of the PoC

How do we define "success"?

We need to complete the PoC to assess the outcome





# PoC in the Product Development Process

A PoC is not an isolated piece of work, it exists as a stage in the product development process



A PoC can lead into an MVP once the core platform has been evaluated and goals have been reached



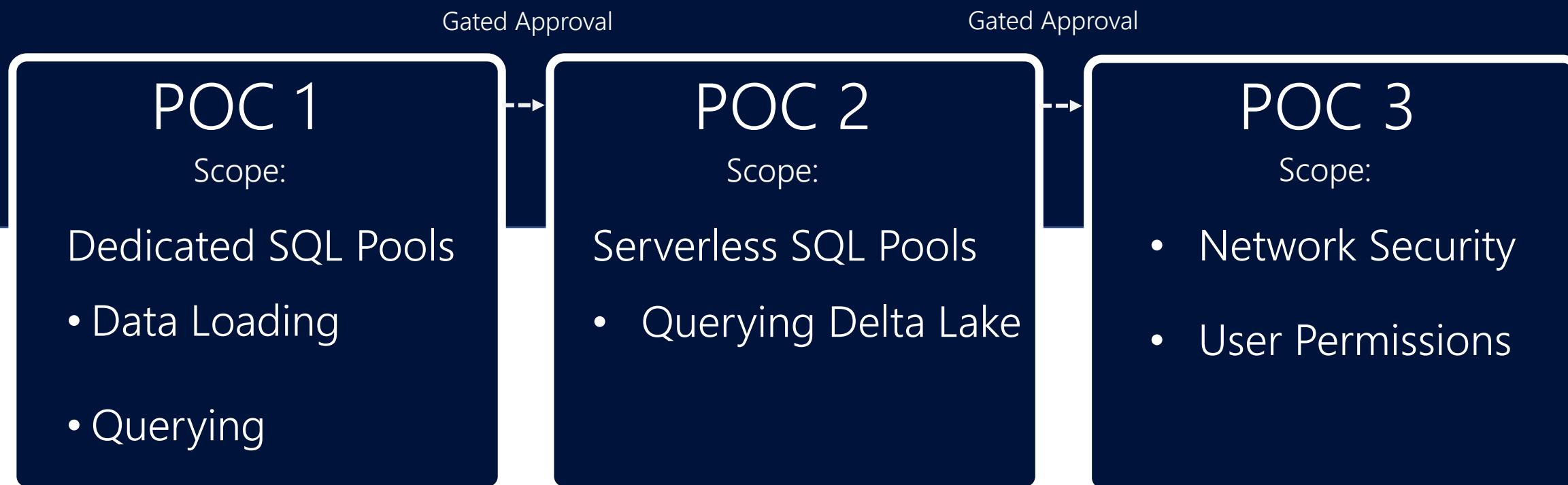
# PoC Scope

How do we choose the features and processes required to run a PoC?



# Create Multiple POCs

Create a chain of POCs and group areas of interest



Be realistic in POC scope



# Success by Design

A set of playbooks and implementation guidance to help plan for, execute, and validate a Synapse Analytics project

Created by the Customer Success Engineering team



Azure Synapse proof of concept playbook



Azure Synapse implementation success by design



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# Proof of Concept Playbook

There are 3 playbooks currently available.

## Dedicated SQL Pools

Steps required to successfully plan for and step through a PoC for a Data Warehousing workload

## Serverless SQL Pools

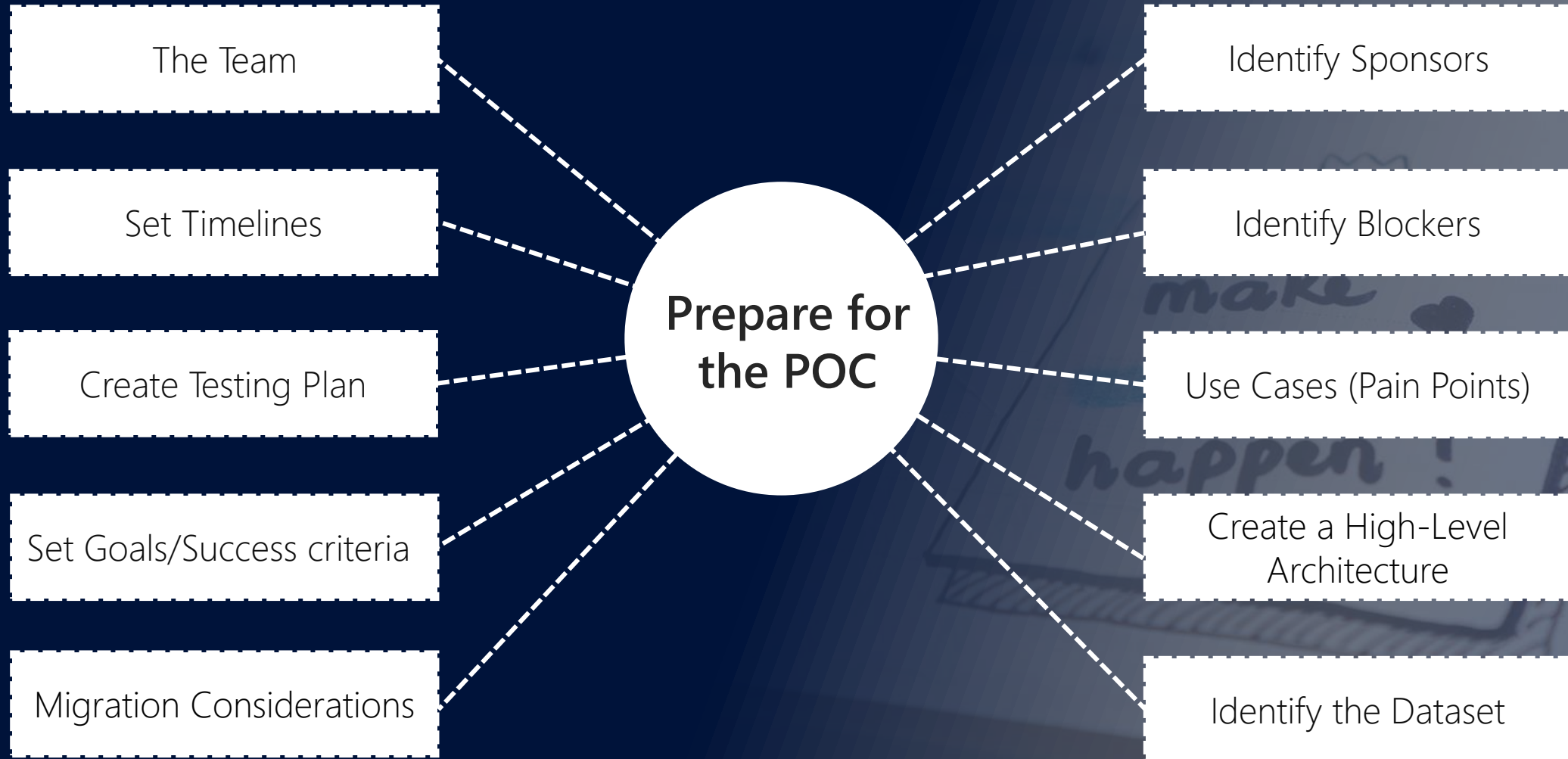
Evaluate usage scenarios for adhoc data lake exploration, logical data warehousing, and data transformation

## Spark Pools

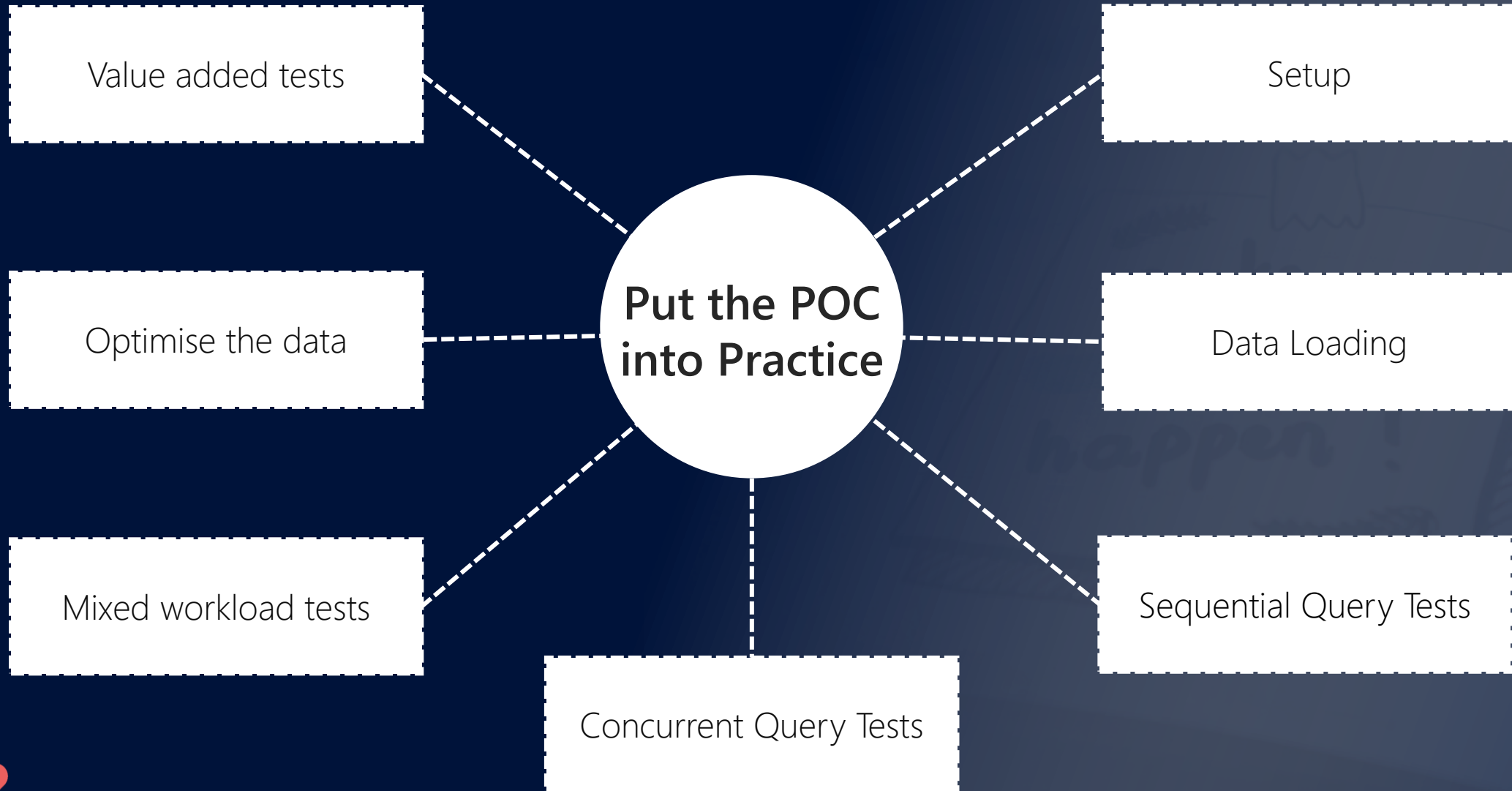
Evaluate Spark Pools within a big data workload to assess suitability

There are no playbooks for pipelines, data explorer or Power BI integration

# Dedicated SQL Pools POC Playbook



# Dedicated SQL Pools POC Playbook



# Put the POC into Practice

Create & Configure Synapse Workspace

Create a Dedicated SQL Pool

Load Data into the Dedicated SQL Pool

Run Queries

Document query run-times





# Timeline

Create 2-week timeline for a single POC for loading and querying data

Setup of the environment is not included in PoC timeline



# Dedicated SQL Pools POC Playbook

## Dedicated SQL Pools considerations

Workload Management & Importance (Mixed workloads)

Resource Classes (data loading and querying)

Table distribution (Hash, Round Robin, Replicate)

Indexing and Partitioning (ensuring we do not over partition)

Data Movement (reduce data movement)

Security (user access and network access)



# References

- [What Is Proof of Concept \(POC\)? Definition, Steps & Best Practices \(projectmanager.com\)](#)
- [Prototyping and Proof of Concept: Charting and Data Visualization on the Microsoft Platforms | endjin - Azure Data Analytics Consultancy UK](#)
- [Success by design - Azure Synapse Analytics | Microsoft Docs](#)
- [Create an Azure Synapse Analytics dedicated SQL pool \(formerly SQL DW\) using Bicep - Azure Synapse Analytics | Microsoft Learn](#)
- Photo by Atul Choudhary: <https://www.pexels.com/photo/white-and-blue-crew-neck-t-shirt-2868257/>

