

# Integrate Power BI with Azure Synapse Analytics

## 4 Week Assessment

Sales Play: New Analytics with Synapse & Power BI

Solution Area: Data & AI

SNP leverages Azure Synapse Analytics to give customers limitless analytics through integrating data ingestion, data warehousing, data storage, data engineering, data transformation, machine learning modeling, and business intelligence solutions into a single service. We help you build and maintain a productive, robust, scalable and agile data platform in Azure.

With Power BI- users get insights, by creating interactive visualizations from the data gathered, sorted, and stored in their data warehouse. With these two capabilities, Azure Synapse gives customers the potential to transform their business through data.

In our 4-week assessment, customers will receive a hands-on consulting engagement where we will provide architecture design recommendations for their Data and BI Platform using Synapse and PBI environment. Our 3-step approach will cover:

- ❖ Learning about the customer’s data estate & BI landscape.
- ❖ Workshops on leveraging Azure data estate (Synapse/PBI,ADF,ADL) for the customer use case to design a scalable, secured and high performing data platform and BI system.
- ❖ Recommendations and next steps



DevOps  
Data Platform  
Data Analytics  
Cloud Platform  
Datacenter  
Cloud Productivity  
Application Development  
Collaboration & Content  
Security

### Step 1: Learn about customers data estate

SNP will work with your team to understand your data estate to identify the customer scenarios where Power BI with Synapse can be leveraged upon by focusing on:

1. The customer’s existing data platform architecture and various data sources
  - Data source assessment: file based, relational, API’s etc.
  - Volume and sizing assessment (memory, disk, processor)
  - Datawarehouse & DataMart's
2. Review the existing data processing engines:
  - ETL tools/data processing tools/data integration tools
  - Existing initial/incremental loads systems
  - Performance/Security/Governance
3. Existing BI platform (reports/dashboards, scorecards)
4. Review the customer's data and BI consumption layer
  - Types of end users ,access models
  - Integration points
  - Security ( authentication and authorization/data protection)
  - Existing governance model
  - Performance metrics
5. Analytics (existing ML/Data science models)
6. Any additional business/technical requirements

**Note: Customer to provide the above required information during the virtual walkthrough sessions**

**Step 2: Workshops on leveraging Azure data estate (Synapse,PBI,ADF,ADL) to design a scalable, secured and high performing data platform and BI system**

1. Synapse analytics integration platform features

1.1 PBI (Power BI) Features

- Seamless Integration of Synapse with PBI
- Result-set caching feature to increase report performance in direct query storage mode
- Materialized Views feature to increase report performance in direct query storage mode

1.2 ADF (Azure Data Factory)

- Copy Activity to orchestrate the data
- Data Flow
- Pipeline

1.3 ADLS (Azure Data Lake Storage)

- Notebooks
- Compatibility with PySpark (Python), Spark(Scala), .NET Spark (C#), and Spark SQL languages to write code seamlessly within the same notebook.
- Quick Reads like Preview Data, Read Data into a Notebook with Spark .. Etc.

1.4 Azure ML Service and MLOps

1.5 Access control, Security, Data Encryption, Azure Key Vault

**Step 3: Recommendations on next steps to take this forward**

**Deliverables**

- Benefits of leveraging Synapse Analytics Integration platform
- Recommendations on next steps

**Disclaimer: Duration of the engagement will be determined post the discovery session**

**MICROSOFT ADVANCED SPECIALIZATIONS**

- ❖ [Windows Server and SQL Server Migration to Azure](#)
- ❖ [Modernization of Web Applications to Microsoft Azure](#)
- ❖ [Azure Virtual Desktop](#)
- ❖ [Kubernetes on Microsoft Azure](#)
- ❖ [Networking Services](#)
- ❖ [Cloud Security](#)

	<p><b>2021 PARTNER OF THE YEAR AWARD WINNER</b> Business Excellence in Solution Assessments</p>
	<p><b>2019 US PARTNER AWARD WINNER</b> Intelligent Cloud- OSS on Microsoft Azure Award</p>
	<p><b>2019 PARTNER OF THE YEAR FINALIST</b> Open-Source Applications &amp; Infrastructure on Azure Award</p>
	<p><b>2018 US SI PARTNER OF THE YEAR WINNER</b> Solution Innovation on Microsoft Azure Award</p>