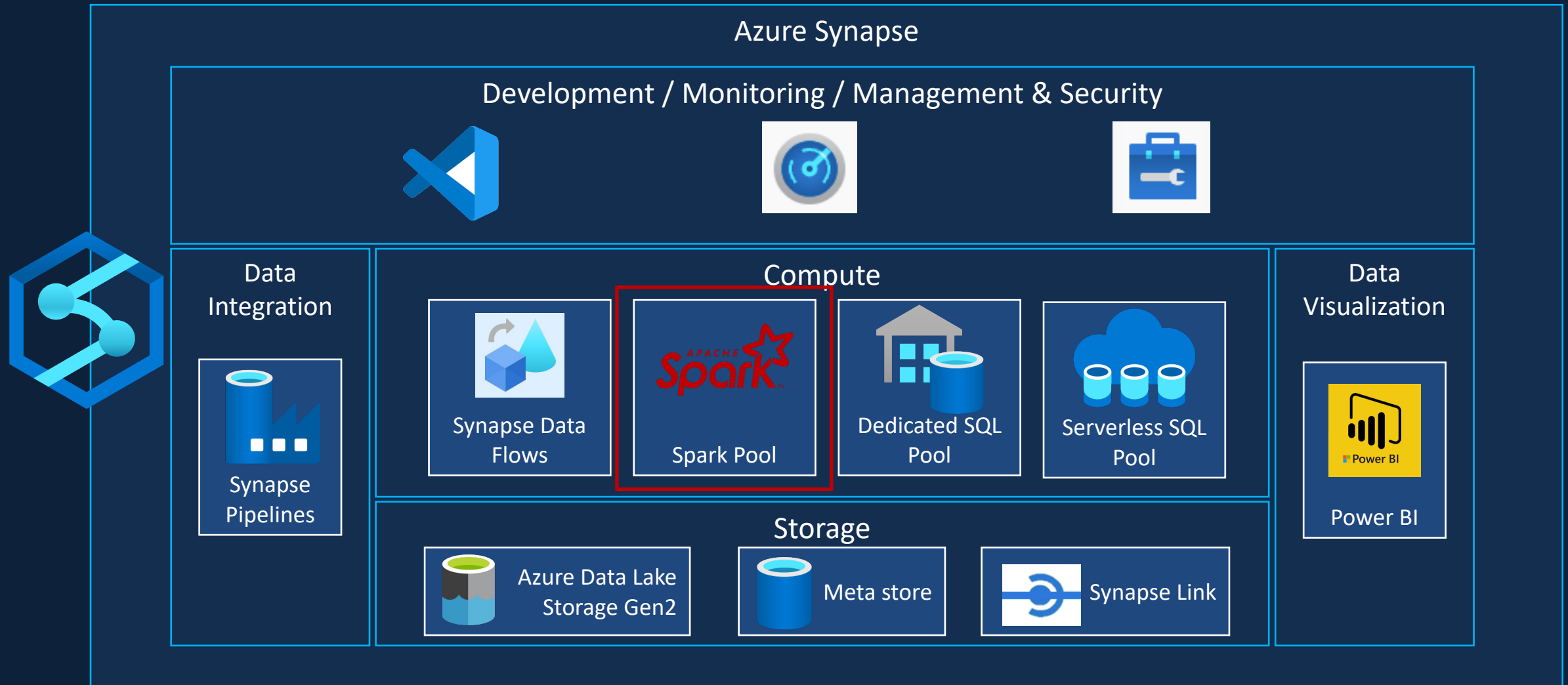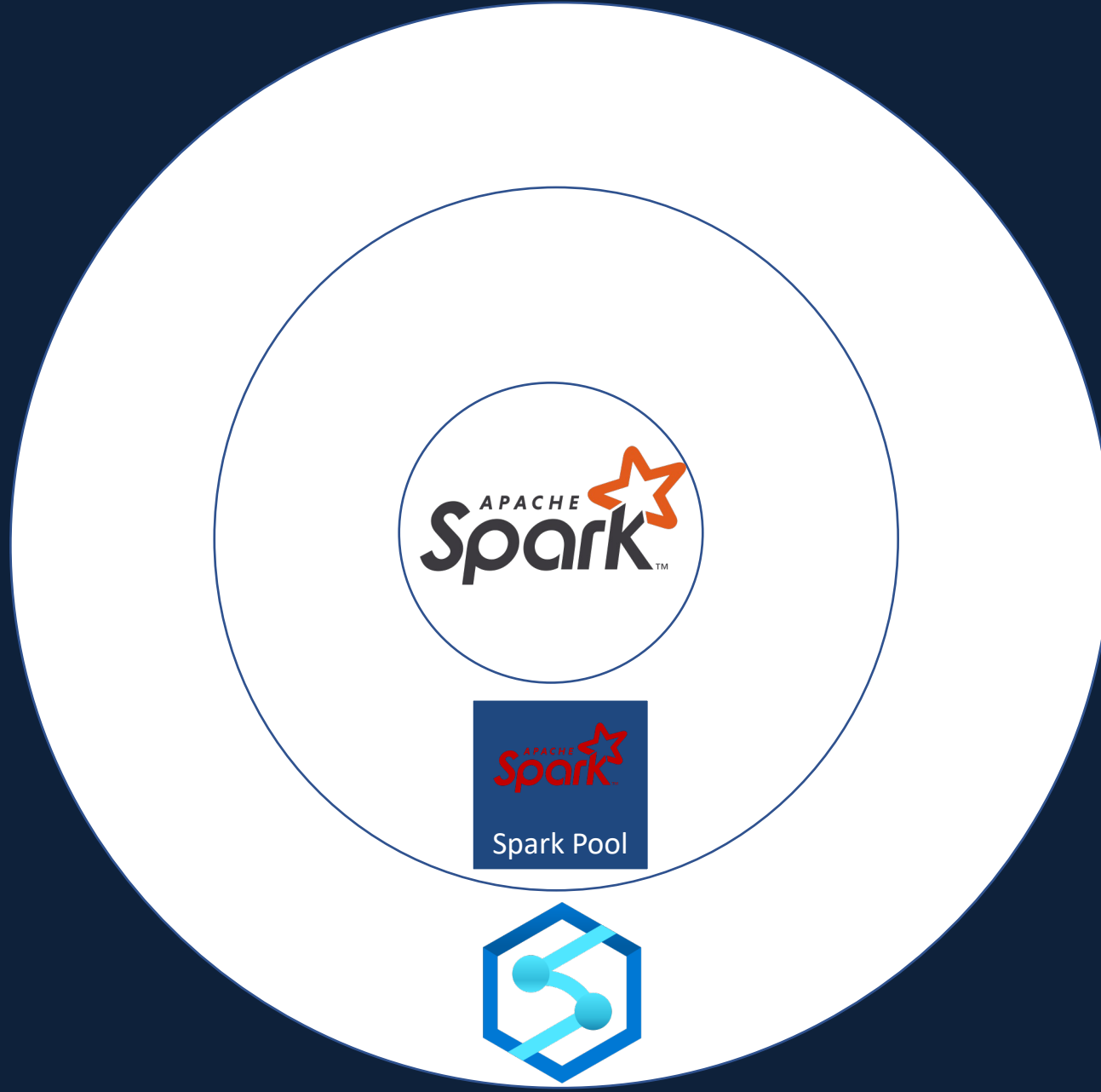# Azure Synapse Analytics – Spark Pool

Azure Synapse Analytics – Spark Pool

Apache Spark

Apache Spark is a lightning-fast unified analytics engine for big data processing and machine learning

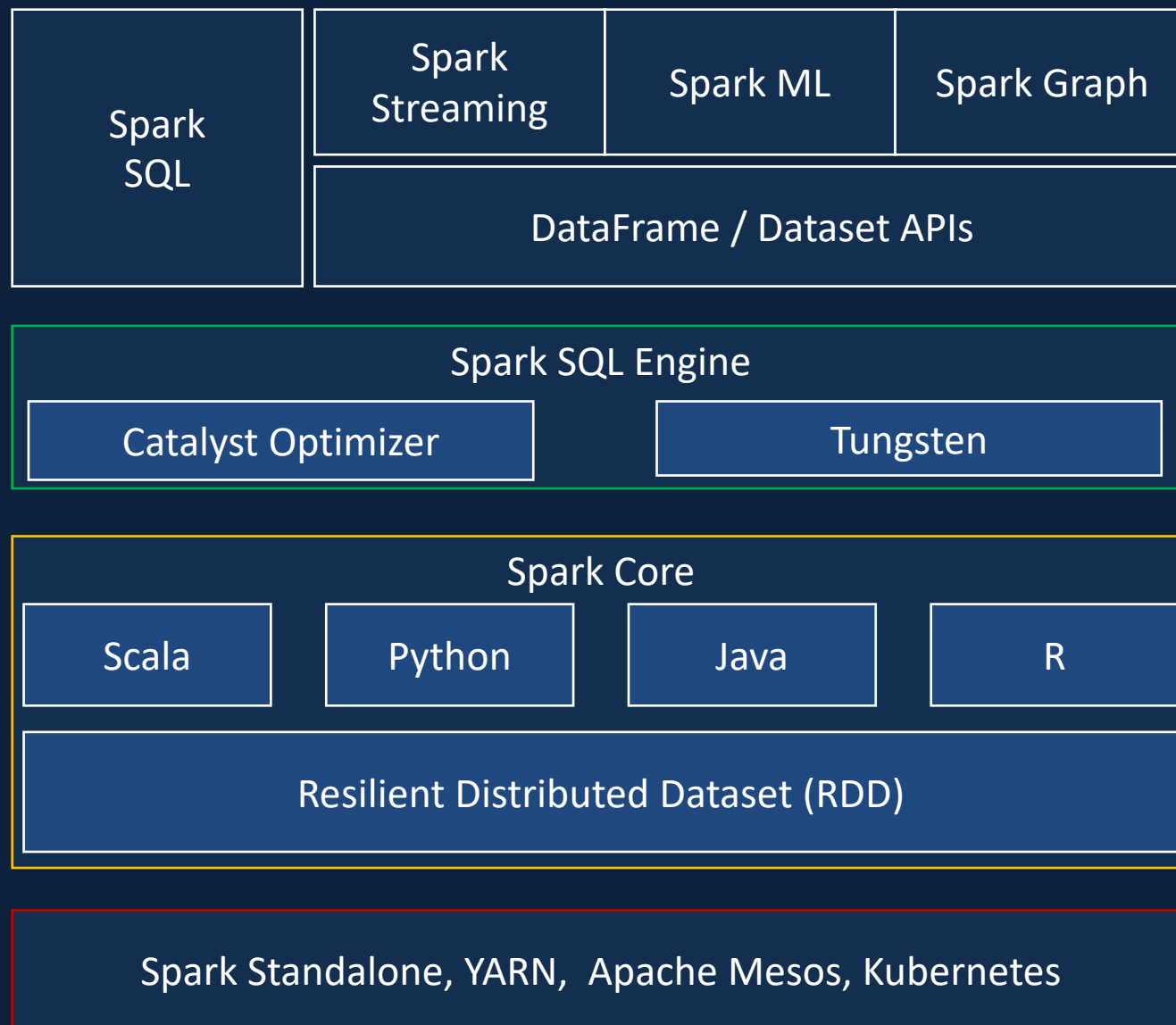100% Open source under Apache License

Simple and easy to use APIs

In-memory processing engine

Distributed computing Platform

Unified engine which supports SQL, streaming, ML and graph processing

Apache Spark Architecture

Azure Synapse Analytics – Spark Pool

Ease of pool creation

Use of notebooks

Delta Lake

Scalability

Pre-loaded libraries

Integration with 3rd party IDEs

Support for C#

Integration with Serverless SQL Pool

Azure Synapse Analytics – Spark Pool Use Cases

Spark Pool

Data Preparation/ Data Transformation

Machine Learning