Predictive Maintenance Reference Architecture

Orchestration/Triggers
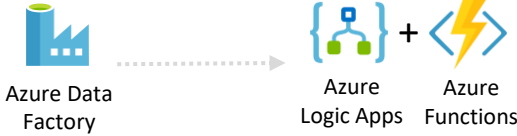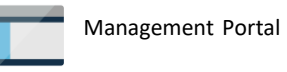
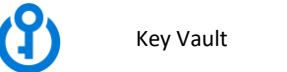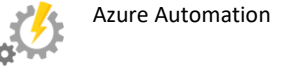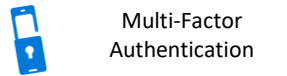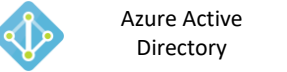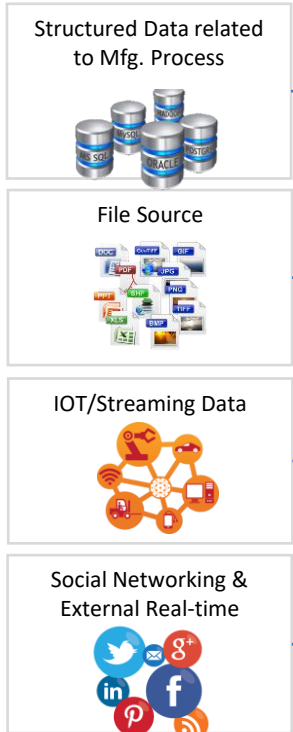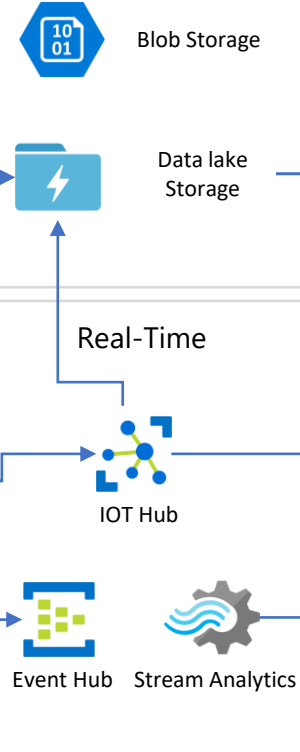Azure Data Factory → Azure Logic Apps + Azure Functions

Data Generation

- Structured Data related to Mfg. Process
- File Source
- IOT/Streaming Data
- Social Networking & External Real-time

Storage

- Blob Storage
- Data lake Storage

Real-Time

- IOT Hub
- Event Hub
- Stream Analytics

Processing

- Data Lake Analytics
- Machine Learning
- R Server
- Spark Streaming
- HDInsight
- databricks
- Spark

Structured Storage

- Azure SQL DB
- SQL Data Warehouse
- Blob Storage
- Azure Analysis Service

Catalog/Search

- Azure Search
- Azure Data Catalog
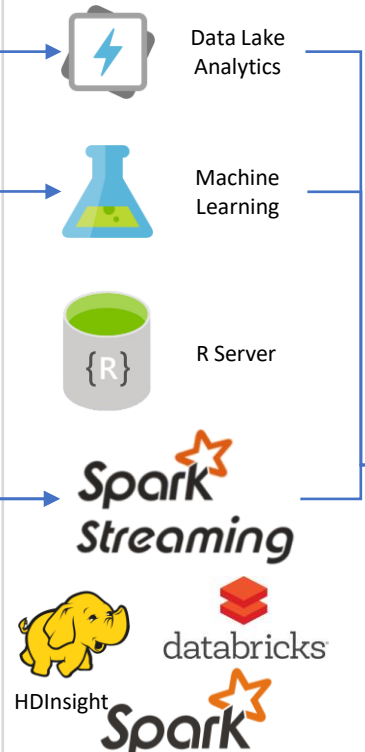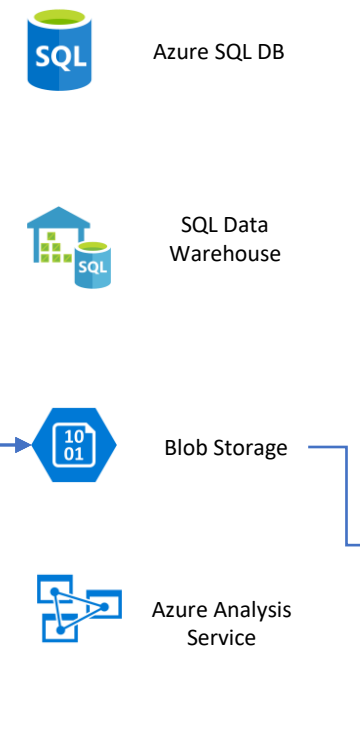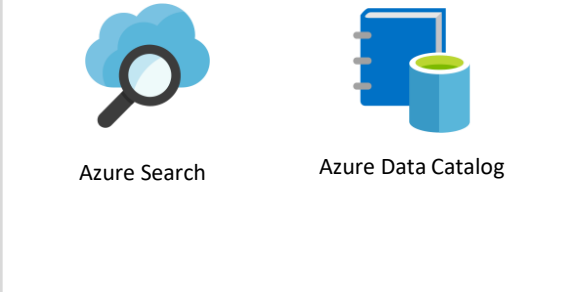
Consumption/Visualization

(Excel, Power BI, Python, R, Jupyter, Tableau, etc.)

Security & Management

- Security Center
- Azure Active Directory
- Multi-Factor Authentication
- Azure Automation
- Azure Scheduler
- Key Vault
- Management Portal

Data Pipeline

Data Producer → Data Storage → Data Transformation → Data Schema → Data Consumer