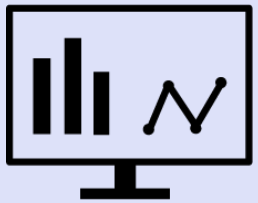
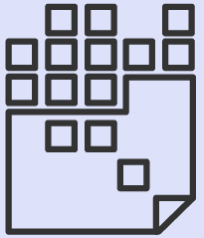
Data Capability

Services Offering

DATA STRATEGY

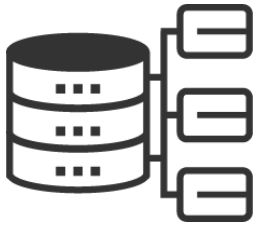


BUSINESS INTELLIGENCE

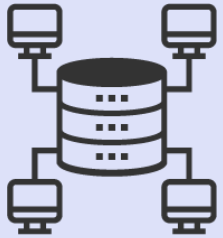


ADVANCED ANALYTICS

DATA MIGRATION



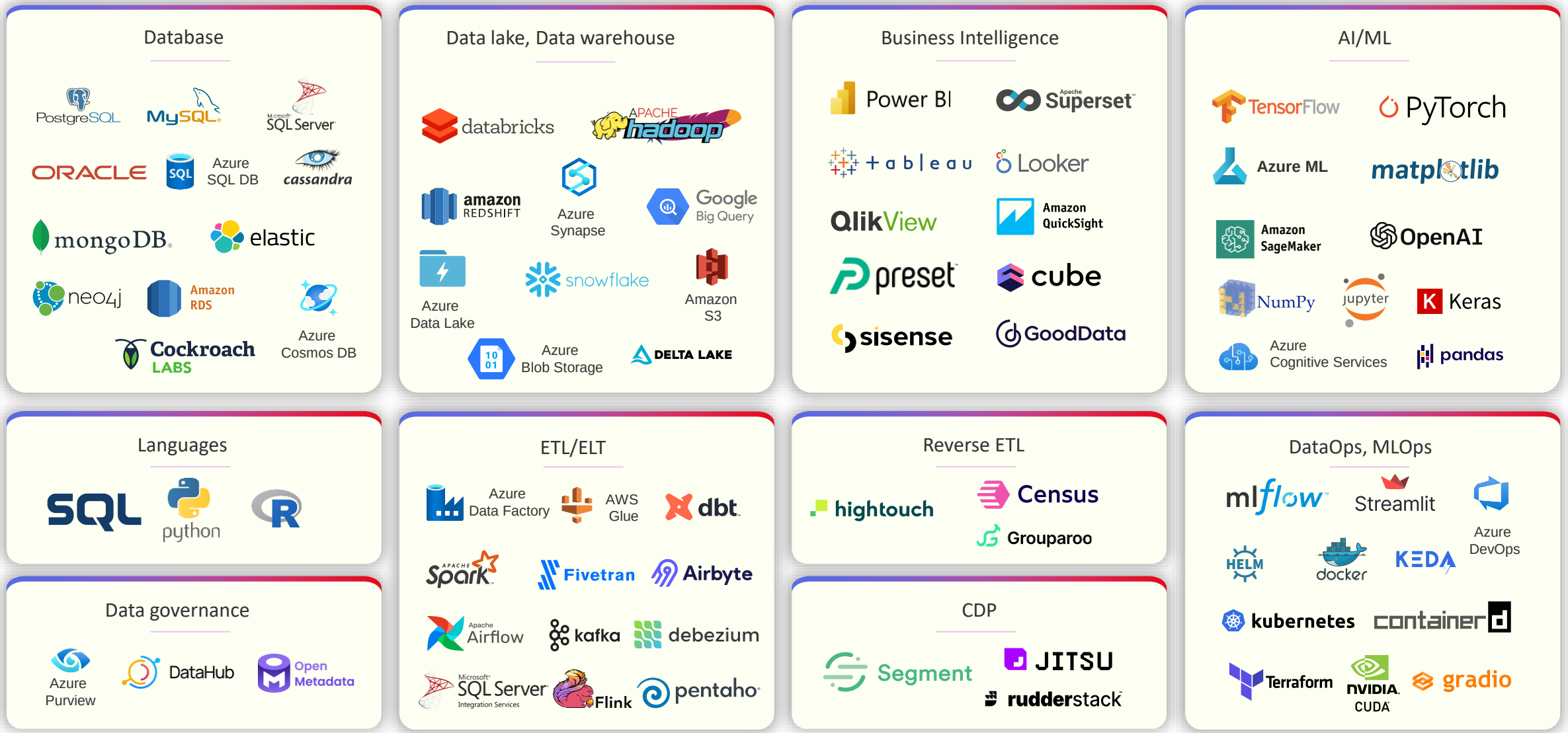
DATA MANAGEMENT



DATA WAREHOUSE

“NashTech has the scale and experience to accelerate the execution of your data strategy.”

Composable Data & AI landscape



Data migration capability

Experience at NashTech – migration scenarios

On-premise to on-premise

- ✓ Migrate from Oracle to MS SQL
- ✓ Migrate from MS SQL to Neo4j(NoSQL)
- ✓ Migrate from Oracle to PostgreSQL

On-premise to Cloud

- ✓ Migrate on-premise to AWS (RDS,Redshift, Aurora, DynamoDB)
- ✓ Migrate on-premise to Azure (Azure SQL,Synapse, CosmosDB)
- ✓ Migrate on-premise to Google (BigQuery, CloudSQL)

Cloud to Cloud

- ✓ Migrate from Azure SQL to Snowflake
- ✓ Migrate from Amazon RDS to Amazon Aurora

Data Migration tools & services at NashTech

On-premise

Apache Airflow

pentaho

kafka

Microsoft SQL Server Integration Services

dbt

Fivetran

ORACLE DATA INTEGRATOR

Debezium

AWS

AWS DMS

Amazon EventBridge

Amazon Redshift

Amazon Kinesis

AWS Step Functions

Amazon DynamoDB

AWS Glue

AWS Lambda

Azure

Azure SQL

Azure Synapse

Azure Data Factory

Azure Event hubs + Stream analytics

databricks

Azure DevOps

Common challenges and solutions

Challenges	Mitigations
Data quality Inconsistent, incomplete, or inaccurate data can lead to problems	Conduct a data quality assessment and have corrective action
Downtime and Business Continuity require downtime, causing disruptions to business operations	Choose appropriate migration technique/approach
Compatibility issue incompatibility between the source and target systems	Careful planning – data types and structures
Data security and compliance Without proper security measures can lead to breaches and non-compliance	Consider security options and ensure compliance with data protection regulation
Performance Migrate large volume of data can lead to extended migration time& resources	Choose appropriate migration technique/approach
Testing Inadequate testing can lead to data corruption or loss during migration	Careful planning – how/what to test

Data migration steps – Incremental Approach at NashTech

Discovery

- Assess business objectives
- Identify the status of your data – what need to be migrated, where it is stored, its current format
- Discover the gap between source and target databases
- Define a migration checklist

Planning

- Build business and IT alignment – zero downtime or minimum
- Establish the size and scope of migration
- Identify security risk, compatibility issues
- Evaluate migration tools
- Establish a rollback plan & backup method
- What is the suitable scope to start with?

Construction

- Choose the right migration approach
- Prepare prod-like environment
- Build migration scripts
- Define test cases and test scripts
- Execute migration scripts and validate data
- Compose a runbook – steps to be done in PROD environment

Deployment

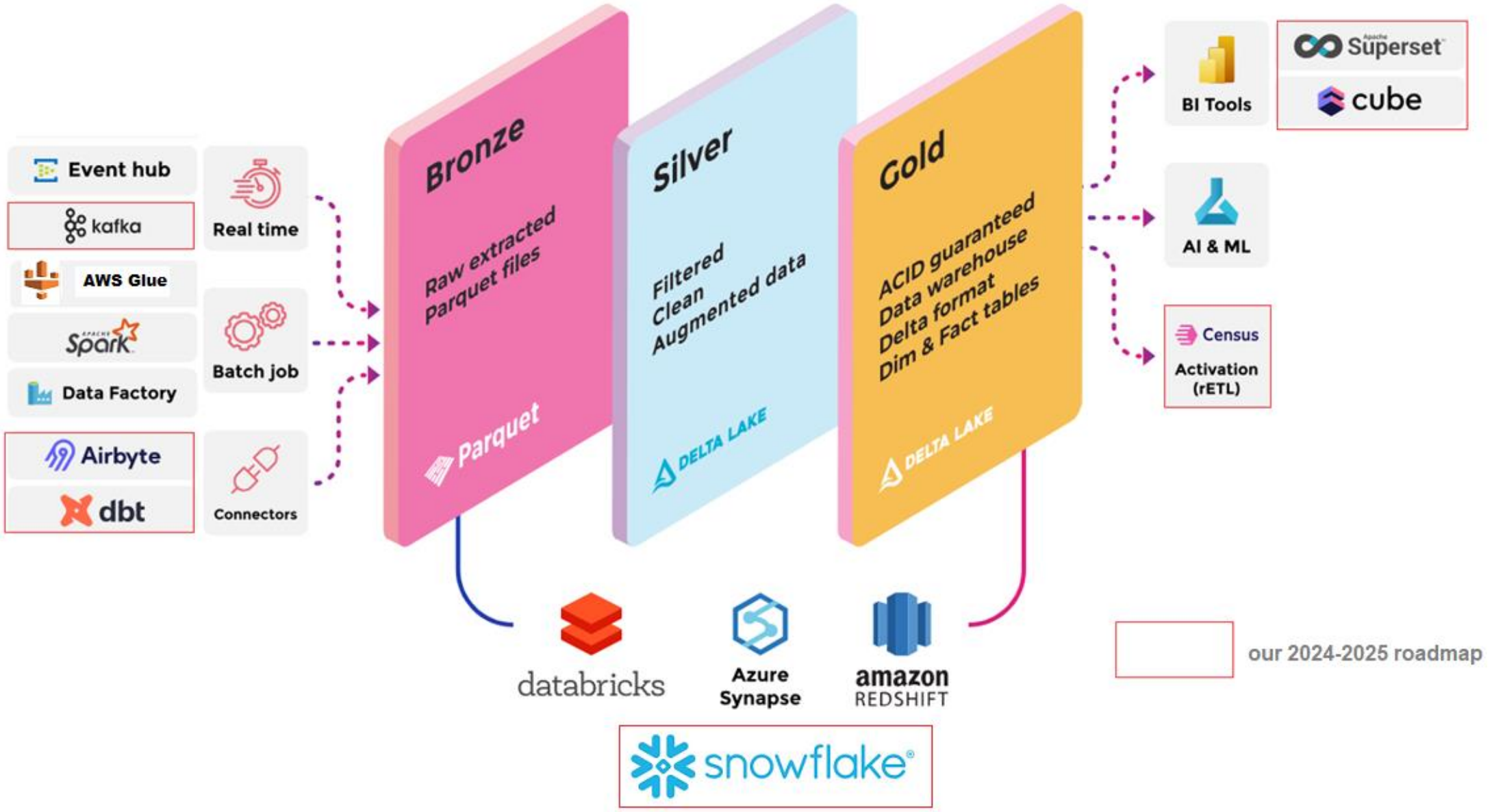
- Ensure data is backed up
- Follow the runbook to execute data migration scripts
- Test the final system – unit, system, volume, integration, batch and web-based testing
- Ensure no connectivity problems with source and target systems

Support & Maintenance

- Identify and fix issues that may happen after go live
- Support and maintain the new system

NashTech
Data Accelerators

Modern data solution architecture



Supported Features

Data ingestion

- Support multiple endpoints like SQL, CSV, JSON.
- Batch processing with AWS Glue, Azure Data Factory, and Databricks.
- Real-time support utilising AWS Kinesis, Event hubs and Stream Analytics.

Data Lakehouse

- Build a Lakehouse solution using Redshift, Synapse, or Databricks
- Support Parquet and Delta Lake format.
- Improved Data analytics with Spark.

DataOps

- Use Terraform to provision infrastructure resources.
- Set up CI/CD pipelines with Azure Devops.
- DevOps Improved code quality, enhanced traceability through using Gitflow.

Data governance compliance

- Monitor database activities.
- Implement data protection and data encryption.
- Manage Access control and data policies.

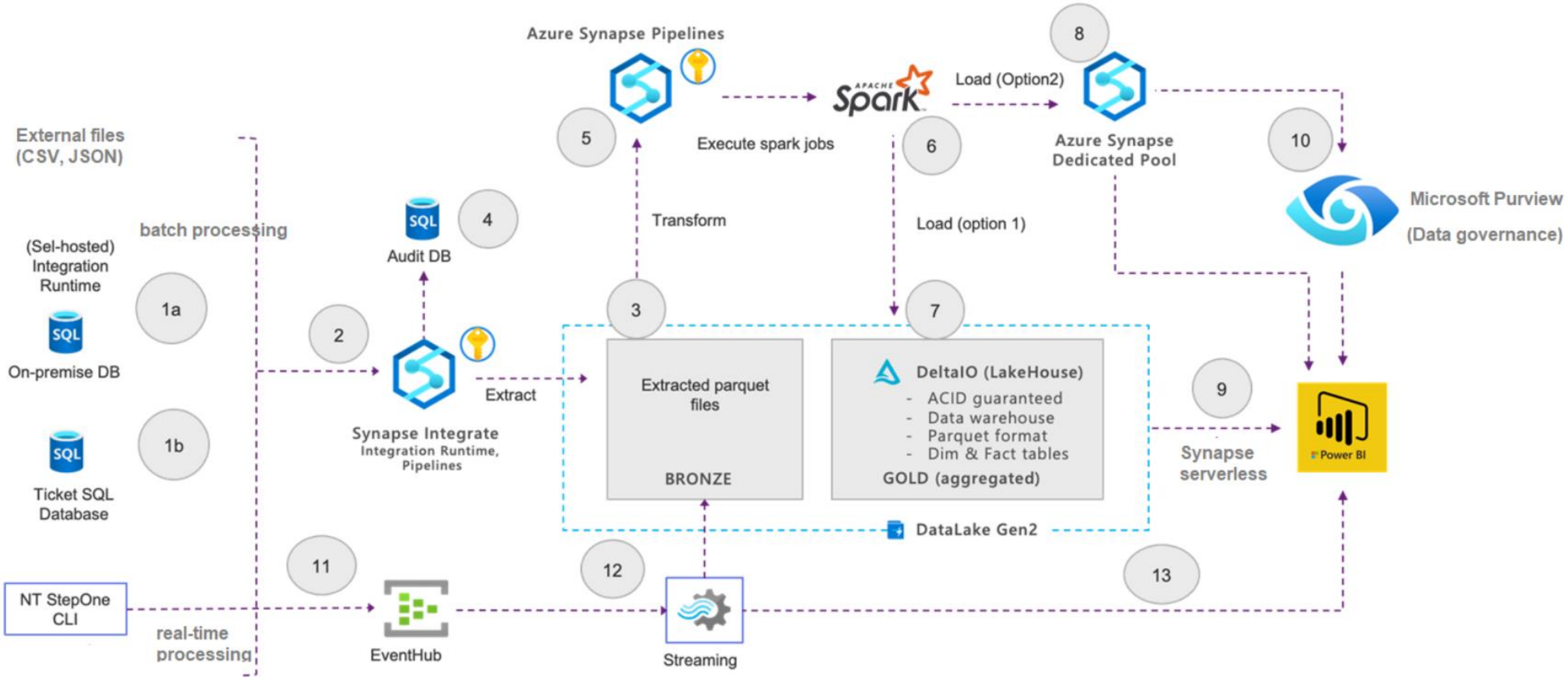
Embedded AI/ML

- Synapse / Databricks & Azure ML integration.
- StepOne AI integration.

Visualisation

- Visualize data with Power BI or QuickSights.
- Integrate with Synapse, Databricks, Redshift.
- Support Real-time analytics.

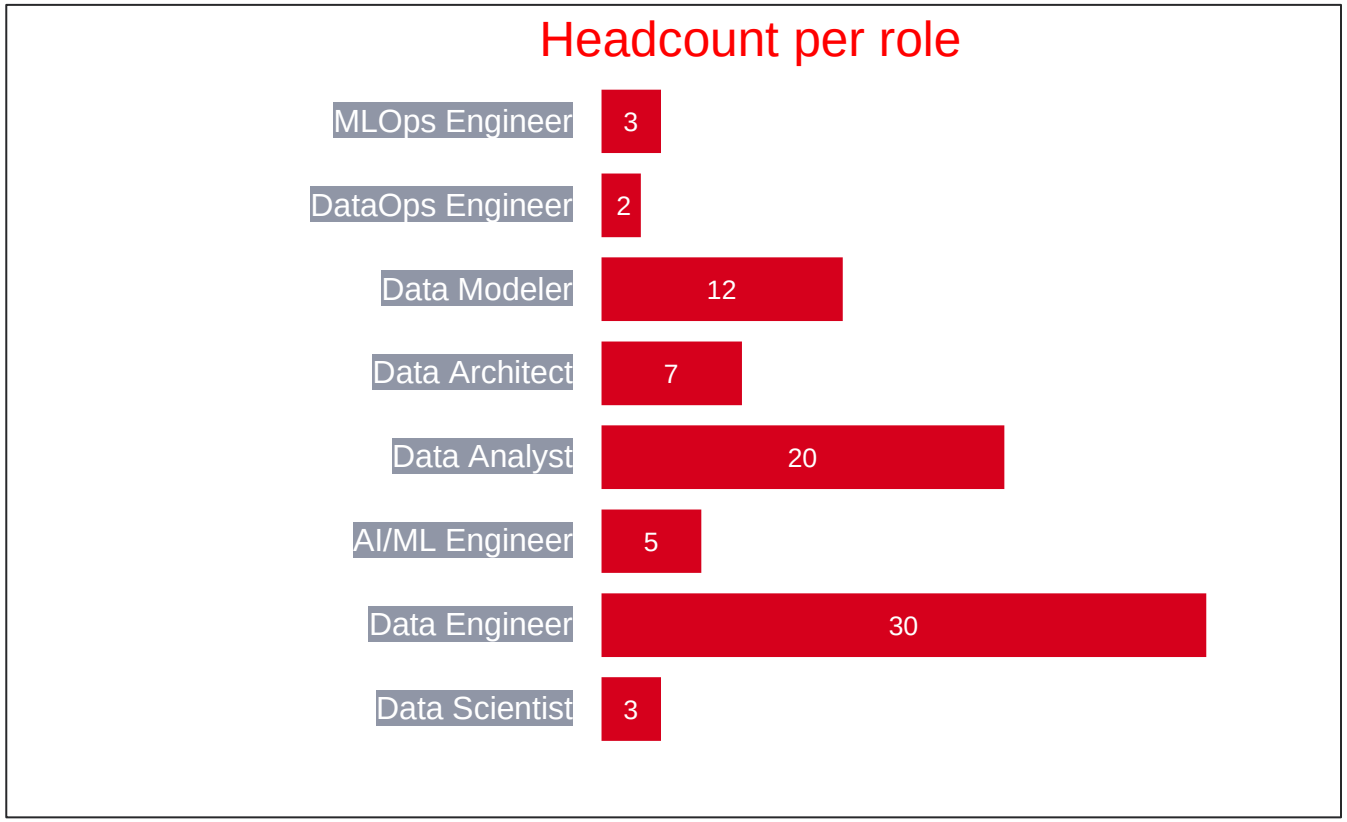
Azure Lakehouse architecture with Synapse



RESOURCES, CERTIFICATES, PARTNERSHIP

Our Data community

- Hanoi: 15
- HCM: 38
- and extended engineers coming from other competencies



Partnership

Microsoft
Solutions Partner

Data & AI
Azure

databricks

Certification

- MS Power BI Data Analyst (15, +6)
- Azure Data Engineer Associate (Current: 12, +5)
- Azure AI Engineer Associate (4, +2)
- Azure Data Scientist Associates (3, +1)
- AWS Certificated Database – Specialty (5, +2)
- AWS Certified Data Analytics – Specialty (3, +3)
- AWS Certified Machine Learning – Specialty (2, +1)
- Google Professional Cloud Database Engineer (2)
- Google AI TensorFlow (2)
- Tensor Flow Developer Certificate (2)
- Databricks - Data analyst associate (1,+1)
- Databricks - Data engineer associate (4,+3)
- Databricks - Machine learning associate / professional level (+1)

Thank you

Nash Tech.