LUXEMBOURG
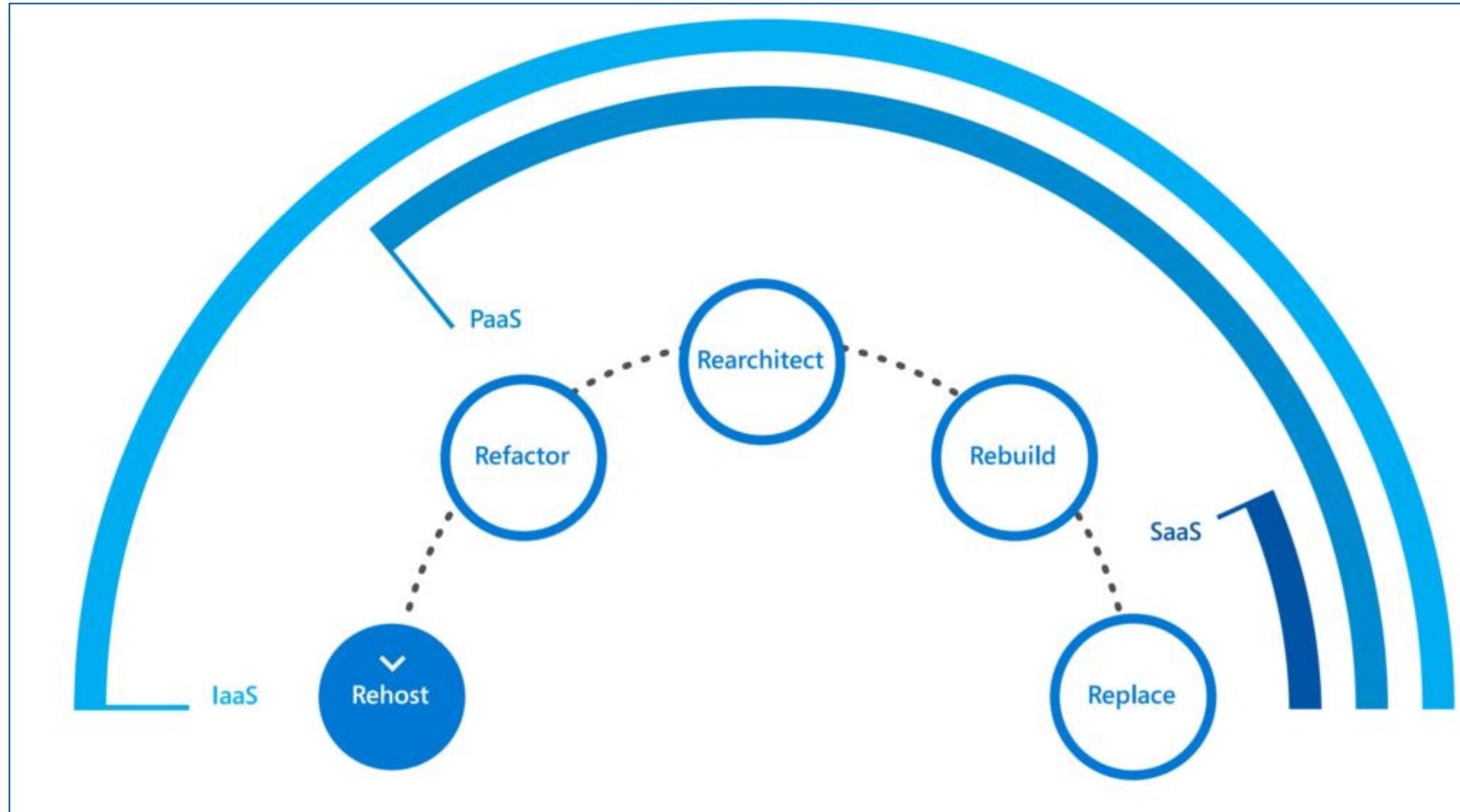
From SQL On-Premises to the Cloud

Making the Move to Azure
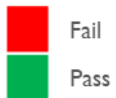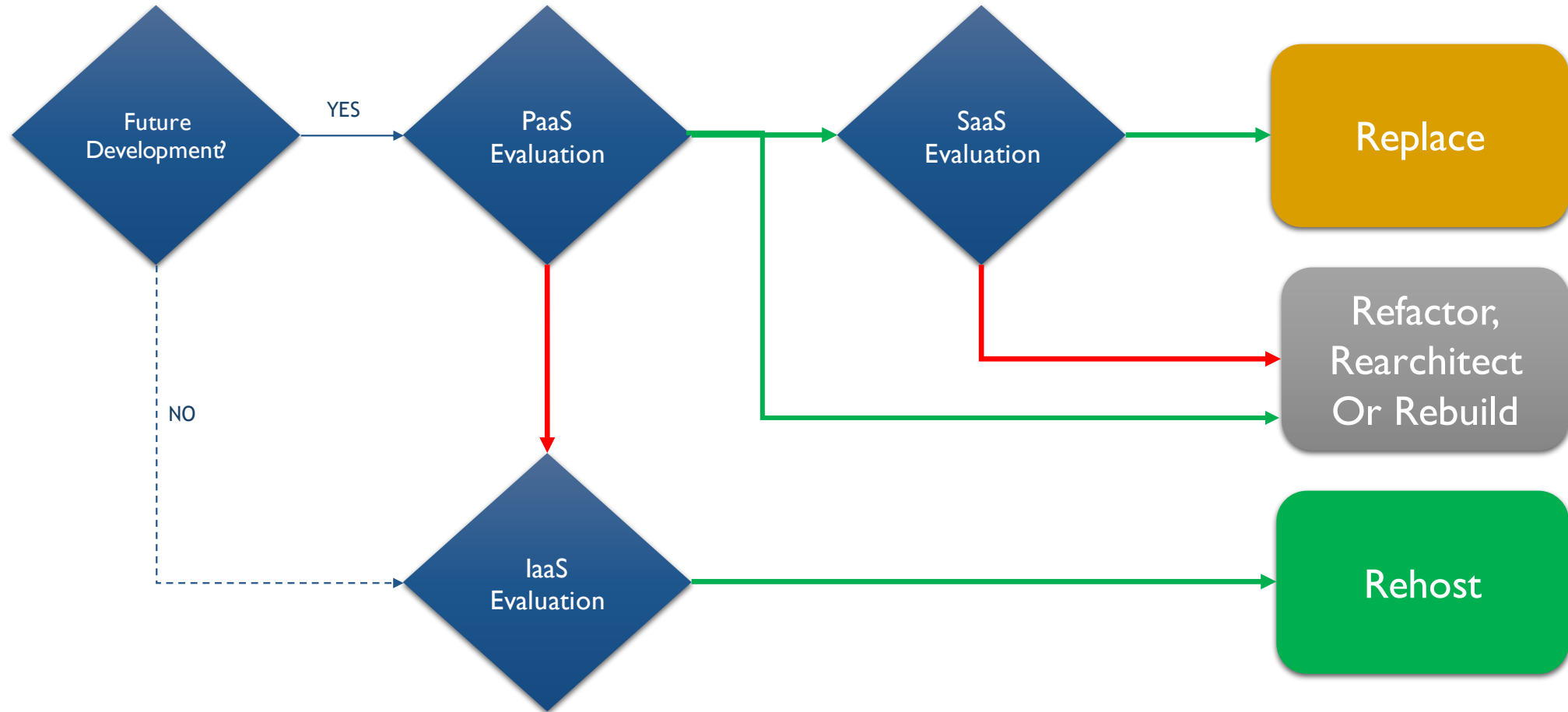
Azure Database Migration Service for SQL on-premises Migration

Microsoft

SWORD
UPGRADE *YOUR* BUSINESS

Strategies for Migrating to Azure

Strategies for Migration: Defining Your Best Option

Future Development? → YES → PaaS Evaluation → SaaS Evaluation → Replace

NO → IaaS Evaluation → Rehost

Refactor, Rearchitect Or Rebuild

Fail
Pass

*Migration Process Decision

Key Phases of a Data Migration Process

1 — Assess

2 — Migrate

3 — Optimize

4 — Secure and manage

Assess

Evaluate the needs

Create a migration plans

Evaluate the costs

Evaluate the resource needed (CPU, memory & storage)

Migration plan

Migrate

Choose the type of migration

Configure cloud environment

Migration of the server

Migration of the data

Migration of the analytical tools

Optimize

Optimize the costs

Review schedule process

Reinvest time and resources no longer used

Secure and manage

Get to know the security in Azure : user management, access,...

Discover tools : Azure Key Vault, Azure Sentinel, Microsoft Security,...

Put measure in place : encryption, backups, disaster recovery

Monitor performance of traffic and compute

Refactor / Repackage

Scenario: Moving an application to Azure with some code changes but not a major overhaul of the application.
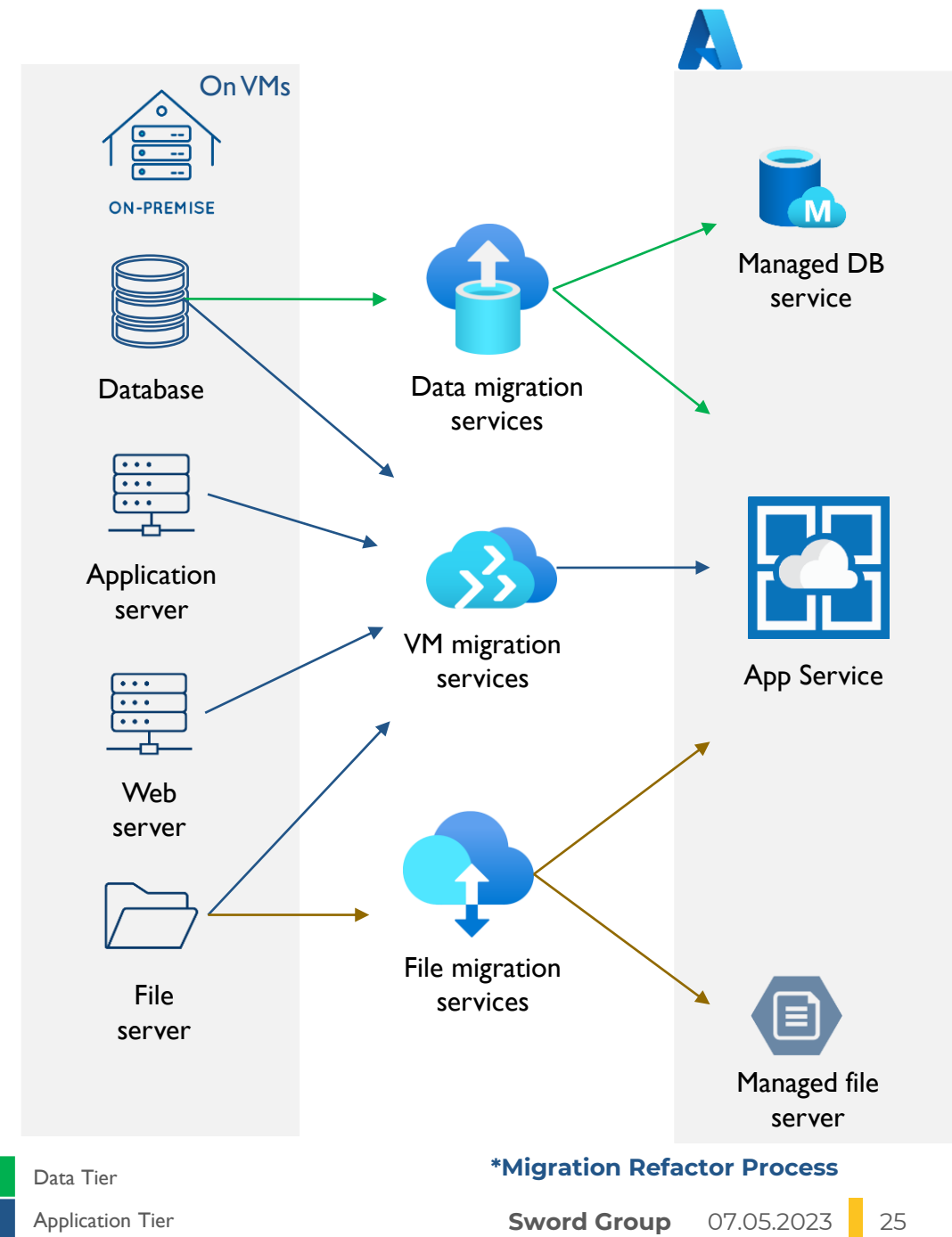
Suitable for: Sensitive and business-critical applications where disruption of ongoing functionality is a concern, but there is a need to modernize or improve infrastructure.

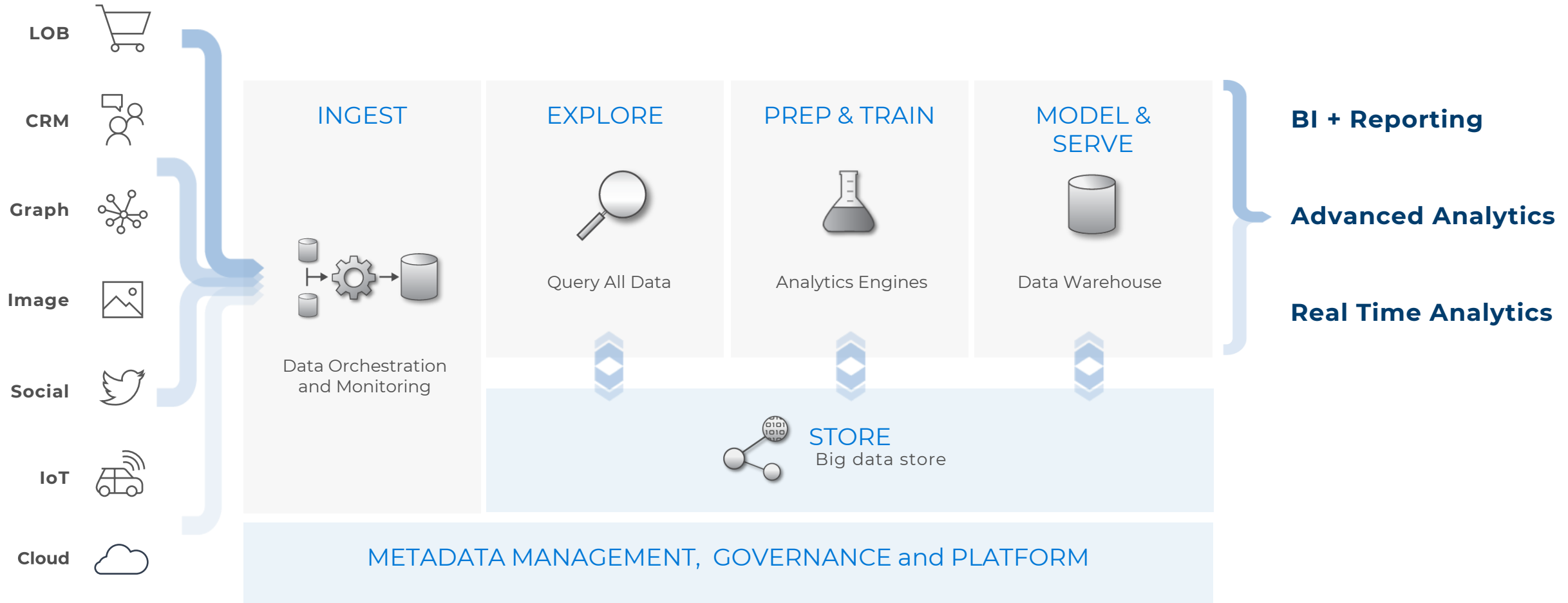✓ Fast and relatively easy, but lets you improve your infrastructure.

✗ Cannot make major architectural changes

Steps to refactor SQL Server to Azure:
1. Analyze the codebase.
2. Creation of a plan for migrating prepare a backup.
3. Update the codebase, the database connection code, queries, stored procedure, ...
4. Testing phase

On VMs

ON-PREMISE

Database

Application server

Web server

File server

Data migration services

VM migration services

File migration services

Managed DB service

App Service

Managed file server

Data Tier

Application Tier

*Migration Refactor Process

Essential Modern Data Warehouse Architecture Basics

LOB

CRM

Graph

Image

Social

IoT

Cloud

INGEST

Data Orchestration and Monitoring

EXPLORE

Query All Data

PREP & TRAIN

Analytics Engines

MODEL & SERVE

Data Warehouse

STORE
Big data store

METADATA MANAGEMENT, GOVERNANCE and PLATFORM

BI + Reporting

Advanced Analytics

Real Time Analytics

*Modern Data Warehouse – Logical Architecture