## Fabric Adoption Methodology

Quadrant follows structured methodology to onboard customers onto Microsoft Fabric. It involves the following steps:

- Assessment
- Adoption – Follows the 4 C's Framework
  - Competence
  - Consultation
  - Certainty
  - Customer Satisfaction
- Acceleration
- Adherence to Enterprise Scale
- Aligning with industry-standard solutions with Microsoft Fabric's integrated capabilities.

# Key Capabilities

### 01. Data Ingestion

**Purpose:** Migrate data from various sources and databases to the cloud.

**Approach:** Utilize accelerators to ensure seamless and efficient data transfer.

### 02. Medallion Architecture

**Purpose:** Implement data cleansing, standardization, and governance.

Components:

**Cleansing:** Remove inconsistencies and errors from data.

**Standardization:** Ensure data follows a consistent format.

**DQGP (Data Quality and Governance Platform):** Automate data quality checks and governance processes.

### 03. Business Context Models

**Purpose:** Generate business context models based on input datasets.

**Approach:** Use Large Language Models (LLMs) to derive insights and create models that reflect business needs.

### 04. Templatized Reports

**Purpose:** Provide quick and customizable dashboarding solutions.

**Tools:** Utilize Copilot/GenAI to create templates for reports and dashboards.

### 05. Realtime Analytics

**Purpose:** Enable end-to-end notifications and alerts for real-time data insights.

**Approach:** Integrate real-time streaming data to provide immediate analytics and alerts.

## Benefits

1. Speed and Efficiency: Accelerates the onboarding process to cloud platforms, reducing time and effort.
2. Governance: Ensures data is automatically scanned, classified, and governed using DQGP.
3. Scalability: Capable of handling large volumes of data, complex AI models, and extensive reporting requirements.
4. Customizable Models: Allows customers to create and customize their own AI models using LLMs.

## Features

1. Cloud Agnostic: Compatible with various cloud services such as Microsoft Fabric, Azure Synapse Analytics, and Databricks.
2. Data Quality: Integrated prompt-based data quality checks at every layer of the platform.
3. AI Enabled: AI is embedded at every layer to standardize data and accelerate the development of models and reports.
4. Realtime Analytics: Supports real-time data streaming for faster insights and analytics.

# Detailed Methodology

## 1 Data Ingestion

**Process:** Migrate data from different sources and databases using accelerators.

**Tools:** Utilize cloud services and data migration tools to ensure smooth data transfer.

## 2 Medallion Architecture

**Layers:** Bronze: Raw data ingestion

Silver: Cleansed and standardized data.

Gold: Aggregated and business ready data.

Governance: Implement DQGP for data quality and governance at each layer.

## 3 Business Context Models

**LLMs:** Use Large Language Models to create business context models based on input datasets.

**Customization:** Models can be tailored to specific business needs and scenarios.

## 4 Templatized Reports

**Templates:** Prebuilt templates for quick dashboard creation.

**Customization:** Users can customize templates to fit their specific reporting needs.

## 5 Realtime Analytics

**Integration:** Realtime data streaming integration for immediate insights.

**Alerts:** Set up notifications and alerts for critical data changes and events.

# Implementation Steps

1

## Assessment and Planning

Output: Assessment report, design, and project plan.

Approach: Use a checklist and the Well Architected Framework.

2

## Pilot/Proof of Concept (POC)

Output: Deployment and POC.

Approach: Utilize customer provided data and use cases

3

## Data Migration

Output: High-level Design (HLD), Low-level Design (LLD), environment setup, and code.

Approach: Develop data pipelines for migration.

4

## ETL/ELT

Output: HLD, LLD, environment setup, pipelines, and code.

Approach: Develop ETL/ELT pipelines for data transformation.

5

## Service Validation and Testing

Output: Test cases and validation reports.

Approach: Execute test cases to ensure data integrity and performance.

6

## Postproduction

Output: Postproduction documentation, standard operating procedures (SOP), and architecture design.

7

## Non-Functional Requirements (NFR) Processes

Focus: Data governance, data security, performance benchmarking, and data quality.

# Real-world Use Cases

- **Regulatory Compliance in Financial Services:** Ensuring data integrity and compliance with regulatory standards.
- **Manufacturing Efficiency:** Streamlining data processes to enhance production efficiency and reduce downtime.
- **Healthcare Data Integration:** Integrating patient data for comprehensive health analytics, improving patient outcomes and operational efficiency.
- **Retail Customer Insights:** Enhancing customer insights through real-time sales data analysis, improving inventory management and personalized marketing strategies.

# Centralized Benefits with Microsoft Fabric

Transform your data strategy with Fabric's unified, powerful analytics experience.

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