#FABCONSQLCON2026

FABCON | SQLCON
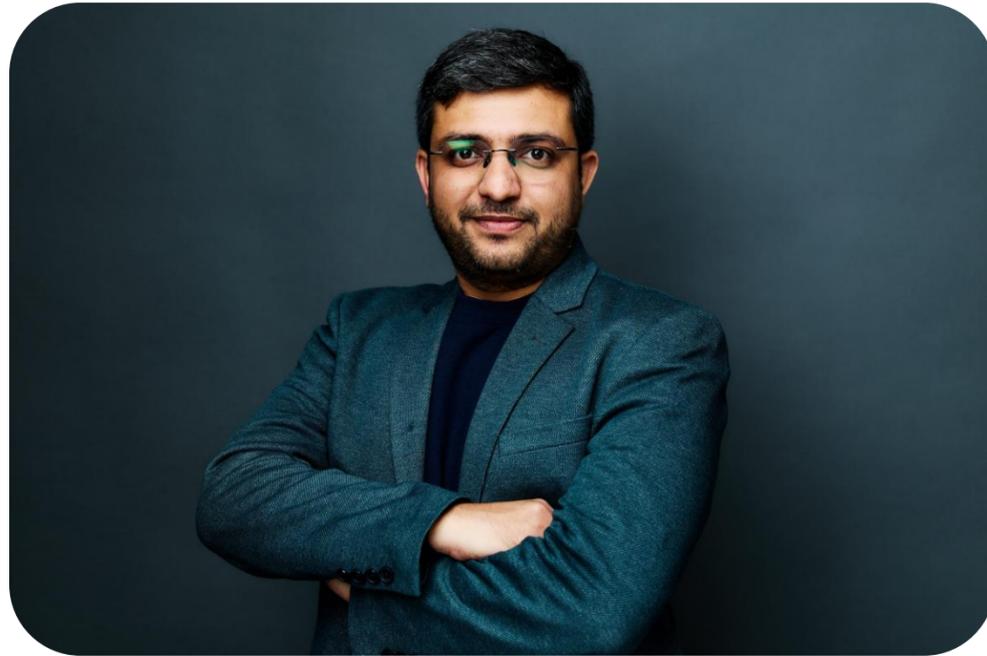Microsoft Fabric | Microsoft SQL
COMMUNITY CONFERENCE | COMMUNITY CONFERENCE

ATLANTA MARCH 16 - 20, 2026

AI Driven MDM on Microsoft Fabric: Build the Intelligent Golden Record

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Principle Consultant, DynaTech Systems

What Is MDM?

Modern organizations rely on many business systems — from ERPs and CRMs to accounting and support tools like QuickBooks, GP, or Dynamics.

Each stores related information about the same customers or vendors, but details often differ — names, addresses, and IDs rarely align.

Master Data Management (MDM) connects these systems, cleans and merges their records, and creates one centralized, accurate "golden record".

This trusted data foundation ensures every team and application works with the same reliable information.

The Data Reality

Today's Data Challenge

- Across the enterprise, master data is often duplicated, inconsistent, and constantly evolving.

Organizations commonly face challenges such as

Duplicate records across systems

The same customer, vendor, or product often appears in multiple versions across ERP, CRM, and operational systems.

Inconsistent data formats and attributes

Variations in names, addresses, product codes, and identifiers create conflicting records.

Frequent manual updates and corrections

Manual data edits across departments often introduce inconsistencies.

Complex third-party integrations

Data flowing between ERP, CRM, and external systems can create mismatched or incomplete records.

Address changes and missing information

Frequent address corrections and incomplete fields make it harder to maintain accurate master data.

Limited visibility across business systems

Without unified master data, organizations struggle to get a consistent enterprise-wide view.

- Delayed reporting and reconciliation efforts
- Integration errors across enterprise systems
- Reduced trust in enterprise data
- Compliance Risk

What DynaTech Offers

What DynaTech Offers: Accelerated MDM Framework on Microsoft Fabric

- DynaTech provides a **pre-built Master Data Management framework** designed to help organizations rapidly establish a trusted data foundation for Analytics and AI

Standardized Common Data Model (CDM) aligned with enterprise business processes

Predefined Master Data Entities across core business domains

Industry-ready KPI Models and Dashboards for faster business insights

Built on Microsoft technologies with flexible customization

Pre-built end-to-end CDM models for Dynamics 365 F&O, enabling faster implementation for Dynamics customers.

**Built-in Data Quality Framework** for validation, governance, and consistency

Microsoft Fabric-based architecture enabling scalable data engineering and analytics

This framework enables organizations to **accelerate implementation, improve data quality, and quickly deliver business-ready analytics.**

Business Value Realization with AI-Driven MDM

Single trusted **Golden Customer Record** across enterprise systems
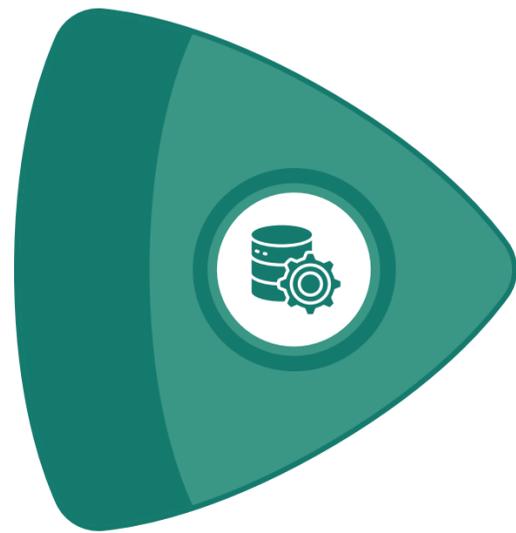
Improved data quality and elimination of duplicate customer records

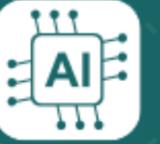**Faster and more reliable sales analytics and dashboards**

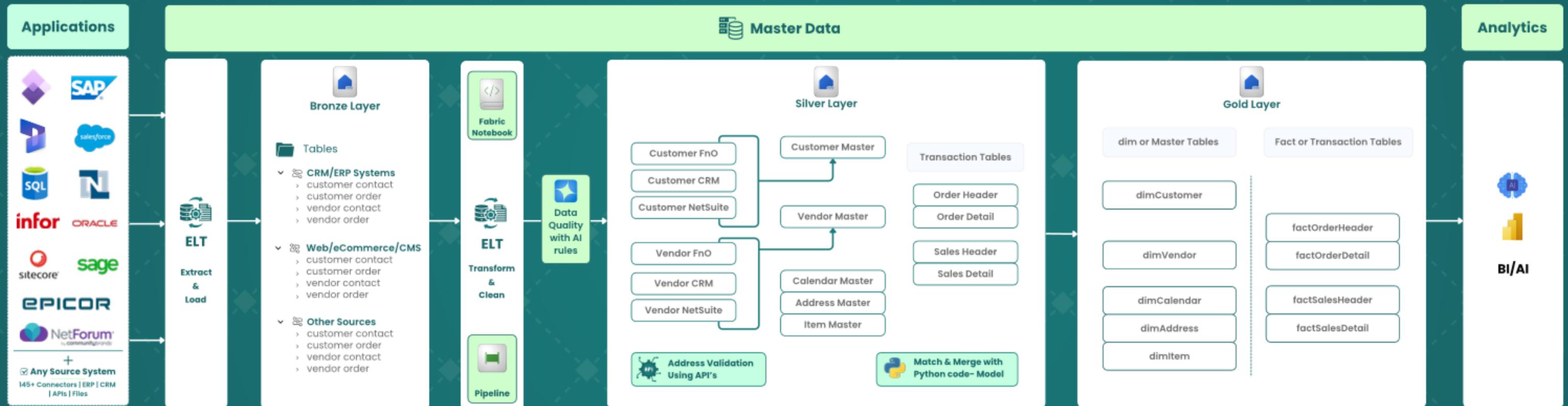**Reduced manual data reconciliation** across teams and systems

Foundation for AI-driven insights and intelligent decision-making

DynaTech | Systems

DynaTech's Modern Master Data Management with Microsoft Fabric & AI

Helping enterprises unify and govern critical master data across systems with AI-driven cleansing, intelligent matching, and Fabric-powered analytics to create a reliable foundation for operational and strategic decision-making.

Applications

Master Data

Analytics

Bronze Layer

Tables

CRM/ERP Systems
› customer contact
› customer order
› vendor contact
› vendor order

Web/eCommerce/CMS
› customer contact
› customer order
› vendor contact
› vendor order

Other Sources
› customer contact
› customer order
› vendor contact
› vendor order

+
☑ Any Source System
145+ Connectors | ERP | CRM
| APIs | Files

ELT
Extract
&
Load

Fabric Notebook

ELT
Transform
&
Clean

Pipeline

Data Quality with AI rules

Silver Layer

Customer FnO
Customer CRM
Customer NetSuite

Customer Master

Vendor Master

Vendor FnO
Vendor CRM
Vendor NetSuite

Calendar Master
Address Master
Item Master

Transaction Tables

Order Header
Order Detail

Sales Header
Sales Detail

Address Validation Using API's

Match & Merge with Python code– Model

Gold Layer

dim or Master Tables

Fact or Transaction Tables

dimCustomer

dimVendor

dimCalendar

dimAddress

dimItem

factOrderHeader
factOrderDetail

factSalesHeader
factSalesDetail

BI/AI

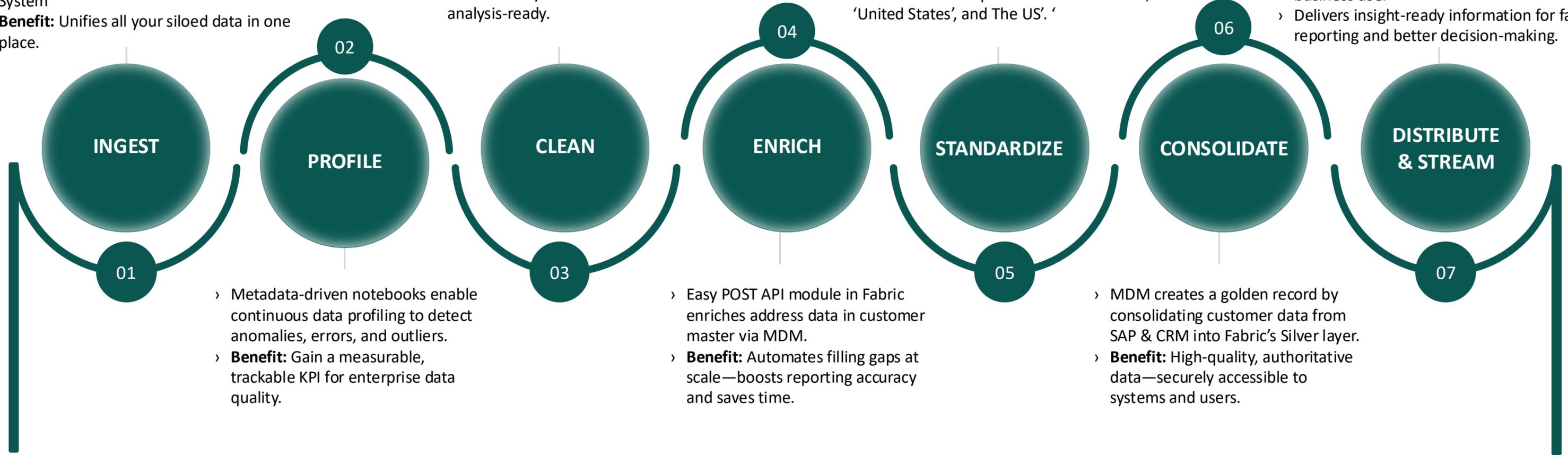Built for scale, governed by design, powered by AI.

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How DynaTech Does MDM

› Fabric integrates 145+ sources via Dataflow Gen2 & Data Factory.
› **Databases:** SQL, PostgreSQL, SAP, Oracle, MySQL, Redshift, BigQuery, Snowflake, etc.
› **Storage:** Azure Blob/Data Lake, S3, GCS, Oracle Cloud
› **Apps:** Dynamics, Salesforce, ServiceNow, SharePoint, Dataverse
› **Protocols:** FTP/SFTP, HTTP, REST, File System
› **Benefit:** Unifies all your siloed data in one place.

› AI-powered rule suggestions, metadata-driven validation, and BI dashboards for data quality review.
› **Benefit:** Errors fixed, duplicates removed — your data is now analysis-ready.

› Ensure uniformity by standardizing data (e.g., employee names in CRM using SAP master).
› **Benefit:** Enables consistent, shareable data—no more duplicate entries like 'USA', 'United States', and The US'. '

› Distribute consolidated master data to all required systems for consistency.
› Enable real-time data sync from MDM to connected applications and analytics platforms.
› **Benefit:** Keeps downstream systems continuously updated — ensuring data is always accurate, accessible, and ready for business use.
› Delivers insight-ready information for faster reporting and better decision-making.

02 **04** **06**

INGEST **PROFILE** **CLEAN** **ENRICH** **STANDARDIZE** **CONSOLIDATE** **DISTRIBUTE & STREAM**

01 **03** **05** **07**

› Metadata-driven notebooks enable continuous data profiling to detect anomalies, errors, and outliers.
› **Benefit:** Gain a measurable, trackable KPI for enterprise data quality.

› Easy POST API module in Fabric enriches address data in customer master via MDM.
› **Benefit:** Automates filling gaps at scale—boosts reporting accuracy and saves time.

› MDM creates a golden record by consolidating customer data from SAP & CRM into Fabric's Silver layer.
› **Benefit:** High-quality, authoritative data—securely accessible to systems and users.

RAW SOURCE DATA FLOWS INTO YOUR MDM PLATFORM

INSIGHT READY DATA IS FED INTO YOUR ANALYTICS ENGINE

Ensuring High-Quality Customer Master Data

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- To support accurate analytics and business KPIs, DynaTech's MDM framework applies **predefined data quality controls on Customer Master data.**

Uniqueness Controls

Each customer must have a unique identifier and account number to prevent duplicate records.

- Customer Record ID must be unique
- Customer Unique
- Account Number Reuse Check

Mandatory Field Validation

Critical attributes such as Customer Account, Currency Code, and Customer Group must be populated.

- Customer Record ID must not be empty
- Customer Account Number must not be empty
- Currency Code must not be empty
- Customer Group must not be empty

Referential Integrity Validation

Customer records must reference valid master data such as currency codes and customer groups..

- Customer Group must exist in submaster
- Currency must exist in Currency Master
- Enum values must match system-defined codes
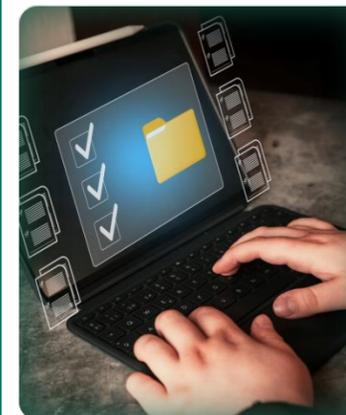
Format & Pattern Validation

Customer account numbers, names, and attributes follow standardized formats and validation rules.

- Account Number must follow defined pattern
- Customer Name must be text type
- Character length validation

These validations ensure **trusted customer master data**, enabling reliable analytics, dashboards, and operational reporting.

Transforming Master Data into Actionable Business Insights

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- With governed and standardized master data, organizations can generate **consistent KPIs and business insights across operational systems.**
- DynaTech's framework enables organizations to transform master data into **business-ready analytics and dashboards.**

Examples include

- Sales Order Performance Metrics
- Customer Demand and Growth Trends
- Product Performance Insights

- Operational Delivery Metrics (OTIF)
- Return Order and Customer Behavior Analysis

Order & Sales Performance

KPI	Business Impact
Total Orders	Shows number of unique customer orders and true demand
Total Sales	Measures overall revenue generated
Total Quantity	Reflects total sales volume and demand level
Revenue	Ensures accurate line-level revenue and profitability analysis

Trend & Growth Analysis

KPI	Business Impact
Total Sales by Month	Tracks fiscal performance and sales trends
YoY % Outstanding Amount	Highlights year-over-year growth or decline

Customer & Product Insights

KPI	Business Impact
Unique Customer	Shows number of unique customer orders and true demand
Average Customer Revenue	Measures overall revenue generated
Unique Product	Reflects total sales volume and demand level
Average Product Revenue	Ensures accurate line-level revenue and profitability analysis

These insights enable organizations to **improve operational visibility and make faster, data-driven decisions.**

Sales Performance Dashboard

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- With standardized customer and product master data, organizations can build **interactive dashboards that provide real-time visibility into sales performance.**

This dashboard enables business users to analyze

01

Sales Performance Metrics
- Total Sales and Revenue
- Total Orders and Sales Quantity
- Unique Products Sold

03

Customer & Product Insights
- Product demand analysis
- Customer purchase patterns

02

Sales Trends
- Monthly sales performance
- Year-over-Year sales growth

04

Geographical Performance
- Sales distribution by location

These insights help organizations **monitor business performance, identify trends, and make faster data-driven decisions.**

# Sales Order Performance: Return Analysis

- Beyond overall sales performance, governed master data also enables **detailed operational analytics across the sales lifecycle.**
- This example highlights **Return Order Performance**, helping organizations monitor product returns and identify operational issues.

The dashboard provides insights into

01 Return Performance Metrics

- Total Return Quantity
- Total Return Amount
- Return Rate %
- Return Impact %

02 Trend Analysis

- Return trends over time
- Identification of increasing return patterns
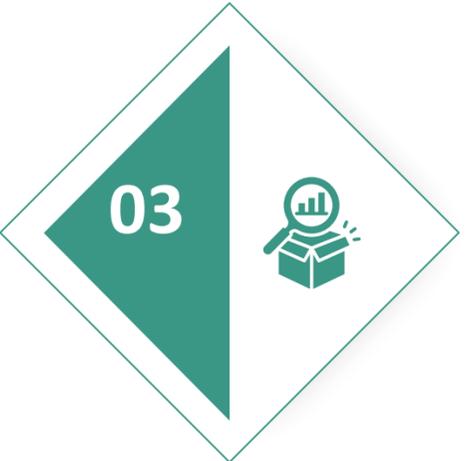
03 Product Insights

- Top returned products
- Products with higher defect or return rates

04 Customer-Level Analysis

- Customer-wise return orders
- Item-level return quantities and values

Master Data Domains Supported by DynaTech MDM

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- DynaTech's MDM framework provides **predefined models and governance controls for key enterprise master data entities**, enabling organizations to establish a consistent and trusted data foundation.

The framework includes standardized models and validation rules for

Customer Master
- Unified customer identities across CRM, ERP, and operational systems.

Product / Item Master
- Standardized product definitions supporting inventory, sales, and production processes.

Vendor Master
- Centralized vendor records enabling consistent procurement and financial operations.

Location / Address Master
- Validated and enriched address data to ensure operational accuracy.

Financial Master
- Governed financial structures including chart of accounts and financial dimensions.
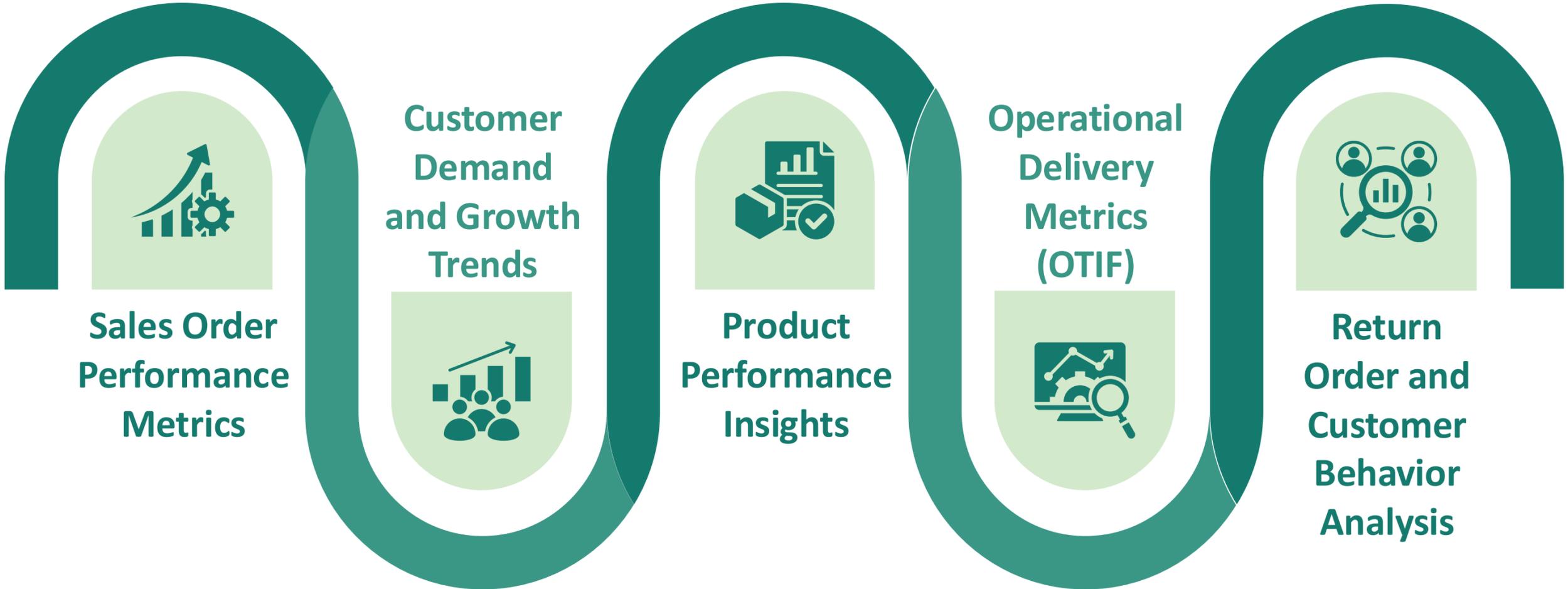
Asset Master
- Centralized asset information supporting lifecycle tracking and financial reporting.

Transforming Master Data into Actionable Business Insights

DynaTech | Systems

- With governed and standardized master data, organizations can generate **consistent KPIs and business insights across operational systems.**
- DynaTech's framework enables organizations to transform master data into **business-ready analytics and dashboards.**

Examples include

Sales Order Performance Metrics

Customer Demand and Growth Trends

Product Performance Insights

Operational Delivery Metrics (OTIF)

Return Order and Customer Behavior Analysis

DynaTech configured Applications with Fabric

DynaTech | Systems

Various Data Bases & Applications DynaTech has configured with Fabric

ERP Systems & Business Applications
EPICOR · Microsoft Dynamics NAV · Microsoft Dynamics GP · Microsoft Dynamics 365 · salesforce · SAP · BPCS · Sage · NetForum · SITECORE

File Storage & Transfer Systems
Azure Blob Storage · SharePoint · Microsoft OneDrive · FTP · SFTP · File System

Databases
Azure SQL Database · Azure SQL Database Server · MySQL · ORACLE DATABASE · Azure SQL Managed Instance · SQL Database (Preview) · Azure Database For MySQL · snowflake · Datalake · Dataverse · Google Big Query

Communication Protocols & Data Interfaces
OData · REST · HTTP

Documents & File Types
Excel · Word · PDF · Office

Social Media Platforms
Meta · LinkedIn · Instagram · X

Analytics & Reporting Tools
Google Analytics

Specialized Data Standards
FHIR

Demo Walkthrough: Customer Master Example

NETSUITE
ABC Corp

CRM
ABC Corp Ltd

ABC Corporation

DynaTech | Systems
MDM Farmwork

**Golden Customer Record
ABC Corporation**

DynaTech | Systems
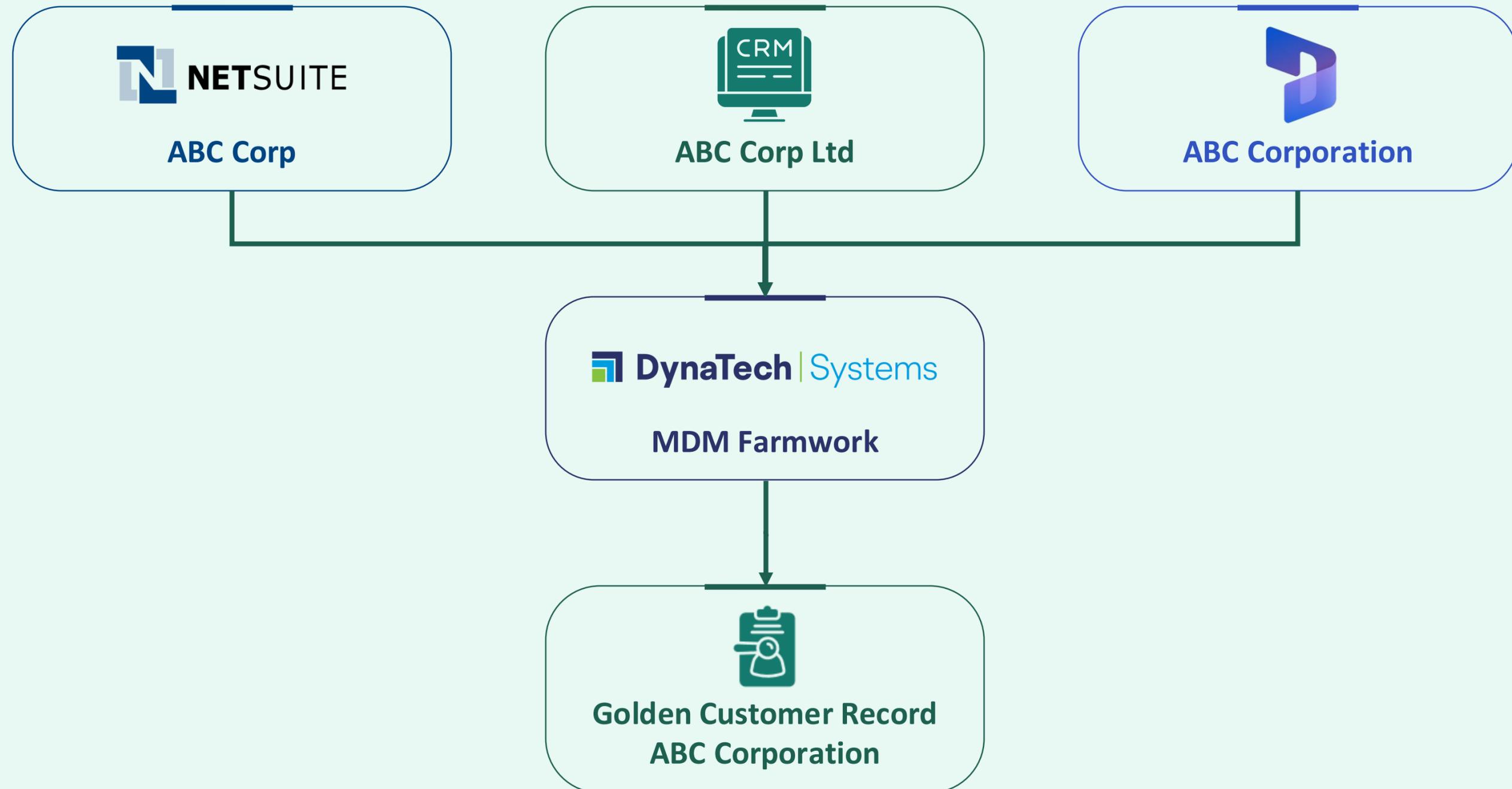
What Happens

› Data from enterprise systems such as Dynamics 365, NetSuite, and CRM platforms is ingested into Microsoft Fabric using different connectors like Fabric Link, API, ADLS Gen2, SharePoint / OneDrive, Azure Synapse / Data Warehouse, etc.

› Raw data from multiple operational systems is consolidated into a single centralized data platform.

› Source data is preserved in its original structure to maintain traceability and lineage.

Business Outcome

› Enterprise data from multiple systems becomes accessible in one unified environment.

› Eliminates fragmented data silos across ERP, CRM, and external applications.

› Establishes the foundation for data governance and downstream processing

Demo Walkthrough- Silver Layer – Master Data Preparation & Standardization

What Happens

› Raw data from the Bronze layer is profiled and transformed to create clean and standardized master data.

› Data profiling analyzes source data and classifies it into **master entities (customers, vendors, products)** and **transactional entities (orders, invoices).**

› Predefined validation rules detect and correct issues such as **missing values, duplicates, invalid formats, and inconsistent records.**

› Customer data from multiple systems is standardized, enriched, and consolidated to create a single trusted Customer Master dataset. E.g.Sales Header

› A manage-level approval workflow validates the cleaned, standardized, and consolidated data before it is promoted to the next layer.

Business Outcome

› Creation of **clean and governed Customer Master data** across enterprise systems.

› Consistent and standardized data formats for **accurate reporting and analytics.**

› Trusted master data foundation ready for **dashboards, KPIs, and AI-driven insights.**

Demo Walkthrough- Gold Layer - Business Analytics and Insights

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What Happens

› Clean master data from the Silver layer is transformed into **business-ready analytical models.**

› **Semantic models** are created to support reporting and analytics.

› Data models combine **fact tables (Fact_Sales) with dimension tables (Dim_Customer).**

Business Outcome

› Business users can access trusted data through **Power BI dashboards and Excel reports.**

› Enables consistent KPIs and performance metrics across the organization.

› Delivers **analytics-ready data to support operational and strategic decision making.**

Sound off.
The mic is all yours.
Influence the product roadmap.

Join the Fabric User Panel

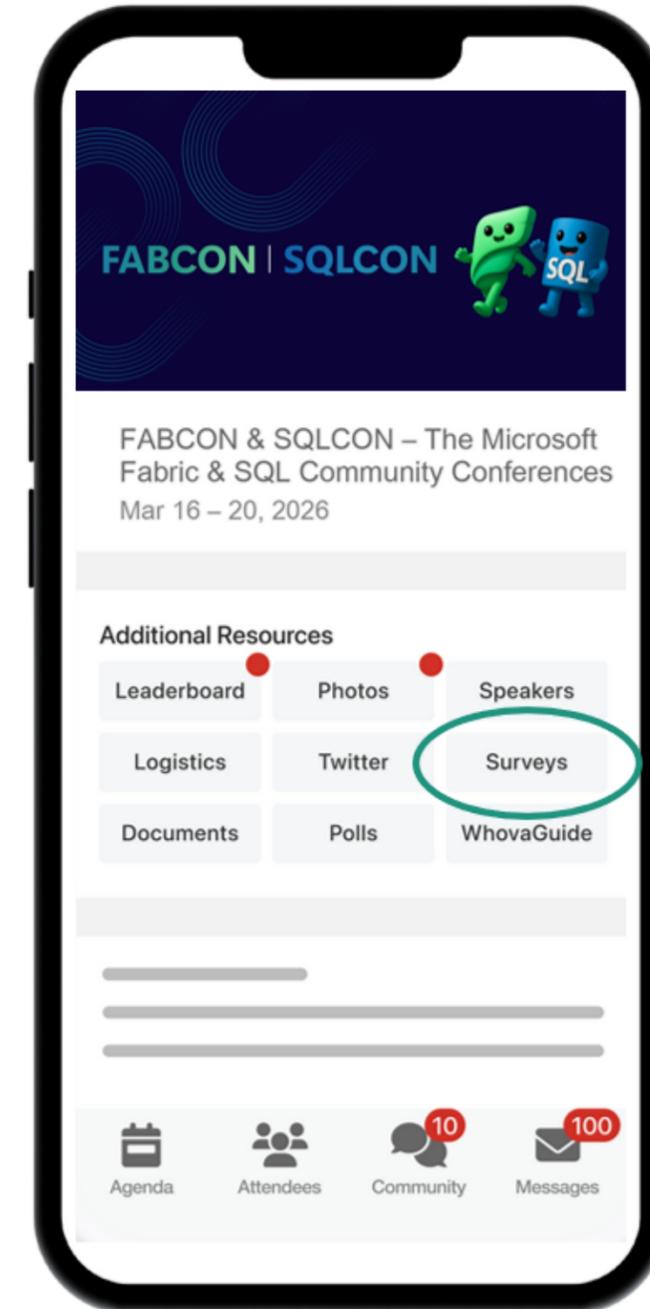Share your feedback directly with our Fabric product group and researchers.

https://aka.ms/JoinFabricUserPanel

Join the SQL User Panel

Influence our SQL roadmap and ensure it meets your real-life needs

https://aka.ms/JoinSQLUserPanel

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