



Migrating On-Premises SQL & Business Central Data to Microsoft Fabric

WHO WE ARE



UB Technology Innovations leverages Microsoft Fabric to craft dynamic and user-friendly solution. Our Fabric expertise empowers you to build modern interfaces, streamline development, and achieve superior performance. ”



THE CLIENT

Our client is a leading manufacturer in the dental equipment industry, operating two centralized manufacturing hubs and several local dental centers. They are redefining industry standards through innovative products and services.



CHALLENGES

Before migrating to Microsoft Fabric, the client faced the following challenges:

- **Data Silos:** Five servers across different regions and eight databases created a fragmented data environment.
- **Inefficient Reporting:** The reliance on Power BI for reporting, along with SQL Server and Business Central, resulted in performance limitations, particularly in real-time analytics.
- **Data Governance & Scalability Issues:** The existing infrastructure struggled with scalability and lacked efficient data governance, making it difficult to leverage advanced analytics such as AI and ML.
- **Limited Data Science Implementation:** There was no framework in place for utilizing predictive analytics or machine learning.

WHAT WE DO

- Streamlined data management process
- Third Party System Integration
- Intuitive user interface
- Interactive customized reports
- Enhanced Data Governance and Security



SOLUTION

To overcome these challenges, UBTI proposed and implemented the following Microsoft Fabric-based solutions:



1. Data Integration:

- Integrated data from on-premises SQL Server and Business Central to Microsoft Fabric using Data Pipelines, Notebooks and Dataflows Gen 2.
- Leveraged the Medallion Architecture (Bronze, Silver, and Gold layers) to streamline data ingestion, transformation, and reporting workflows.

2. Data Pipeline Development: Designed pipelines to handle daily and hourly data loads, optimizing processing times.

3. Real-Time Alerts: Configured Data Activator to automate alerts for case creation, ensuring clients are notified in real-time and enabling faster response times.

4. Power BI Reporting:

- Developed Power BI reports using Direct Lake mode in the Fabric environment, enhancing reporting capabilities.
- Set up daily email subscriptions to automate report delivery using Data Activator.
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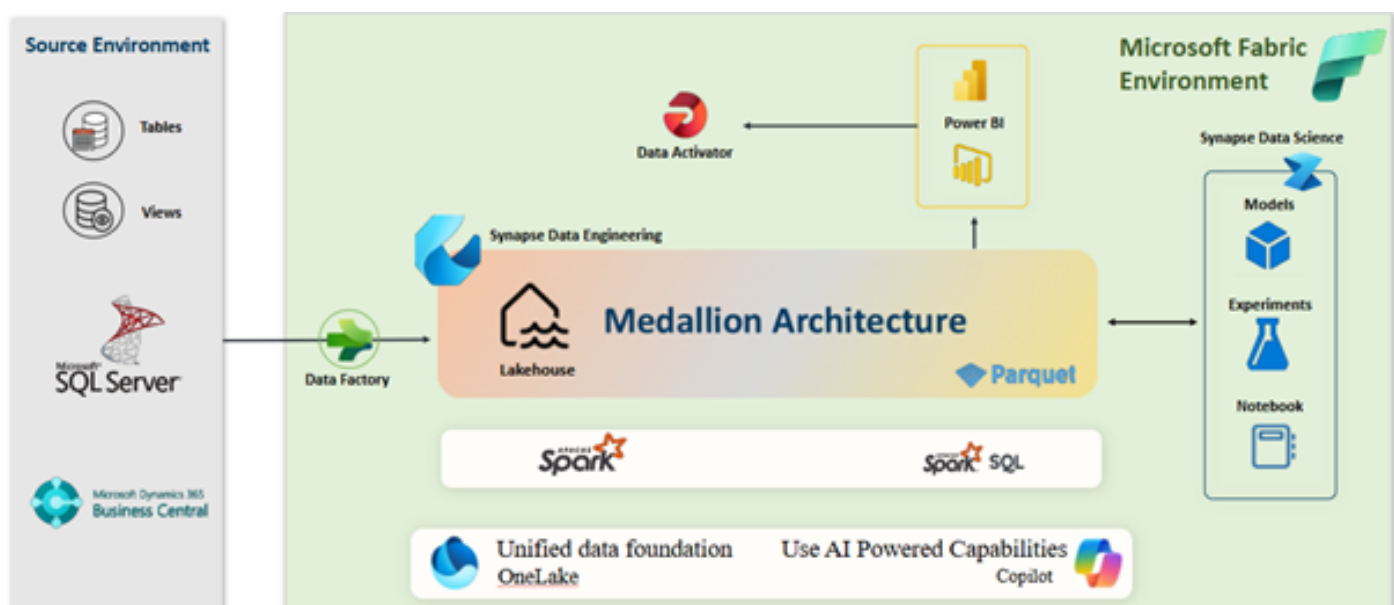
5. Data Science Use Cases:

- Implemented Microsoft Fabric Notebooks to train machine learning models for:
- Demand Forecasting: Predicting future sales trends.
- Customer Sentiment Analysis: Analyzing customer feedback for actionable insights.
- Customer Churn Prediction: Identifying at-risk customers to improve retention.
- Production Optimization: Using analytics to enhance manufacturing efficiency and reduce defects.
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6. Access Control & Data Security:

- Configured role-based access control to ensure compliance and data security.

Applied data quality rules using Data Activator to maintain high-quality standards.





SOLUTION BENEFITS

1. **Eliminates Data Silos:** Consolidates data from various sources into a secure, unified repository for comprehensive analytics.
2. **Streamlined Reporting Enhancement:** The Power BI reports are created using Direct Lake mode in Fabric. This smooth approach significantly enhances reporting capabilities, leveraging advanced analytics and visualization features for more insightful and interactive reporting.
3. **Built-in Security:** Ensures data accuracy and consistency with robust security features.
4. **Enhanced Governance:** Provides clear audit trails with access controls and data lineage, improving governance.
5. **Scalable Architecture:** Accommodates future data growth with elastic compute and storage, scaling seamlessly as business needs evolve.
6. **Advanced Data Science:** Delivers advanced analytics solutions for various Machine Learning models empowering data-driven decision-making.
7. **Real-Time Alerts:** Proactive notification system for case creation, enhancing responsiveness and client satisfaction.
8. **Continuous Monitoring & Optimization:** Ongoing evaluation of data pipelines and reporting to ensure performance as data volumes and business needs grow.
9. **Operational Efficiency & Scalability:** Unifies data, automates processes, reduces delays, and supports future growth.
10. **Improved Customer Engagement and Experience:** Real-time alerts and notifications streamline communication, ensuring timely updates and faster case resolutions. AI-driven insights, such as churn prediction and sentiment analysis, empower proactive customer retention strategies.
11. **Report Development:**
Based on the client's data, several key reports were developed to track performance and optimize business operations.



Key reports developed based on the client's data include:

- Sales Analysis Overview Report:

Provides insights into overall sales performance, including sales trends, case-related sales, and product performance across regions and customers.

- Customer Insight Dashboard:

Offers a consolidated view of customer details, conversion pipelines, conversation history, and customer-specific notes for better customer relationship management.

- Technician Performance Report:

Evaluates technician performance by analyzing completed tasks, rejections, remakes, bonuses, and pay rates, helping to improve productivity and efficiency.

- Product Delivery Status Report (Case Status Report):

Tracks the delivery status of products, highlighting past due cases and changes in deadlines to ensure timely order fulfillment.

- Production and Lab Efficiency Dashboard:

Analyzes lab performance, manufacturing efficiency, and product delivery timelines, comparing production metrics across labs.

This successful implementation demonstrates the power of Microsoft Fabric in driving business transformation and underscores UBTI's expertise in delivering exceptional data solutions.



ABOUT US

UB Technology Innovations, Inc. (UBTI) is a leading global technology solution provider with more than 3 decades of experience across all industries, specializing in Capital Markets (Asset Management), Logistics and Healthcare. We are the preferred Microsoft Gold Certified partner backed by a world-class team of Microsoft Certified experts with rich experience in Azure Cloud Platform and Data Analytics.



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