beyondkey™

Case Study

Microsoft Fabric

Client Business Description

Our US-based Insurance services client sought to elevate data-driven decision-making, operational efficiency, and innovation. They required a solution for data transformation, data warehousing, data visualization, and real-time analysis across diverse systems. Their mandate handling vast data volumes with precision, streamlining transformations, and delivering timely, accurate analysis.

Project Requirement

The client approached our team with several key business requirements:

Data Ingestion and Integration

Implement Azure Logic Apps to automate data integration, ensuring data consistency and reliability.

Data Transformation

Create a standardized data model to ensure consistency across the organization.

Data Warehousing

Deploy Azure Synapse Analytics (formerly SQL Data Warehouse) to store and manage structured data efficiently.

Real-Time Analysis

Implement Azure Stream Analytics to analyze data streams in real-time.

Data Visualization

Utilize Power BI for creating interactive dashboards and reports.

Solution

To address the client's objectives, we proposed a holistic solution leveraging Microsoft Fabric:

Data Ingestion and Integration

- Azure Data Factory is used to ingest data from various sources, including customer databases, policy records, IoT devices, and external market data.
- Azure Logic Apps automate data integration processes, ensuring data consistency and reliability.

Data Transformation

- Azure Databricks is employed for advanced data transformation and preparation. This includes data cleaning, normalization, and enrichment, resulting in high data quality.
- A standardized data model has been created, ensuring consistency and accuracy across the organization.

Data Warehousing

- Azure Synapse Analytics (formerly SQL Data Warehouse) has been deployed to efficiently store and manage structured data.
- Data partitioning and indexing strategies have been implemented to optimize query performance.

Real-Time Analysis

- Azure Stream Analytics is utilized to analyze data streams in real-time. This provides immediate insights into customer behavior, claims processing, and risk assessment.
- Custom alerts and automated actions are set up based on real-time analytics results, improving decision-making agility.

Data Visualization

- Power BI is employed for creating interactive dashboards and reports, enabling the client to visualize data insights in real time.
- Stakeholders have access to real-time visualizations for informed decision-making.

Tech Stacks

Microsoft Fabric

Benefits

The solution utilized the below technologies to extract, transform, visualize and deliver data-driven insights for strategic HR management and decision making.

Data-Driven Decision-Making

The client now has the capability for real-time data analytics and visualization, enabling data-driven decisions that enhance customer service and risk management.

Operational Efficiency

Streamlined data transformation processes and efficient data warehousing have resulted in reduced operational costs and increased efficiency.

Innovation Opportunities

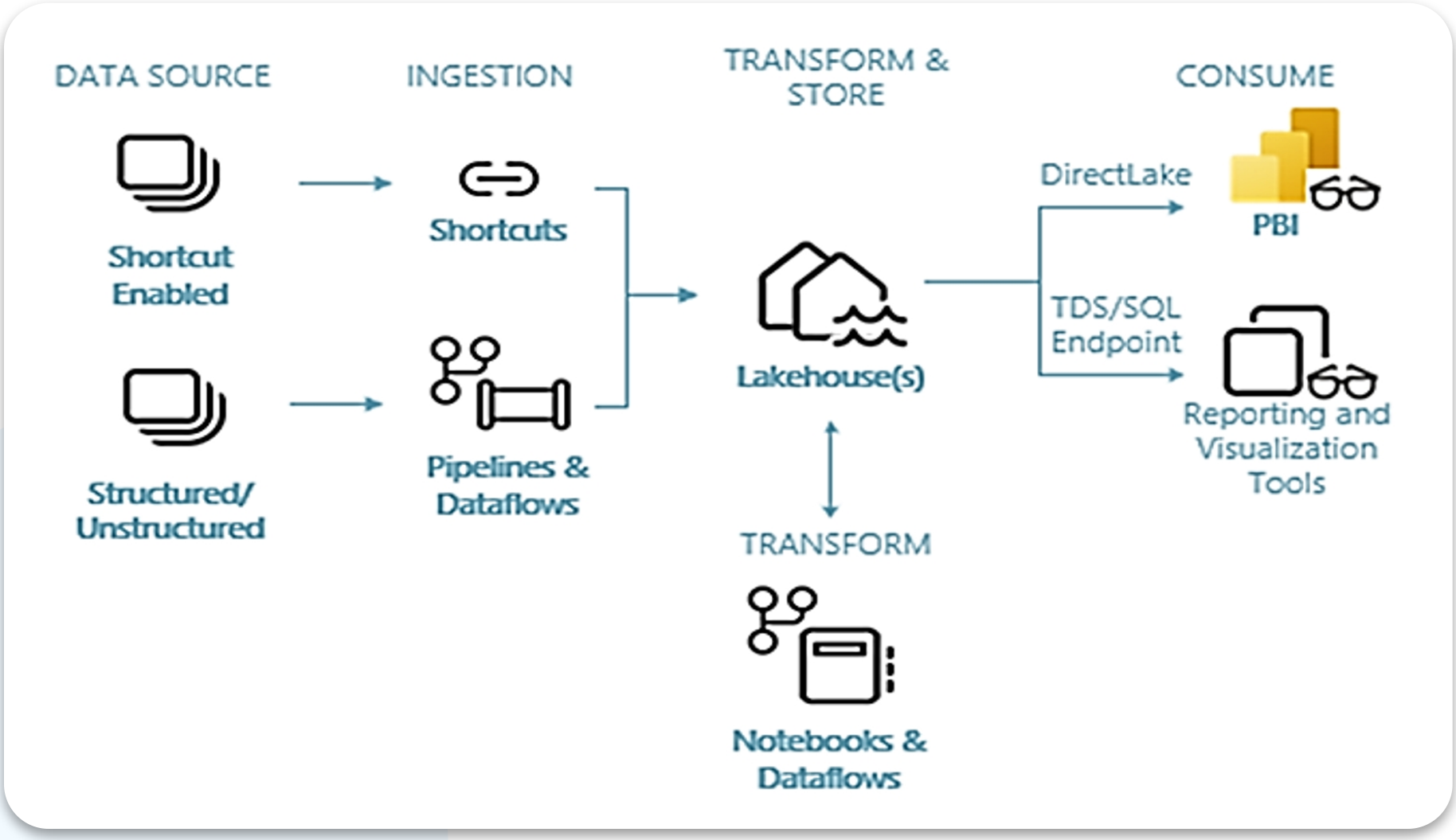
Timely and accurate data insights open doors to innovative product offerings and improved customer experiences, ensuring the client's competitiveness in the market.

Scalability

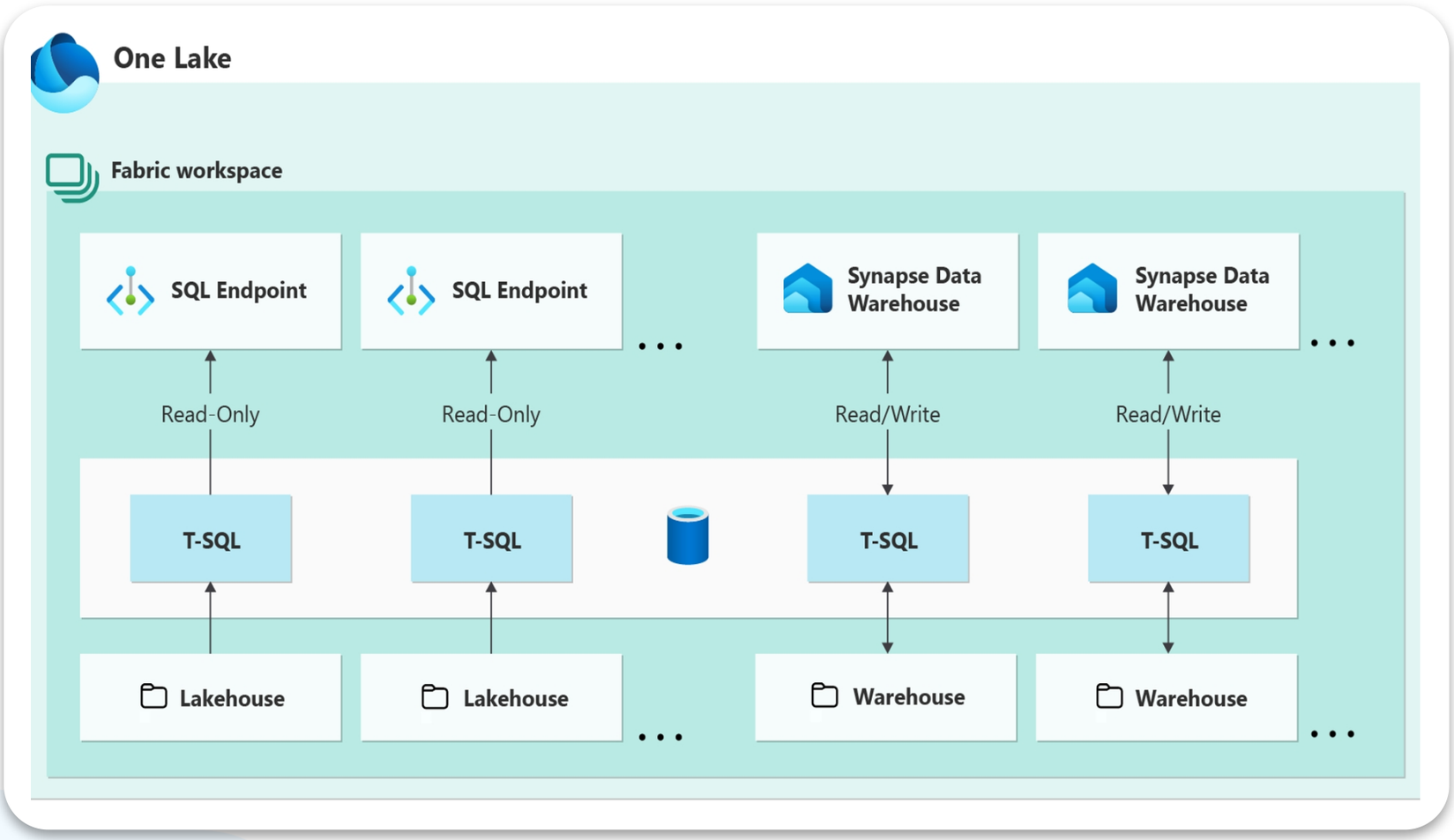
Timely and accurate data insights open doors to innovative product offerings and improved customer experiences, ensuring the client's competitiveness in the market.

Screenshots

Microsoft Fabric - Architecture



Microsoft Fabric Architecture - Data Warehousing



Conclusion

Through using Microsoft Fabric, our solution helped the insurance company use their data much better. Managers could now make quicker decisions based on data. It also helped save money and work more efficiently.

Do you need help leveraging data and cloud too? Let us connect to discuss how a customized Microsoft Fabric solution can help you elevate data-driven decision-making, streamline processes, and uncover new opportunities for your business growth