indium
Make Technology Work

Cloud Migration & BI Implementation for an e-Payment Provider in SE Asia

Digital Services

Success Story

Client

The client is one of the pioneers in contactless payment industries of South East Asia. They are providing support to public transit network and various other domains in their country. They have issued more than 40 million contactless payment cards. Given that their customer base is big and huge amount of transactions are generated daily, it was important to understand the business in real-time. However, traditional database system (Oracle) that they were using couldn't handle real-time fetching of data efficiently.

Business Requirements

- Design and develop load balancing of the query load and efficient archiving of the data.

- Build and validate the connectors to the various data sources that would feed into the Data Warehouse.

- Migration of data from on-prem to cloud environment (Oracle to Azure SQL DW).

- Create specific reports and dashboards based on KPIs with real-time data.

Indium Software's Approach and Implementation

- Indium structured a robust and highly scalable Data Warehouse ecosystem to address the Data Storage and Processing needs of the clients business.
  Key objectives:
  - Non-volatile and near real-time querying support.
  - Provision high availability needs of Data Warehouse for On-demand reporting & analytics.

- Implemented NiFi to get near real-time data.

- For archiving and staging the data efficiently, Indium leveraged Operational Data Store (ODS) using Azure BLOB.

- From Azure Blob data is bulk loaded to Azure SQL DW to handle huge data traffic from day-to-day transactions that are generated through contactless payment cards.

- Another layer in the data warehouse aggregates the data so that it can be presented easily to the Power BI for data visualization purpose.

Business Impact

- With Data Warehouse in the ecosystem, the Quality of the data visualization improved by 80%.

- 30 % Cost reduction due to migration of tremendous amount of data from Oracle to SQL Server using open source ETL.

- Performance Tuning of the ETL jobs enabled the reduction of the processing time by 50% overall.

- Data recovery was secured because of efficient archival enabled by the cloud environment and alert systems are implemented which enabled quick action in case of disaster recovery.
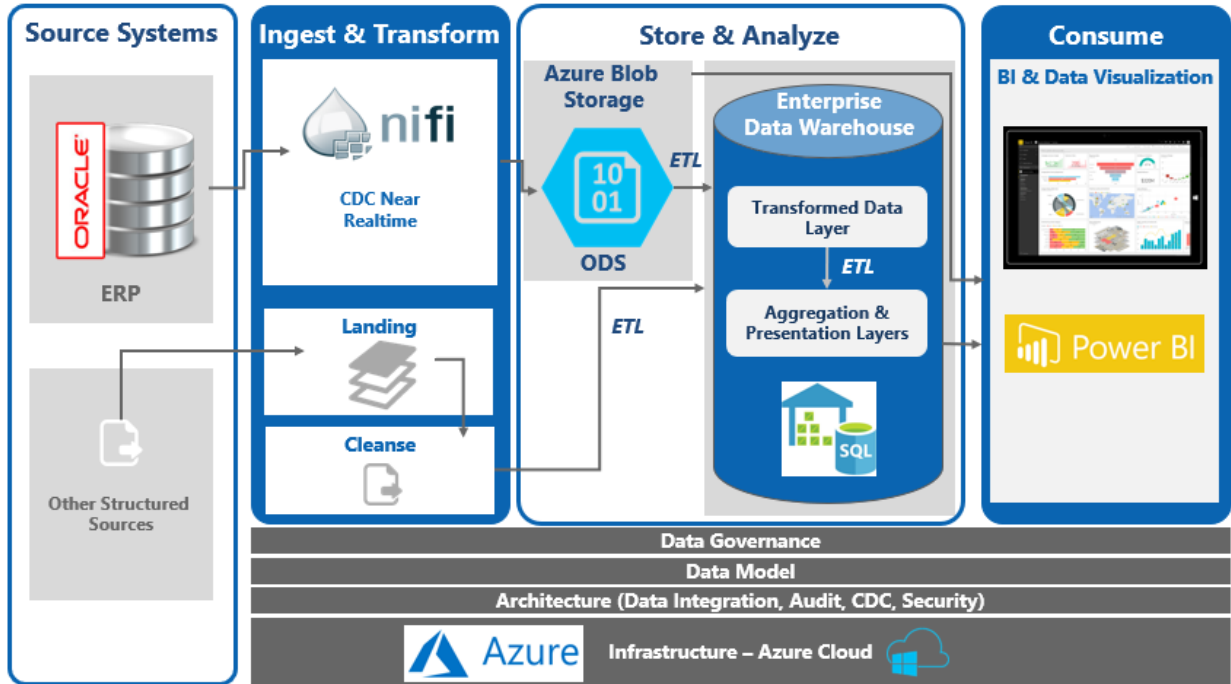
Business
Data Warehouse

Domain
Fintech

Tools
Apache Nifi, Blob Storage, Azure SQL DW, Power BI

Key Highlights
- Quality of the data visualization improved by 80%.
- 30% Cost reduction

Architecture Diagram

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