MIGRATION TO MICROSOFT FABRIC CASE STUDY

SUMMARY

Intamarque were looking to move away from a legacy on-premise Microsoft SQL Server solution as part of a wider initiative to move its operational applications to a cloud-based environment. Additionally, a move away from Microsoft Dynamics on premise to Business Central 365, required a change to the extract routines that populate the data repository that Power BI reporting was based on. INFuse was asked to investigate moving the on-premise reporting to a Microsoft Fabric based solution maintaining Power BI as the reporting layer. The outcome has provided the client with a Fabric based platform to support Power BI reporting and reduced maintenance and support costs associated with the legacy Microsoft SQL Server on premise solution.

"We're very thankful to the team at INFuse, they are hugely knowledgeable and experienced when it comes to data, and have helped us transform areas of the business."
Charlotte, Operations Director at Intamarque

ABOUT INTAMARQUE

Founded in 2006, Intamarque are a leading British Fast Moving Consumer Goods (FMCG) distributor, exporting to a growing network of over 65 countries, with over 300 international shipments completed each month. Based in Tewkesbury, the Intamarque warehouse spans across 100,000 square feet and carries the most extensive range of health, beauty, household, and grocery products from some of the most recognised and trusted household brands available in the UK.

THE CHALLENGE

The primary challenge was to move the legacy on premise MS SQL Server database to a cloud-based Fabric solution to improve robustness and reduce risk of downtime on the physical on-premise servers. In addition, the reporting repository that supports Power BI business reporting, needed to be amended to extract data from the new Microsoft Business Central 365 platform replacing the legacy on premise Microsoft Dynamics application.

CHALLENGES

- On-Premise virtualised servers were due to be de-commissioned.
- Expensive to maintain, backup and patch.
- Regular downtime due to infrastructure issues
- SQL server version was 'unsupported.'
- Load routine was taking too long, therefore delaying business decisions which were based on operational report metrics.

DEVELOPMENT SUMMARY

- Hybrid design pattern utilising Lakehouse and Warehouse.
- Dataflows Gen2 to extract data from Business Central 365 using API and custom views.
- Landing raw data in Parquet format in Bronze Lakehouse.
- Using T-SQL Stored Procedures to process and transform data.
- Processing data through to Silver Warehouse into tables.
- Using T-SQL Stored Procedures to model data into a Dimensional Model in Gold Warehouse.
- The solution is orchestrated using Pipelines which are meta-data driven from a control table.
- Logging is captured throughout the process into a dedicated logging table.
- Power BI semantic model developed using Direct Lake mode.
- Power BI Reports and Paginated reports used to deliver operational and analytical insights to business leaders.

FABRIC MIGRATION CASE STUDY: INTAMARQUE & INFUSE DATA ANALYTICS

THE SOLUTION

INFuse recommended a Fabric Warehouse based architecture to deliver Intamarque's data platform, this would provide a seamless migration path for the existing SQL-based SSIS solution.

Following a data design pattern to support good practice, we established a data landing zone and a medallion design pattern for raw, transformed, and curated data. The shape of the data is modelled using a Kimball style dimensional model in the Gold layer of the solution.

Using the in-built native connectivity in Gen2 Dataflows to Business Central, we extracted the required data from custom views designed and exposed through the API into the Fabric Lakehouse landing zone.

Data was moved and transformed through the Bronze, Silver and Gold layers using a series of parameterised Stored Procedures that executed T-SQL code that had been migrated from the original SSIS solution.

The Orchestration of the solution is controlled using parameterised pipelines in Fabric that are populated from a series of control and configuration tables to improve the maintenance and extensibility of the solution as well as providing detailed logging information.



BUSINESS BENEFITS

- Reduced risk of business disruption due to legacy on premise servers and solutions
- Leverage the functionality and robustness of the Fabric cloud based solution
- Saving on maintenance and support costs associated with the legacy servers and applications
- Improved access to critical business information in a timely manner
- Simplifying the flow of data between cloud-based applications and the Fabric data repository used by Power BI

OUTCOME AT A GLANCE

- Cost saving on support and maintenance.
- Reduced risk of downtime moving away from legacy on-premise solution.
- Ease of integration with the client's cloud-based operational apps
- A platform for flexible. enhancements to meet future business requirements.