

We manifest change.

MONOCLE  
TECH

Case Study

# Advanced Analytics Enablement: Financial Data Cloud Migration

Large Retail, Corporate and Investment Bank

## Solution

- A cloud environment to host extensive balance sheet and income statement data for reporting and data science driven analytics.
- Cloud-based data management and data science services for advanced data analytic capabilities.
- An automated & efficient data pipeline for daily loading of data directly from source to the cloud environment
- A scalable, flexible and operationally lean cloud data environment.

## Insights

- Migration of critical finance data requires strong collaboration between key stakeholders including finance technology, data architecture, business and various IT operations and governance teams.
- An adaptive & flexible approach is required for cloud data migrations as banks navigate rapidly evolving cloud technologies and emerging capabilities

## Skill Sets

- Data Engineering
- Data Pipeline Development
- Data Architecture Design
- Cloud Data Warehouse Configuration and Optimisation
- Feature Analysis

## Banking Area

- Financial Technology
- Data Science
- Group Financial Reporting

## Technology

- Azure Synapse Analytics
- Azure Data Lake Storage
- Azure Databricks

Cloud adoption in financial services continues to remain a core pillar of digital transformation. As banks continue their cloud journey, Monocle assists our clients in migrating increasingly critical and complex datasets and applications to drive efficiency and unlock the value of advanced analytics cloud services.

## Cloud Migration & Digital Transformation

As a part of our Digital Transformation expertise, Monocle partnered with one of our large retail, corporate and investment banking clients to complete the migration of critical financial data (balance sheet and income statement transactional data) as part of a cloud migration engagement.

The bank had decided to transition from an inefficient and costly on-premise solution to a public cloud environment, with a focus on enabling advanced analytic capabilities.

Monocle assisted across the engagement in a data engineering and feature analyst role responsible for the overall planning of the project as well as the technical implementation (design, build, test and deployment) of the data pipelines into the cloud environment as well as the required data products.

## End-to-End Implementation

The bank's existing data infrastructure solution had several deficiencies:

- ◆ The configuration of the existing on-premise data warehouse could not cater for the Python data structures required by the data science team. This required millions of rows of data to be replicated to a data lake environment that increased infrastructure capital costs and operational risks.
- ◆ The on-premise data warehouse and lake were hamstrung by technical inefficiencies stemming from manual processes and rigid ETL processes.

Ultimately, Monocle assisted our client to migrate their financial data from their transactional source system onto their public cloud environment to deliver:

- ◆ **Automated Cloud Data Processing:** Developed data pipelines to automate the daily transfer and transformation of financial data to the cloud environment, eliminating the need for on-premise storage and infrastructure management.
- ◆ **Optimised Storage & Cost Efficiency:** Compressed data into parquet format, significantly reducing storage costs while also implementing dynamic pause-and-resume mechanisms to reduce processing costs.
- ◆ **Access to Cloud Native Services:** Data could be formatted correctly for various cloud services and use cases including data analytics and reporting through SQL as well as advanced analytics through Python.



### Johannesburg

8th Floor, The MARC Tower 1  
129 Rivonia Road, Sandton,  
Johannesburg, 2196

[info.za@monoclesolutions.com](mailto:info.za@monoclesolutions.com)

+27 (0) 11 263 5600

### Cape Town

301 New Cumberland  
163 Beach Rd Mouille Point  
Cape Town, 8005

[info.za@monoclesolutions.com](mailto:info.za@monoclesolutions.com)

+27 (0) 82 952 1415

### London

1 Royal Exchange  
EC3V 3DG  
London, England

[info.uk@monoclesolutions.com](mailto:info.uk@monoclesolutions.com)

+44 (0) 2030 022 514

### Amsterdam

Office 136, Gustav Mahlerplein 2,  
1082 MA, Amsterdam,  
Netherlands

[info.nl@monoclesolutions.com](mailto:info.nl@monoclesolutions.com)

+31 (0) 2 02 256 182



[www.monoclesolutions.com](http://www.monoclesolutions.com)