

Datawarehouse Modernization for a Leading Airline in the Middle East

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Benefits

More than **40% Hardware reduction** by moving the infrastructure to cloud

More than **50% Performance Improvement** due to scalable architecture and load balancing strategies

Enabling of unstructured data analytics to business insights

Client

The Client is a budgeted airline in UAE, which flies a total of 90+ destinations in the Middle East, Africa, Asia & Europe.

Problem Statement

The existing system was built on traditional tools and technologies and was unable to integrate other modules in the system and adopt the architectural changes needed for future implementation

There was an immediate need for an integrated reporting platform for the customer to provide faster rollout of the analysis and 360 degree view of the business to make effective decisions.

Business Challenges

Cost Reduction: There was a huge licensing cost associated with their existing data warehouse which was designed in Oracle

Performance issues: The current system was not elevated to cater to increasingly growing demands of platform's data

Scalability: The existing data warehouse was built on traditional tools and technologies which was not scalable to accommodate other business areas and also was not able to adopt architectural changes as needed for Future implementation

IGT's Approach/Solutions

We performed detailed analysis of their existing data warehouse functionalities and gathered the requirements from the end users.

Based on the challenges of the current system we proposed to migrate their existing DWH environment built on traditional tools and technologies to a new age big data environment. By leveraging the proven & latest big data technologies for efficient and faster data processing which caters to the growing demands of the data for various data consumers.

Our solution involved:

- Design and Implementation of Flight Ops, DCS and FFP modules in Big Data – to capture Flight information and flown information which can be extracted in an integrated manner
- Designed an exclusive framework for Trip which provides detailed information about Market Penetration
- Migration of existing Oracle Datawarehouse to Big data platform
- Leverage latest big data technologies for efficient and faster data processing (Spark, KUDU etc)
- Cloudera configuration on AWS. Configuration of beeline on hive to use thrift server.
- Enabled KUDU to capture the updates on HDFS along with the configuration for HDFS, Hive, Spark, Impala and Oozie
- Solution to Inventory Module in Big Data - to capture Daily Inventory Snaps followed by Design and Implementation
- Complex Reports and Dashboards were created on Power BI on top of Hive/Impala Layer
- Complex Queries has been implemented for data analysis
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- Creating various reports using Power BI on top of Hive layer

Technologies used

AWS, Cloudera, Hive, Power BI.