



amaze®



Automating Snowflake Transformation Reduces TCO by 50% for a Large US-based Mining Organization

Our client is a US-based international mining company and a Fortune 500 enterprise with presence across Asia and Americas. With increasing volume, variety and complexity of data flowing in from multiple sources, they wanted to explore the benefits of cloud architecture.

Business and Technical Challenges

One of the most prohibitive costs of legacy on-premises data warehouses (DW) comes from managing, storing and analyzing massive volumes of data. This is especially true for data warehouses and MPP environments running on legacy appliances like Teradata, which was the case at our client.

The client was facing poor data optimization and performance, leading to the below mentioned issues.

- Existing DW application that sits on Teradata appliance proved very expensive for processing the huge amount of IoT data generated from the haul trucks deployed for their mining business
- Data streamed from IoT devices moved to the warehouse through batch process that limited the possibility of any real-time analytics
- Lack of scalability for business demands
- No support for high-performance computation or analytics to manage demand and inventory
- No advanced self-service capabilities for non-technical data users
- High TCO
- Poor speed to market



Unearthing a Data Solution

We did a thorough questionnaire-based cloud readiness assessment and identified the best fit-for-purpose cloud stack – **Snowflake** which provides a modern DW and analytics ecosystem.

Benefits of Snowflake:

Snowflake is a zero maintenance, fully managed, cloud data platform and is one of the most popular choices of enterprises for their data warehousing and analytics needs. It provides a unique architecture for data analysts, data engineers, data scientists and data application developers to collaborate and work on any data without any limitations in performance, concurrency or scale.

Secure and governed by design and compatible with popular ETL, BI, and data science tools, Snowflake enables data professionals to support many data warehouse, data lake, data engineering and data science workloads with virtually unlimited concurrency.

- Hexaware proposed moving from Teradata and Hadoop to Snowflake database and introduced streaming data analytics by leveraging Azure Databricks
- All data other than streaming data was loaded in Snowflake DW
- Data from IOT devices was routed to Databricks via event hub for real-time analytics
- Azure Blob Storage was used for storing data before moving it to Snowflake DW for historic reporting
- Leveraged amaze® for Data & AI platform for automated assessment, conversion and validation for during transformation
- Invested in customizing the accelerators for client needs



How we ensured rapid, reliable transformation with Amaze® for Data & AI

1) Assessment

- Automated knowledge repository creation of legacy DW Coding Design pattern identification for analyzing workload
- Optimized schema, leveraging Snowflake functionalities like clustering keys, file size for blob uploads, etc
- Logical grouping of workloads into transformation units

2) Transformation

- Automated code conversion to amaze® for Data & AI platform (~70%)
- Creating code patterns for Snowflake
- Query editing for optimized fixes and performance tuning

3) Validation

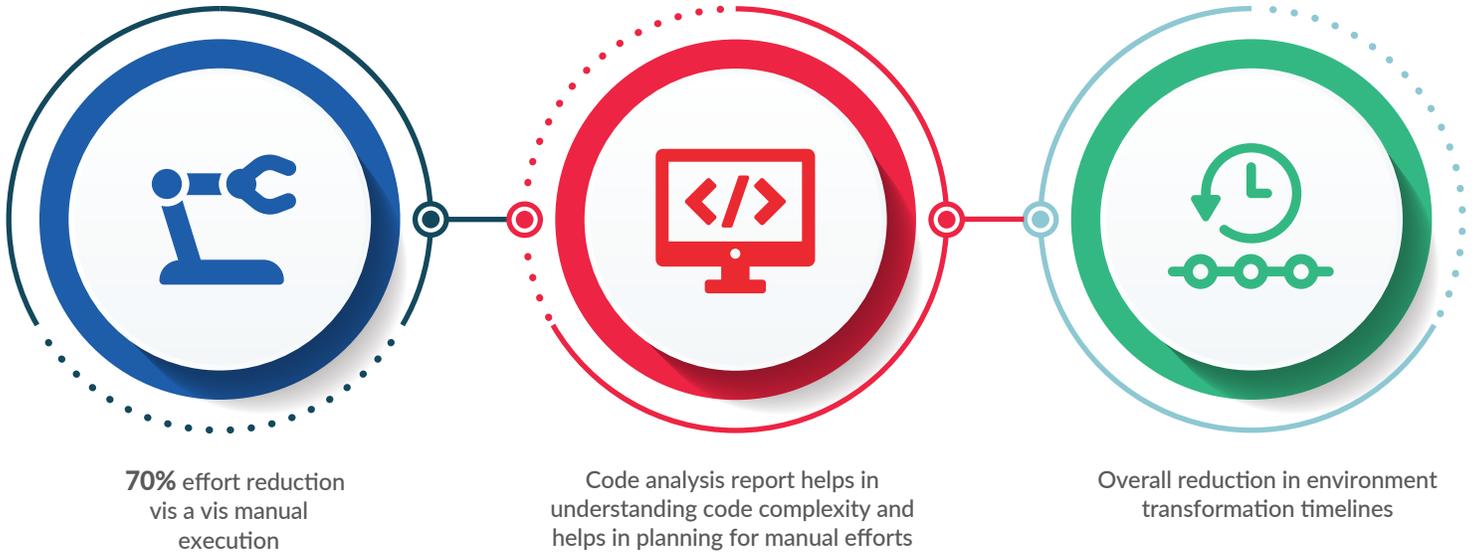
- Data validation to ensure correctness of migrated data
- Table schema validation to check accuracy of automated transformation.

We delivered:

- 70%- 80% automation for transforming Teradata objects like Tables, Views, SQL Structures
- 50%-80% automation for transforming Teradata objects like Macros, Procedures, Inbuilt Functions



Business Benefits of Amaze® for Data & AI in the Snowflake Transformation



About Hexaware

Hexaware is the fastest growing next-generation provider of IT, BPO and consulting services. Our focus lies on taking a leadership position in helping our clients attain customer intimacy as their competitive advantage. Our digital offerings have helped our clients achieve operational excellence and customer delight by 'Powering Man Machine Collaboration.' We are now on a journey of metamorphosing the experiences of our customer's customers by leveraging our industry-leading delivery and execution model, built around the strategy— Automate Everything®, Cloudify Everything®, Transform Customer Experiences®.

We serve customers in Banking, Financial Services, Capital Markets, Healthcare, Insurance, Manufacturing, Retail, Education, Telecom, Hi-Tech & Professional Services (Tax, Audit, Accounting and Legal), Travel, Transportation and Logistics. We deliver highly evolved services in Rapid Application prototyping, development and deployment; Build, Migrate and Run Cloud solutions; Automation-based Application support; Enterprise Solutions for digitizing the back-office; Customer Experience Transformation; Business Intelligence & Analytics; Digital Assurance (Testing); Infrastructure Management Services; and Business Process Services.

Hexaware services customers in over two dozen languages, from every major time zone and every major regulatory zone. Our goal is to be the first IT services company in the world to have a 50% digital workforce.

Learn more about Hexaware at <https://www.hexaware.com>

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