

HEXAWARE

Transforming Data Operations: Informatica to Databricks Migration

Case study



Client

| Client

Challenge

Solution

Benefits

Summary

Revolutionizing Data Infrastructure for a Global Leader in Clinical Research

The client is one of the world’s largest Contract Research Organizations (CROs) and has expertise in supporting large-scale clinical research. The client operates in a highly data-dependent environment. For them, data reliability, speed, and accuracy are not mere operational preferences but critical enablers of their business success.



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Breaking Through Legacy Barriers to Enable Data-Driven Research

The client's legacy data infrastructure had reached its operational limits, creating significant challenges that impacted their ability to scale and innovate.

- Performance Bottlenecks in Critical Operations**
 The aging data warehouse architecture caused severe performance degradation, slowing down key business functions and impeding the processing of large-scale clinical datasets.
- Manual Data Workflows Creating Inefficiencies**
 Data comparison and validation processes were fully manual, with 70% to 80% of time spent on maintaining data hygiene and quality-related tasks.
- Risk of Data Inaccuracies**
 Reliance on manual verification introduced risks of undetected inaccuracies, jeopardizing the integrity of clinical research data.
- Absence of Cloud-Native Capabilities**
 Without a modern, cloud-native platform, the organization was unable to deploy machine learning models, hindering their ability to scale advanced analytics and scientific computing.

- Reporting Bottlenecks**
 A lack of self-service business intelligence tools left stakeholder's dependent on technical teams for even routine queries, further delaying insights and decision-making.

As a result, the organization faced a major bottleneck in transitioning to a data-driven operating model, with competitive pressures mounting and resources diverted toward repetitive, low-value tasks.



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Hexaware Empowers Transformation with Advanced Data Modernization Framework

Hexaware partnered with the client to deliver a modernized data ecosystem, combining consulting expertise with cutting-edge technology solutions.

Initial Assessment: Building the Foundation

Hexaware began with a consulting-led discovery phase, conducting workshops with stakeholders to map the application portfolio, analyze data flows, and prioritize business-critical use cases. Success criteria were defined upfront to align the technical roadmap with the client's strategic goals.

Accelerating Migration with Amaze®

At the heart of the solution was Hexaware's proprietary Amaze® migration accelerator, which enabled:

- Automated discovery and dependency mapping of over 40 applications, minimizing manual intervention.
- Auto-generation of migration artifacts, significantly compressing delivery timelines.
- Seamless migration of the entire application portfolio to Databricks, while maintaining data integrity and minimizing operational disruption.

Building a Modern Data Architecture

Hexaware implemented a medallion architecture on Azure and Databricks, which included:

- Azure Data Factory as the orchestration layer, optimizing data flow and governance across bronze, silver, and gold tiers.
- Migration of legacy Informatica PowerCenter workloads using Amaze® for ETL logic translation.
- Integration of Power BI as a self-service reporting layer, empowering business users with advanced analytics without reliance on engineering teams.

Automating Validation and Quality Control

A Python-based automation framework was deployed to:

- Eliminate manual validation efforts.
- Proactively identify data discrepancies in near real-time, ensuring data quality and operational reliability.

Implementation Timeline

Hexaware's approach, powered by Amaze®, compressed what would have been a multi-year transformation into a significantly shorter delivery timeline, meeting the client's business expectations without compromising quality.



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Achieving Data Excellence with Hexaware's Solutions

35% Reduction in Operational Effort

Automating data validation and reconciliation workflows eliminated manual inefficiencies, freeing teams to focus on high-value analytics and research.

30% Cost Savings

Amaze®'s automation capabilities reduced the total program cost by 30% by replacing resource-intensive manual processes with efficient automation.

40% Faster Project Delivery

The delivery timelines were compressed by 40% compared to traditional methods, allowing the client to achieve production readiness significantly ahead of schedule.

Improved Data Processing Performance

The introduction of Databricks' Spark engine resolved legacy bottlenecks, enabling faster and more reliable processing of large clinical datasets.

Enhanced Data Accuracy and Integrity

Real-time validation pipelines reduced the time to surface and resolve discrepancies from days to mere moments, improving overall data quality.

Empowered Business Users

With Power BI integrated as a self-service reporting tool, stakeholders gained direct access to actionable insights, reducing dependency on technical teams.



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Transforming Data Operations to Enable Growth and Innovation

Hexaware successfully modernized the client’s data infrastructure, enabling them to scale their operations and leverage advanced analytics for clinical research. By addressing legacy inefficiencies with Amaze® and automating critical workflows, Hexaware delivered a robust, cloud-native platform powered by Azure and Databricks. Today, the client operates with significantly reduced operational overhead, improved data accuracy, and faster processing capabilities. With automated workflows and self-service tools in place, the organization is well-positioned to advance its data-driven operating model and accelerate clinical research innovation. By fostering a collaborative partnership and leveraging proprietary tools like Amaze®, Hexaware provided the client with a future-ready, scalable data platform, empowering them to meet competitive pressures and achieve their strategic goals with confidence.



Accelerate Your Data
Modernization Journey

Connect with our experts at
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About Hexaware

Hexaware is a global technology and business process services company. Every day, Hexawarians wake up with a singular purpose: to create smiles through great people and technology. With this purpose gaining momentum, we are well on our way to realizing our vision of being the most loved digital transformation partner in the world. We also seek to protect the planet and build a better tomorrow for our customers, employees, partners, investors, and the communities in which we operate.

With offices across the world, we empower enterprises to realize digital transformation at scale and speed by partnering with them to build, transform, run, and optimize their technology and business processes.

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

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