HCLTech | Supercharging Progress™

Fortune 500 consumer goods company unlocks new business value with democratized supply chain data

HCLTech delivered operational agility without disrupting the business and depleting the bottom line

A multinational Fortune 500 consumer goods company needed to enhance operational efficiencies and optimize supply chain costs through intelligent data-driven decisions. Faced with capacity constraints and capability gaps, the enterprise knew that the solution for transforming manufacturing data operations was to democratize their supply chain data by migrating to a centralized data platform, streamlining operations and providing unified analytics support to the downstream data ecosystem.

The company required a reliable DevOps partner to manage the growing demand for data analytics and new solutions in their global supply chain community. Acknowledging HCLTech's global footprint and consistent record of value delivery, the company engaged HCLTech to own end-to-end data operations for their supply chain data platform.

By implementing best practices for DevOps and business-aligned automation execution, the client achieved efficiency improvement. By simplifying and democratizing the complexities of data access to the client unlocked new business value with data-driven decision making and faster innovations for novel use cases.

The Challenge:
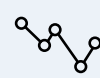Overcoming barriers to leveraging manufacturing data analytics

With the expanding analytics needs of data scientists, the company realized the need for high delivery throughputs. They also needed to support the operational efficiency of their central supply chain data platform and sought better cross-vendor collaboration. The process had been hindered by:

A near absence of data-collecting tools and mechanisms.

Limited data computing power in existing support systems.

Lack of transformation tools to convert data into business intelligence (BI) insights.

The Objective:
Democratize and centralize governance of business-critical data

The client was looking for a trusted partner with a DevOps thought leadership mindset to implement best-in-class DevOps strategies and enforce high accountability. The business needed to map its selling systems, draw raw material insights, spot leaks in the supply chain and study fulfillment patterns.

HCLTech stepped up to the challenges by testing new applications, deploying cutting-edge governance tools and providing data-led, actionable recommendations for ongoing architectural and technological changes. The expectation was that HCLTech would generate business-critical data for BI centrally and own the entire operations and automation initiatives.

The Solution:
Product Supply Core Data Lake

The new product supply Core Data lake considered the clients data, engineering and science needs. The first step was to collaborate with the client's manufacturing ecosystem DevOps managers, solution architects and other stakeholders to understand their requirements.

The next step was to implement a unified platform by migrating all isolated on-premise applications to the Microsoft Azure ecosystem. This move would handle increasing volumes of supply chain data and multiple platforms in the existing setup. It helped to optimally manage the data at scale and unearth actionable insights through analytical dashboards and operational reports.

On the technology front, data movement was automated using the Azure Data Factory, loaded data into Azure Data Lake Storage, computed it through Azure Databricks and made it available for data analytics. The process included sourcing data from:

- SAP to trace back source data on the raw level.

- Global business warehouses (BWs) for inventory-level data.

- Regional BWs linked to transportation.

- Regional transport management systems (TMSs) to be updated weekly.

- IDP (integrated distribution planning) for forecasting.

- Transport and warehouse (T&W) BI to generate and share T&W data with the BI application DOMO.

Data was collected from all of these environments, ingested it through Data Factory and Databricks, and transformed the data in sandbox setups. This process created easy-to-read, consumer-facing tables on the top of Azure's file system. We are responsible for all data enhancements and changes related to:

Inventory

Transportation

Intelligent daily forecasting

Supply chain synchronization

Transactions

Shipments

The impact:
Supply chain data operations efficiencies and cost improvements

HCLTech adopted industry-best continuous integration/continuous deployment (CI/CD) standards to execute a seamless development and deployment process. By making data visible for users, HCLTech drove efficiencies, reduced operational costs and created a superior user experience

The customized, unified solution enhanced the client's intelligent data operations at scale for agility and innovation by:

- Assisting in timely financial decision making by generating BI related to:
    - Inventory management of raw and finished goods.
    - Trucking, loading and routing in transportation.
    - Forecasting and planning.
- Adding value through process improvement—with one exception, all applications have been migrated.
- Achieving a 99 percent increase in quality of service in only six months.
- Downsizing staffing estimates, saving resource costs.
- Utilizing the client's existing resources optimally.

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