DATA INTEGRATION

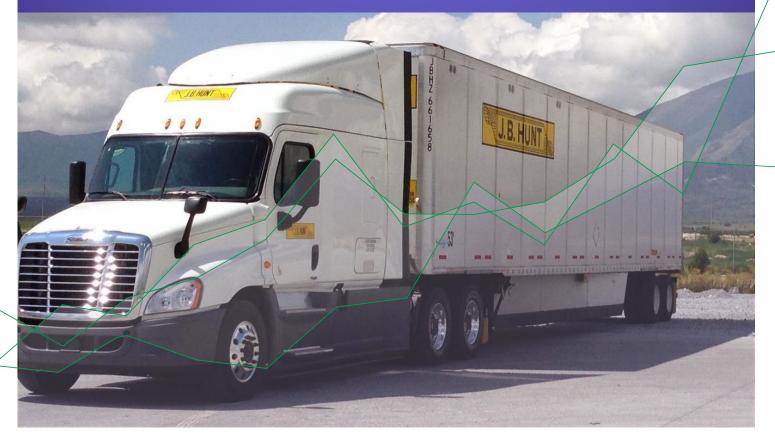# Real-time data drives key efficiencies

Transport and logistics specialist uses Qlik to accelerate analysis and application speeds

Qlik Q®

J.B. HUNT

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Optimizing data access and analysis

J.B. Hunt's growth into one of the largest transport and logistics operators in the US, Canada and Mexico has been driven by a number of critical factors. Among these is a recognition of how customer responsiveness, service quality and operational efficiency can be critical drivers of success.

Based in Lowell, Arkansas, J.B. Hunt employs over 24,000 people and operates more than 12,000 trucks. It is also a digital pioneer in an industry built on paperwork and manual processes. As customer expectations of faster services and greater visibility into shipments grow, real-time data has become a cornerstone of the logistics industry.

It was in response to this that J.B. Hunt embarked on a digital transformation journey, with the aim of increasing a range of operational efficiencies and providing rapid and effective access to data across the organization. However, achieving this required a platform that would enable the business to leverage all the data at its disposal, wherever and however it was stored.

A technology-driven ambition

J.B. Hunt's 360 platform provides a series of innovative supply chain solutions for both shippers and carriers, meeting the various needs of a variety of users. The application forms the foundation of J.B. Hunt's technology-driven ambition to improve its supply chain, capacity utilization, pricing and transportation execution, which combine to add business efficiency, flexibility and value, and deliver a high-end customer experience.

Solution Overview

Customer Name
J.B. Hunt

Industry
Transportation

Geography
USA

Function
IT

Business Value Driver
Reimagined Processes

Challenges
- Deliver meaningful insights into key performance criteria
- Allow the quick provision of analytics-ready data
- Improve business performance and efficiency

Solution
Adopted a multi-cloud strategy and migrated the bulk of the business's workloads and compute requirements from Microsoft Azure to Google Cloud.

Results
- Drivers are more productive, more satisfied and earning more
- Real-time access to data from individual trucks reduces business risk
- Secondary database reserved for application querying reduces main database load

The company deployed Qlik Data Integration and a new Qlik Replicate Databricks Delta endpoint solution for Microsoft Azure, to deliver near real-time data from multiple disparate sources, including its legacy mainframe systems and SQL server, directly to its Databricks Delta Lake. It also established automated data modeling and transformation for its Azure Synapse data warehouse, allowing the quick cataloging and provision of analytics-ready data to multiple user groups, with latency reduced from hours to minutes.

A multi-cloud switch in strategy

In 2020, J.B. Hunt decided on a switch in strategy, moving to a multi-cloud environment and migrating the bulk of its workloads and compute requirements from Microsoft Azure to Google Cloud.

With the primary aim of delivering greater visibility into logistics and supply chains, J.B. Hunt's plan was to combine its own expertise with Google's AI and ML capabilities, building a series of flexible, reliable and repeatable workflows. This would necessitate new software from Qlik, new dependencies from both Google and Databricks, and meeting some ambitious timescales.

Qlik developed a new Replicate Databricks endpoint for Google Cloud Platform (GCP), and also a certified Compose Gen2 for GCP. Qlik gave J.B. Hunt access both to early builds and R&D support, which enabled the migration of Qlik from Azure to GCP to complete successfully and on time.

"Qlik allowed us to switch cloud vendors a lot easier than it would otherwise have been," explains Joe Spinelle, Director, Engineering & Technology at J.B. Hunt. "It allowed us to get our replication and composition in place and took a lot of the headache out of the whole piece."

Shared loads cut latency

J.B. Hunt now operates twin databases: a main production database and a secondary database reserved for application querying. The secondary database is updated in close to real-time, which means it can take much of the load from the main production database without suffering from latency issues.

"We're trying to deliver a solution where same-day reporting is possible from an analytical perspective," explains Spinelle. "Instead of taking five or six hours to replicate data, now we're doing it within minutes and we can do it over and over again."

Access to accurate, real-time data is delivering key improvements to the J.B. Hunt 360 platform. It can quickly produce new ML models and break down data silos to optimize solutions in real-time, thereby enabling the development of predictive analytics for shippers and carriers. A key area where this is producing results is in contactless driver recommendation notifications, which are now delivered in near real-time, between load assignments. Drivers are, as a result, more productive, improving satisfaction and the efficiency of operations.

The keys to success

Near real-time contactless notifications
of driver recommendations

Minutes for data replication,
reduced from five to six hours

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Qlik Q

About Qlik

Qlik's vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their
most challenging problems. A private company, Qlik offers real-time data integration and analytics solutions, powered by
Qlik Cloud, to close the gaps between data, insights and action. By transforming data into Active Intelligence, businesses can
drive better decisions, improve revenue and profitability, and optimize customer relationships. Qlik serves more than 38,000
active customers in over 100 countries.

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