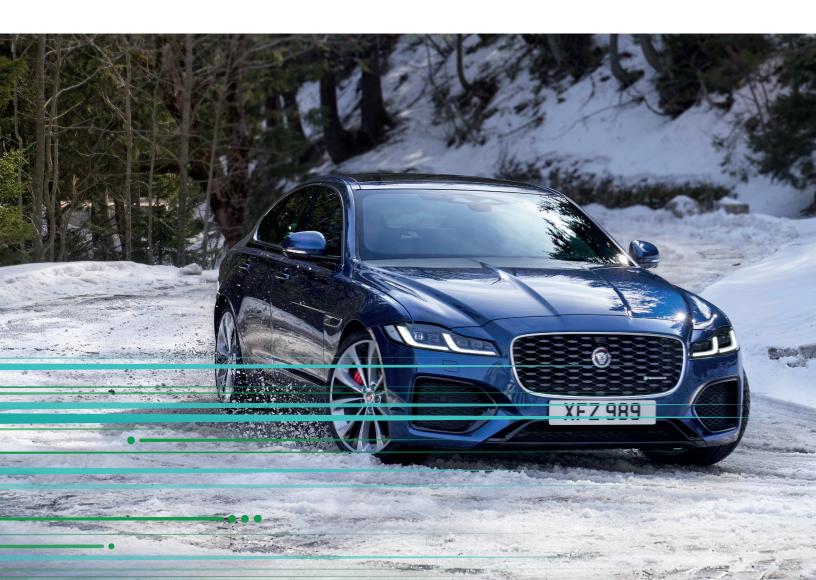# Qlik

DATA INTEGRATION

Jaguar Land Rover delivers data ingestion-as-a-service with Qlik Data Integration

"We need to have the data available to be able to quickly answer challenges when they arise. Qlik was the only solution that could provide breadth of coverage on all the key systems within JLR's estate."

Michael Cockbill, Technical Product Manager, Jaguar Land Rover

Complex and time-consuming data access

In 2020, Jaguar Land Rover sold 425,974 vehicles in 127 countries but, despite its size and success, the company still needs to effectively navigate the challenges that many organizations face today.

Covid disrupted many supply chains, global chip shortages threaten to impact production and the need for digital transformation brings increasing demands. In the automotive industry, the pace to produce electric vehicles quickens.

To meet these demands, JLR must quickly make the right critical decisions and that requires constant access to actionable, real-time data.

Previously, obtaining this data was a difficult, manual and time-consuming process. Valuable data was locked inside mission-critical systems, both on-premises and in the cloud, including within SAP applications, mainframes and manufacturing systems. JLR has a broad and complex data landscape with lots of different database source systems and, due to the company's history of acquiring different organizations, a wide variety of legacy systems.

Traditional ETL tools, such as SAP BODS, were used for batch extraction and citizen developers created various ways to extract and download data from 1,500 applications, more than 180 of them being 15 to 20 years old. Information had to be pulled at least once a day from more than 1,000 of these applications and on an hourly basis from another 350 sources.

With increasing demands across the business for more data, a better, faster solution was needed.

Solution Overview

Customer Name
Jaguar Land Rover

Industry
Manufacturing

Geography
UK

Function
Finance, IT, Sales, Supply Chain Management

Business Value Driver
New Business Opportunities, Reimagined Processes

Challenges
- Need for swift, critical decision-making to answer market challenges
- Constant access to actionable, real-time data
- Ability to mine a wide variety of data sources

Solution
Jaguar Land Rover has adopted DataOps methodologies, created a data lake and implemented Qlik Replicate to feed data into the lake. It is also looking to expand its use of other solutions within the Qlik Data Integration and Data Analytics platform.

Results
- Ingestion-as-a-service capability for use throughout the business
- Exposes SAP data in external facing JLR websites for different countries
- Quick response to the regulatory demands of global markets

DataOps accelerates delivery of real-time data

JLR's enterprise data team's strategy was to use change data capture replication to fill its data lake. After evaluations, JLR decided that Qlik Replicate, part of the Qlik Data Integration platform, was the most efficient way to transfer data to various storage layers in the lake.

"We had deployed the data lake but we needed a way of onboarding more data, faster," says JLR's Technical Product Manager, Michael Cockbill. "Qlik was the only solution that could provide breadth of coverage on all the key systems within JLR's estate."

JLR's enterprise data team is actively adopting DataOps methodologies which have helped to structure the company's replicate environments and build further automation through infrastructure-as-code. This means the team can automate all its replication builds internally, cutting the delay and cost of relying on external system integrators. Setting up and deploying a typical replication project is now largely a push-button exercise that can be ready to start within 15 minutes.

One aim is to mature replication builds further so that any changes to replication tasks can be done through a standard support ticket rather than as a full IT project.

Local data team supports a global business

The JLR enterprise data team consists of nine people, five of which are dedicated to Qlik Replicate. "We're able to achieve a lot with a small team in a short space of time," says Cockbill. The team initially built the data lake to support analytics but it is continuingly evolving to support many other use cases.

"One thing we have been able to do with Qlik Replicate that we couldn't easily do before is to feed data into different storage layers in the data lake in parallel, some which support analytics and some of which are consumed by the enterprise API platform which supports external facing JLR websites in different countries," explains Cockbill.

As a direct result, JLR can now quickly respond to the regulatory demands of global markets by exposing SAP data through these external websites in near real-time. One example is to meet SLAs with the North American Highways Agency which requires on-demand access to warranty safety recall information as part of the license to operate in the country.

Another example is the way JLR drastically cut the time taken to submit and provide accurate UK VAT submissions from the vast amount of data in its global SAP systems. The tax team used to spend many hours and days manually downloading data from SAP ECC sources to support submissions. Now staff can consume and analyze all required data within minutes.

Cockbill also praises Qlik's Professional Services and Customer Success teams: "We have had great experiences in all the time we have been working with Qlik," he says. "Even from before doing business with the company, all the way through to implementation, beta testing new endpoints, to how the teams have responded to critical incidents has been excellent. Other IT vendors who I've dealt with, while they provide a great service, don't seem to have the same depth of experience with their products as Qlik's people."

The data lake currently holds two petabytes of data and comes from three primary ingest methods, IoT/event streaming platform, traditional ETL batch ingestion and Qlik Replicate CDC streaming RDBMS and mainframe systems. JLR's enterprise data team is also managing replication to an AWS RDS instance in China.

Looking to the future, having now built the raw data layer, in addition to plans of addressing global replication tasks and adding other endpoints such as Salesforce and Kafka with Qlik Replicate, JLR is also very keen to explore expanding the use of other solutions in the Qlik Data Integration platform, such as creating ready-for-consumption business layers in the data lake using Qlik Compose. Also under consideration is Qlik Data Catalog.

The keys to success

2Pb of data in new data lake

15 minutes to start a new replication

"The biggest impact is that we have stood up an ingestion-as-a-service capability within an internal IT data team and can offer this to the rest of the business. That is something we could not do before and it is underpinned by Qlik Replicate."

Michael Cockbill, Technical Product Manager, Jaguar Land Rover

Qlik

About Qlik

Qlik transforms complex data landscapes into actionable insights, driving strategic business outcomes. Serving over 40,000 global customers, our portfolio leverages advanced, enterprise-grade AI/ML and pervasive data quality. We excel in data integration and governance, offering comprehensive solutions that work with diverse data sources. Intuitive and real-time analytics from Qlik uncover hidden patterns, empowering teams to address complex challenges and seize new opportunities. Our AI/ML tools, both practical and scalable, lead to better decisions, faster. As strategic partners, our platform-agnostic technology and expertise make our customers more competitive.

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