A Flexible Foundation for Data-Driven Intelligent Operations in Manufacturing

Maximize value from all manufacturing data in any format — including real-time data to achieve operational excellence, increase yield and accelerate business results





Overview

Growth and remaining competitive are critical for manufacturers to maximize value from their data, across many operational and enterprise data sources. To do this, manufacturers need a flexible platform for data, analytics and applications that delivers rapid business results and impacts quality improvement, yield rates, defect reduction, productivity and revenue growth.

By working with over 125 of the leading manufacturers around the globe, we've helped our customers build vetted solutions and provided architectural guidance to solve business challenges, delivering results months or even years faster. All in one. Ready NOW.

The Modern Data Challenges for Manufacturers

Today's manufacturers face limitations when addressing the complexities of digitalization. Much of these challenges are due to the rapid evolution of new and connected data sources and the massive volume of data created.

Manufacturers need a flexible and scalable data and analytics platform that can easily ingest, store, manage and process many different kinds of data in real time. With this foundation, manufacturers can quickly add business applications and processes to deliver insights and actions that drive continuous process monitoring, throughput optimization or predictive maintenance.

Cloudera Empowers Manufacturers with a Flexible Foundation

Cloudera has been helping manufacturers shape their data-driven intelligent operations, demonstrating the ability to improve product quality, optimize processes and increase agility.

82%

of manufacturers believe flexibility is critical to growth*

1.8×

more cost to repair failed assets compared to predictive maintenance*

60%

of capacity losses are due to equipment not producing to capacity*

Legal disclaimer *
Intelligent Asset Management Services |
Accenture

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Cloudera offers the open data lakehouse as the foundation which makes data ingestion easy, eliminating the need for in-house deployment expertise. Manufacturers gain the ability to leverage both OT (Operational Technology) and IT (Information Technology) data in structured and unstructured formats, enabling the use of data and analytics across factories, plants, data centers and multi-cloud.

· Hybrid and multi-cloud

Cloudera has hybrid data capabilities that make it easy to collect high-volumes of real-time streaming data from operational, IT and enterprise data sources across factories, data centers and clouds.

• End-to-end, integrated data services

Cloudera has end-to-end, integrated data and analytics capabilities — from streaming data collection to machine learning and AI — so you don't have to integrate or manage multiple tools or worry about data lineage or security.

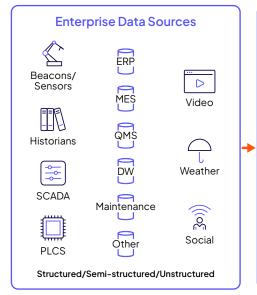
• 100% open

Cloudera offers a secure, open and modern hybrid data architecture required for intelligent operations use cases—so you can quickly build or integrate with value-added applications and analytics. No lock—in. Ever.

The Data Lifecycle Architecture to Enable Intelligent Operations Use Cases

Cloudera helps manufacturers bring together datasets from siloed shop-floor, operational (OT) systems, enrich them with other enterprise datasets and build a variety of analytics use cases. This unified and innovative data platform delivers a foundation for modern applications — including "connected and intelligent asset management" — enabling manufacturing organizations to optimize their production operations, improve product quality, increase operational efficiencies, and predict asset failures to take action on time.

Data Lifecycle on Cloudera







Case Study: Faurecia

Faurecia — a tier-one global automotive supplier — is maximizing production uptime and improving product quality with a hybrid data platform from Cloudera.

Challenge

Faurecia has fully embraced Industry 4.0 by implementing 300+ sensors to achieve their "zero-defect" goal. However, as Faurecia staff sought to incorporate real-time data from connected devices and machines at its sites, its relational databases couldn't provide the scalability or performance required.

Solution

Working with Cloudera, Faurecia created the data architecture that brings together and analyzes data from a variety of sources, including thousands of machines and sensors, to help drive predictive maintenance and improve product quality. Faurecia started working from days to weeks with Cloudera, versus weeks or months with traditional data management approaches.

Benefits

With Cloudera, Faurecia was able to implement a complete predictive maintenance solution, moving closer to its goal of zero defects. As a result, Faurecia achieved higher quality parts without production line stoppages and delays.

Since Cloudera covers the data lifecycle, they were able to simplify the project without having to integrate several systems together. Faurecia has also expanded the use of Cloudera running on Azure through their transformative project, the "Cockpit of the Future," and is focusing on additional use cases centered on Intelligent Operations.

Hear the story told by Faurecia

That's just one example. Many other manufacturers have used their data on Cloudera to reduce defects, optimize energy usage and implement predictive maintenance in months, making a fast financial impact.

CLOUDERA

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Cloudera is the only true hybrid platform for data, analytics, and Al. With 100x more data under management than other cloud-only vendors, Cloudera empowers global enterprises to transform data of all types, on any public or private cloud, into valuable, trusted insights. Our open data lakehouse delivers scalable and secure data management with portable cloud-native analytics, enabling customers to bring GenAl models to their data while maintaining privacy and ensuring responsible, reliable Al deployments. The world's largest brands in financial services, insurance, media, manufacturing, and government rely on Cloudera to be able to use their data to solve the impossible—today and in the future.

To learn more, visit Cloudera.com and follow us on LinkedIn and X.