



INDUSTRY

Energy Technology

PROFILE

This U.S.-based energy solutions company specializes in digitally-powered, advanced technologies that help energy and industrial companies to produce cleaner energy, reduce emissions, and maximize productivity, while maintaining compliance with sustainability regulations. The company conducts business in over a hundred companies across the globe.

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During the Denodo POC, we learned that we could do what we wanted to do using just four clicks,” said the company’s director of sustainability. “This made us realize that we could use the Denodo Platform to try out anything on top of Databricks using about four clicks. It’s a lakehouse simplifier and accelerator.”



Energy Technology Company Leverages the Denodo Platform to Accelerate Data Lakehouse Performance

Streamlines Data Access while Facilitating Environment, Social, and Governance Compliance

For over a hundred years, this U.S. company has been on the forefront of energy innovation. Across the world, energy companies rely on this company to streamline reporting through a wide variety of metrics, tracking such entities as emissions, water usage, human capital, and governance. As such, the company prides itself on setting and maintaining high environment, social, and governance (ESG) standards for its own organization.

Business Need

In the decade that spanned 2014 through 2024, when the number of sustainability and clean energy requirements began to soar, the company’s IT team was tasked with expanding the scope of the company’s corporate sustainability report. This report was a vast, multi-document undertaking that covered several hundred metrics spanning the entire enterprise, plus partner organizations, each one of which required a substantial data pipeline to fulfill. In all, this activity drew data from over 20 different ERP systems, and to manage these large volumes, the company set up four on-premises data warehouses. This infrastructure took an excessive amount of time to integrate the data for not only for the company’s numerous metrics-rich reports but also for downstream applications, customers, the broader market, and internal analytics. The company needed to modernize its data infrastructure to more effectively manage this disparate data.

The Solution

Initially, the company implemented the Denodo Platform to act as a unifying data-access layer across the four data warehouses, and the new data infrastructure enabled the company to integrate the data with considerably more agility. For example, the company was able to expand the number of metrics covered by the corporate sustainability report by almost 400% with the same level of time and resource investment.

Several years later, the company implemented a Databricks data lakehouse to serve as the unifying data repository, and the role of the Denodo Platform changed: The company now leveraged the Denodo Platform as a data lakehouse accelerator.

First, the Denodo Platform simplified and accelerated the delivery of select workloads to specific SaaS applications, such as Workiva, which was used as an ESG disclosure management tool. Because of the sensitivity of some of this data, the company didn’t want to expose Databricks to these applications directly; instead, the company leveraged



the Denodo Platform, with its access control and data usage monitoring capabilities, as a data governance layer between the SaaS applications and Databricks. Because of the Denodo Platform's semantic layer, it transformed the data, on the fly, into the format required by each application, accelerating time-to-insight. "We use the Denodo Platform as the 'gateway' to Databricks," said the company's director of sustainability.

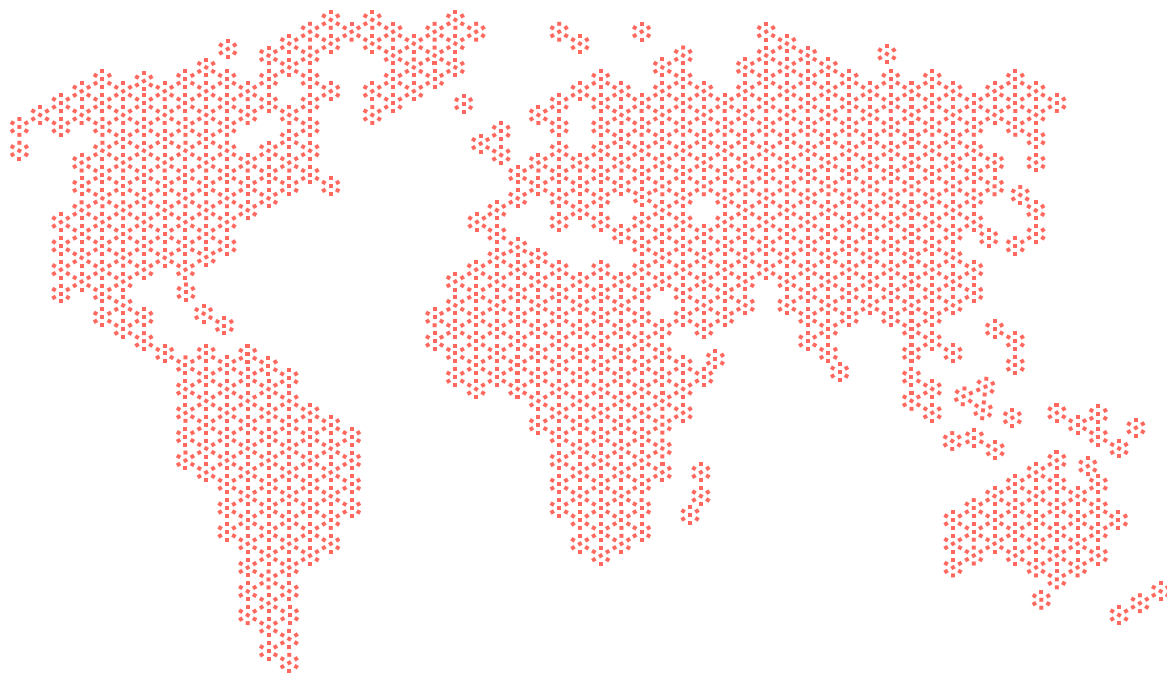
The Denodo Platform also enabled the exposure of governed data through APIs, as data services. This capability provided the company with a "sandbox" environment in which stakeholders could easily experiment with data-product functionality and receive immediate feedback to enable rapid, iterative prototyping.

Finally, the Denodo Platform accelerated Databricks performance with a powerful yet flexible cache. This not only offloaded workload from Databricks but also strategically refreshed report data with data from the cache to support a variety of update requirements, from real-time, to next day, to even longer. Supported by the Denodo Platform's cache, which stepped in whenever it was necessary, Databricks became a failsafe system.

Benefits

The Denodo Platform formed the core of a new data infrastructure that included a Databricks data lakehouse, and it enabled:

- The ability to generate a greater number of metrics, more quickly, for reports and downstream applications
- Better visibility into internal operations, through Tableau, of all relevant ESG data, to proactively spot potential non-compliance issues
- Immediate access to trusted, up-to-date data across disparate data sources
- Quick prototyping of data models



Denodo is a leader in data management. The award-winning Denodo Platform is the leading logical data management platform for transforming data into trustworthy insights and outcomes for all data-related initiatives across the enterprise, including AI and self-service. Denodo's customers in all industries all over the world have delivered trusted AI-ready and business-ready data in a third of the time and with 10x better performance than with lakehouses and other mainstream data platforms alone.