Utilities case study

Uniper makes decisions faster with intuitive data discovery

A user-friendly and intelligent data search engine to navigate vast data sources at a global utility company.

The challenge

Uniper is a company at the forefront of the energy transition. Based in Germany and with a presence in more than 40 countries, it balances investments in renewable energy generation and participation in the global energy trading market to ensure a secure energy supply for over 1,000 wholesale and industrial customers.

In a complex, high-stakes and fast-moving operating environment, Uniper employees needed to make crucial decisions fast. However, a significant amount of time was being wasted in the process of discovering and accessing data to make these key decisions—delaying the overall process. The company recognized the need to enhance the speed and quality of data discovery across all aspects of their business, from energy trading to plant and equipment maintenance. This required an intuitive solution that would make data discoverable and accessible to anyone, whether at their desk or on the go.

At a glance

Industry
Utilities

Location
Germany

Challenge
To improve the speed and quality of decision-making by making business data easily discoverable across the organization

Success Highlights

- Significant reduction in time spent searching for data to facilitate business decisions

- Google-like experience for finding data and information throughout the organization

- AI-powered recommendations to further decrease the time required to find data for decision-making purposes

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A Google-like search experience for internal data

Uniper envisioned an internal data search engine that would offer a simple user experience. It would enable business decision-makers to explore the company's vast data sources and identify key elements with the option to access it immediately or contact the owner for additional details.

To bring their vision to life, Uniper's Data Design team, in collaboration with other teams, developed a new search engineand partnered with Cognizant to launch it. Our successful track record with Insights Marketplace, a similar solution, gave Uniper confidence in choosing us as a project partner.

The approach

Cognizant followed a four-step process to design and deliver a search engine tailored for business users and data specialists.

Persona development: User personas were created to determine the intended users of the data search engine and the various contexts in which they would utilize it. These personas ranged from specialist data engineers and data scientists to business users and C-level executives who needed easy access to reliable business information. Equally important were the personas of data owners—individuals responsible for managing and curating data sets and keen on sharing them across the organization to support decision-making.

Proof of concept: Cognizant built a proof of concept for the proposed solution, centering around the Talend data catalog. This cloud-based repository ingests and publishes metadata for diverse data types—including data sets, system logs, and third-party data feeds. A user-friendly front end made this catalog easily searchable leveraging Natural Language, allowing users to find relevant data, assess its usefulness for their work, and contact the data owner if needed.

Data discovery: With the proof of concept successfully delivered, Uniper and Cognizant worked to identify data and data owners across the organization, creating an indexed inventory of shareable data. Data owners were trained in labeling and sharing their datasets via catalog—using a structured system of business and technical metadata for clear labeling and easy discovery. This was available for technical and non-technical users.

Solution delivery: Cognizant leveraged Microsoft Azure Cloud, Talend and React to build a data search engine with a custom front end—accessible on desktop and mobile. The search engine is capable of fetching data from Catalog and other data sources to a single user interface which is designed to respond to natural-language queries by searching across all connected sources through APIs and metadata, including owner-tagged business descriptions and technical metadata.
In addition, we implemented user-friendly features to maximize the value of the platform and accelerate adoption. These features included AI/ML-driven recommendations for relevant data sources and the ability to rate datasets—allowing users to select the most appropriate ones from the search results.

"We needed a partner who could bring an understanding of cloud data and cataloging tools and combine it with business know-how to create a product with a great user experience. Cognizant took a truly collaborative, advisory approach to helping us develop an innovative product and supporting us to take the first steps toward true data democratization."

Christiane von Flotow,
Head of Data Design, Uniper

Business outcomes

Since the implementation of the search engine, Uniper has enabled its users to come to one single place to search and identify data assets from its vast data ocean with a simple search. As more data and sources are added, the solution's value will only increase, creating an asset that will grow in value over time.

Significantly faster decision-making

Initial feedback from business decision-makers revealed that, before the implementation, 70% of their decision-making time was spent searching for information. This search time has now been reduced to 10%. As data volumes continue to expand throughout the organization, Uniper can expect greater benefits. The new platform delivers faster and more accurate results from growing catalog of shared datasets and sources.

A data-driven journey to a sustainable energy future

In partnership with Cognizant, Uniper has taken a significant step towards data democratization by creating an intuitive and intelligent search engine that facilitates data sharing and discovery throughout the organization. As they continue their business transformation, the ability to make fast, data-driven decisions will support the company's journey toward a sustainable energy future.

About Uniper

Uniper, based in Düsseldorf, is an international energy company with operations in more than 40 countries. The company and its approximately 7,000 employees make an important contribution to security of supply in Europe, particularly in its core markets Germany, the UK, Sweden and the Netherlands. Uniper's activities include power generation in Europe, global energy trading and a broad gas portfolio. For more information, visit https://www.uniper.energy/.

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