



Data estate modernization strategy and execution for a large North American energy company

A large, vertically integrated energy retailer was challenged by legacy data systems and uncertainty from disparate data platforms.

They engaged Neal Analytics to develop a data strategy and deliver a modernization roadmap to support their desired business capabilities and differentiation strategies.

CUSTOMER BUSINESS CHALLENGE

The customer is one of the largest integrated energy companies in North America. It is also a significant player in the international oil market.

Like most players in this field, the customer separates its business in various divisions along the energy value chain from oil mining to refining, logistics, and retail fueling.

This project specifically targeted what is referred to in the industry as the "rack forward" business to support their sales and marketing organization. The company is separated into upstream and downstream businesses.¹

The upstream business represents hydrocarbon exploration and production activities up to but not including the refinery. Downstream refers to the part of the value chain past the refinery. Within the downstream business, "rack back" comprises refining, pipelines and distribution terminals. Rack forward represents the delivery to gas stations, wholesale, retail products, and customers.

Over the years, the rack forward business had developed multiple internal solutions to help with several data-driven business problems. In return, these created a proliferation of unaligned data sources that could even conflict in some situations. These conflicting data sources would then create delays that hindered effective and timely decision making.

In addition, these solutions were built over multiple years and were based on legacy technologies and on-premises infrastructures which created bottlenecks and overhead.

There was no overarching data strategy aligned with the business needs, so individual departments had built a plethora of interim capabilities and manual data management habits over the years. These were hard to secure, maintain, and update.



¹www.opisnet.com/resources/glossary-of-terms/#u

THE NEAL ANALYTICS SOLUTION

Neal offers end-to-end services from business and data strategy to cloud, data, and AI implementation, to operationalization and activation.

For the first phase of the project, Neal assembled a multi-disciplinary team of business consultants and analysts. The team's role was to design a comprehensive and modern data strategy that would cover the present and future rack forward business needs.

The first step in this four-month engagement was to ensure alignment of business goals across the business and technology teams. To achieve this alignment, the team leveraged the proven Neal Envisioning Workshop approach.

The team held a series of workshops with the technology and business teams. Beginning with business outcome prioritization, we identified the top scenarios and what was needed to deliver them from both the technology and operating model perspectives. Through these workshops, we identified several foundational technologies that would be used to deliver truly end-to-end data estate modernization.

Following the workshops, Neal conducted deep-dive sessions with the customer's technology and business teams to understand their goals and define the key information needed to build the roadmap, such as what each team expected to receive from the data and what new capabilities would be needed moving forward.

During these sessions, Neal and the customer's teams were able to define a well-defined set of manageable and incremental improvements that would span across the business, technology, and operational levels.



RESULTS

Once the initial four-month engagement completed, the customer had a clear and holistic data strategy to support its current and future business goals.

It also had clear and actionable technology, business, and operational roadmaps that could incrementally transform their data estate to reach their ultimate business goals.

The customer was thrilled with the result of this initial engagement. It then decided to leverage Neal Analytics' end-to-end, data-driven business transformation capability to engage it for the next phase of this project.

Currently underway, the first implementation step of their new data-strategy was to improve the foundational data capabilities through a cloud migration of its data estate. The project has since evolved into a multi-year partnership in which Neal Analytics will implement several migrations to Azure, replacing an aging data warehouse and legacy tools with a modern data lake, a Synapse data warehouse and Power BI.

In parallel, the team is developing new business capability around the prioritized areas of fraud and personalization.



Never before have we had consultants come in who were simultaneously deeply knowledgeable yet earnestly seeking to learn our business and understand exactly how to drive business value in a realistic and clear way. Without a doubt the best experience we've ever had with a vendor."

**Director of Business Services,
Large North American Energy Company**

