CASE STUDY

Data Mesh:
Empowering an Engineering
and Construction Company

Client profile

Our client is among the most significant engineering/architecture companies in the US and a prominent contributor to the US market for electrical designs. The company builds military facilities and wind and solar energy installations, works in aviation and healthcare, and is involved in the oil and chemical industry.

It is headquartered in Kansas City, Missouri, and is mainly active in the US and internationally. It is represented in over 50 cities across the US and has branches in Dubai, Canada, the United Kingdom, and India.

Business challenges

Challenges in data quality hinder scaling analytics insights at the paradigm level.

Lack of data governance makes identifying the singular source of truth difficult.

Inadequate modernization of the application infrastructure makes it difficult to grow at a large scale, utilizing transient databases with legacy systems set up.

LTIMindtree solution

01 | Implemented a domain-centric approach, giving individual teams control of datasets.

02 | Domain data products were built using the data mesh architectural pattern, enabling data stewards and analysts to utilize artificial intelligence (AI), improve data quality, and provide feedback for business improvement.

03 | Facilitated self-service for all users by enabling data product discovery and consumption through an enterprise data catalog.

04 | Adopted a hybrid approach by incorporating a centralized data team, product ownership, and domain expertise from respective areas to build data as a product.

05 | The data foundation platform was built with automated data ingestion and a layered Lake House Architecture, including data quality, governance, and discovery for self-service analytics.

06 | A single data platform was established to ensure a unified source of truth.

07 | A data governance council was set up with data stewards, owners, and subject matter experts (SMEs) to define the governance framework and identify commonly used data products in each domain.

Business benefits

Improved user experience for managing and accessing data products, fostering a self-service culture.

Users have access to relevant and trusted data for analytics at scale.

Provision of data products for prioritized use cases, serving approximately 9000 Power business intelligence (BI) reports.

Established the golden record contact data product to enhance the completeness and quality of contact data. It serves as a singular trusted source across the organization.