

CASE STUDY

Burns & McDonnell leveraged LTIMindtree data expertise to manage, store, and secure data with Microsoft Azure

Together with Microsoft Azure and LTIMindtree, Burns & McDonnell is building domain data products so that data stewards can leverage advanced technologies and provide valuable feedback and insights to global business teams, driving continuous improvement and informed decision-making across the organization.



Introduction

Burns & McDonnell, an engineering, architecture, construction and consulting solutions firm with a rich history spanning more than a century, remains committed to creating critical infrastructure for clients across the U.S. and beyond.

However, the accumulation of data from each construction project was housed in multiple locations, leading to delays in getting timely feedback to governance teams, leadership, and project teams.

Now, Data Stewards and Analysts with Artificial Intelligence (AI) and Machine Learning capabilities can provide business teams with real-time updates and feedback, driving efficiency and innovation across their projects.

Constructing the solution

LTIMindtree offers cloud and infrastructure, consulting, cybersecurity, data and insight, digital engineering, and more. It operates in retail, consumer packaged goods, manufacturing, banking, financial services, insurance, technology, media, travel, and hospitality. Its vision is to enable businesses to thrive in the future by leveraging cloud, data, and digital technologies. The company believes that the ability to understand the client situation, understand the proposed solution, and provide a high-quality product in a timely and cost-effective manner are critical success factors.

Scattered information

Burns & McDonnell wanted to strengthen its data standardization and create a central repository for company data. This would allow its team to enrich the data, leverage artificial intelligence, evaluate data quality, and provide improvement feedback to governance teams, leadership, and project teams.

"Our organization embarked on a data initiative, making a significant portion of our corporate data available to the organization. The original architecture was not flexible and not scalable, limiting the type of questions it could answer. As automation grew and data volumes increased, these models frequently hit the limitations and required constant monitoring and intervention," Sudheen Karri, Data Governance Manager at Burns & McDonnell said.

Burns & McDonnell turned to LTIMindtree for its experience in data transformation and its partnership with Microsoft as a vendor and customer.

"They were experts in the tools and technologies that we chose for our data platform. In addition to that, LTIMindtree has an agile data engineering practice that [helped] our team substantially. We were able to get new data pipelines running quickly," John Heryer, Data Engineering and Integration Manager at Burns & McDonnell said.

As a partner, LTIMindtree has made significant investments with Microsoft over the years in building capability, as well as co-create joint offerings and solutions for its customers.

“Burns & McDonnell is a very strategic customer for LTIMindtree. We decided that based on our past experience working with Microsoft and their next generation platform capabilities around data mesh, that would be the right backdrop for this modernization program and Burns & McDonnell. That's the reason why we proposed Microsoft-centric architecture, and we've implemented the solution to truly benefit Burns & McDonnell,” Rajesh Sundaram, Chief Business Officer, Manufacturing Business Unit at LTIMindtree said.

The right foundation

LTIMindtree built a solution that would maximize Burns & McDonnell's data.

“We decided to partner with Microsoft Azure for Burns & McDonnell as a part of the data transformation journey to achieve the next level objectives as a part of this journey. Over the past few years, [Burns & McDonnell] has focused on technical introduction in the state and modernizing the Data Foundation. The next focus became functional domain-based solutions towards which foundation change had to be made with a data mesh data fabric architecture”

Sundaram

This solution was built with:

- Azure Kubernetes Service (AKS)
- Azure Databricks
- Azure Key Vault
- Azure Virtual network peering

"We implemented the project transaction model for Burns & McDonnell. Using this, we successfully extracted data from hundreds of people across different sources and standardized it into a one single format compliant with the data platform architecture"

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-Naushad Khambhawala,
Head of Global Manufacturing unit at LTIMindtree

One of the Azure offerings, Azure Innovate, also played a huge role in accelerating the solution. Azure Innovate provides significant value to customers by enabling advanced innovation needs such as integrating AI into applications, leveraging advanced analytics, and building custom cloud-native applications. Through the offering, Burns & McDonnell could offset the costs of the project with partner funding, access Microsoft experts, and build on a flexible infrastructure with best practices to ensure support for the increasing data requests and complexity.

"LTIMindtree and [the] Azure Innovate [offering] helped us quickly accelerate our modernization efforts and create the initial framework for data organization and cataloging. We were able to create a domain-based metadata management and data serving capabilities governed by corporate data stewards"

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-Heryer

Brick by brick

Now the data product solution helps Burns & McDonnell leverage data standardization to move the company in the right direction.

"We significantly accelerated modernization efforts. With this initiative, we were able to establish an initial framework for the organization. Domain structure, curation, cataloging, metadata management, and data solving of workers have been improved significantly"

Sudheen

Burns & McDonnell has seen:

- Domain-specific standardization in data available
- Standardization of enterprise data
- Reduction of data duplication
- Minimization of time to onboard data to Databricks
- Established end-to-end lineage

"We're expecting a 50% increase in deployment by the end of the year. Our data processing speeds have increased significantly. Our workloads that used to take hours now take minutes and our users are reporting an increased satisfaction from a consistent data interface for their business applications"

Heryer

With Microsoft Azure, LTIMindtree and Burns & McDonnell are leveraging secure data through the Data Mesh Pattern which exceeds expectation.

Using data is important for the success of our customers because [it] enables them to harness the full potential of their data assets by decentralizing data ownership and fostering a culture of data collaboration. Organizations can accelerate generations of data insight and drive innovation and achieve a full competitive advantage

Khambhawala

Secured infrastructure

LTIMindtree will continue to support its customers through their data transformation journey.

If you're looking to digitally transform your business, you need the right partners. LTIMindtree and Microsoft Azure Innovate will help scale your business and develop a robust data platform to ensure positive business and technical outcomes,"

Heryer

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John Heryer,
Data Engineering and Integration Manager at Burns & McDonnell

LTIMindtree is a global technology consulting and digital solutions company that enables enterprises across industries to reimagine business models, accelerate innovation, and maximize growth by harnessing digital technologies. As a digital transformation partner to more than 700 clients, LTIMindtree brings extensive domain and technology expertise to help drive superior competitive differentiation, customer experiences, and business outcomes in a converging world. Powered by 81,000+ talented and entrepreneurial professionals across more than 30 countries, LTIMindtree — a Larsen & Toubro Group company — combines the industry-acclaimed strengths of erstwhile Larsen and Toubro Infotech and Mindtree in solving the most complex business challenges and delivering transformation at scale. For more information, please visit <https://www.ltimindtree.com/>