



CASE STUDY

# Integrated MLOps on Utilities Cloud Data Platform for a US-Based Electric Major



## Client

The customer is a Fortune 1000 public utility major based in the US. It primarily distributes energy to customers.

## Challenges

The customer lacked synergies in managing the different types of data and platforms associated with it. This led to inefficiencies, which resulted in the following:

- Inability to manage the vast amount of streaming data across different business functions.
- Incapability to scale the current data platform due to redundant technologies.
- Inability to churn new business use cases across the current data platform to improve customer experience.
- Lack of automation in the Machine Learning (ML) model deployment process resulted in high time to market.

## LTIMindtree Solution

LTIMindtree helped the customer automate the ML workflows across the models by leveraging in-built ML Operations (MLOps) to help accelerate the ML journey. It helped:

- Design end-to-end ML pipeline along with inference and deployment pipelines to enable existing and new business use cases around ESS load forecasting, failure detection, driver safety, and crew agency.
- Perform model-specific quality assurance on inference pipeline leveraging pre-built test cases.
- Implement automation in the ML model deployment process using pre-built deployment templates on AWS using AWS Sage maker.
- Create a unified ML framework for logging, error handling, testing, data drift, and monitoring across all key ML assets.

## Business Benefits

**2x faster** model deployment with automated pipelines

Enabled **~50%** automation in the model deployment process with end-to-end security and privacy

**~40%** improvement in time to market for new ML models



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