

## Case Study

# **Advanced Analytics Platform using AWS:**

World's Largest Technical Professional Organization Adopts Modern Data Management Solution





## Client

Our client is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. A professional association for electronic engineering and electrical engineering with its corporate office in New York City and its operations center in Piscataway, New Jersey.



## Challenges

- Create a custom MDM solution to uniquely identify data subjects coming from sources, such as authors, publishers, editors, and consumers.
- Ability to consume data based on user authorization and provide role-based access.
- Ability to glean insights from collective data and to inform, enrich, and personalize stakeholder interactions.



## LTIMindtree Solution

- Created a secure and scalable architecture on AWS with components such as S3, private link, DocumentDB, Fargate EKS, ALB Step function, EMR, and Lambda.
- Ingest data coming in text and JSON format from many sources, apply rules to validate and cleanse, deduce based on unique identifiers, and create a golden record.
- Use NoSQL database to store golden records to meet schema flexibility.
- Use IAM roles and policies for access restrictions.
- Fargate auto scale up and scale down to match user concurrency needs and for cost optimization.
- Secure data ingestion using step function and secure data consumption using ELB.



## Business Benefits

- Reduced manual efforts due to automation of incremental updates.
- Enhanced visibility into who-is-who and supports cross sell and upsell opportunities.
- Reduced time-to-market by eliminating manual processing.



## Key Takeaway

Leveraging cloud technologies for on-demand processing & scalability, NoSQL database to accommodate business changes and volume growth, integration with on-premises for security of sensitive data.

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