

# “Leading Partner of Choice for Cloud Transformation”

Learn how enterprises are adopting cloud to  
accelerate innovation and grow in digital era.



Business transformation @ speed is driving enterprises to leverage disruptive technologies and product-centric approach in delivering new business capabilities. We have observed a paradigm shift in the customer behaviour and are developing and managing lifecycle of business capabilities as products. Moreover, these recent pandemic times, enterprises are keen on a leaner, remotely-distributed organizations, making cloud-first strategy the go-to factor in adopting their operations for increased agility and resilience.

Cloud is core to LTIMindtree's strategy to help clients and end customers solve complex business challenges and build disruptive new business capabilities. At LTIMindtree, we help the enterprises establish their cloud strategy with Purposeful Cloud – to solve challenges specific to end customers using cloud. We adopt an innovation-centered, automation-first approach to deliver cloud services @scale, @speed coupled with our platform solutions. We partner with industry-leading cloud providers to develop joint, go-to-market strategies and help our clients and end customers transform their application ecosystem, migrate onto cloud, and perform greenfield projects for solving problems.

We have compiled the best of our experiences and success stories with our client's cloud journey that demonstrates benefits on cloud investments and digitization.

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# Data Depersonalization Archival & Retention (DDAR) for US-based Multinational Conglomerate

## Client

The client is a fortune 100 American multinational conglomerate with more than USD 100 billion in revenue that focuses on e-commerce, cloud computing, delivery, logistics, entertainment, and other services.

## Challenges

- Managing the personal data of all employees, vendors and contractors of client based on country policies, exception criteria and legal holds.
- Enabling them to depersonalize of employee data once they leave the company or get terminated.
- Depersonalizing personal data after a specific time or archiving for long-term retention.

## LTIMindtree Solution

- Implemented the complete application architecture on AWS Cloud.
- ETL process implemented using AWS Glue and Lambda to support movement of 8 million records daily to Aurora database.
- Enabled user authentication using AWS Cognito and Amazon federate with Midway authentication for security.
- Exposed application endpoint as REST APIs for internal and external users over secured network.
- Designed the AWS cloud architecture to support 99.9% high availability.
- Delivered a highly secured architecture using AWS Cloud IaaS and PaaS security services to ensure user data security.

## Business Benefits

**99.9%** availability of customer facing applications

**500** Application Users

**8 million** database records movement per day

**100%** Automated management of employee data

## Technology Stack



Angular



Java



Springboot



AWS Lambda



Cognito



Aurora



Glue



System Manager



AWS DMS



Cloud Watch



SAM/Cloud Formation



Secret Manager



SNS



S3



EC2

# AWS Data Strategy for one of the Oldest Financial Institutions in US

## Client

The client is one of the America's oldest and largest financial institutions, with USD 185 billion in assets as of June 30, 2021. Headquartered in Providence, Rhode Island, with a broad range of retail and commercial banking products and services to individuals, small businesses, middle-market companies, large corporations, and institutions.

## Challenges

- Building a data ecosystem on AWS to enable advanced analytics capabilities.
- Creating a secured Data Lake on S3 (Landing, Raw, Curated) and history data migration.
- Enabling data transfers and data pipeline from source to landing, landing to raw, source DB to raw, raw to curated and downstream extracts
- Setting up DevOps, schedule, and data consumption using Athena and Genome.

## LTIMindtree Solution

- Customer and product data in raw format is uploaded to AWS Data Lake Landing zone using GIS/CD.
- Transferred historical on-primes data to AWS using Snowball.
- Progressed data files from Landing to Raw and Raw to Curated Zone in parquet format using ingestion framework Talend and EMR.
- Loaded data to aggregated zone Redshift for downstream systems.
- Designed the AWS cloud architecture to support 99.9% high availability.
- Enabled a highly secured architecture using AWS Cloud IaaS and PaaS security services, ensuring user data security.

## Business Benefits

Lower upfront cost, and savings on ongoing operational cost

The cloud enables off-site, online storage secured by the cloud providers. Freeing up attention for other urgent priorities

Better connectivity with right cloud storage solution, for gains across operational efficiency, business agility, time-to-market and competitive advantages, as well as decreased cost

## Technology Stack



Athena



Python



AWS Redshift



AWS EC2



AWS Snowball



AWS Aurora



AWS Glue



AWS DMS



Cloud Watch



SAM/Cloud Formation



Jenkins



Talend

# Connected Storage Device Monitoring Implementation for a Japanese Multinational Conglomerate

## Client

The client is a Japanese multinational conglomerate and one of the oldest technology companies in the world aiming to build better societies by developing superior, original technologies and products. It delivers digital solutions utilizing Lumada in five sectors including Mobility, Smart Life, Industry, Energy and IT.

## Challenges

- Client is using IOT connected devices from cloud which captures sensor data to give insights about storage device health, status and current state so that any required action can be taken instantly.
- The company was looking to achieve near real-time monitoring and control of storage devices.

## LTIMindtree Solution

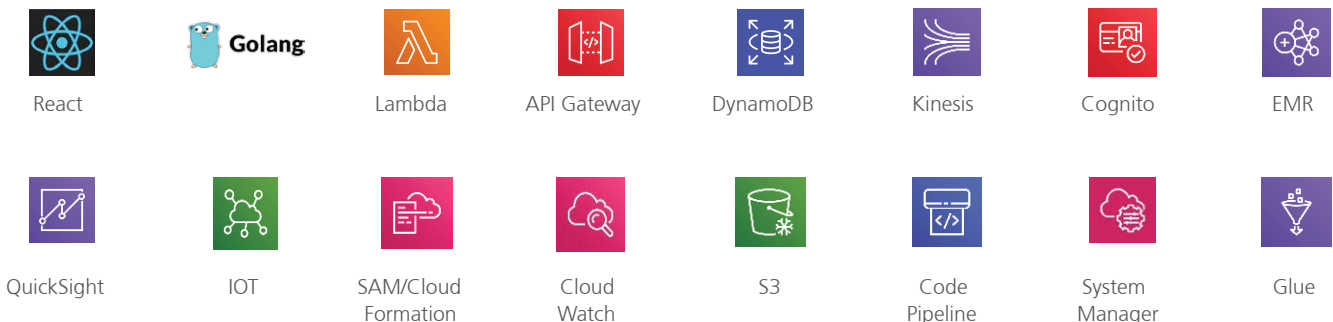
- Designed a solution to implement connected storage device solutions using modern cloud-native technologies, such as AWS Lambda, DynamoDB, Kinesis, IoT, Glue, and EMR, ensuring high scalability, reliability, and performance.
- Built a responsive user interface to provide real-time information of storage devices using React.
- Enabled near real-time events to control storage device temperature.
- Implemented infrastructure automation using CloudFormation Templates.

## Business Benefits

20% increase in efficiency across storage devices

30% reduction in operational cost

## Technology Stack



# Cloud-based Solution for one of the largest Financial Services Firms

## Client

Client is one of the largest financial services firms and multinational investment banks known to man headquartered in New York. Trading in more than 160 countries the client serves about 200 million customers and institutional businesses.

## Challenges

- Building a server-less cloud-based solution for ICG business in the EMEA region and integrating it with the Centralized Transfer Pricing System.

## LTIMindtree Solution

- Decreased the total processing time from 2 hrs to 15 mins (as per POC delivered).
- Ensured the solution is always available and scales automatically to adjust to the increase in demand.
- Assured the system sends a notification to the client through AWS SNS if an error occurs at any stage.
- Enabled infrastructure automation using CloudFormation Templates.
- Developed a dashboard to keep track of the processing status at each step.
- Deployed AWS Fargate, which can process massive records when scaled.

## Business Benefits

**87.5%**  
Reduction in total processing time

**100%** Scalability using combination of AWS SNS, SQS and asynchronous parallel processing

**99.99%**  
Availability achieved

**Superior security**  
and durability of data

## Technology Stack



ECS



docker



Amazon AMR



DynamoDB



Java



docker



Python



API Gateway

# Data Security on AWS for Largest Research-based Pharmaceuticals Firms



## Client

The client is one of the world's largest research-based pharmaceuticals firm, the company also makes and sells generic drugs and consumer health products. It exports across more than 55 countries.

## Challenges

- BU separation for global policies (Immuta)
- PXED integration
- Low quality user attributes (AD)
- Multi-region footprint
- Snowflake single account limitation
- Change management for application onboarding
- Auto subscription stability

## LTIMindtree Solution

- Empowered data owners and data stewards to gain direct control of data governance.
- Provided dynamic birthright access to data assets based on the end user's organizational and job profile.
- Enabled exception workflow-based, self-service data access/provisioning.
- Deployed a centralized data security platform to broker access across multiple data platforms.
- Rolled out fewer, more dynamic, consistent, and centralized data access policies.

## Business Benefits

Made it simple for non-technical data owners and data stewards to write, approve, and enforce security policies, and grant and audit access

Enabled business users to:

- Create simple, english-like policies for datasets
- Specify "terms of use" for datasets
- Enforce training requirements for specific datasets
- Encrypt and mask sensitive data

Enabled audit dataset use

## Technology Stack



API Gateway



Amazon RDS



ECS



Stack

# JO.E. Integration & Operations Services on AWS Cloud for Medicine Manufacturer

## Client

The client is one of the largest pharmaceutical and medicine manufacturer employing around 4,000 employees and generating USD 20.33 billion in sales . The client has over 1,258 companies under it.

## Challenges

The client wanted to

- Improve customer experience using omni-channel engine.
- Personalized, seamless customer engagement as sources of competitive advantage.
- Have system-based customer recommendation, which should empower organization enabled by complained orchestration of insights across channel (marketing, sales & medical).
- Expected to cutting-edge analytics leveraging the richness of internal & external data across brands and countries.

## LTIMindtree Solution

- Multi Cluster Kubernetes setup with ensured high availability which seamlessly brings up N number of environments (e.g. Dev, QA, Prod) for data & machine learning applications supported by Kedro framework.
- Seamless and detailed runtime monitoring on Grafana Dashboard using Argo and Prometheus metrics.
- Low latency network that is optimized to process a very high volume of data.
- Improved parallelism and reduced build time using Argo workflow..

## Business Benefits

**3.8x**  
Performance and Improved Latency

**99.9%**  
Availability

**95%**  
Reduction in MTTR

**98%**  
Automation

**40+** Live production in various countries across the globe

## Technology Stack





# Enhanced Engine Performance for Leading International Financial Institutions

## Client

Our client is an international development organization owned by 187 countries. Its role is to reduce poverty by lending money to the governments of its poorer members to improve their economies and to improve the standard of living of their people.

## Challenges

The client wanted to:

- Implement PACE (Plainid Acceleration Cache Engine) to improve experience by enhancing performance using cache engine.
- Improve performance of internal platform meant for employees and management.
- Bring down the observed response times and make its performance profile consistent while leveraging the benefits of the ABAC platform.
- Leverage cutting-edge analytics for the richness of internal & external data across brands and countries.

## LTIMindtree Solution

- Fargate setup with ensured high availability which seamlessly brings up N number of environments (e.g. Dev, QA, Prod) for docker images of camel application.
- Seamless and detailed runtime monitoring on CloudWatch Dashboard, smooth deployment using Microsoft TFS pipeline and AWS CloudFormation.
- Low latency network that is optimized to process a very high volume of data.
- Improved performance and reduce downtime using serverless lambda architecture, seamless integration with SQS.

## Business Benefits

**4.3x**  
performance and  
improved latency

**99.9%**  
availability

**97%** MTTR  
in reduction

**99%**  
automation

**60+** Live production  
environments in  
various countries  
across the globe

## Technology Stack



# Integration API Implementation for Largest US-based Natural Gas & Electric Energy Provider

## Client

The client is a US-based, largest natural gas and electric energy company serving close to 5.1 million households throughout a 70,000 square mile service area.

## Challenges

- Reducing the cost of delivery and time required to create the integration API components for different implementations.
- Simplifying the heavyweight integration platform.
- Optimizing the on-premise application licensing cost and boosting scalability.

## LTIMindtree Solution

- Implemented a reusable AWS Lambda function for authentication.
- Enabled event flow through SQS for reliability and guaranteed delivery.
- Provided a real-time, cloud-native, and resilient event processing platform.
- Leveraged Lambda/SNS Facade for invoking multiple APIs via AWS Step Function.

## Business Benefits

Improvement in developer productivity

Cost reduction in delivery of application due to automated deployment

Enhanced power outage event detection & monitoring

## Technology Stack



AWS Lambda



AWS SNS



AWS SQS



AWS DynamoDB



AWS CloudWatch



AWS API Gateway



AWS Secrets Manager

# Connected employees Portal for Multinational Consumer Goods Corporation

## Client

Client is an American multinational consumer goods corporation headquartered in Cincinnati, Ohio, with more than 60 brands across 10 categories, selling products across 180-plus countries

## Challenges

- Modernize employee self service applications to improve performance, availability and reduce operating cost.
- Reduce license cost by moving from oracle to PostgreSQL database.
- Realtime integration with SAP and Workday.

## LTIMindtree Solution

- Implementing the complete application architecture on AWS Cloud.
- ETL process implemented using AWS Glue and Lambda to support movement of 10 years old data to Aurora database.
- Real-time integration of pay-roll data with SAP and Workday system.
- User authentication implemented using AWS Cognito and Amazon federate with Midway authentication for security.
- Exposed application endpoint as REST APIs for internal and external users over secured network.
- AWS cloud architecture is designed to support 99.9% high availability.
- Highly secured architecture using AWS cloud IaaS and PaaS security services to ensure user data security.

## Business Benefits

**20%** Increase in turn around time due to process improvements

**24X7** Anytime, Anywhere access

**30K** Satisfied employees

**30%** Reduction in operating cost

**<300** mSec Response time for 1000 concurrent users

## Technologies/Services Used



React



Python



Lambda



API Gateway



DynamoDB



System Manager



ElasticSearch



ElastiCache



QuickSight



DMS



SAM/Cloud Formation



Cloud Watch



S3



Step Functions

# Vehicle-as-a-service Model for Swedish Commercial Vehicles Manufacturer

## Client

The client is a Swedish manufacturing major of commercial vehicles, primarily known as a manufacturer of heavy trucks and buses. The company is also heavily invested in the manufacturing of engines for marine and general industrial applications.

## Challenges

- Creation of a new business model – Vehicle-as-a-Service
- Turning vehicle data and turn it into information, insights, and actions for service network
- Improving uptime and decreased Vehicle On Road (VOR)

## LTIMindtree Solution

- Implemented microservices and serverless architecture for high scalability.
- Delivered tight integration with dealer management for seamless service delivery.
- Enabled integration with third-party data.
- Used Stream Analytics to pick messages from the IoT Hub and deliver data to Azure SQL.
- Deployed a configurable rule engine for addressing regional and vehicle diversity.
- Initiated an action plan for every critical deviation of vehicle and fleet parameters.
- Performed analysis of the fleet or group's performance over a period of time.
- Ensured availability of cost of operations to customers.

## Business Benefits

**170K** connected vehicles monitored across the globe

**80%** reduction in downtime

**50%** reduction in MTTR

**0.5** million exceptions and diagnostic events processed per day

**60K+** vehicle actions created and managed

## Technologies/Services Used



Kafka

Secret Manager

SAM/Cloud Formation

Cloud Watch

S3

EMR



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 nearly 90,000 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 [www.ltimindtree.com](http://www.ltimindtree.com).