

Case Study

Tech Mahindra transformed the cloud journey of an American Energy Company

Overview

The client is a Fortune 200 energy company based in the United States. Together with its subsidiaries and affiliated entities, it is the world's largest generator of renewable energy from wind and solar sources. In addition to wind and solar, it operates generating plants powered by natural gas, nuclear energy, and oil.

Client Background and Challenge

The client is a US-based Fortune 200 energy company, globally recognized for its leadership in renewable energy generation. Alongside wind and solar, its operations span natural gas, nuclear, and oil-based generation.

However, the company's data centers were in regions prone to tropical and subtropical cyclones, posing a risk to business continuity. Their legacy infrastructure struggled to meet the agility and scalability demands of high-volume workloads, particularly for critical functions such as:

- Energy trading
- Fuel procurement
- Vendor-managed applications

To address these risks, the client sought a robust cloud strategy to modernize operations, ensure continuity, and accelerate transformation.

Our Approach and Solution

Tech Mahindra conducted a comprehensive assessment of the client's infrastructure, applications, and business objectives. Based on this, a detailed cloud execution roadmap was created, focusing on performance, security, and automation.

Key solution elements included:

- **Cloud Migration & Databases:** Migrated over 85 enterprise applications and 120+ TB of data, including a 12TB production database, with minimal downtime
- **High Availability & DR:** Implemented a multi-region DR setup using Oracle Data Guard and log shipping for real-time replication
- **Automation First:**
 - Automated infrastructure provisioning using CloudFormation for AWS services (EC2, Lambda, etc.)
 - Automated security group and port configurations
 - Streamlined month-end deployment activities
 - Migrated applications from third-party clouds to AWS
- **Platform Engineering:** Delivered a scalable AWS landscape, including platform builds, monitoring, and just-in-time provisioning

Business and Community Impact

The cloud transformation delivered substantial business value:

- **Resilience and Continuity:** Built a highly available, scalable AWS environment across multiple regions
- **Speed and Agility:** Enabled faster deployments and on-demand scaling of workloads
- **Zero Downtime for Critical Workloads:** Achieved seamless cut-over during migration of 12TB production database
- **Automation-Driven Operations:** Reduced manual effort and increased deployment speed
- **Disaster Recovery:** Delivered robust DR coverage with real-time data replication and rapid recovery

The transformation enhanced the client's operational readiness against climate risks, ensuring that business-critical applications remain available and scalable in the cloud.



About Tech Mahindra

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