

CASE STUDY

Tech Mahindra Improves Cloud Efficiency for a Global EdTech Services Provider Using AWS Automation



Overview

The client, a global EdTech services provider, faced significant challenges in its cloud operations and sought to improve reliability, security, cost efficiency, and user experience. To address these challenges, Tech Mahindra delivered a focused solution that enhanced infrastructure management, improved service availability, and increased operational efficiency. This transformation ensured secure access to essential online education platforms for students and educators worldwide.

Client Background and Challenge.

The client, a global EdTech services provider, delivers end-to-end e-learning platforms to a broad user base comprising students and educators across both domestic and international locations. With a focus on making digital education accessible and seamless, the client relies heavily on cloud infrastructure to support their growing platform demands. The client faced two key challenges:

- ▶ Provisioning a highly available, secure, reliable, and cost-effective cloud infrastructure to support continuous access to learning resources.
- ▶ Optimizing AWS resource utilization and reducing associated operational costs without impacting service quality.

Our Approach and Solution

Tech Mahindra implemented an automation-led cloud optimization strategy to strengthen the client's infrastructure, enhance security, and improve cost efficiency. Key solution features include:

- ▶ **Improved Security Posture:** Automated compliance management, comprehensive monitoring and alerting, and end-to-end data encryption ensured a secure environment for all users, both in transit and at rest.
- ▶ **Dependability and Automation:** Achieved zero-touch operations through the creation of over 80 runbooks and the deployment of extensive automation to minimize manual intervention and errors.
- ▶ **Operational Excellence:** Enabled automated backups and proactive auto-healing monitoring, significantly increasing uptime and reducing rollback time by 95 percent.
- ▶ **Tools and Technologies Used:** Deployed a comprehensive suite of AWS services, including IAM, EC2, EKS, WAF, CloudWatch, GuardDuty, CloudTrail, and RDS. Automation and monitoring were streamlined using tools such as GitHub/Bitbucket, Jenkins, and Terraform. We integrated platforms like Instana and Ansible into the solution to enhance operational efficiency.

Business and Community Impact

The transformation delivered significant results, both in operational performance and educational access::

- ▶ **Better End-User Experience:** Increased dependability, improved performance, and seamless service accessibility for students and educators worldwide.
- ▶ **Significant Cost Savings:** \$108K saved by eliminating idle resources and \$100K saved annually by optimizing AWS instance usage.
- ▶ **Improved Security and Compliance:** Achieved 100% patch compliance, strengthened security posture, and ensured strong data protection across platforms.
- ▶ **Operational Efficiency:** Eliminated 37,700 idle resource hours annually and implemented zero-touch automation, saving 1,875 person-hours each year.
- ▶ **Broader Educational Impact:** Enabled secure and consistent access to learning materials, supporting the client's mission to deliver inclusive and uninterrupted digital education around the world.

About Tech Mahindra

Tech Mahindra (NSE: TECHM) offers technology consulting and digital solutions to global enterprises across industries, enabling transformative scale at unparalleled speed. With 150,000+ professionals across 90+ countries helping 1100+ clients, TechM provides a full spectrum of services, including consulting, information technology, enterprise applications, business process services, engineering services, network services, customer experience & design, AI & analytics, and cloud & infrastructure services. It is the first Indian company in the world to have been awarded the Sustainable Markets Initiative's Terra Carta Seal in recognition of actively leading the charge to create a climate and nature-positive future. Tech Mahindra is part of the Mahindra Group, founded in 1945, one of the largest and most admired multinational federations of companies. For more information on how TechM can partner with you to meet your scale at speed imperatives, please visit <https://www.techmahindra.com/>.

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