Infopercept Optimized the Security Framework of Top AWS-Based EdTech to Deliver Improved Data Security and Compliance Benefits
CASE STUDY:

Background:

The client is a large EdTech player delivering world-class education services to clients in a manner that is seamless, meaningful and completely results-oriented, through an AWS-based platform. Having spent over 18 years in the education domain, the client had built a huge portfolio of valuable intellectual property that was leveraged for customer acquisition, strategic business growth and driving more profitability business outcomes. What’s more, this intellectual property was distributed across 10 platforms.

Considering the evolving threat landscape and the rise of sophisticated threat vectors, the client wanted support in optimizing existing security framework to secure their intellectual property across all platforms across AWS.
Challenges

The client was plagued with ineffective vendor management and were finding it difficult to get ROI from their heavy investments in on-prem security solutions.

AWS’ ‘of the cloud’ security best practices were not adhered to as platform architecture did not comply with the security standards AWS demands from businesses.

There was very little visibility into security protocols put in place for compliance due to ineffective monitoring and measurement of compliance systems.

Lack of continuous security in CI/CD pipeline on AWS cloud was a huge challenge that impacted their larger cybersecurity posture.

Solution

The team of cybersecurity warriors were tasked with fortifying the cybersecurity of all 10 of the client’s AWS platforms. But before we did that, we needed to understand the scope and scale of the client’s security concerns and their current on-prem security deployment, specific use cases and efficacy.

We began by conducting a thorough security audit that helped us assess the extent of client’s security framework.

We then got into implementing security protocols that bolstered the EdTech’s defenses against all manner of advanced threats that targeted their intellectual property rights:

Security ‘of the cloud’

Despite heavy investment in cybersecurity, the inability to align all deployment with a strategic purpose was a problem. We defined a cybersecurity journey for the client and mapped existing deployments with different touchpoints in the journey towards building more resilience against sophisticated threats. This allowed us to craft an effective security architecture that met all AWS requirement for ‘security of the cloud’

Security ‘in the cloud’

Our core job was work as the client’s extended cybersecurity team and enhance the necessary cybersecurity infrastructure.

We adopted a 4-pronged approach to secure the platform in the cloud.
Offensive Security Services

When it comes to cybersecurity, the best defense is offence. Our Red Team Operations took the client’s cloud-based IT framework through exhaustive vulnerability assessment that identified security weaknesses and setup a process to plug these security holes with the client’s existing security solutions, by reconfiguring them.

Technology Reconfiguration

The learnings from vulnerability assessment and penetration testing allowed us to identify which of the client’s cybersecurity investments aligned with the identified weaknesses. We conducted a thorough product evaluation to maximize the potential of exiting security solutions. We reconfigured the SIEM solution wherein we ensured that the integrated log management and monitoring tools were optimally used to detect suspicious activity inside the network, in order to zero in on targeted attacks and stop data breaches. Infopercept’s Blue Team SOC operations commenced from here point on wherein our team of cybersecurity experts started monitoring the client’s security framework 24x7 and focused on continuous threat hunting. We leveraged the use of the client’s existing firewall, endpoint protection suite, server protection, deception technology and intrusion prevention system for this purpose. For continuous security assessment from the CI/CD point of view, we implemented a two-phase security solution

- Before Build – Static Code Analysis
- After Deployment – Dynamic Testing

Security Services Implementation and Optimization

The next stage in bolstering the security framework was product optimization and implementing a thorough plan for patch management and system hardening. We put in place a process for continuous monitoring of the security solution, evaluating their sustained efficacy, and fine tuning these periodically to maximize security deliverables.

Compliance Adherence

Our team of compliance advisors supported the EdTech client’s needs to become more compliant with demanding data security regulation by instituting risk management as an essential cybersecurity prerogative. We made technology recommendations and developed a process excellence plan helped the client meet all compliance objectives.

Result

The security component of the platform became a key driver of success as it drove trust and more participation from banks. From the initial 5 banks that joined the platform, our fintech client increased this number to 32. What’s more, the critical auditing requirements as demanded by clients and regulatory authorities were achieved seamlessly, through real-time reporting and risk mitigation.