

Strengthening security for AutoNation's AWS-Based application

Client: AutoNation, USA

Industry: Automotive retailer

Service provided: Security enhancement for AWS-Based application

Challenge

AutoNation, one of the largest automotive retailers in the USA, needed a robust security solution for its container-based application hosted on AWS. With highly sensitive customer and operational data at stake, the company encountered several critical challenges:



- **Identifying and Securing Vulnerabilities:**

With the rise of cyber threats, AutoNation needed to proactively identify and mitigate application vulnerabilities that attackers could exploit.



- **Protection Against Unauthorized Access and Data Breaches:**

Handling large volumes of personal and financial information made the application a prime target for unauthorized access and potential data breaches.



- **Ensuring Compliance with Industry Standards:**

AutoNation had to meet strict regulatory requirements, such as ISMS and PCI-DSS (Payment Card Industry Data Security Standard), to avoid financial penalties and operational disruptions.



- **Real-Time Threat Detection and Incident Response:**

With increasing cyber risks, it became imperative for the automaker to have continuous, real-time monitoring of their application for potential threats, and to ensure that any detected vulnerabilities or attacks were quickly mitigated. Minimizing response time was critical to reducing the impact of security incidents on the organization.

Solution

NETSOL provided a comprehensive and multi-layered security solution to address AutoNation's needs. With Transcend Retail, they were empowered to keep up with the growing consumer demands. It's a game-changing platform in the auto industry, a fully digital and integrated car subscription platform designed for micro-leasing, revolutionizing the customer journey. It enables online purchases and ensures seamless finance approvals.

Transcend Retail is the ultimate solution for dealerships and OEMs. With its inclusion, AutoNation can enhance its security approach while leveraging various AWS-native security tools to create a defense-in-depth strategy. The key components of the solution included:



Managed Security Operations Center (SOC):

Objective:

Provides 24/7 real-time monitoring, incident detection, and mitigation.

Execution:

NETSOL established a Managed SOC to continuously monitor AutoNation's AWS environment. Using advanced threat detection tools and AI-powered analysis, the SOC was able to detect potential security incidents in real-time, providing rapid response to mitigate risks.

2/ Vulnerability Assessment & Penetration Testing (VAPT):

Objective:

Identify vulnerabilities within the container-based application before they can be exploited.

Execution:

The team conducted regular VAPT to proactively find and address any potential weaknesses in the application. This included both automated scanning and manual testing to simulate real-world attack scenarios, ensuring that no stone was left unturned.

3/ AWS Security Hub:

Objective:

Centralize security management and ensure compliance with industry regulations.

Execution:

AWS Security Hub was implemented to offer AutoNation a centralized view of security alerts and compliance checks across all AWS resources. This enabled automated compliance checks, ensuring that AutoNation remained aligned with regulations such as ISMS, PCI-DSS and CCPA at all times.

4/ AWS Web Application Firewall (WAF):

Objective:

Protect the application from common web-based attacks like SQL injection and cross-site scripting (XSS).

Execution:

NETSOL deployed AWS WAF to secure the application's front end. Custom rules were created to block malicious traffic, preventing attackers from exploiting known vulnerabilities in web applications.

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AWS Shield

Objective:

Protect the application from DDoS attacks.

Execution:

AWS Shield, combined with AWS WAF, was implemented to offer enhanced protection against large-scale DDoS attacks. This ensured that even during high-traffic periods or under attack, AutoNation's application remained accessible and functional.

Achievements

By integrating the multi-layered security and Transcend Retail solutions, NETSOL was able to deliver the following significant results to AutoNation:



Real-Time Threat Detection and Response

The SOC provided around-the-clock monitoring, enabling the team to detect and neutralize threats as they emerged, ensuring minimal to no disruption to operations.



Proactive Vulnerability Management:

With regular VAPT, AutoNation's application environment remained secure against evolving threats, reducing the risk of breaches and data leaks.



Compliance

AWS Security Hub's automated compliance checks ensured that AutoNation continuously met regulatory requirements, preventing operational risks.



Compliance

By deploying AWS Shield, the application was safeguarded against potential DDoS attacks, maintaining service availability even under high-traffic situations.



Enhanced Application Security:

The combination of AWS WAF and custom security rules helped AutoNation mitigate common web exploits, reducing the risk of malicious attacks.

Conclusion

NETSOL's comprehensive security solution helped AutoNation address its core challenges and provided a fortified, compliant, and highly secure AWS-based application. With the implementation of Transcend Retail solutions with real-time monitoring, threat detection, and proactive security measures, AutoNation now operates with enhanced confidence in the security of its digital assets, ensuring business continuity and data integrity across its platform.

About NETSOL

NETSOL Technologies is a trusted global partner, renowned for its deep industry expertise, customer-centric approach, and commitment to excellence. Delivering cutting-edge IT solutions with a strong emphasis on cloud technology and professional services, NETSOL ensures client success across 30+ countries, solidifying its position as a leading global IT solutions provider.

partnership



Certifications



Compliance poster



Information Security Management Standard



**SOC 2
TYPE I
CERTIFIED**

System and Organization Controls



**SOC 2
TYPE II
CERTIFIED**

System and Organization Controls



System Management System Standard



Quality Management System Standard



NETSOL.

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Schedule a Meeting

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