![INDUS SYSTEMS & SERVICES PVT. LTD.]

CASE STUDY

Securing Critical Web Applications for a Leading Medical Research Institution

INDUS SYSTEMS AND SERVICES PVT. LTD.

OVERVIEW

Solution Area(s): Cyber Security
**Industry Vertical: Medical Treatment, Research and Education**

BACKGROUND

A premier institution dedicated to advanced medical treatment, research, and education sought to enhance the security of a critical web-facing application that played a vital role in its operations. As a subsidiary of a renowned medical research and treatment organization, the institution handles highly sensitive data, making cybersecurity a top priority. With increasing threats such as SQL injection, cross-site scripting (XSS), and bot-based attacks, the organization needed a robust Web Application Firewall (WAF) solution to safeguard its systems.

Additionally, maintaining seamless application performance and ensuring compliance with stringent healthcare data regulations were key concerns. To address these challenges, the institution required a security solution that not only provided real-time protection but also offered expert-managed services for continuous monitoring and optimization.

CHALLENGES

The organization faced several cybersecurity concerns, including:
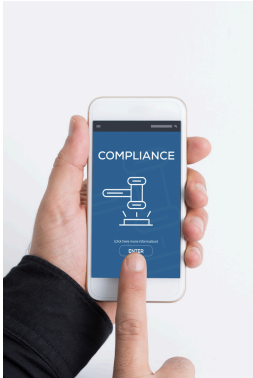
Protection Against Evolving Threats: The web application was vulnerable to sophisticated cyberattacks such as SQL injection, cross-site scripting (XSS), and bot-based threats.

Compliance and Data Security: As a healthcare and research institution, securing sensitive patient and research data was a top priority.

High Availability and Performance: The institution needed a security solution that could provide comprehensive protection without compromising application availability or user experience.

Expert Management and Monitoring: A managed security approach was required to ensure continuous monitoring, updates, and fine-tuning of security policies.

These issues necessitated a comprehensive solution that would address current limitations while future-proofing the IT environment.

OUR COMPREHENSIVE SOLUTION

Indus Systems and Services deployed an F5 BIG-IP Advanced Web Application Firewall (WAF) solution consisting of two BIG-IP Virtual Edition (VE) instances to provide robust protection for the organization's critical web application. The solution was tailored to their specific security requirements, ensuring compliance and operational efficiency.

F5 BIG-IP Advanced WAF Virtual Edition (VE): A scalable, high-performance security solution designed to protect web applications against OWASP Top 10 threats and advanced bot attacks.

Custom Security Policies: We configured application-specific security policies to safeguard against application-layer threats while minimizing false positives.

Traffic Inspection and Anomaly Detection: The solution continuously monitors incoming traffic to detect and mitigate malicious activities in real time.

SSL/TLS Decryption & Inspection: Ensured encrypted traffic was securely inspected without affecting application performance.

Automatic Threat Intelligence Updates: Regular updates to security signatures and threat intelligence data enhanced the resilience against emerging attack vectors.

IMPLEMENTATION HIGHLIGHTS

Indus integrated the F5 BIG-IP Advanced WAF with minimal disruption, ensuring seamless protection and ongoing security management.

Seamless Integration:

- Indus deployed the F5 BIG-IP Advanced WAF solution with minimal disruption to the institution's existing IT infrastructure. The implementation was carefully planned and executed to ensure uninterrupted access to critical applications.

Tailored Security Policies:

- We customized security policies to align with the institution's unique operational requirements, balancing stringent protection with optimal application performance. The solution was fine-tuned to minimize false positives while effectively mitigating threats.

Remote Managed Services:

- Indus provides continuous remote management, ensuring real-time threat monitoring, automated security updates, and proactive fine-tuning of security policies. Our team remains on standby to address potential risks and optimize system performance.

Performance Optimization:

- By leveraging advanced traffic inspection and load-balancing capabilities, we ensured that security enforcement did not compromise application speed or user experience. Continuous tuning and health monitoring further enhanced system resilience.

BUSINESS IMPACT

The solution strengthened cybersecurity, improved compliance, and ensured high availability for critical applications.

Enhanced Security:

- Indus significantly strengthened the institution's cybersecurity posture by deploying F5 BIG-IP Advanced WAF. The solution actively detects and mitigates sophisticated cyber threats, ensuring continuous protection.

Regulatory Compliance:

- The implementation aligns with stringent healthcare and research data protection regulations, helping the institution maintain compliance with industry standards. By securing sensitive patient and research data, the organization minimizes legal risks and strengthens stakeholder confidence.

Improved Availability:

- The institution benefits from a resilient security architecture that ensures uninterrupted access to its critical web applications. The WAF's advanced traffic management and failover mechanisms guarantee high availability, even during peak usage or attempted cyberattacks.

Expert Security Management:

- With Indus providing continuous monitoring, policy updates, and proactive security enhancements, the institution can focus on its core mission of medical research and patient care. Our managed services reduce the internal IT burden, allowing the organization to allocate resources more efficiently.

CONCLUSION

By implementing F5 BIG-IP Advanced WAF, Indus successfully fortified a critical web-facing application for this medical research institution. Our tailored deployment & managed security services ensure long-term protection against evolving cyber threats while maintaining seamless application availability. This collaboration highlights our commitment to securing mission-critical healthcare & research applications with cutting-edge cybersecurity solutions.
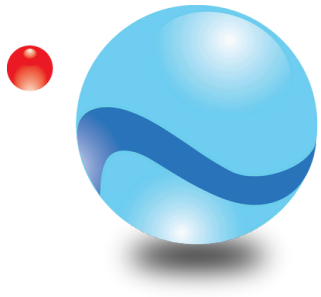
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Inspired by this company's success story?

Get in touch with us to start your journey towards a robust and future proof IT infrastructure.

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