Enhancing Security for a Nationwide Hospitality Leader in AWS with Palo Alto Firewalls and AWS Gateway Load Balancer

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A nationwide leader in the hospitality industry operates hundreds of restaurants, hotels, casinos, and entertainment destinations across the United States. With an extensive network of operations and customer-facing services, protecting critical data and ensuring seamless service are vital for maintaining both trust and business continuity. Cybersecurity and operational availability are integral to their ability to deliver uninterrupted experiences to millions of guests.

Executive Summary

In today's digital world, cybersecurity threats are becoming increasingly sophisticated and pervasive. Cybercriminals are leveraging advanced techniques such as ransomware, phishing, and zero-day exploits to target individuals and organizations alike. These attacks can originate from external sources, such as hackers and cybercriminal organizations, and internal sources, including disgruntled employees or inadvertent insider threats. As a result, businesses must adopt comprehensive security strategies, including advanced threat detection and response mechanisms, to safeguard their data and maintain trust with their customers.

Faced with growing cybersecurity threats and the complexity of a multi-cloud infrastructure, the hospitality leader sought to fortify its defenses within its AWS environment. With help from Apps Associates, the company integrated Palo Alto Networks VM-Series Next-Generation Firewalls (NGFWs) and AWS Gateway Load Balancer (GWLB) to enhance security, scalability, and availability. The solution offered robust protection against advanced threats and streamlined management, enabling the organization to protect its operations without compromising performance or scalability.

Challenges

- **Complex Network Infrastructure:**
  Managing security across numerous AWS accounts, on-premises connections, and multi-cloud environments with AWS Transit Gateway and Direct Connect made securing the entire landscape a complex task.

- **Increasing Cyber Threats:**
  The company faced a growing number of cyber threats, including malware, phishing attacks, and potential data breaches, which posed serious risks to their operations and customer data.

- **Scalability and Availability:**
  Ensuring the network could handle increasing traffic loads during peak business hours while remaining secure was essential to maintaining operational efficiency.

Solution

- **Deployment of Palo Alto VM Series Firewalls:**
  The hospitality leader already used Palo Alto Networks Next-Generation Firewalls (NGFWs) on-premises. For AWS, they chose Palo Alto Networks VM-Series Virtual NGFW, which are known for their advanced security features, including threat prevention, URL filtering, and application control.

- **AWS Gateway Load Balancer:**
  To enhance the scalability and availability of the NGFWs, the AWS Gateway Load Balancer (GWLB) was used to provide seamless traffic distribution and high availability for the firewalls.

- **Centralized Management:**
  Palo Alto Panorama firewall management enabled centralized firewall configuration and management across on-premises and AWS, allowing for consistent security policies across all locations.

- **Integration with Existing Systems:**
  The NGFWs and GWLB were integrated with the organization's existing security infrastructure, providing seamless protection without disrupting operations as it transitioned from a distributed security model to a central security model. With this new central security model, both north-south and east-west network traffic traverses the Palo Alto NGFW for inspection and advanced threat protection. The existing AWS Transit Gateway was used in addition to new GWLB VPC endpoints and route tables, which resulted in reduced downtime during the integration maintenance window.

Conclusion

By implementing Palo Alto VM Series Next-Generation Firewalls and the AWS Gateway Load Balancer, the nationwide hospitality leader successfully strengthened its cybersecurity posture while maintaining high availability and scalability. The integration ensures that the company can handle future growth and evolving threats, keeping customer data secure and business operations uninterrupted so it can continue leading the hospitality industry.

About Apps Associates

Apps Associates is a premier enterprise applications and technology advisor, counseling and executing across every stage of the enterprise transformation journey—not just the destination. For more than two decades, Apps Associates has closely collaborated with decision makers across nearly every industry, offering end-to-end integration, modernization, and cloud migration services. By helping to break down the silos within today's most complex business challenges, Apps Associates is unlocking solutions and efficiencies that scale into future opportunities.

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