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ADC + SECURITY:
The Perfect Combination

The primary role of an application delivery controller (ADC) is to ensure application service levels. ADCs are responsible for everything from securing application availability and improving scalability to accelerating the performance and response times of applications.

Heavier, more complex web content, mobility and the migration to the cloud can sap the performance of applications. But the real silent killer of application performance is the cyberattack. According to Radware's *2018–2019 Global Application & Network Security Report*, over 50% of respondents reported that cyberattacks resulted in service degradation.

Organizations concerned about application service levels can no longer afford to separate security from its ADC. Both application delivery and cybersecurity play a critical role in ensuring service-level agreements (SLAs). As cyberassaults become increasingly complex and involve multiple attack vectors, including distributed denial of service (DDoS), SQL injections and cross-site scripting (XSS), a complete security solution is required that encompass DDoS protection, behavioral analysis, web application firewalls (WAFs), SSL protection and ADCs working in concert.

AN ARCHITECTURAL APPROACH TO APPLICATION DELIVERY AND SECURITY

Problems with ensuring application protection arise mainly because there is no single device or product that includes the necessary technologies to protect against all possible attack vectors. Instead, there are typically several that work independently of one another with minimal to no coordination. Providing a secured application delivery service requires full synchronization among all elements on the application delivery path. It's the difference between taking an elemental versus an architectural approach to application delivery and security.

Take WAF,s for example. WAFs are typically integrated into an ADC but separated from the organization's DDoS solution. Leveraging this piecemeal approach makes it difficult to build synchronized security policies that span the security architecture, track and manage application service levels, identify SLA breaches in real time, and if it's the result of a security breach, coordinate their actions to mitigate the issue in a timely manner.

A LINCHPIN IN THE SECURITY FRAMEWORK

As a result, application delivery services take an integrative, proactive role in protecting applications to maintain SLAs at all times. An ADC is strategically situated within the application delivery chain to inspect various traffic and ADC health parameters. It should provide the capability to set baselines for normal traffic and, just like a good alarm system, implement a messaging mechanism to signal attack information to a DDoS detection and mitigation solution. As a result, any attack can be detected and mitigated in the best location to ensure a consistent application SLA.

To help fulfill its role as a DDoS attack "tripwire," an ADC should be embedded with SSL inspection technology to oversee an organization's traffic to and from the internet, intercepting and decrypting SSL sessions in real time. Decrypted traffic is steered to any content-based security and logging solution, such as the WAF, anti-malware, etc., and sessions that pass the security inspection are reencrypted and forwarded toward its destination.

Lastly, an enterprise-grade ADC should come equipped with advanced WAF services embedded. This allows the ADC to provide better security, higher performance, increased scalability and overall fastest time to protection. Capabilities of this entrenched firewall should include the ability to eliminate false positives, virtualization and out-of-path WAFs.

In the end, tight integration between your application delivery technologies and security ensures application service levels at all times, even when under attack. It requires an ADC that maximizes protection both at the application and data center infrastructures while minimizing its impact on application performance.

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