

PREDICTABLE APPLICATION SLA, GUARANTEED. ONLY WITH ALTEON.

Alteon, Radware's next-generation application delivery controller (ADC), is the industry's only solution designed from the ground up to ensure predictable application SLA at all times. The only ADC packed with next-generation ADC services, Alteon cost-effectively addresses emerging IT challenges faced by enterprises and online businesses.

Application SLA Challenge

In today's business landscape, IT is required to deliver consistent availability and performance-optimized user experiences for end users. Ongoing trends such as virtualization, consolidation, and cloud-shared platforms are complicating these delivery requirements - the same resources are now shared by different applications and exposing organizations to SLA breaches. Moreover, cyber-attacks that threaten application operations can potentially downgrade application SLA. Finally, application infrastructure issues, including increased Web application complexity and mobility, create additional challenges for delivering optimized application performance and meeting SLA requirements.

Whether it's an online Web application, an internal mission-critical enterprise application such as CRM, ERP or an organization's portal, end users expect to receive consistent quality of experience. The conclusion is clear: today's organizations require predictable application SLA and require solutions to proactively monitor and manage application SLA.

Standard ADC: Not Good Enough Anymore

For years, companies have been using application delivery controllers (ADC) to optimally deliver applications. However, the standard/legacy ADC is no longer enough as it is based on a best-effort approach. In a standard/legacy ADC, all resources are shared between server applications- there is no resource isolation per application and no resource reservation mechanism. This may lead to SLA degradation of neighboring applications. Likewise, adding features or services to one application can degrade the overall ADC performance and impact other applications' SLA.

In addition, the standard/legacy ADC doesn't offer tools for monitoring application SLA- it only provides acceleration features that are mainly on the TCP/SSL layers but not at the application, user or device levels.

In contrast to the standard/legacy ADC, a next-generation (NG) ADC provides real-user monitoring, best-in-class application level acceleration features, and innovative security offerings. With a full application SLA assurance, a next-generation (NG) ADC also provides application level resource reservation to allow for the addition of new services without performance penalties.

Complete Application SLA Assurance with Radware's Alteon ADC Solution

Alteon is the industry's only ADC to ensure application SLA at all times. Innovative, and built from the ground up, it leverages next-generation services unavailable in other ADCs on the market. Alteon combines FastView Web Performance Optimization (WPO), Application Performance Monitoring (APM), AppWall Web Application Firewall (WAF), Authentication Gateway, Advanced Denial of Service (ADoS), ITM/bandwidth management, as well as industry leading SSL performance with support for all the latest cyphers. Alteon guarantees application SLA by:

- ▶ Alteon is engineered to deliver full application level resource isolation and designed to prevent resources from maxing out.
- ▶ Alteon incorporates APM capabilities that provide full visibility into application SLA, broken down by application, transaction or location.
- ▶ Alteon integrates with FastView, the industry's most advanced WPO technology, which accelerates application responses for higher conversion rates, revenues, and productivity.
- ▶ Alteon is part of a unique attack mitigation architecture, allowing accurate detection and mitigation of the most advanced cyber-attacks.
- ▶ Alteon provide industry leading SSL acceleration performance, regardless of the model or form factor chosen, delivering the most cost effective traffic encryption processing solution.



High Performance Application Delivery Platforms with Complete Layer 4-7 Feature Set

Alteon D-line is a combination of hardware platforms and software, which deliver a rich set of application delivery capabilities with unmatched performance. Its complete set of Layer 4-7 services to ensure the availability, performance, and security of mission-critical applications in on-premise and cloud data centers. These extend to traffic redirection, content modification, persistency, redundancy, advanced health monitoring, and bandwidth management that optimizes the delivery of mission-critical applications.

Alteon is designed to dynamically scale when necessary and without hardware modifications. It can scale on-demand, adding more throughput, services and virtual ADCs (vADCs) instances, or out-of-the-box on-demand by leveraging an external, scalable resource pool (such as server infrastructure) for computational intensive NG services. By eliminating the need to purchase additional ADC units, Alteon allows for cost-effective hardware consolidation. It provides easy, quick provisioning of additional vADC instances, without service interruption, at a fraction of the cost of buying a physical ADC.

Extended User-Defined ADC Functionality

Radware's AppShape++ technology delivers scripting capabilities, allowing user-defined customization of the ADC service for specific application flow and scenario. By leveraging the script examples library, customers can use AppShape++ to refine various Layer 4-7 policies including HTTP, HTTPS, TCP, UDP, SSL and more – without application modifications, therefore reducing cost and risk.

Engineered to Ensure Application Performance

Alteon D-line's perform package includes all the components which ensure and enhance application's performance. It provides a set of tools which enable the infrastructure and application teams to work together and manage proactively the applications' performance.

Guaranteed Resources Per Application

Alteon enables companies to allocate a separate virtual ADC (vADC) instance per application, service or department. Each vADC instance is fully isolated from neighbouring instances and has independent resources such as CPU cores, memory, network stack, management control and operating system versions. As a result, the Alteon ADC ensures complete fault isolation and predictable application SLA for delivered web applications at all times. In addition, next generation services can be quickly and safely enabled without impacting the performance of other service applications.

Full Application SLA Visibility with Radware's Application Performance Monitoring



Radware's Application Performance Monitoring (APM) module provides real-time tracking of application SLA by measuring user transactions, including errors. Embedded in Alteon, Radware's APM is an out-of-the-box solution which doesn't require synthetic transaction scripting or additional installation-reducing deployment time and costs. APM intuitively tracks SLA by location, user, application and transaction type to expedite root cause analysis. Additionally, it provides historical reports based on user-defined SLAs that feature granular analysis, allowing the measurement of the delay per transaction phase and including data center time, network latency, and browser rendering time.

Complete Toolset for Web Application Performance Acceleration



Alteon offers a complete set of tools for providing the highest application performance acceleration, including caching, compression, unmatched SSL offloading performance with all latest cyphers, and TCP optimization. Alteon enables faster communication between the client and server while offloading CPU intensive tasks from the application server. Radware's FastView technology, embedded in Alteon, adds a second layer of acceleration by providing up to 40% faster web application response times for a variety of end user devices and

browser types/versions and is optimized for mobile devices. FastView automatically adapts to new application versions and new modules, which eliminates manual code optimization and allows organizations to focus on core business competence.



Alteon offers an embedded HTTP/2 gateway, a third layer of acceleration that resolves many inherent HTTP 1.1 protocol performance bottlenecks and therefore enables additional acceleration of web applications. By leveraging the Alteon acceleration functionality and pairing it with FastView's content analysis algorithms, the HTTP/2 gateway can automate server pushes, even before the client requests the content, and provide faster application response times.

Alteon offers a full set of acceleration tools that work in concert to deliver the fastest Web application optimization experience yet, for any type of browser, mobile or desktop device.

Advanced Multi-Homing and Enterprise Gateway Capabilities



The integrated LinkProof module delivers an application-aware, cost-effective solution to guarantee web application service levels and ensure Internet connectivity at all times. By detecting application downtime through full-path application health monitoring, LinkProof NG allows organizations to pinpoint issues in various networking nodes and enables instant recovery along the entire WAN path.

By simultaneously load balancing and optimizing both inbound and outbound traffic of multiple WAN links, the solution serves as an advanced enterprise gateway which optimizes access to cloud applications by applying advanced TCP congestion control and selecting the best ISP link per service. LinkProof NG increases employee productivity and reduces operational costs at the branch office by supporting hybrid WAN architecture and aligning allocated WAN links by priority and accelerating employee access to SaaS applications.

Secure Application Delivery Services

Alteon D-line's secure package includes a complete set of modules and functionalities that enable organizations to secure their applications. In addition, Alteon integrates with Radware's attack mitigation solutions, by leveraging a unique Defense Messaging mechanism that efficiently mitigates attacks by signaling attack information to Radware's DefensePipe cloud service and DefensePro, a data center attack mitigator located at the network perimeter.

Simple and Safe Web Application Protection



The integration of advanced web application firewall capabilities, such as a unique out-of-path WAF deployment mode and auto-policy generation features, enable risk-free implementation. In addition, full instance isolation and resource reservation ensures ADC resources. Even when WAF policies are updated, there's no impact on application availability and performance. This results in secured web application with guaranteed SLA.



Finally, Alteon features a built-in authentication gateway which provides single sign-on (SSO) capabilities by supporting Radius, Active Directory, LDAP and RSA SecurID and simplifies user experience without compromising application security.

Encrypted Traffic Interception and Inspection



Alteon natively provides the ability to offload inbound encrypted traffic decryption for inspection by security solutions such as next-generation firewalls, data leakage prevention systems, etc. To complete the solution Alteon also offers a unique capability for intercepting outbound encrypted traffic as a forward proxy where the Alteon does not own the SSL key, decrypt the content and forward it in clear text to those same security servers. Thanks to its integrated URL classification engine, it can determine whether a specific transaction is considered private (e.g. browsing to a bank account or healthcare site) and avoid intercepting the traffic for inspection – forwarding it to its destination untouched.

Centralized Management and Automation

Alteon's centralized management system (APSSolute Vision) enables IT, security and infrastructure managers to intuitively and collaboratively manage the entire Radware's solution portfolio, including all the Alteon devices, virtual ADC instances and the various modules in them such as the AppWall and FastView. It also provides a performance monitoring reporting tool that allows drill-down reports about user experience and the various elements in the application delivery chain. Using APSSolute Vision also provides advanced automation tools to automatically execute management tasks across various Radware devices.

Complete ADC Lifecycle Automation



Operator Toolbox – Both ADC experts and non-experts to allow automation of various operational tasks, Operator Toolbox significantly reduces the operational workload (by up to 90%) throughout the ADC services' lifecycle, while minimizing any chance of human errors. Operator Toolbox allows any organization to customize its own automation tasks, per its specific application and work methodologies, designing wizards for different types of users (i.e. network admin or application developers, etc.) or use out-of-the-box wizards from a full library of certified scripts. Deploying new and advanced application delivery services can literally be done through a few clicks of a button, requiring no ADC specific experts in the process. Thanks to APSolute Vision, Radware's centralized management system, administrators can create different scripts library with different user rights, tailored per the various user groups in the organization (i.e. application admins, application developers, network admin, etc.).

Alteon Platforms and Form Factors

Alteon ADC solution delivers a set of physical appliances, virtual appliances and cloud-based form factors, all sharing the same set of functionalities and modules, which guarantee application SLA at all times. On top of all other layer 4-7 application delivery functions, performance optimization and security functionality, the Alteon D-line products deliver enhanced traffic encryption processing performance, which is available both via its optimized software and the latest hardware acceleration cards.

The Alteon virtual appliances and cloud appliances are no different, providing identical functionality as the physical Alteon appliances and industry-leading performance and traffic encryption capacities.

All Alteon appliances, starting at the entry level, support virtualization with high density of virtual ADC instances per device, to enable any size organization to benefit from the cost saving associated with virtualization and ADC consolidation.

The Alteon virtual appliance form factor is also available in a special version for DevOps teams, enabling instant deployment in any development environments and consumption of advanced ADC functionality via out-of-the-box wizards and automation scripts.

Intuitive Licensing Packages

The new Alteon D-line provides 3 different licensing packages to address different deployment scenarios and needs:

- ▶ The Deliver package, for applications that require high performance ADCs with advanced layer 4-7 ADC functionality
- ▶ The Perform package for deployment scenarios which require performance optimization, advanced application performance monitoring, global server load balancing and link load balancing, as well as automated/optimized ADC service operation.
- ▶ The Secure package for applications which require the most advanced protection (with an imbedded WAF module, authentication gateway) and for offloading SSL processing from perimeter security devices (with its emended SSL inspection module).

About Radware

Radware® (NASDAQ: RDWR), is a global leader of [cyber security](#) and [application delivery](#) solutions for physical, cloud, and software defined data centers. Its award-winning solutions portfolio secures the digital experience by providing infrastructure, application, and corporate IT protection services to enterprises globally. Radware's solutions empower more than 12,500 enterprise and carrier customers worldwide to adapt to market challenges quickly, maintain business continuity and achieve maximum productivity while keeping costs down. For more information, please visit www.radware.com.

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Certainty Support

Radware offers technical support for all of its products through the Certainty Support Program. Each level of the Certainty Support Program consists of four elements: phone support, software updates, hardware maintenance, and on-site support. Radware also has dedicated engineering staff that can assist customers on a professional services basis for advanced project deployments.

Learn More

To learn more about how Radware's integrated application delivery & security solutions can enable you to get the most of your business and IT investments, email us at info@radware.com or go to www.radware.com.

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