

## Alteon Application Switch 10000

*Sheer Performance, Carrier Grade ATCA-Compliant ADC Platform*



Alteon Application Switch 10000 provides superior performance, advanced application acceleration capabilities and OnDemand scalability needed to effectively meet contemporary network and business needs. Specifically designed for carriers, service providers and large enterprises data centers, the Alteon 10000 provides up to 80Gbps of application delivery capacity for unparalleled application scalability, availability and performance.

### **Breakthrough Performance Delivering Best Quality of Experience**

Carriers and Internet service providers experience massive growth of Internet, video and mobile data traffic. The Alteon 10000 is designed to meet these challenging capacity growths while delivering significant business benefits for carriers, mobile data mega-pops, Internet service providers and large enterprises data centers that require a high-end ADC solution.

Powered by a state-of-the-art, custom-designed hardware platform, the Alteon 10000 ensures the best user experience and fastest response time for mission-critical applications, resulting in effective, continuous business operation. The Alteon 10000 provides up to 80Gbps of scalable throughput capacity while delivering breakthrough performance including 1.4M Layer 4 Connections per Second, 800K Layer 7 Connections per Second and 44M concurrent connections<sup>1</sup>.

The beating heart of Alteon 10000 is the Virtual Matrix Architecture (VMA), a one-of-a-kind technology that unleashes the power of Alteon's next-generation proprietary platforms. VMA is a fast, robust, and flexible architecture embedding multi-CPU and multi-core components, which leverages the entire system's capacity while providing the parallel performance of distributed processing resulting in linear layer 4-7 scalability.

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<sup>1</sup> The performance figures are based on estimations and are subject to change.

### **ATCA Chassis and Carrier-Grade Reliability**

The Alteon 10000 is built upon Advanced Telecommunications Computing Architecture (ATCA) chassis to meet the most demanding requirements and regulations. With 15 ports of 10GE / GE (SFP+ pluggable optics) and additional 8 ports of 1GE (copper), the Alteon 10000 provides extensive ports offering and wide set of connectivity alternatives. The 6-slots chassis of Alteon 10000 accommodates 4 payload blades, each providing 20Gbps of throughput, up to a total of 80Gbps. All the chassis blades are hot swappable, allowing blades replacements without stopping the entire chassis. In addition, the Alteon 10000 chassis includes fabric switch blades for internal communication, as well as a Shelf Manager module which monitors and controls the low-level aspects of the platform's blades and components, including temperature monitoring, fan-speed control, alarm I/O, and power management.

The Alteon 10000 delivers carrier-grade reliability required by the most demanding carrier application environments. It features reliable, custom-made hardware coupled with embedded components providing high MTBF with three AC/DC load sharing, hot-swappable power supplies and two hot-swappable fan trays. It is NEBS 3 compliant, complies with the strictest regulations, and is certified by the most up-to-date hardware and networking standards.

### **Intelligently Embedding Radware's 'OnDemand' Infrastructure Approach**

By embracing Radware's OnDemand approach, you only pay for the exact capacity currently required by your network, which prevents over-spending on the initial solution. Additional processing blades, throughput capacity, acceleration capabilities and application-aware services can be added on demand to meet new business requirements – with no forklift upgrade of the device and no restart. The OnDemand approach enables you to overcome capacity planning challenges and reduces the risk associated with data center growth for best investment protection as capacity and services can be added when needed.

### **ADC Virtualization with ADC-VX™**

The latest addition to Alteon OS capabilities is the ADC-VX, the industry's first ADC hypervisor built on a unique architecture that virtualizes the resources of the Alteon Application Switch, allowing multiple Alteon vADC instances running on the same platform with full instance isolation. This unique industry capability is achieved through complete resource virtualization and reservation including CPU, memory, network and acceleration resources. This specialized hypervisor runs fully-functional virtual ADC instances where each delivers full ADC functionality just like a dedicated physical Alteon device. Each virtual ADC instance contains a complete and separated environment of resources, configurations and management.

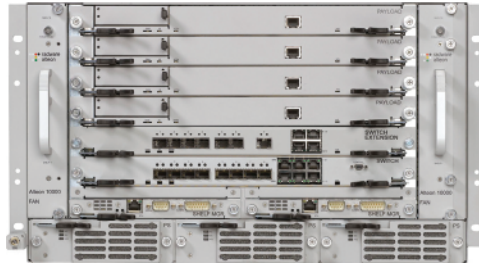
ADC-VX is designed from the ground up to enable organizations to consolidate their ADC hardware devices without compromising resiliency or performance predictability of their ADC services – resulting in significant savings of hardware costs and operational expenses. Additionally, ADC-VX provides the agility and the simplicity that is required in the virtualized data center, driving faster deployment of new services and better alignment of ADC services with frequent configuration changes. To learn more about ADC-VX, please visit [ADC-VX page](#).

### **Powered by Alteon OS**

The Alteon 10000 utilizes the Alteon OS, enabling you to leverage its solid, powerful capabilities including CLI, traffic policies, configuration and more. As a result, you can immediately enjoy Alteon's renowned ease of operation and stability – by reducing operational hassle and costs related to network integration, operation scripts, network topology considerations and management – while at the same time, obtaining new benefits.

### **5-Year Longevity Guarantee Coupled with World-Class Support**

Radware exclusively provides Alteon 10000 customers with a 5-year platform longevity guarantee. This enables extending the application delivery project lifetime, which directly translates into reduced TCO and higher ROI.



## Chassis Technical Specifications

Features	Alteon 10000 Chassis
Available Throughput	Up to 4 ATCA-compliant, payload blades - delivering 20Gbps, 40Gbps, 60Gbps and 80Gbps scalable throughput capacity
Non-blocking Switch Fabric	480 Gbps
Layer 2 Switching	Wire-speed
Simultaneous Sessions	Up to 44M
Routing Protocols	OSPF, RIP, BGP
Gigabit/Fiber Ports	<ul style="list-style-type: none"> <li>• 15 X 10 Gigabit or 1 Gigabit Fiber Ports (depending on SFP/SFP+ pluggable optics)</li> <li>• 8 X Gigabit Ethernet Ports (Copper)</li> </ul>
Pluggable Optics Operating Distance	Fiber ports deliver the following interfaces depending on pluggable optics: <ul style="list-style-type: none"> <li>• Short reach SFP, 1000BASE-SX 850nm, multi-mode; distance .2-275m with 62.5/125µm MMF; distance .5-550m with 50/125µm MMF</li> <li>• Long reach SFP, 1000BASE-LX 1310nm single-mode; distance up to 10km with 9/125µm SMF</li> <li>• Short reach SFP+, 10GBASE-SR 850nm multi-mode; distance up to 300m with 50/125µm MMF</li> <li>• Long reach SFP+, 10GBASE-LR 1310nm single-mode; distance up to 10km with 9/125µm SMF</li> </ul>
Serial Management Console	<ul style="list-style-type: none"> <li>• RS-232C port</li> </ul>
Shelf Manager (ShMC)	<ul style="list-style-type: none"> <li>• Front, redundant, hot-swappable IPMI v1.5 Shelf Manager</li> <li>• Nine, high-brightness LEDs indicating Critical, Major, Minor alarms, Power Good, shelf Active, H/S and ShMM status indicator</li> <li>• Telco Alarm – Alarm relays capable of carrying 60VDC, or 1.0A, with a maximum rating of 30VDC</li> <li>• Full IPMB support, IPM controller sensor entries – fan speeds monitors, local temperatures, predicted failure alerts, input voltage</li> <li>• Shelf temperature sensors (inlet, outlet)</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>• Height: 6U / 266.7 mm (10.5 in)</li> <li>• Width: 448 mm (17.637 in)</li> <li>• Depth: 385.8 mm (15.1 in)</li> <li>• EIA Rack or Standalone: 482 mm (19 in)</li> <li>• EMI gaskets and hardware spacing to support FCC part B</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• 32.85 kg (74.42 lbs)</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>• Operating temperature: -5 to 55 °C (23 to 131 °F)</li> <li>• Humidity: 5% to 85% non-condensing</li> </ul>
Power	<ul style="list-style-type: none"> <li>• AC power supply               <ul style="list-style-type: none"> <li>• Auto-range: 100-240 V, 47-63 Hz</li> <li>• Power consumption (typical / maximal): 774 W / 1542 W</li> <li>• Heat dissipation (typical / maximal): 2639 BTU/h / 5258 BTU/h</li> </ul> </li> <li>• DC power supply               <ul style="list-style-type: none"> <li>• Auto-range: -48~-60 V</li> <li>• Power consumption (typical / maximal): 643 W / 1283 W</li> <li>• Heat dissipation (typical / maximal): 2192 BTU/h / 5375 BTU/h</li> </ul> </li> <li>• Up to three load sharing, self cooled, hot-swappable integral power supplies</li> <li>• Redundant PEM modules, redundant EMC filtered power feeds</li> </ul>
Cooling	<ul style="list-style-type: none"> <li>• Two front, hot pluggable fan trays each with 10 axial, high-performance fans</li> <li>• Push-pull, N+1 i.e. any fan can fail with no service degradation</li> <li>• Front, washable, field-replaceable, NEBS GR63 air filter</li> <li>• Variable speed under Shelf Manager control</li> </ul>
Certifications	<ul style="list-style-type: none"> <li>• Safety: UL, CE compliant</li> <li>• EMC: CE &amp; FCC part 15 subpart B, VCCI class A</li> <li>• NEBS level-3 ready</li> <li>• RoHS 6 compliant</li> </ul>



## Payload Blade Technical Specifications

Features	Alteon 10000 Payload Blade
Available Throughput	20Gbps
Simultaneous Sessions	Up to 11M
Processor	6-core Intel® Xeon® processor L5638 2.0 GHz
Memory	24GB
Dimensions	<ul style="list-style-type: none"> <li>• 8U single-slot ATCA format</li> <li>• Height: 322.5 mm (12.7 in)</li> <li>• Depth: 280 mm (11.02 in)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• 3.2 kg (7.05 lbs)</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>• Operating temperature: -5 to 55 °C (23 to 131 °F)</li> <li>• Humidity: 5% to 85% non-condensing</li> </ul>
Power	<ul style="list-style-type: none"> <li>• AC power supply</li> <li>• Auto-range: 100-240 V, 47-63 Hz</li> <li>• Power consumption: 192 W</li> <li>• Heat dissipation: 654 BTU/h</li> <li>• DC power supply</li> <li>• Auto-range: -48~-60 V</li> <li>• Power consumption: 160 W</li> <li>• Heat dissipation: 545 BTU/h</li> </ul>
Certifications	<ul style="list-style-type: none"> <li>• Safety: cTUVus 60950-1, EN 60950-1, IEC 60950-1 CB scheme</li> <li>• EMC: CE &amp; FCC part 15 subpart B, VCCI class A</li> <li>• NEBS level-3 ready</li> <li>• RoHS 6 compliant</li> </ul>

### About Radware

Radware, the global leader in integrated application delivery solutions, assures the complete availability, performance and security of business-critical applications for nearly 10,000 enterprises and carriers worldwide. With Radware's comprehensive and award-winning suite of products, companies can drive business productivity, improve profitability, and reduce IT operating and infrastructure costs by making their networks "business-smart."

### 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 Radware Alteon application delivery products please visit us at [www.radwarealteon.com](http://www.radwarealteon.com). For information regarding Radware's entire portfolio of application delivery and network security products for business-smart networking, please visit [www.radware.com](http://www.radware.com).