ADVANCED APPLICATION DELIVERY IN VIRTUALIZED ENVIRONMENTS

Increase Application Performance and Flexibility

Increasing traffic and the profusion of applications sharply increase the associated costs and complexity of application delivery. The benefits of server virtualization solutions from vendors such as VMware, Microsoft, Red Hat and others can be greatly increased when deployed together with A10 Networks® Thunder® ADC line of Application Delivery Controllers. Joint solutions from A10 and these other virtualization vendors can reduce hardware costs and improve end-user experience, all while providing a highly adaptable infrastructure that can accommodate unforeseen spikes in network or application load.

Hypervisor technologies maximize server hardware resources and make application deployments more flexible and efficient. But the challenges of optimizing application delivery for virtual machines are just as strident as those for traditional, non-virtual environments. A10 Thunder ADC is a perfect, easily integrated complement to any virtual server environment. Powered by A10's purpose-built Advanced Core Operating System (ACOS®), the Thunder ADC further optimizes application performance while enhancing reliability and ensuring optimal connectivity between the application and the user.

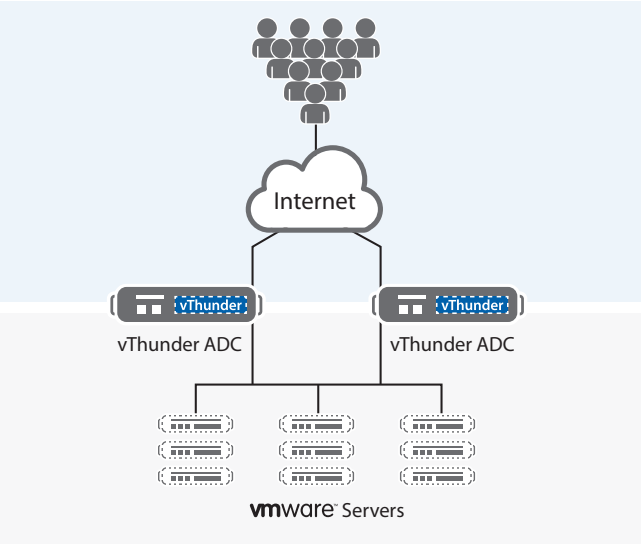


Figure 1: vThunder virtual appliance load balance traffic to VMware servers

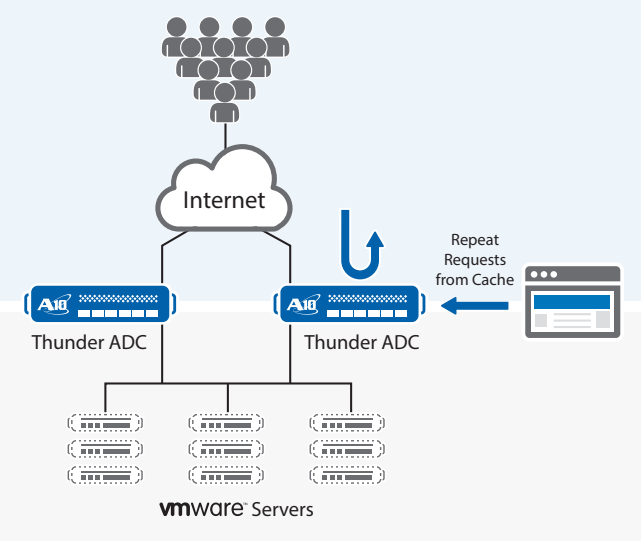
Optimizing Virtualized Applications with A10 Thunder ADC

While a hypervisor ensures efficient use of server hardware by allowing multiple servers on one hardware platform, it is still only one piece of the total solution. To create the best application experience, application data delivery can be optimized by offloading computationally intensive functions from servers. Thunder ADC optimizes communication between the customer and virtual server farm, offering:

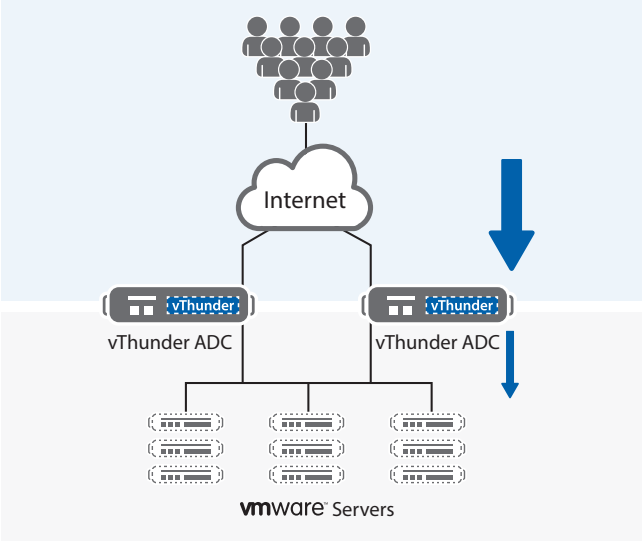
- Even traffic distribution to multiple servers—the core of load balancing
- Global Server Load Balancing (GSLB) for failover between data centers
- Hardware-based SSL encryption and decryption
- RAM Caching for static and dynamic content
- HTTP Compression
- TCP Optimization for all applications
- Health checks to instantly ensure only valid servers deliver content
- Flexible scripting for advanced L7 application traffic control

A10 has integrated virtualization technologies into its products, with versions collaboratively developed for installation on numerous hypervisors:

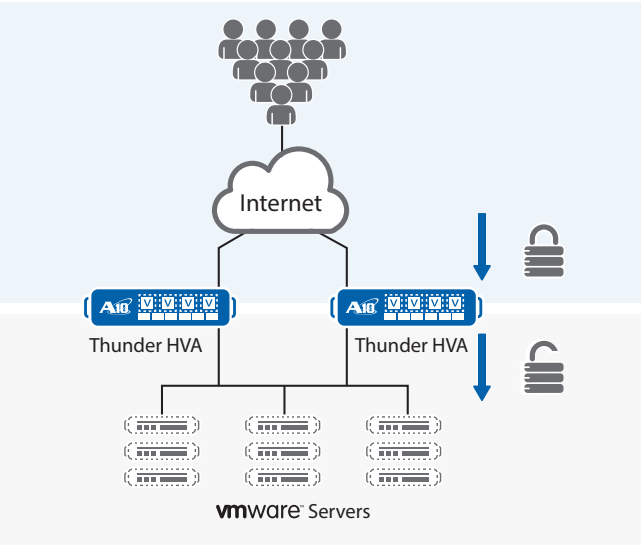
- A10 Networks vThunder® ADC line of virtual appliances is a software-based ADC that can run as a virtual machine on VMware, Xen, KVM or Hyper-V.
- The A10 Networks Thunder® HVA hybrid virtual appliances is a turnkey virtualized ADC solution. This hardware appliance hosts multiple vThunder instances. These vThunder instances have access to powerful hardware resources, such as dedicated SSL processors for SSL Offload.
- Integration of VMware vCenter with A10 Networks® aXAPI® REST-based API allows a flexible collaboration between the Thunder ADC and VMware infrastructure management. This solution results in automated dynamic provisioning, scaling up or down as needed.



RAM Caching
Enable Faster Content Delivery



TCP Connection Reuse
Faster Session Establishment, Improved Lower Application Performance



Hardware SSL Offload
Reduce CPU Utilization

Tangible Cost Savings, Increased Efficiency

Virtual resources enable on-demand computing, sharing hardware resources and allowing unprecedented ability to quickly add or remove computing power to serve customer needs. The business benefits of the Thunder ADC includes:

- Reduced hardware
- Reduced power
- Reduced data center footprint
- Simpler end-to-end server management
- On-demand computing power

Competitive Edge

Server virtualization optimizes hardware resources and provides advantages through flexibility and ease of management. Thunder ADC augments virtual machine solutions with even traffic distribution, along with accelerated, optimized application response—all while offering the fastest local failover and site-wide disaster recovery with GSLB. Providing superior performance, scalability and efficiency, the Thunder ADC is a natural choice, compounding savings and performance.

Combining Thunder ADC and hypervisor environments ensures a competitive, highly available edge to any business. Bottom line costs are reduced and content is delivered faster.

About A10 Networks

A10 Networks is a leader in application networking, providing a range of high-performance application networking solutions that help organizations ensure that their data center applications and networks remain highly available, accelerated and secure. Founded in 2004, A10 Networks is based in San Jose, California, and serves customers globally with offices worldwide. For more information, visit: **www.a10networks.com**

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To learn more about the A10 Thunder Application Service Gateways and how it can enhance your business, contact A10 Networks at: **www.a10networks.com/contact** or call to talk to an A10 sales representative.