SoftAX Virtual Appliance
Application Delivery and Server Load Balancing

A10 Networks

SoftAX · SAVINGS AHEAD

Flexible and Cost Effective Cloud Computing

- ▶ *AX Series Virtual Appliance, a Software Application Delivery Controller (SoftADC)*
- ▶ *Full Application Delivery and Server Load Balancing feature set for application availability, scalability and performance*
- ▶ *Rapid deployment to virtualized infrastructure; no hardware to ship*
- ▶ *Flexibility to scale up or down, on-demand and cost effectively*

The AX Series family offers the widest choice of deployment options, from high performance hardware platforms with hardware off-load capabilities to the cost effective and flexible SoftADCs.

SoftAX, part of A10 Networks' award-winning AX Series Application Delivery Controller (ADC) family, is designed to meet the growing needs of organizations that require a flexible and easy-to-deploy application delivery and server load balancer solution running within a virtualized infrastructure.

SoftAX

vmware PARTNER
TECHNOLOGY ALLIANCE

Changing Computing Infrastructures

Data center virtualization (and even hypervisors running on IT professionals' local machines) enables new, comparatively low cost computing resources to be available. Deployment and testing of ADCs can now be achieved without purchase of a dedicated hardware appliance.

The SoftAX is designed to be installed on a hypervisor running atop commodity hardware or A10 Networks' AX-V appliance (for guaranteed performance).

Fastest Time to Operation

Offering the fastest deployment possible, the SoftAX software can be downloaded directly from the Internet and installed into an organization's existing virtual machine (VM) environment on demand.

The SoftAX VM is an integrated, packaged image that requires no separate operating system or application software setup. This enables rollout of an ADC system in minutes, instead of days or weeks.

Internet Traffic

Virtual Machines Running in Hypervisor

Physical Server
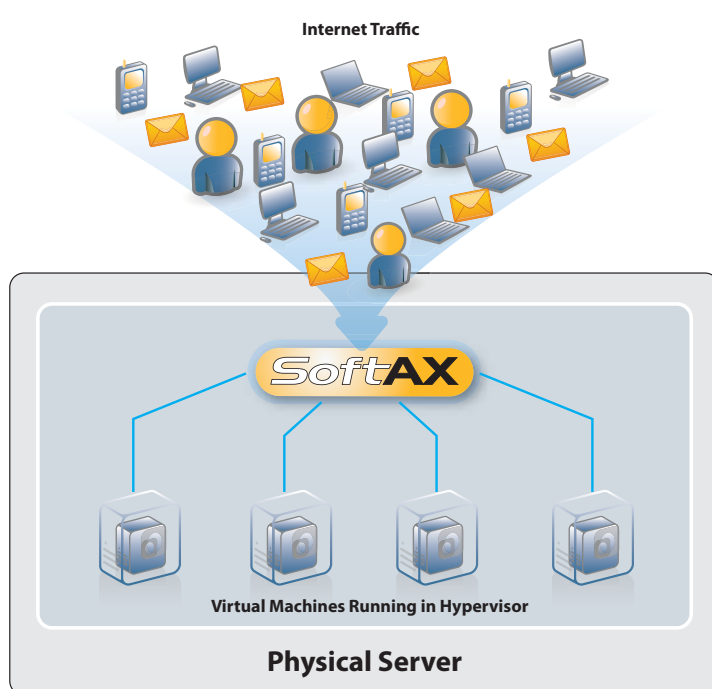
SoftAX Key Benefits

▶ High performance SoftADC with speeds up to 8 Gbps

▶ Best price/performance advantage versus competitors' platforms

▶ Comprehensive upgrade paths from software versions to hardware appliances (300 Gbps+)

▶ Software image allows download and immediate deployment

▶ Unified 64-bit OS and application delivery software; no system hardening or multi-step installation

▶ Virtual Appliance is portable to another compatible host

▶ Underlying hardware can be enhanced while maintaining the same image configuration and settings

▶ SoftAX with unique AX Virtual Chassis scaling for on-demand expansion

▶ AX-V appliance for high density SoftAX deployments on purpose-built optimized hardware

▶ Most efficient CPU resource usage, requiring only 1 virtual CPU

▶ No feature limitations; version licensed by bandwidth

Use Cases

The SoftAX is ideal for certain scenarios, for example:

• When functionality, not performance, is required; such as "2nd tier" applications behind web servers that need high availability
• Ideally suited as laboratory or test equipment for network administrators and support personnel
• Developer test beds to encourage full usage of advanced aFleX and aXAPI scripting
• New applications, before traffic requires a hardware ADC (configurations can be ported at time of replacement)
• Service Providers offering on-demand cloud computing infrastructure with rapid deployment

SoftAX can be deployed to your existing virtual infrastructure

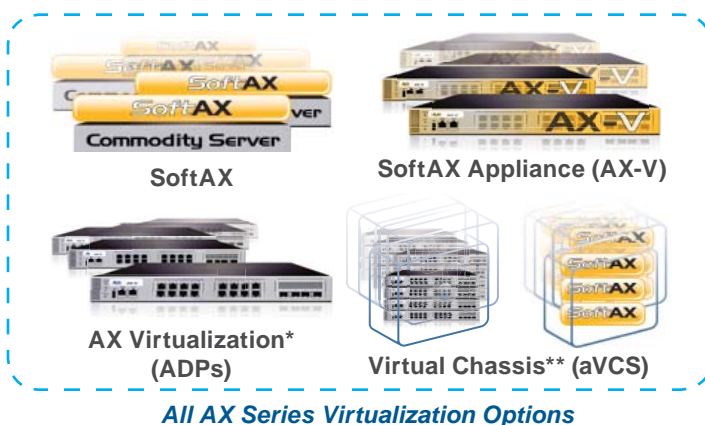A10 Networks

SoftAX Virtual Appliance Characteristics

New flexible and dynamic architectures can now be deployed:

- Consolidated infrastructure
  - Virtualization allows multiple independent VMs to be deployed on a single shared hardware platform, such as a pair of web servers and a pair of ADCs, reducing costs
- Reduced CAPEX and OPEX
  - The SoftAX reduces capital expenditure with an initial lower price point, while also reducing ongoing costs by allowing more efficient use of resources, with multiple machines utilizing the same hardware and not occupying dedicated data center rack space
- ADC VM high availability (HA) and VM strong isolation
  - Independent SoftAX VMs ensure true HA, being separate from each other, on a single host or two different hosts

- SoftAX VMs are completely independent software instances, demonstrating strong isolation, with no shared components; issues on one VM do not affect another
- Dynamic provisioning
  - Under peak loads the hypervisor management software and the SoftAX aXAPI can automatically add more application servers and adjust the ADC configuration to allow more capacity
- Multiple data center flexibility
  - SoftAX Global Server Load Balancing (GSLB) can direct users to the operational data center, providing data center failover and continuity
  - SoftAX can be moved between data centers and easily backed up on demand

ACOS Advantage

Advanced Core Operating System (ACOS) was designed with the ability to swiftly port to other processors. This makes ACOS a suitable OS for hypervisors, enabling support without substantial re-engineering and compatibility issues.

- The only full-featured 64-bit ADC virtual appliance on the market with all feature licenses included
- As ACOS was also designed to reduce internal overhead and resource usage on the host VM, host hardware is optimized
  - Ability to run on a single CPU for maximum density
  - Efficient operation, customized to utilize only the resources required from the hypervisor, eliminating continual polling

SoftAX **SoftAX Appliance (AX-V)**

AX Virtualization* (ADPs) **Virtual Chassis** (aVCS)**

All AX Series Virtualization Options

SoftAX is a member of the AX Series family of Application Delivery and Load Balancing appliances.

*Application Delivery Partitions (ADPs) provide large scale multi-tenancy for AX Series hardware platforms (not available on SoftAX).
**Multiple AX Series appliances (hardware or virtual) running as a single unified device.

SoftAX Requirements Summary

AX Series SoftAX			AX Series AX-V Appliance (SoftAX Instances Included)	
VMware vSphere Requirements	ESX/ESXi 4.0 or higher 1 virtual CPU 2 GB RAM 8 GB storage 3 virtual network interfaces		**Hardware Specifications**	Compact 1 RU appliance High port density 1 Gbps and 10 Gbps interfaces Solid-state drives (SSDs) Redundant power supplies Hardware SSL support (ASIC)
Hardware Requirements	See hypervisor requirements			
Licenses	Versions vary by price and bandwidth. Including: • **Lab/Developer Edition** • **Production- Entry Level/Lab Editions:** 200 Mbps and 1 Gbps • **Production – High-performance Editions:** 4 Gbps and 8 Gbps		**More Information**	Contact A10 Networks for availability: inquire@a10networks.com
Standard Warranty	90-day software		**Standard Warranty**	90-day hardware & software

SoftAX Features

» Application Delivery Features

- Comprehensive IPv4/IPv6 Support
- Advanced Layer 4/Layer 7 Server Load Balancing
  - Fast TCP, Fast UDP, Fast HTTP, Full HTTP Proxy
  - High-performance, template-based Layer 7 switching with header/URL/ domain manipulation
  - Comprehensive Layer 7 application persistence support
- Comprehensive load balancing methods
  - Round Robin, Least Connections, Weighted RR, Weighted LC, Fastest Response
- aFleX – allows deep packet inspection and transformation for customizable, application-aware switching
- Advanced Health Monitoring
  - Comprehensive Protocol Support - ICMP, TCP, UDP, HTTP, HTTPS, FTP, RTSP, SMTP, POP3, SNMP, DNS, RADIUS, LDAP
  - TCL Scriptable Health Check support
  - High Availability - Active-Active, Active-Standby configurations with sub-second failover
  - SIP Load Balancing for VoIP and other rich-media applications
  - STARTTLS support for Secure Email (POPS, SMTPS, IMAPS) & LDAPS

- Spam Filter Support – allows high-speed application of very large black/white lists
- Wildcard VIP support - Firewall Load Balancing (FWLB), Link Load Balancing (LLB), Transparent Cache Switching (TCS)
- Global Server Load Balancing (GSLB)
- Gateway Mode Support
- Diameter AAA Load Balancing

» Acceleration & Security Features

- HTTP Acceleration & Optimization
  - HTTP Connection Multiplexing
  - HTTP Caching
  - HTTP Compression
- SSL Acceleration
  - SSL Offload
  - Support for all TCP Protocols – SSL Termination, SSL Bridging (SSL Initiation)
- SSL Session ID Re-use
- DDoS Protection (SYN Flood)

» High Performance, Scalable Platform

- ACOS Operating System
  - Linux on Control Plane
  - ACOS on Data Plane

» Networking

- Integrated Layer 2/Layer 3
- Gateway Mode

- Routing - RIP, OSPF, Static Routes
- VLAN
- Access Control Lists (ACLs)

» Network Address Translation (NAT)

- Traditional IPv4-IPv4 NAT/NAPT
- Application Level Gateways (ALGs) for FTP, RTSP, MMS, SIP
- NAT-PT (Protocol Translation) (IPv4<->IPv6, IPv6<->IPv4)

» Management

- Dedicated Management Interface (VM Console Access, SSH, Telnet, HTTPS)
- Web-based Graphical User Interface (GUI) with Language Localization
- Industry-standard Command Line Interface Support
- SNMP, Syslog, Alerting
- REST-style XML API (aXAPI)

» SoftAX

- Machine portability
- AX Virtual Chassis Support
- AX-V Appliance Platform for SoftAX deployment
- VMware vSphere hypervisor support

Performance by Design

To learn more about the AX Series Advanced Traffic Manager and how to improve application performance up to 8 times faster while enhancing reliability and security, visit A10 Networks' website at:

www.a10networks.com

or call and talk to an

A10 sales representative.

About A10 Networks

A10 Networks was founded in 2004 with a mission to provide innovative networking and security solutions. A10 Networks makes high-performance products that help organizations accelerate, optimize and secure their applications. A10 Networks is headquartered in Silicon Valley with offices in the United States and centers of excellence around the globe. For more information, visit www.a10networks.com.

Corporate Headquarters

A10 Networks, Inc.
2309 Bering Drive
San Jose, CA 95131
Tel: +1 408 325-8668
Fax: +1 408 325-8666

North America Sales:
+1 888 A10-6363
+1 408 325-8616
sales@a10networks.com

World Wide Offices:

Asia Pacific (Main)
apac_sales@a10networks.com
China
china_sales@a10networks.com
Hong Kong
hongkong@a10networks.com
Japan
jinfo@a10networks.com
Korea
korea@a10networks.com

Malaysia
southasia@a10networks.com
Singapore
southasia@a10networks.com
Taiwan
taiwan@a10networks.com

Europe (Main)
emea_sales@a10networks.com
France
france@a10networks.com

Germany
emea_sales@a10networks.com
The Netherlands
emea_sales@a10networks.com

Latin America (Main)
latam_sales@a10networks.com
Brazil:
brazil@a10networks.com