



SSL Acceleration

AppVelocity-S offloads SSL encryption from servers to improve application performance and reduce the number of servers required to support ecommerce and high-volume secure transaction processing.

Powered by Array SpeedCore™ and available for Array's APV Series Application Delivery Controllers, AppVelocity-S combines high-performance SSL acceleration with server load balancing and application acceleration to create a traffic management solution ideal for ecommerce environments and applications requiring a high degree of secure connectivity.

Highlights & Benefits

- High-performance SSL acceleration for securing data in transit, offloading compute-intensive processes from servers and improving application performance
- Hardware-based 1024 and 2048-bit SSL encryption for alignment with NIST and certificate authority security requirements
- Industry-leading SSL client certificate management, authentication and authorization and application integration
- Full-function SSL proxy capable of acting as SSL server and SSL client
- Local traffic management, global server load balancing and clustering for 99.999% application uptime and data center scalability
- Application acceleration including transparent SSL acceleration, TCP multiplexing, high-speed HTTP processing, adaptive compression and dynamic caching for a 5X improvement in application performance
- Data center modernization features including IPv6 support, virtualization integration and application-specific certifications and templates for rapid deployment of optimized configurations
- Reverse-proxy architecture with a stateful packet-inspection firewall for guarding applications without impacting performance
- Extensible XML-RPC for integration with proprietary and 3rd party data center management and monitoring products
- Familiar CLI and intuitive WebUI for ease of configuration and management
- Available on all Array APV 600 Series Application Delivery Controller appliances

Secure Application Delivery

Array AppVelocity-S integrates features that provide availability, performance and security for high-volume, secure transaction environments. A Web or application server front end, AppVelocity-S combines high-performance L2-7 load balancing, high-speed HTTP processing, TCP multiplexing, dynamic caching, adaptive compression and SSL acceleration to provide end-users with a faultless online experience. AppVelocity-S scales secure applications and protects data without impacting performance, reinforcing end-user loyalty and maximizing revenue potential.

SSL Acceleration

SSL acceleration reduces the number of servers required for secure applications, improves server efficiency and dramatically improves application performance. Offloading compute-intensive 1024 and 2048-bit encryption and supporting industry-leading client-certificate management capabilities, AppVelocity-S is ideal for e-commerce environments and business critical applications requiring high-volume secure connectivity.

2048-Bit SSL Encryption

Following NIST recommendations for 2011, certificate authorities have transitioned to 2048-bit keys. Although more secure, 2048-bit keys cause a 5x reduction in SSL TPS that can impact both application performance and cost. AppVelocity-S supports scalable, high-performance 2048-bit SSL acceleration and unbeatable price-performance to offset transition costs and improve security without impacting performance.

Client-Server Certificate Support

AppVelocity-S supports robust, simple and cost-effective SSL client-

server certificate management including unlimited certificates, integration with back-end applications, verification enhanced for high-volume environments and additional capabilities including import and back-up, formatting and information coding and authentication and authorization.

Application and Data Security

Integrating WebWall™, Array's stateful packet-inspection firewall, AppVelocity-S protects against denial of service (DoS) and malformed URL attacks and allows a wide range of Layer 2 through Layer 7 protective policies to be stacked atop of one another for increasing levels of security.

Management Integration

AppVelocity-S is simple to install and offers intuitive configuration and management via a WebUI and a familiar command line interface. Using the administration tool kit, network managers can view the status for a wide range of system parameters, enable services on the fly and automate configuration using XML-RPC. Leveraging extensible APIs, application and network intelligence can be integrated with third-party monitoring and management or exported for optimizing complementary data center systems.

Appliance Options

AppVelocity-S is available for Array's full line of APV Series Application Delivery Controller appliances, including the APV1600 and APV1600T for the mid-market and small enterprises, the APV2600, APV4600 and APV5600 for small to medium enterprises and service providers and the APV6600, APV8600, APV9600 and APV9650 for large enterprises and cloud service providers.

Load Balancing & Acceleration

Load Balancing & Traffic Management	Layer 2-7 policy and group management -- Layer 2-7 application load balancing -- Content routing and switching -- Server persistence -- Application and server health checks -- VLAN, NAT and IPv6 support -- N+1 clustering
Application Acceleration	Auto redirect HTTP to HTTPS -- TCP connection multiplexing -- High-speed HTTP processing -- Adaptive compression -- Dynamic caching

SSL Acceleration

Hardware SSL processing -- SSLv3 and TLSv1 -- 2048-bit maximum cipher key size (RSA) -- End-to-end security (Server-side SSL communication) -- SSL session reuse and timeout control -- Cipher strength reduction -- Customizable cipher suite order -- Customizable SSL error pages -- Sharable to multiple SLB services -- SSL self-check

Client Certificate Support

Client-Server Certificate Management	CSR and private key generation -- Self-signed certificate support -- Import certificate and private key -- Import certificate format -- Extensive certificate support -- Certificate backup and restore -- Wildcard certificate support
Client Certificate Authentication & Authorization	Turbo client certificate verification -- Root and intermediate CA import -- Basic client certificate verification -- Certificate chain support -- Certificate revocation list (HTTP, FTP, LDAP) -- Online certificate status protocol (OCSP, HTTP/HTTPS) -- Certificate-based access control -- Inside SSL server, two-way certificates
Client Certificate Application Integration	Parse client certificate field information with different language/encoding -- Pass individual field/group and field/customer format to back-end applications -- HTTP header, URL and cookie -- Integrated with proxy rewrite -- Detailed SSL statistics

Security

Hardened OS -- Secure access only, access control based on client certificate information and access method -- Customer configurable SSL/TLS version, cipher suite and minimum cipher strength -- Tamper-proof key and certificate protection -- WebWall stateful packet-inspection firewall -- Over 1000 ACL rules without performance degradation -- Proxy-based firewall -- TCP syn-flood protection -- Flash and surge event protection -- DoS protection -- HTTP access method control -- URL filtering

Management

Centralized cluster management -- Secure CLI, WebUI and SSH remote management -- XML-RPC for integration with 3rd party management and monitoring -- SNMP V2/V3 and private MIBs -- Syslog (UDP or TCP) -- Administrator and operator account management -- E-mail, paging and alerting capability -- Multiple configuration files and unit configuration synchronization -- Online troubleshooting -- Real-time monitoring

Optional

Global Server Load Balancing (GSLB)	Application availability from multiple locations worldwide -- DNS DoS protection -- Global site/service selection -- Proximity and IP persistence -- Load balancing between multi-site SSL VPN deployments
NetVelocity	Link Load Balancing for optimizing WAN performance and availability

