

Link Load Balancing

NetVelocity link load balancing with advanced failover and bandwidth management optimizes the availability, security and performance of enterprise applications and IP data services across multiple WAN connections.

Powered by Array SpeedCore™, NetVelocity intelligently analyzes wide area connections to allocate bandwidth, assign priority and enable seamless failover for business-critical applications. Available for Array's APV Series Application Delivery Controllers and engineered for the modern data center, NetVelocity guarantees uptime and service level agreements, improves the end-user experience and reduces bandwidth costs and data center complexity.

Highlights & Benefits

- Delivers enterprise and service provider-class reliability and availability for applications, IP data services, Web sites and VPNs across multiple WAN connections
- Intelligent policy-based routing directs traffic over optimal WAN links and ISPs for the highest quality end-user experience
- Real-time monitoring of WAN links and connections for health, performance and utilization
- Efficiently utilizes WAN bandwidth leveraging advanced techniques including bandwidth management, compression and rate shaping
- Integrated acceleration, optimization and server offload for boosting application performance
- Minimizes bandwidth costs and maximizes connectivity by aggregating multiple low cost links
- Global server load balancing with multi-unit clustering for 99.999 % uptime and guaranteed SLAs for business-critical applications
- Hardened OS and reverse-proxy architecture with a stateful packet inspection firewall for guarding networks, applications and data without impacting performance and availability
- IPv6/IPv4 dual stack support for addressing IPv4 depletion
- 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 APV 600 Series Application Delivery Controller appliances

Wide Area & Multi-Site Availability

NetVelocity is a comprehensive link load balancing and global server load balancing solution that ensures five nines availability for wide area connections and geographically dispersed sites. NetVelocity link load balancing with end-to-end health monitoring and dynamic routing detects outages and monitors performance in real time to distribute traffic across multiple WAN connections for a premium, always-on end-user experience. Ideal for distributed applications, multi-site architectures and business continuity planning, NetVelocity global server load balancing directs traffic away from failed data centers and intelligently distributes services between sites based on proximity, language, capacity, load and response times for maximum performance and availability.

Intelligent Traffic Management

Performing inbound and outbound link load balancing based on preset and user-defined algorithms, NetVelocity directs traffic across routes optimized for maximum stability and performance. Advanced NAT manages outbound IP addressing for transparent use of heterogeneous WAN links and PAT allows a single public IP address to be used by multiple hosts on a private network. Additional intelligent traffic management features include IPv6 support, VLANs, port forwarding, port and link redundancy and the ability to bundle multiple low-cost links to improve bandwidth utilization and reduce costs.

Application Performance

NetVelocity shapes application traffic on WAN links to improve bandwidth utilization and end-user response times. Supporting user-defined QoS policies, NetVelocity prevents bandwidth intensive applications from over-utilizing WAN links and ensures essential applications are prioritized to meet service level agreements.

Supporting additional QoS and acceleration features including filters, class-based queues, adaptive compression, dynamic caching, connection multiplexing and high-speed HTTP processing, NetVelocity link load balancing and global server load balancing solutions are distinguished by their ability dramatically improve application performance.

Multi-Layer Web Security

NetVelocity is security-hardened to protect internal applications and servers from L4 and L7 DDoS attacks, and supports content filtering to guard against Syn-flood, tear drop, ping-of-death, Nimda, Smurf and other malicious attacks. NetVelocity also integrates extensive access control lists, network address translation and stateful packet flow inspection to guard against unauthorized access.

Management Integration

NetVelocity 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.

Availability & Traffic Management

Link Load Balancing	Outbound: round robin , weighted round robin, shortest response time, target proximity/dynamic detection – Inbound: round robin -- weighted round robin -- target proximity/dynamic detection -- integrated DNS
Layer 4 Load Balancing	Intelligent routing optimizes each load balancing method for maximum performance -- Supports TCP, TCPS and UDP protocols -- Round robin, weighted round robin, least connections, shortest response time and persistence IP -- Radius and DNS servers
Clustering & Health Management	Up to 32 nodes -- Ensures availability and performance of applications over WAN links from a single point of management -- Automatic ISP failover -- Active/active, active/standby -- Fast failover via USB ports -- Configuration synchronization -- Link health checks based on physical port, ICMP and user-defined L4 -- Bind multiple health checks, application-specific VIP health checks, next gateway health checks, destination path health checks
WAN Traffic Management	Policy-based routing based on port, source/destination IP, UDP protocols, TCP -- RIPv1, RIPv2 and OSPF support -- Return to sender (RTS)/IP flow persistence -- Port forwarding, link aggregation and port redundancy -- Transparent to VPN remote access
Networking	Link aggregation, VLAN/MNET, NTP -- Static and port-based NAT, advanced NAT for transparent use of multiple WAN links -- Optional IPv6 to IPv4 and IPv4 to IPv6 NAT and full IPv6 addressing

Application Performance

Rate Shaping	Guarantees application performance -- Rate shaping for setting user-defined rate limits on critical applications -- QoS for traffic prioritization -- Supports CBQs and borrow and unborrow bandwidth from queues -- Supports QoS filters based on ports and protocols including TCP, UDP and ICMP
Application Performance	Dynamic detect -- Client connection persistence -- IEEE 802.3ad link aggregation -- TCP buffering -- Optional AppVelocity and AppVelocity-S, TCP connection multiplexing, high-speed HTTP processing, dynamic caching, adaptable compression and SSL acceleration

Security

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
AppVelocity and AppVelocity-S	Advanced Layer-7 traffic management, TCP connection multiplexing, high-speed HTTP processing, adaptive compression, dynamic caching and SSL acceleration

