

This Former Spirent Business is Now Part of VIAVI

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To learn more about VIAVI, visit viavisolutions.com/en-us/spirent-acquisition



Spirent Avalanche

Application Performance Testing Solution

Spirent's Avalanche Layer 4-7 testing solution provides capacity and performance testing for network devices and solutions, cloud and virtual environments, Web application infrastructures and media services that ensures Quality of Service (QoS) and Quality of Experience (QoE) for your customers. Avalanche pinpoints network capacity with the highest performing Layer 4-7 traffic generation capability available from 1Gbps to >100Gbps. Avalanche allows your testing environment to stay current. It is the first solution to offer full client and server HTTP/3 testing support for next generation web testing use cases.

Application

- Network Performance Testing
- Web Application Testing
- Latest application testing with HTTP/2 and HTTP/3 support
- · Advanced high-capacity HTTPS cryptographic load testing
- Media Testing
- Cloud and Virtual Network Testing
- SSL VPN and IPSec Testing

Features and Benefits

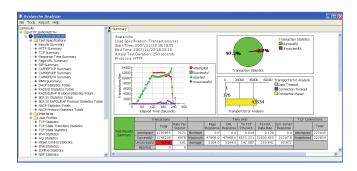
Over 100Gbps of Stateful Traffic Generation—Spirent Avalanche provides the capability to generate stateful traffic from 1Gbps to multi 100Gbps rates via native interfaces for scale and performance testing for the most demanding of environments. Multiple systems can be used in a single test creating vast amounts of application traffic.

Flexible Load Profile—Spirent Avalanche's flexible load profile offers testers the flexibility to specify load variables such as connections per second, concurrent connections, transactions per second, new user sessions per second and concurrent users.

Real-Time Statistics—Spirent Avalanche offers real-time statistics across all protocols and a reporting tool that makes analyzing results faster and easier.

Network Devices Performance Testing—Spirent Avalanche provides performance and capacity testing on a variety of network devices including: Firewall, Virtual Devices, Application Firewall, Load Balancer, Cache, Proxy, URL Filter, Content Filter, SD–WAN, SASE, Anti–Virus, Anti–Spyware, Reverse–Proxy, HTTP/HTTPS Accelerator, SMTP Relay, IDS/IPS, IPSec VPN Gateways, OpenConnect supported SSL VPN, and more.

Application Server Performance Testing—Spirent Avalanche can validate performance of several types of real services including: Web, Application, Mail, DHCP, FTP, DNS, Telnet, RTSP/RTP QuickTime Streaming, Multicast, HTTP Adaptive Bitrate Streaming, and more.



Avalanche Analyzer

Media Testing—Spirent Avalanche performs media testing and service verification from the user's point of view with realistic voice calling, HTTP Adaptive Bitrate streaming, unicast and multicast streaming video, and simulates Internet data traffic using static IP address or IP address assignment by DHCP over PPPoE, VLAN and Stacked VLANs (e.g., Q-in-Q).

Web Application Testing—Spirent Avalanche performs
Web application testing including: Web services, ERP and
CRM applications with Spirent Avalanche's application
testing capability to support cookie, session ID, dynamic
link, automatic follow redirect, additional header, content
validation, SOAP message, think time, variable think time and
variable assignment.

Cryptographic Load Testing—Spirent Avalanche provides extensive functional and performance testing for secure network communication, and user authentication including: IPSec, HTTPS/TLS (including TLSv1.3), DNSSEC, DNS over TLS, SSL VPN, 802.1x, Network Access Control (NAC), RADIUS and custom user imported traffic over TLS.

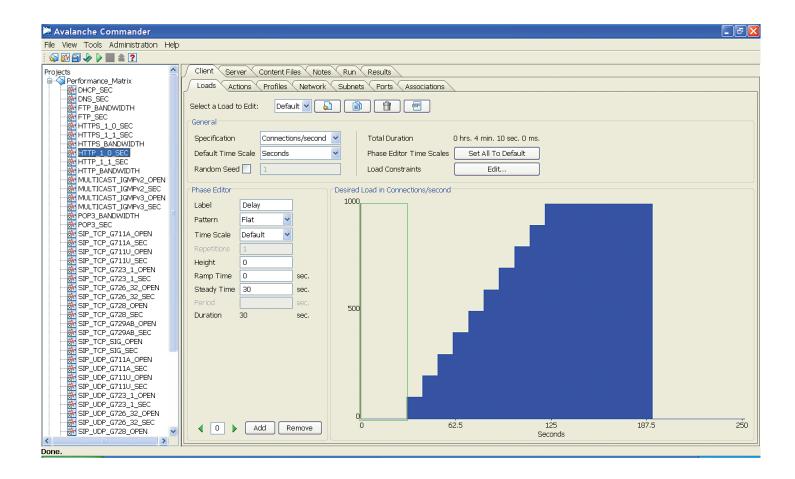
SSL VPN—Spirent Avalanche supports tunnel setup and data traffic throughput capacity testing over a growing set of OpenConnect compatible SSL VPN versions. Create comprehensive scale and accuracy tests with full control over data plane traffic profiles.



| Spirent Avalanche | | |
|-------------------------|---|--|
| Available Platforms | • CF30 Self-Contained Appliance 1U 8 x 1G/10G | |
| | C100-S3 High Performance Appliance 3U 16 x 1G, 8 x 10G, 16 x 10G, 4 x 25G, 4 x 40G, 4 x 50G, 4 x 100G | |
| | C200 Slim-lined Ultra Performance Appliance 1U 8 x 10G, 16 x 10G, 4 x 25G, 4 x 40G, 4 x 50G, 4 x 100G | |
| | CF400 High-Density Carrier Class Performance Appliance 2U, 8 x 40G, 8 x 100G | |
| | CyberFlood Virtual ESXi or KVM instances—flexible scalability | |
| | Amazon AWS, Azure, and Google Cloud (GCP) Deployments for use in cloud environments | |
| Network Access Protocol | DHCP, PPPoE, PPTP, IPSec (IKEv1 and IKEv2), SSL VPN for Cisco and Palo Alto Networks Global Protect™ | |
| Network Realism | Line speed limitation, network latency, packet loss and fragmentation | |
| IP Version Supported | IPv4 and IPv6 (including DSLITE) | |
| Encapsulation Protocol | 802.1Q and 802.1 Q-in-Q | |
| Transport | TCP, UDP, SSLv2, SSLv3, TLS v1.0, TLS v1.2, TLS v1.3, QUIC | |
| Data Protocol | HTTP, HTTP/2, HTTP/3, HTTPS, FTP (Active/Passive), DNS, DNSSEC, DNS over TLS, DNS over HTTPS, TELNET, SMTP, POP3, IMAP4, EMAIL over SSL, RADIUS, MM4, ICMP, CIFS and Capture/Replay | |
| Extended Protocols | BitTorrent, Gnutella, MSN, Yahoo, SKYPE, SQL, MYSQL, Oracle, SMB, NFS, Remote Desktop, Exchange, LDAP | |
| Authentication | 802.1x, Network Access Control (NAC), Radius | |
| Voice Protocol | SIP over TCP/UDP | |
| Voice Codec Supported | G.711A, G.711U, G.723.1, G.726–32, G.728 and G.729AB | |
| File Access Protocol | CIFS and NFS | |
| Video Protocol | HTTP Adaptive bit rate streaming for Apple, Adobe, Microsoft and DASH, ABR over SSL, Unicast Streaming Quicktime RTSP/RTP, Unicast Streaming Real Network RTSP/RTP, Unicast Streaming Microsoft MMS, Multicast Streaming IGMPv2, IGMPv3 and MLDv2, and Flash Media Streaming using RTMP/RTMPT | |
| Video Codec Supported | MPEG-1, H.261, MPEG-2. H.262, MPEG-4. H.264 | |
| Reporting | Integrated CSV test results analyzer fully customizable with report generation in PDF and HTML; also provides over 300 statistics per IP address | |
| Automation | GUI to Tcl API | |

Spirent Avalanche





NetSecOPEN Testing

Standards-based realistic mixed traffic testing is available for Avalanche.

NetSecOPEN is a networking industry group where networking vendors, tool vendors, labs and enterprises collaborate to create open and transparent testing standards. The goal of this group is to create a suite of standards that can be used for the evaluation and/or certification of network devices and solutions. The NetSecOPEN standard tests in Avalanche provide an easy-to-use template for testing modern network devices. For more information on NetSecOPEN, go to www.netsecopen.org.



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About Spirent

Spirent Communications (LSE: SPT) is a global leader with deep expertise and decades of experience in testing, assurance, analytics and security, serving developers, service providers, and enterprise networks. We help bring clarity to increasingly complex technological and business challenges. Spirent's customers have made a promise to their customers to deliver superior performance. Spirent assures that those promises are fulfilled.

For more information visit: www.spirent.com

Spirent Professional Services

Professional Services

- Test lab optimization: Test automation engineering services
- Service deployment and service-level optimization: Vendor acceptance testing, SLA benchmarking, infrastructure and security validation
- Device scalability optimization: POC high scalability validation testing

Education Services

- Web-based training: 24/7 hardware and software training
- Instructor-led training: Hands-on methodology and product training
- Certifications: SCPA and SCPE

Implementation Services

 Optimized new customer productivity with up to three days of on-site assistance

Ordering Information for C100/C200 Appliances

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|---|-------------------|
| Description | Part Number |
| Avalanche ABR Video Streaming Client Server | CMP-ASW-ABR |
| Avalanche Application Testing Client Sever | CMP-ASW-APP |
| Avalanche CIFS Client Server | CMP-ASW-CIFS |
| Avalanche DHCP Client Server | CMP-ASW-DHCP |
| Avalanche DS-LITE Client Server | CMP-ASW-DSLITE |
| Avalanche Email Over SSL-SMTP, POP3, IMAP | CMP-ASW-EMAIL-SSL |
| Avalanche GTP SGSN-GGSN | CMP-ASW-GTP |
| Avalanche HTTP/2 Protocol Support | CMP-ASW-HTTP2 |
| Avalanche IPSEC Client | CMP-ASW-IPSEC |
| Avalanche IPV6 Client Server | CMP-ASW-IPV6 |
| Avalanche SMTP POP3 IMAP4 Client Server | CMP-ASW-MAIL |
| Avalanche Multimedia Messaging SVC MM4 Client SVR | CMP-ASW-MM4 |
| Avalanche 802.1X NAC | CMP-ASW-NAC |
| Avalanche NFS Client | CMP-ASW-NFS |
| Avalanche PPTP Protocol Pilot Packet | CMP-ASW-PILOT |
| Avalanche PPP Over Ethernet Client Server | CMP-ASW-PPP |
| Avalanche PPTP Protocol | CMP-ASW-PPTP |
| Avalanche HTTP/3 and QUIC Protocol | CMP-ASW-QUIC |
| Avalanche Radius Client | CMP-ASW-RAD |
| Avalanche RTMP Client | CMP-ASW-RTMP |
| Avalanche SAPEE Protocol Emulation Environment | CMP-ASW-SAPEE |
| Avalanche SIP Client Server | CMP-ASW-SIP |
| Avalanche SSL Client Server | CMP-ASW-SSL |
| Avalanche Video Streaming Unicast | CMP-ASW-UNICAST |
| Avalanche Video on Demand Multicast Client Server | CMP-ASW-VOD |
| | |

Available in license bundles for CF30 and CF400 Appliances.

Licenses are also available on compatible STC modules.

Please contact your Spirent sales representative for more details, including Ordering Information for other test devices and CFv.

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