Avalanche

IPSec Testing

Application Performance Testing Solution

Road warriors, telecommuters and business partners all rely on the secure communications capabilities offered by IPSec. VIAVI Avalanche enables Network Equipment Manufacturers, Service Providers, and Enterprise customers to realistically test their IPSec VPN gateways and cloud-based IPSec deployments.

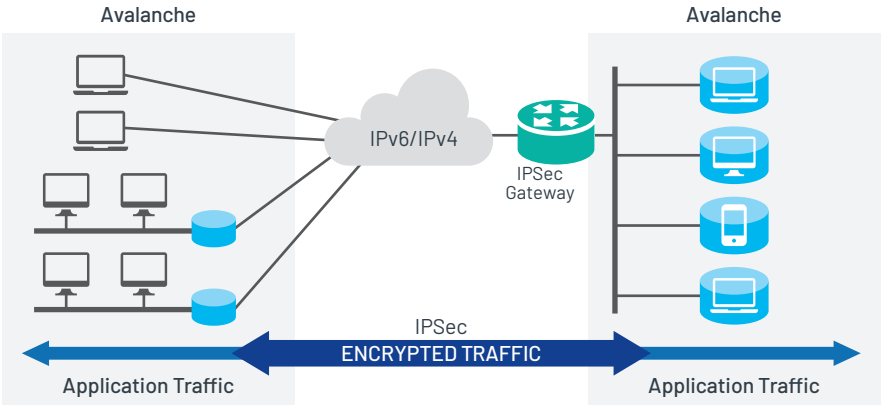
Benefits

VIAVI Avalanche IPSec feature provides complete performance assessment of IPSec gateways to quickly understand and correct deficiencies before deployment. The use of real application protocols over encrypted tunnels is the best way to truly understand the gateway's effect on user experience.

- **Quicker Time to Test:** Integrated IPSec allows full performance characterization of gateways, leading to faster production roll-outs
- **Avoiding Downtime:** High-performance testing with real traffic identifies proper sizing for your environment while providing comprehensive statistics to locate problem areas
- **Investment Protection:** Support for both IPv4 and IPv6 ensures testing needs can be supported now and for future generation testing
- **Minimizing Cost:** IPSec is a fully integrated Avalanche application that supports many use cases, minimizing the number of test applications to learn
- Comprehensive statistics quickly identify problem areas
- **Tunnel Control:**
  - Persistent and non-persistent tunnels
  - IKE Message Retry timers
    - Max Retry
    - Expire timers
  - Commit Bit support
  - Advanced Re-Keying events capabilities
    - Phase 1 Reconnect
    - Phase 2 Re-Key with old key timer
    - SA lifetimes

Applications

- Compare application performance with and without IPSec
- Test user data, voice, and video over IPSec tunnels
- Determine maximum tunnel capacity of IPSec gateways
- Measure tunnel set-up and tear-down rates
- Test IPSec tunnel set-up, tear-down and encryption inside the cloud
- Find maximum tunnel throughput
- Test IPSec services over cloud and virtualized environments and devices
- Analyze the effects of aggressive tunnel re-keying
- Measure the user experience through encrypted tunnels
- Support for IKEv1 and IKEv2 for demanding IPSec applications
- Emulate IPSec deployment scenarios for IPv4 and IPv6 networks, including:
  - IPv4 over IPv4
  - IPv4 over IPv6
  - IPv6 over IPv6
- Test site-to-site and remote access tunnels



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Technical Specifications

Product Feature	Description
IPSec Protocols	• AH+ESP • Tunnel Mode
IPSec Parameters	• Main Mode and Aggressive Mode • Authentication - Pre-Shared Keys - X.509 Certificates - RSA Digital Signatures/Certificates • Initial Contact Support • Configurable Vendor ID • Extended Authentication (XAuth) - ModeConfig address assignment - Generic (username and password) - RemoteVPN - Nortel Contivity - Checkpoint Hybrid • IKE Phase 2 - Quick Mode - Perfect Forward Secrecy (PFS) - Dead Peer Detection • Tunneling and Encryption over IPv4 and IPv6 - Support for IKEv1 and v2 - IKEv1 Encryption Support - DES, 3DES, ESPNULL, AES-128, AES-192, AES-256, AES-128-GCM-8, AES-256-GCM-8, AES-128-GCM-12, AES-256-GCM-12, AES-128-GCM-16, AES-256-GCM-16, AES-128-GMAC, AES-192-GMAC, AES-256-GMAC, HASH: HMAC-MD5 and HMAC SHA -1 Diffe-Hellman Groups: 1, 2, 5, 14, 15, 16, 19, 20, and 24 - IKEv2 Encryption Support - DES, 3DES, ESPNULL, AES-128, AES-192, AES-256, AES-128-GCM-8, AES-256-GCM-8, AES-128-GCM-12, AES-256-GCM-12, AES-128-GCM-16, AES-256-GCM-16, AES-128-GMAC, AES-192-GMAC, AES-256-GMAC, HASH: HMAC-MD5, HMAC SHA -1, AES-XBCB-MAC, SHA-256, SHA-384, SHA-512 Diffe-Hellman Groups: 1, 2, 5, 14, 15, 16, 19, 20, and 24 - Supports thousands of site-to-site tunnels per-test - Persistent and non-persistent tunnels - IKE Message Retry timers • Max Retry • Expire timers - Commit Bit Support - Re-Keying • Phase 1 Reconnect • Phase 2 Re-Key with old key timer • SA Lifetimes

Ordering Information

Available in license bundles for CyberFlood appliances.

Part Number	Description
CMP-ASWB-EPK-CF50	Avalanche Expansion Pack License for the CF50 Appliance
CMP-ASWB-EPK-CF400	Avalanche Expansion Pack License for the CF400 Appliance
CMP-ASWB-EPK-CF1000	Avalanche Expansion Pack License for the CF1000 Appliance

Please contact your VIAVI sales representative for more details, including ordering information for CyberFlood Virtual.

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