Spirent **CyberFlood**

IPSec Testing

Applications

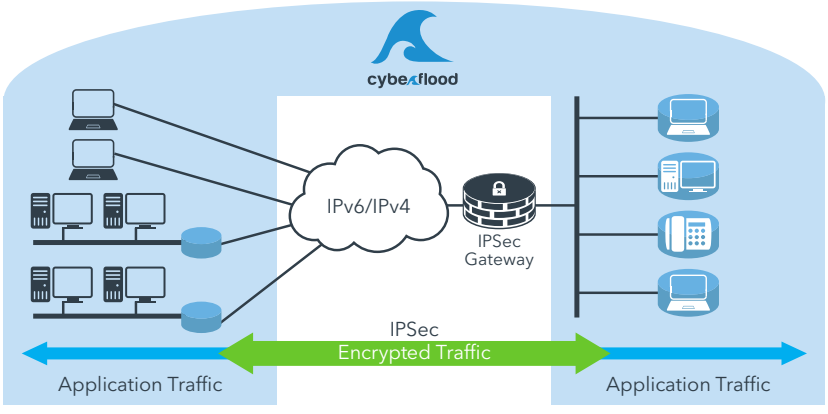
- Compare application performance with and without IPSec
- Easily setup comprehensive IPSec remote access and site to site test with CyberFlood intuitive interface
- Test user data over IPSec tunnels
- Determine maximum tunnel capacity of IPSec gateways
- Measure tunnel set-up and tear-down rates
- Test IPSec tunnel set-up, tear-down and encryption inside the cloud with CyberFlood Virtual for on Premises and cloud environments
- 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
  - IPv6 over IPv4
- Test site-to-site and remote access tunnels

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

Benefits

Spirent CyberFlood's 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 CyberFlood 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



Technical Specifications

IPSec Security 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
  - Checkpoint Hybrid
- Initial Contact Payload
- IKE Phase 2
  - 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

Description	Part Number
CyberFlood Advanced Mixed Traffic Assessment for C100 C200	CF-SW-ADV-C100-C200
CyberFlood Advanced Mixed Traffic Assessment for CF20	CF-SW-ADV-CF20
CyberFlood Advanced Mixed Traffic Assessment for C100 C200	CF-SW-ADV-C100-C200
CyberFlood Advanced Mixed Traffic Assessment Cyberflood Virtual	CFV-SW-ADV

Contact Us

For more information, call your Spirent sales representative or visit us on the web at www.spirent.com/ContactSpirent.

www.spirent.com

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Rev A | 07/20