

SPIRENT LANDSLIDE

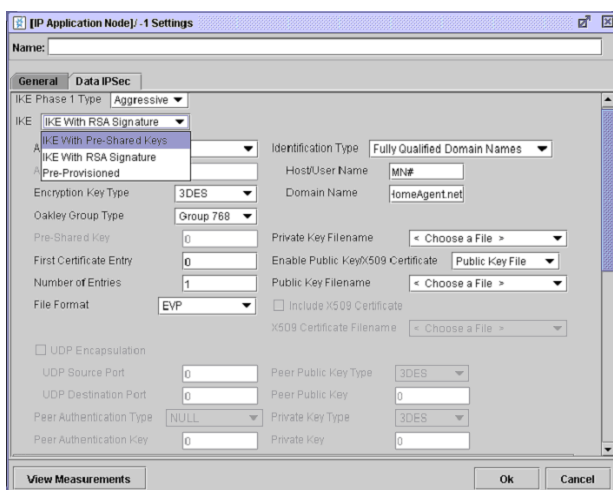
DYNAMIC IPSEC OPTION

The Landslide™ Dynamic IPsec (Internet Protocol Security) Option by Spirent Communications tests the performance and accuracy of IPsec transactions, and models the customer experience when using secure transmissions. The IPsec option can be used with any Spirent wireless packet data test application.

IPsec protects traffic between two peers by authenticating the sender, ensuring packet integrity and by encrypting the packets. A peer is any network element with IPsec capability. A security gateway, Home Agent and GGSN are considered peers. Two such peers negotiate one or more Security Associations (SA), which consists of keys that allow the peers to tunnel traffic over IPv4 or IPv6. The user may define IKE authentication and encryption methods, and provision each of the SAs (tunnels). A combination of protocol type, payload ID destination and ESP data mode determines which packets are protected by each SA.

APPLICATIONS

- Validate system scalability and identify capacity limits
- Measure call/data performance
- Characterize system before trial/delivery
- Identify performance ceilings
- Enable accurate capacity planning



IPsec Configuration Tab

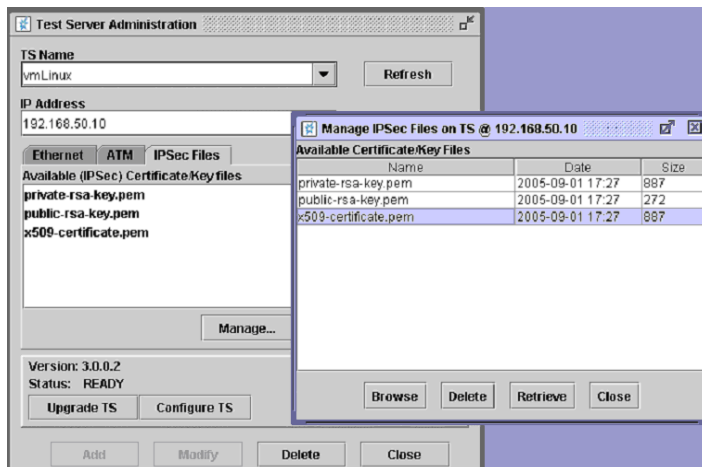
FEATURES & BENEFITS

- Realistic, real-world simulations allow equipment vendors to accurately specify the performance characteristics of their equipment under real-world conditions
- Simultaneous control and user plane allows service providers to measure the performance of their network and to validate new features and services in the lab
- Unmatched scalability for the user to simulate subscriber loads ranging from a small rural town to the largest metropolitan city
- Standard Web browser interface means there is no need to load software onto user equipment
- Emulation of multiple network elements for the user to test in a variety of network topologies providing more effective utilization of lab equipment and reducing capital expenditure and ongoing support costs associated with a test lab
- Automation control so the user can run many test cases simultaneously or serially on multiple Landslide test servers, creating real-world scenarios for heavy load and long duration stability tests
- TCL Interface for the user to control/monitor the Landslide from a higher level management system, making it possible to compile specific test reports for both the emulation (Landslide) and the device under test
- IPsec Accelerator—Each Landslide test server uses an IPsec accelerator card for testing; this card supports dynamic IPsec tunnels
- IPsec with Application Data—The Dynamic IPsec Option encrypts basic or advanced data in the Landslide applications. IPsec tunnels are established when the emulated sessions are activated and torn down when the emulated sessions are deactivated.

SPIRENT LANDSLIDE DYNAMIC IPSEC OPTION

FEATURES & BENEFITS (CONTINUED)

- IPSec with Control Messages—IPSec can protect control traffic between the following:
 - FA and HA in Landslide CDMA
 - Client and server in Landslide AAA Diameter
 - Client and server in Landslide DCCA
 - UE and Security Gateway in Landslide Convergence applications
 - IMS Security Testing in Landslide applications with advanced data
 - MIPv6 messaging between an emulated node and an HA
- Digital Certificates—Landslide allows the user to generate RSA public and private keys, and signed X.509 certificates with the Certificate Authority (CA) that runs on the test server. Users may also import their own keys and certificates.



Certificate Management

TECHNICAL SPECIFICATIONS

- Landslide Test Server (without performance accelerator)
 - 200,000 simultaneous tunnels without per session certificates
 - 100,000 simultaneous tunnels with per session certificates
 - Up to 4 tunnels per emulated node
 - Up to 200 SAs per second using pre-shared key
 - Up to 100 SAs per second using certificates
 - Up to 1.5 Gbps of encrypted traffic
- IKE Versions
 - IKEv1
 - IKEv2
- IKE Phase 1 types (IKEv1)
 - Main
 - Aggressive
- Authentication Options
 - IKE with pre-shared key
 - IKE with RSA
 - Pre-provisioned
- Authentication Types
 - HMAC96-MD5
 - HMAC96-SHA1
 - AES-XCBC-MAC96
- Encryption Key Types
 - NULL
 - 3DES
 - AES128
 - AES192
 - AES256

TECHNICAL SPECIFICATIONS (CONTINUED)

- Oakley Group Type
 - Group 768
 - Group 1024
 - Group 1536
 - Group 2048
- RSA Keys Supported
 - Private RSA
 - Public RSA
 - 509 certificate
- ESP Modes
 - Transport
 - Tunnel
- EAP Authentication
 - MD5
 - GTC
 - SIM
 - AKA
 - MSCHAPv2
 - TLS

SPIRENT LANDSLIDE DYNAMIC IPSEC OPTION

ORDERING INFORMATION	
DESCRIPTION	PART NUMBER
DHCP SERVER EMULATION Adds the DHCP server emulation to applications such as GPRS and Advanced/IP Data. Serial number or MAC ID of existing Landslide Manager required.	L-FT-006
Improves test server data throughput and control plane performance for mobility test applications. Price per test server. S/N or MAC ID required	L-FT-032-B

SPIRENT SERVICES

Spirent Global Services provides a variety of professional services, support services and education services—all focused on helping customers meet their complex testing and service assurance requirements. For more information, visit the Global Services Website at www.spirentcom.com/gs or contact your Spirent sales representative.

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