

SPIRENT LANDSLIDE

L2TP VPN/SECURE GATEWAY TEST APPLICATION

Spirent Communications' L2TP VPN/Secure Gateway performance test application is the only test tool that simulates real-world traffic models for testing L2TP network servers. The Landslide™ L2TP application is part of the Landslide family of test applications available on Spirent's proven Landslide platform.

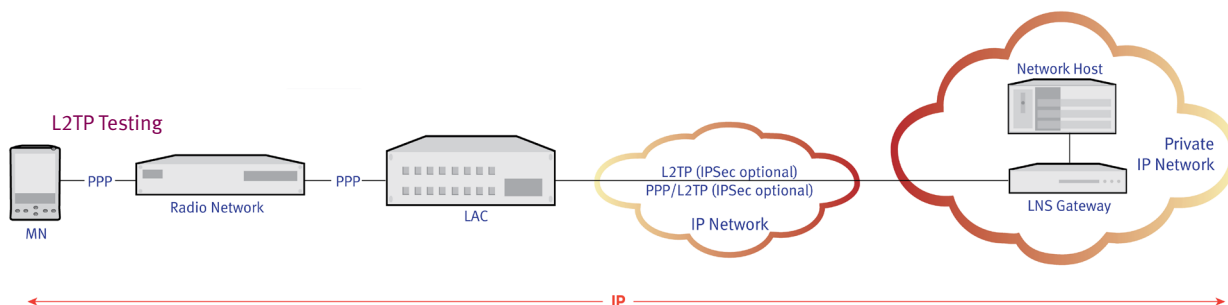
The L2TP Test Application can be used in a standalone mode or added to other applications such as the Landslide CDMA Test Application or the Landslide GPRS Test Application. The Landslide L2TP application provides a comprehensive end-to-end test system that emulates millions of data subscribers, all accessing private networks simultaneously via L2TP tunnels. By emulating key core packet data network elements and combining control plane and data plane simulation, Landslide L2TP provides real-world emulation of data subscribers in various stages of activation and deactivation—all while transmitting and receiving real-world application data.

The Landslide L2TP application allows LNS equipment vendors to accurately specify the performance characteristics of their equipment under the conditions experienced in their customer's networks. It allows service providers to measure the performance of their private network access and to validate new features and services in the lab. By simulating real users with real applications, Landslide L2TP gives the service provider peace of mind in knowing the transition from evaluation lab to live network will be smooth and free of performance problems.

The Landslide L2TP Server emulator feature provides a virtual LNS to support L2TP testing that is driven by test devices external to this test system. The virtual server includes Network Host functionality, can support both control and bearer plane testing, and will respond to any LAC that presents valid credentials. The L2TP Secure Network Server feature provides the same functionality as the L2TP Server emulator with the addition of IPSec support.

APPLICATIONS

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



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
- LAC Emulation – Use the LNS Nodal test case to test an L2TP Network Server (LNS) using the L2TP, IPSec and PPP protocols. The test system emulates one or more L2TP Access Concentrators (LAC), establishing L2TP tunnels and sessions with the LNS and listening for and responding to L2TP control messages from the LNS.
- LNS Gateway Emulation – The L2TP Network Server and L2TP Secure Network Server features provide a virtual LNS that can support test operations driven by another test system or tool

TECHNICAL SPECIFICATIONS

- Test Activities
 - Capacity Test
 - Session Loading
- Landslide Manager
 - Up to 125 user accounts
 - Up to 48 simultaneous users
 - Up to 32 Landslide test appliances
- Landslide Test Server (without performance accelerator)
 - 200,000 simultaneous sessions
 - Up to 1.8 Gbps of bearer traffic
 - Activate/deactivate up to 1,000 sessions per second
 - Up to 3 simultaneous users per test appliance
 - Emulate up to 1,000 LACs
- Landslide Test Server Ethernet ports
 - 4-port 10/100/1000Base-T NIC (P/N L-NIC-12)
 - 4-port 1000Base-SX NIC (P/N L-NIC-11)
 - Single-port 10 Gigabit XF SR NIC (P/N L-NIC-10)
- Physical Specifications
 - 3U, 19-inch rack-mount
 - 5.25" H x 16.53" W x 19.75" D
 - 31 lb. (14kg)
 - Operating environment: 5° C to 30° C
 - 100-240 V, 50/60 Hz, 6 A

TECHNICAL SPECIFICATIONS (CONTINUED)

- Referenced Standards
 - RFC 1918 Address Allocation for Private Internets
 - RFC 1661 Point-to-Point Protocol
 - RFC 1662 PPP in HDLC-like Framing
 - RFC 1332 The PPP Internet Protocol Control Protocol (IPCP)
 - RFC 1334 PPP Authentication Protocols
 - RFC 1962 The PPP Compression Control Protocol (CCP)
 - RFC 1974 PPP Stac LZS Compression Protocol
 - RFC 1979 PPP Deflate Protocol
 - RFC 1994 PPP Challenge Handshake Authentication Protocol (CHAP)
 - RFC 2759 Microsoft PPP Chap Extensions, Version 2
 - RFC 2865 Remote Authentication Dial In User Service (RADIUS)
 - RFC 2661 Layer Two Tunneling Protocol 'L2TP'
 - RFC 2401 Security Architecture for the Internet Protocol
 - RFC 2412 The OAKLEY Key Determination Protocol
 - RFC 768 User Datagram Protocol
 - RFC 791 Internet Protocol
 - RFC 792 Internet Control Message Protocol
 - RFC 793 Transmission Control Protocol

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L2TP VPN/SECURE GATEWAY TEST APPLICATION

ORDERING INFORMATION	
DESCRIPTION	PART NUMBER
LANDSLIDE L2TP TEST SYSTEM Includes one LANDSLIDE Manager and one LANDSLIDE test server with VPN/Secure gateway application and two quad copper NICs.	L-KIT-1008
TEST SERVER W/ L2TP Includes LANDSLIDE test server w/ L2TP application. Must be purchased as an expansion to an L2TP Test System. Requires two NICs which are sold separately. S/N or MAC ID of existing LANDSLIDE Manager required.	L-TS-1008
LANDSLIDE L2TP TEST SYSTEM SOFTWARE Includes software only for one Landslide Manager and one Landslide test server with L2TP VPN/Secure. SVC-6064 purchase required for installation of software on Manager and TS. NICs sold separately.	L-KIT-008-SW
LANDSLIDE L2TP TS SOFTWARE Landslide test server software for L2TP application. Must be purchased as an expansion to an L2TP Test System. Serial number or MAC ID of existing Landslide Manager required. SVC-6064 purchase required. NICs sold separately.	L-TS-L2TP-SW
L2TP SECURE NETWORK SERVER EMULATION Adds the L2TP server and IPSec emulation option to applications such as CDMA, GPRS and L2TP. Adds the ability for the Landslide to simulate a secure LNS server. SN or MAC ID of existing LS Manager required.	L-FT-009
LANDSLIDE L2TP VPN GATEWAY APPLICATION Adds L2TP VPN Gateway application to an existing Landslide Test system. Serial number or MAC ID of existing Landslide Manager required.	L-APP-008
L2TP SERVER EMULATION Adds the L2TP server emulation to a CDMA, GPRS, MIP or L2TP Landslide Test System. Adds the ability for the Landslide to simulate an LNS server. Serial number or MAC ID of existing Landslide Manager required.	L-FT-008
LANDSLIDE IP DATA APPLICATION Adds IP Data Application to an existing Landslide Test system. Serial number or MAC ID of existing Landslide Manager required.	L-APP-007
DYNAMIC IPSEC EMULATION Adds IPSec emulation to an existing Landslide Test System. IPSec accelerator must be ordered separately. Serial number or MAC ID of existing Landslide Manager required.	L-FT-004
LANDSLIDE IPSEC ACCELERATOR CARDS Provide hardware accelerated IPSec processing for Landslide Test Server. Requires L-FT-004 Dynamic IPSec Emulation feature. See sales rep for more information.	L-ACC-003 L-ACC-004
DATA THROUGHPUT ACCELERATOR LICENSE Improves test server data throughput for Landslide Test Applications. Price per test server. S/N or MAC ID required.	L-FT-032-A
PERFORMANCE ACCELERATOR LICENSE 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.spirent.com/gs or contact your Spirent sales representative.

AMERICAS 1-800-SPIRENT • +1-818-676-2683 • sales@spirent.com

EUROPE AND THE MIDDLE EAST +44 (0) 1293 767979 • emeainfo@spirent.com

ASIA AND THE PACIFIC +86-10-8518-2539 • salesasia@spirent.com

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