

Spirent Landslide™ C100-S2

Mobile Packet Core Performance Test System

Spirent's Landslide C100-S2 solution is a unified platform for testing the Performance, Availability, Security and Scale (PASS) of the mobile core network. The system enables the Landslide test application to scale to millions of subscribers with realistic busy-hour call/data models combining application traffic and complex 2G/3G/LTE and Wi-Fi mobility scenarios.

Solution overview

Designed to test secure app-aware mobile networks, the Landslide C100-S2 provides unprecedented performance resulting from Spirent's multi-core architecture with new hardware-assisted application, mobility and encryption acceleration.

The Landslide C100-S2 platform enables the Landslide application to provide the highest scale and most realistic mobile emulation while providing a significant increase in the amount of mobile application traffic over the previous generation. This paired with the new dual-port 10G interface significantly reduces the amount of equipment, power and connections required to test a high-performance mobile network.

Applications

Spirent Landslide has the ability to both test and emulate the nodes of the mobile core, and carrier Wi-Fi networks. Test cases include:

SPIRENT C100-S2 LANDSLIDE				
▪ 2G/3G/4G	▪ DRA	▪ IMS	▪ MTC/M2M	▪ SMS
▪ 3GPP/3GPP2	▪ eHRPD	▪ IP Data	▪ Network Mobility	▪ SRVCC
▪ AAA Diameter	▪ eMBMS	▪ IPsec	▪ NRV testing	▪ Test Automation
▪ AAA Radius	▪ Emergency PDNs	▪ IuCS	▪ Off line Charging	▪ UDR
▪ CAPWAP	▪ ePDG	▪ L2TP VPN Gateway	▪ On line Charging	▪ UMTS
▪ CDMA Fentocell	▪ Femtocell	▪ LCS	▪ PCRF	▪ Voice Quality
▪ CDMA2000	▪ GPRS	▪ LDAP	▪ Policy and Charging Control	▪ VoLTE/VoIP
▪ CSFB	▪ GRE	▪ MIPv4	▪ QoS/QoE	▪ Wi-Fi Offload
▪ DCCA	▪ HLR	▪ MME	▪ Reporting	▪ Wi-Fi RF
▪ Diameter	▪ Home NodeB	▪ Mobile Attacks	▪ Security Gateway	▪ WiMAX
▪ DPI Enabled Mobile Gateway	▪ HSS	▪ MSC	▪ SGW/PGW	▪ WLAN Gateway

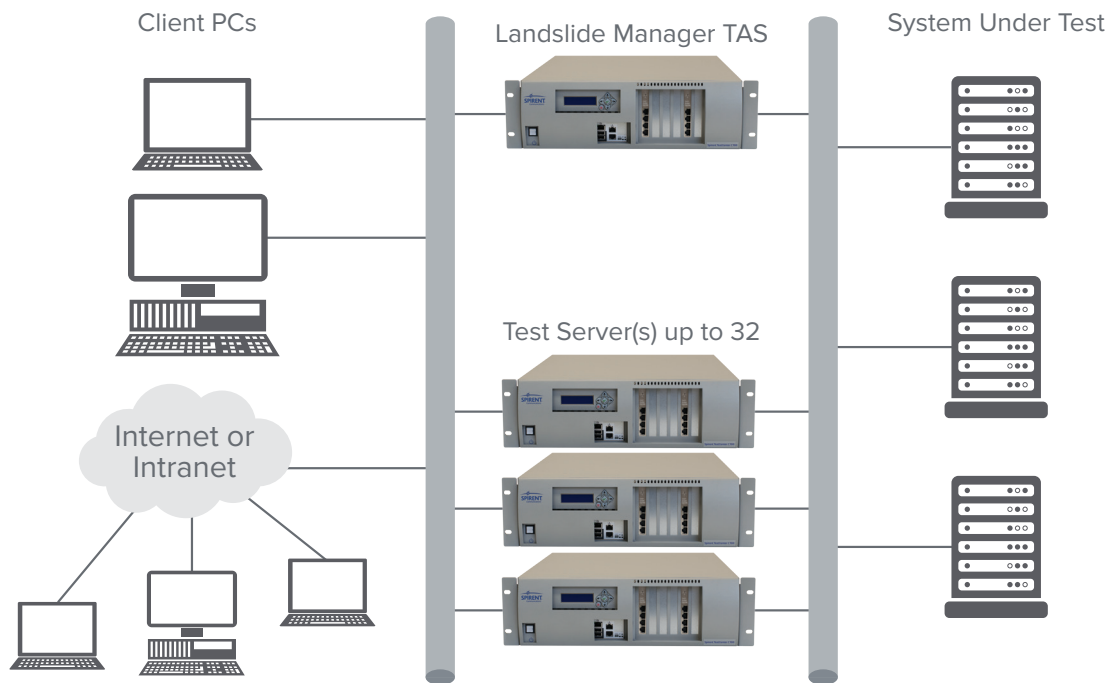


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Configuration

Landslide is composed of a Manager and 1 to 32 Test Servers. Test Servers are added to scale the capacity and throughput performance as required. The user has two options to control Landslide: using a standard web browser or via a Tcl API. Both connect to the Landslide Manager, which controls the Landslide Test Servers. The Landslide Manager supports up to 48 simultaneous users.



Technical specifications

Spirent C100-S2 Landslide

Dimensions	5.25"Hx16.53" Wx19.75"D Fits standard 19" rack, 3 U high
Weight	32 lbs. (14 kg)
Operating Environment	5°C–35°C
Non-Operating Environment	0°C–50°C
Relative Humidity	10%–90% (non-condensing)
Power Requirements	115-230V, 50/60 Hz–750W
Regulatory Approvals	FCC Class A EN 55022 Class A EN 55024
MTBF	47,416 hours

Client PC requirements

The following are hardware requirements for the Landslide Client:

- Minimum 1.5 GHz processor; 3.0+ GHz single-core or 2.0+ multi-core processor recommended
- Minimum 512 MB RAM; Recommended 2 GB RAM
- Minimum 50 MB available disk space; 200 MB recommended (excluding saved reports)
- 10/100 Base-T Ethernet connection
- Video adapter with at least 16 MB RAM, supporting a screen resolution of at least 1024 x 768 or higher
- 100 MB/1G Ethernet connection to the LAN

The following are software requirements for Landslide Client:

- Test system web pages are best viewed with Internet Explorer 10+ and Firefox 30+
- JavaScript and Java Web Start must be enabled in the browser
- Popup blockers should be disabled before starting
- Cookies should be allowed if you want your memory settings to save
- Java 7 (1.7.0) or later is required for Landslide Applications
- Java(TM) Runtime Environment 1.8.0 (Windows and Linux versions are supplied with the system; other versions can be downloaded from <http://java.sun.com/j2se/downloads.html>)

Ordering information

Landslide C100-S2

Landslide C100-S2 Test Systems—Includes one Landslide Manager and one Landslide Test Server with related application and two Quad-port GIGE copper NICs.

Part Number	Product Name	Test Coverage
L-KIT5001	Landslide GPRS Test System	GPRS based GGSNs
L-KIT5001-01	Landslide UMTS & GPRS (Iu-IP) Test System	Iu-IP interface
L-KIT5001-02	Landslide UMTS/GPRS GB Interface Test System	GPRS GGSNs and SGSNs with GbIP and IuIP interfaces
L-KIT5002	Landslide CDMA2000 Test System	CDMA2000
L-KIT5003	Landslide MIPv6 Test System	IP Sec accelerator must be ordered separately.
L-KIT5007	Landslide IP Data Test System	Includes Advanced/IP Data application for Testing WAP 1.2, WAP 2.0, MMS, RTSP, RTP, IMAP, TFTP, POP3, SIP, & Wireless Village
L-KIT5012	Landslide PCRF Test System	PCRF server
L-KIT5013	Landslide CSN Test System	WiMAX CSN
L-KIT5014	Landslide ASN-GW Test System	WiMAX ASN-GW
L-KIT5020	Landslide LTE Gateway Test System	LTE Gateway
L-KIT5021	Landslide LTE MME Test System	LTE MME
L-KIT5022	Landslide CDMA PCF Test System	CDMA PCF
L-KIT5023	Landslide SAMSUNG UBICELL Test System	Samsung Ubicell Dynamic IPSec, IPSec Accelerator card and IP Data Application must be purchased separately
L-KIT5024	Landslide CDMA-FEMTOCELL Test System	<ul style="list-style-type: none"> ▪ CDMA/Femtocell ▪ Requires L-FT-004 and L-ACC-004 sold separately
L-KIT5025	Landslide EHRPD Test System	eHRPD
L-KIT5037	Landslide HNB-GW Test System	<ul style="list-style-type: none"> ▪ SeGW/HNB-GW over Iuh and Iu-PS interfaces ▪ IPSec Accelerator & Dynamic IPSec required for Testing Iuh
L-KIT5038	Landslide Wi-Fi Offload GW Test System	WiFi Offload GW over WAN AP and S2a/b interfaces

Additional Test Server - Up to 32 Test Servers supporter per manager

L-C100-S2-TS	Landslide Add-on Test Server	Landslide Add-on Test Server—Must be purchased as an expansion to an existing Landslide Test System. Includes base software and upgraded System license. NICs purchased separately. Serial number & MAC ID of existing Landslide Manager required.
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Interface Modules - Each Test server can support a maximum of 4 interface modules

L-NIC-27	<ul style="list-style-type: none"> ▪ 2X10G SFP+ Performance Interface 	<ul style="list-style-type: none"> ▪ Includes two 10GBASE-SR 850nm MMF transceivers
L-NIC-32	<ul style="list-style-type: none"> ▪ Landslide Quad-port 10/100/1000 GIGE Fiber NIC 	<ul style="list-style-type: none"> ▪ Quad-port Gigabit Ethernet fiber module
Wi-Fi NIC	<ul style="list-style-type: none"> ▪ Landslide Quad-port 10/100/1000 GIGE Copper NIC 	<ul style="list-style-type: none"> ▪ Quad-port Gigabit Ethernet copper module

Contact your Spirent Sales Representative for more information.

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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 or contact your Spirent sales representative.

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:** 24x7 hardware and software training
- **Instructor-led training:** Hands-on methodology and product training
- **Certifications:** SCPA and SCPE certifications

Implementation Services

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

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