

# Spirent **Avalanche**

## GTP Mobility Firewall Testing

### Application and Security Testing Solutions

By simultaneously emulating millions of mobile users tunneling between a 2G/3G SGSN and GGSN, or between a 4G Serving Gateway and PDN Gateway, Spirent Avalanche supports the testing of any device in the network that operates on user application streams embedded within a GTP-tunneled mobile packet core interface. The Avalanche GTP tunneling feature is specifically designed for testing the GTP-tunneled component of firewalls, DPI engines, load balancers, or video offload gateways located within any 3GPP Mobile Packet Core.

### Applications

- Verify the GTP tunnel component of firewalls, DPI engines, video offload gateways and load balancers
- Emulate millions of mobile users accessing internet data, ABR video and SIP-based voice
- Generate a comprehensive set of Avalanche applications embedded within GTP tunnels
- Correlate GTP-C tunnel control plane setup/teardown messaging with associated GTP-U tunneled application data
- Test extremely high control plane GTP tunnel creation/teardown rates
- Find maximum supported GTP tunnel throughput
- Find maximum supported GTP tunnel counts
- Analyze firewall and DPI performance for GTP tunnels

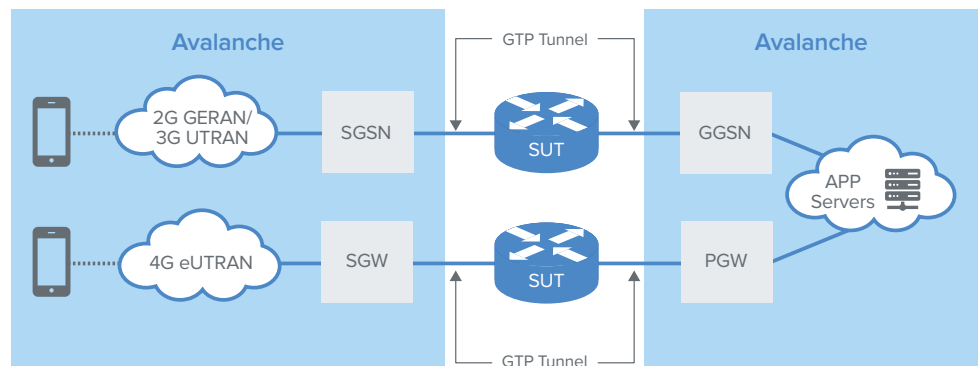


Fig 1: Avalanche GTP Tunnel Emulation

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### About Spirent Communications

Spirent Communications (LSE: SPT) is a global leader with deep expertise and decades of experience in testing, assurance, analytics and security, serving developers, service providers, and enterprise networks.

We help bring clarity to increasingly complex technological and business challenges.

Spirent's customers have made a promise to their customers to deliver superior performance. Spirent assures that those promises are fulfilled.

For more information, visit: [www.spirent.com](http://www.spirent.com)

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### Technical Specifications

- Per mobile GTP tunnel establishment/tear down control messages
- Mobility node emulation (paired)
  - SGSN client emulation/GGSN server emulation (Gn interface)
- GTP Control and data messages/tunnels
  - **GTP-Cv1**: PDP context activation and initial detach procedures per 3GPP TS 23-060
  - **GTP-Cv2**: Initial attach and detach procedures per 3GPP TS 23-401
  - **GTP-Uv1**: Encapsulated Avalanche application data per 3GPP TS 29-060
- User specified GTP parameters
  - Mobile IMSI and ISDN
  - APN name
  - Fixed or random TEID assignment
  - GTP echo request
  - QCI (QoS class identifier) value

### Ordering Information

Description	Part Number
Avalanche Commander GTP SGSN-GGSN for CF20	CMP-ASW-GTP-CF20
Avalanche Commander GTP SGSN-GGSN for C100	CMP-ASW-GTP
Avalanche Commander GTP SGSN-GGSN for Compatible Spirent TestCenter Modules (full chassis)	BPK-1091A
Avalanche Commander GTP SGSN-GGSN for Compatible Spirent TestCenter Modules (2 Modules)	BPK-1091A-2XMOD

Available in license bundles for C1 and Avalanche Virtual.