



SPIRENT

SPIRENT APPLICATION LAYER PROTOCOL TEST SOLUTION

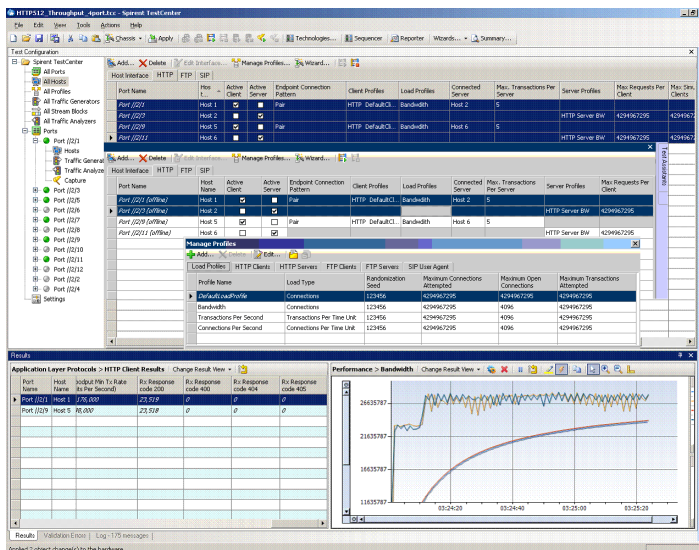
Spirent's Application Layer Protocols provide users the ability to analyze the impact on stateful traffic when conducting traditional benchmark tests such as Throughput, Latency and Loss. Measuring the impact to stateful traffic is essential in understanding the end-user experience. Spirent's Application Layer Protocols are real applications creating and measuring application response. The application impact is critical in determining Quality of Service (QoS) and Quality of Experience (QoE) in Triple Play environments. Combined with Spirent TestCenter™'s powerful FPGAs, Spirent's Application Layer Protocols provide performance analysis for Layer 2-7.

APPLICATIONS

- Layer 2-7 Testing
- Triple Play Testing
- Broadband Access Network Testing
- Router and Switch testing
- Testing Layer 2-7 in the cloud with Spirent TestCenter Virtual

FEATURES & BENEFITS

- For Triple Play, impact analysis of lower layer or background traffic on QoS can now be seen in the upper layer protocols and overall QoE of the end user
- The stateful traffic generation feature allows testing to be expanded beyond traditional switches and routers to include content aware devices such as firewalls
- The integrated GUI allows Layer 2-7 tests to be conducted through a single interface
- Combined results provide the ability to analyze information of Layers 2-7 through a single set of results, allowing for performance changes to be cross referenced with any changes in traffic generation
- Generate stateful traffic on different types of interfaces from 10Meg to 10G and compare the results at different points in the network
- Interactive interface allows parameters to be adjusted on the fly without stopping to analyze the impact in real time
- Bind access protocols provide the ability to bind connections to access protocols for additional realism
- Emulate SIP, HTTP and FTP Clients and Servers for complete test setup
- Create profiles for use across multiple Clients and Servers to reduce test creation time
- Detailed statistics can be viewed in real time as they occur, or at a later date for post analysis



TECHNICAL SPECIFICATIONS

- IPv4 and IPv6
- VLAN and QnQ
- Access Protocols: DHCP and PPP
- HTTP
 - Version 1.0 or 1.1
 - Client and Server
 - Parameters
 - Endpoint Connection Pattern (Pair, Backbone: Source, Destination, Interleaved)
 - HTTP Persistence, Pipelining, Delay, Delayed ACK
 - User Agent and Load Profiles
 - Max Transactions Per Server
 - Max Requests Per Client
 - Max Simultaneous Clients
 - Results
 - Intended Load
 - Attempted/Successful/Unsuccessful/Aborted Connections
 - Attempted/Successful/Unsuccessful/Aborted Transactions
 - Min/Max/Avg. Response Time
 - Min/Max/Avg. Goodput Tx/Rx Rates and by Bytes
 - Count of various Rx Response codes
- FTP
 - Client and Server
 - Parameters
 - Endpoint Connection Pattern (Pair, Backbone: Source, Destination, Interleaved)
 - User Agent and Load Profiles
 - GET
 - Active and Passive Data Transfer
 - Max Transactions Per Server
 - Transaction Interval
 - Max Requests Per Client
 - Max Simultaneous Clients
 - Results
 - Number of UAs
 - Intended Registration Load
 - Attempted/Successful/Retries/Failed UA Registrations
 - Min/Max/Avg. Registration time
 - Attempted/Successful/Failed/Answered calls
 - Min/Max/Avg. Call Setup Time

SUPPORTED MODULES & PLATFORMS

- Spirent CM and mX modules

SYSTEM REQUIREMENTS**PC Hardware Requirements****Minimum PC, UNIX, or Linux Requirements by System Size**

System Size	Minimum Requirement	Recommended System
Small port system 2-25 ports	2.4 GHz Intel® Pentium® 4 processor (or equivalent), 512 MB RAM, 10 GB of free disk space	Intel Core™ 2 Duo E6300 processor (or equivalent), 2 GB of free RAM, 10 GB of free disk space
Medium port system 26-75 ports	3 GHz Intel Pentium 4 processor (or equivalent), 2 GB of free RAM, 15 GB of free disk space	Intel Core 2 Duo E6400 processor (or equivalent), 4 GB free RAM, 100 GB of free disk space
Large system 76 ports and above	Intel Core 2 Duo E6400 processor (or equivalent), 3 GB free RAM, 100 GB free space on hard drive	Intel Core 2 Duo E6600 processor (or equivalent), 4 GB of RAM, 100 GB of free disk space

Spirent TestCenter Hardware Requirements

Pentium® or greater PC running Windows® XP Professional SP2 with mouse/color monitor required for GUI operation. See Minimum PC Hardware Requirements above.

One Ethernet cable and one 10/100/1000Mbps Ethernet card installed in the PC

An SPT-2000A Spirent 2U Chassis and Controller, SPT-2000A-HS Spirent 2U Chassis and Controller (with high speed fans) or SPT-9000A Spirent TestCenter 9U Chassis and Controller

Operating system languages supported: English, French, German, Italian, Japanese, Korean, and Chinese (traditional and simplified)

For test automation system requirements refer to the Spirent TestCenter Automation data sheet (P/N 79-000037)

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SPIRENT GLOBAL SERVICES

Spirent Global Services optimizes your productivity with Spirent TestCenter over a broad range of technologies:

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: 24 x 7 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

Visit 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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