Spirent TestCenter Enhanced L4-7

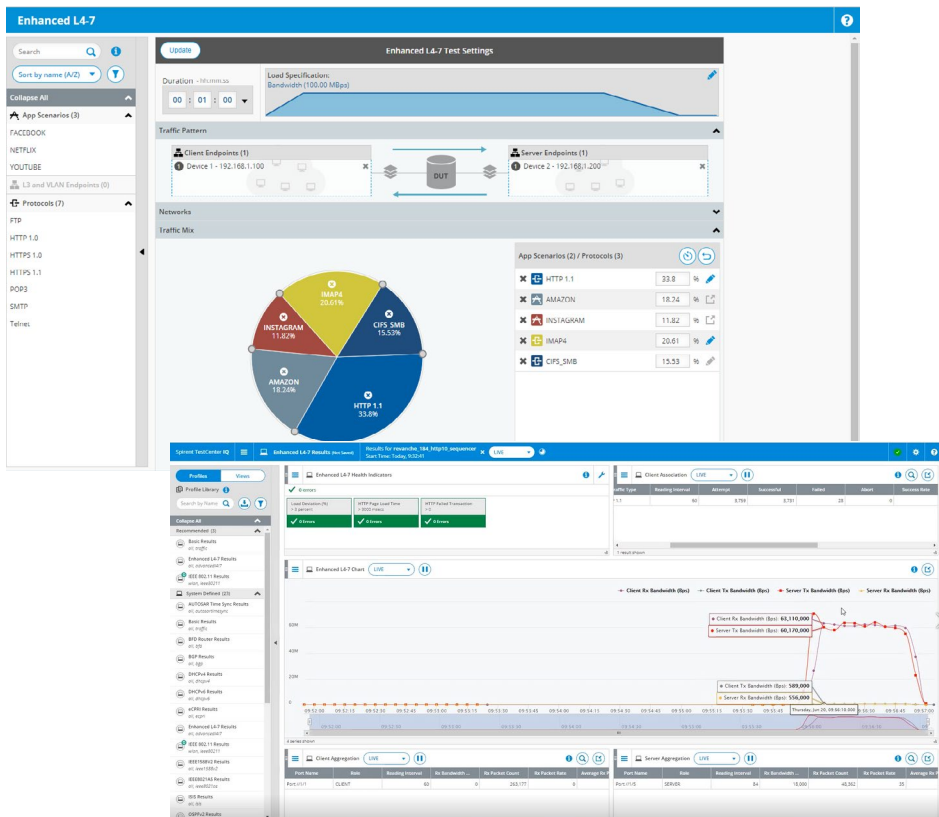## Unified Quality of Experience (QoE) Assessment Tool

Spirent TestCenter Enhanced L4-7 solution provides the ability to generate full state application and protocol traffic over routing protocols. Available on the industry-leading Spirent TestCenter platform, it enables users to conduct concurrent Layer 2-3 and Layer 4-7 application traffic generation via a single user interface and automation framework, over emulated topology, including SP-SDN interconnects, and Wi-Fi.

Making use of Spirent's TestCenter IQ, it allows users to quickly manipulate results, sort and filter data, and easily drill-down to identify problems and discover trends. The capability to correlate real time L2-7 data plane and control plane values is an industry-first and helps dramatically simplify troubleshooting. User defined thresholds for health indicators which help automatically isolate and present relevant data from millions of points, are also unique to this solution. With more coverage and information, users can answer questions faster in a single test run, where multiple runs are necessary with other tools.

Supported platforms include Spirent FX2/MX2 and MX3 Test Modules, Spirent C2/C50 Appliance (Ethernet, Wi-Fi 802.11ac/ax) and TestCenter Virtual (refer to Customer Support Center for latest supported hardware.)

Applications

- **Wi-Fi:** measure QoE of Streams, Realistic Application Traffic

- **Cloud/NFV:** test network service (Cloud Edge, NFVi-vSwitch, etc.) requiring a mix of some stateful traffic to validate QoE

- **Protocols:** HTTP1.0/1.1, HTTPS 1.0/1.1, FTP, Telnet, CIFS, IMAP, POP3, SMTP

- **Applications:** YouTube, Netflix, Facebook, Amazon, Instagram

- **Topology Emulation:** BGP, OSPF, DHCP

- **Network:** Layer 3 and VLAN endpoint testing

Features & Benefits

- Unique ability to generate full stack mix of traffic over emulated topology, including SP-SDN interconnects, and Wi-Fi
- Application Import and Playback (AIP) capability enables users to create L4-7 traffic from one or more of the streams available within an imported PCAP file
- Full stack TCP including slow start, sliding window, congestion avoidance and retransmission support
- Measure concurrent QoS and QoE with mix of stateless and stateful application traffic, even in applications that don't require full-rate L2-7
- Single user Spirent TestCenter user interface and automation for L2-7 and Control Plane
- Actionable analytics via user definable Health Indicators for consolidated, real-time monitoring & correlation
- Intuitive reporting and fault isolation to better understand dynamic behavior of system under test
- Integration of events with results data for deep analysis of system behavior
- Historical time series data allows running Health Indicators on historical data to analyze system behavior in new ways, replaying completed test to analyze any moment

Technical Specifications

Parameter	Description
TCP Goodput	Throughput after TCP connection is established
Successful TCP transactions	Provides the reliability of TCP where other protocols (HTTP, FTP) are dependent
URL Avg load time	Ave time to fully load a web landing page
TCP TTFB	Time to first byte — milliseconds response of your webserver
QoE Score	Valuation indicator that determines the expectation and predictability of a network
Advanced Sequencing Errors	Leads to multiple retransmissions and reset
Avg Latency	Average time taken for requested data to get to the server
Max Latency	Max time taken for requested data to get to the server
Avg Jitter	Average fluctuation of latency over time
Max Jitter	Max fluctuation of latency over time
Drop Count	Packets lost when traveling across a computer network fail to reach their destination and get dropped.

Ordering Information

Product Number	Description
BPK-2001	STC Enhanced L4-7, Chassis License
BPK-5003	STC Enhanced L4-7, Chassis License — WiFi
C50-BPK-2001	STC Enhanced L4-7, C50
C50-BPK-5003	STC Enhanced L4-7, C50-WiFi
AP-BPK-2001	STC Enhanced L4-7, C2
AP-BPK-5003	STC Enhanced L4-7, C2-WiFi
V-BPK-2001-001	Virtual Enhanced L4-7, 1 Port

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**

Americas 1-800-SPIRENT
+1-800-774-7368 | 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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