

# RFC 6349 Methodology Pack

## for Spirent MethodologyCenter

### Features

- Implements all subtests of the RFC 6349 standard
  - MTU
  - Bandwidth Bottleneck
  - Round-Trip Time
  - TCP Throughput
- Works on Spirent TestCenter hardware\* or virtual ports\*\*
- Supports multiple connections and multiple port topologies
- Test with single or stacked (QinQ) VLANs and/or DSCP values
- Results presented in real-time and post-test, in graphical and numerical format
- Details reports include all results, graphs, configuration details, in PDF, XLS and DOCX formats
- API provided for automation purposes

### Benefits

- Verify bandwidth levels for subscribers
- Validate network policy
- Test realistic multi-port scenarios
- Pinpoint bottlenecks due to either bandwidth or latency
- Re-use your existing Spirent TestCenter ports
- Get to meaningful results faster
- Works with your existing Spirent TestCenter hardware or virtual ports

\*Performance will vary depending on the specific Spirent TestCenter hardware port types used

\*\*Performance for virtual Spirent TestCenter ports will depend on resource (CPU, RAM) allocated and also on environmental configuration

Please contact Spirent sales for details.

### RFC 6349 Methodology

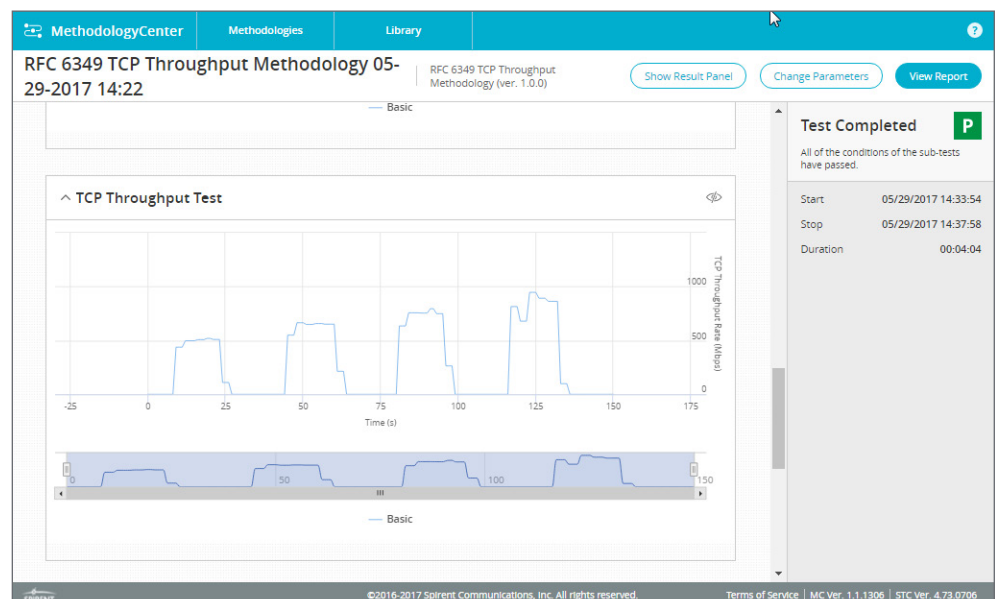
The RFC 6349 Methodology Pack for Spirent MethodologyCenter allows lab test engineers to easily perform the major parts of the RFC 6349 specification, including,

- Path Maximum Transmission Unit (MTU)
- Baseline Round-Trip Time (RTT)
- Bottleneck Bandwidth (BB)
- TCP Connection Throughput

Service providers are particularly interested in TCP throughput measurements to validate bandwidth levels offered to subscribers, and ensure policy enforcement. Lab engineers typically are most interested in re-creating field tests in the laboratory.

Spirent TestCenter ports, either virtual or hardware, may be used by the methodology to emulate 100% real TCP clients and servers. Test can be run with single or multiple TCP connections, each independently configured (see table below).

While tests are running, progress status and interim results are displayed in graphical format. After the test runs to completion, a detailed report is automatically generated, including an overall pass/fail results, sub-results, numerical data and graphical charts. The report can be exported and saved to PDF, DOCX or XLS formats for future reference.



TCP Connection Throughput Sample Results

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## Technical Specifications

Methodologies		RFC 6349	
Sub-Tests		MTU Bandwidth Bottleneck Round-Trip Time TCP Throughput	
Configuration Controls		Measurements	
Test Level Controls	MTU Wait Time Bandwidth Bottleneck Wait Time RTT Wait Time RTT Timeout Throughput Wait Time Throughput Byte Loss Threshold Stop on Learning Failure	MTU Test	Tx Frame Size Rx Frame Size
		Bandwidth Bottleneck Test	Tx Throughput
Per-Connection Controls	Connection Name Status Client Port (physical) Client IPv4 Prefix Length Client IPv4 Address Client IPv4 Gateway Address Client MAC Address Client VLAN Mode (none/VLAN/QinQ) Client VLAN ID Client VLAN Priority Client Inner VLAN ID Client Inner VLAN Priority Client DSCP Value Server Port (Physical) Server TCP Port Number Server IPv4 Prefix Length Server IPv4 Address Server IPv4 Gateway Address Server MAC Address Server VLAN Mode Server VLAN Priority Server Inner VLAN ID Server Inner VLAN Priority Server DSCP Value UDP Port Number TCP Throughput Threshold	Round Trip Time Test	Round-Trip Time (Avg)
		TCP Throughput Test	Percent of Max-RWND Max TCP Window Size Connection Name Line Rate Ideal TCP Throughput Actual TCP Throughput Ideal TCP Transfer Time Actual TCP Transfer Time TCP Transfer Time Ratio Ideal TCP Transmitted Bytes Actual TCP Transmitted Bytes Retransmitted Bytes TCP Efficiency

## Ordering Information

Description	Part Number
RFC 6349 Methodology Pack - perpetual	TMV-MC-6349PACK-P
RFC 6349 Methodology Pack – 1 year	TMV-MC-6349PACK-1YR

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