



MetroScope™
Service Provider Assistant



Performance Master Report

Jul 17 12:56:55 2007

Performance Summary		
Test	Status	Details
RFC 2544 Throughput	Complete	✓ Passed
RFC 2544 Latency	Complete	● Failed
Jitter	Complete	✓ Passed

RFC 2544 Throughput Results

RFC 2544 Throughput Summary		
Device Name	Status	Details
New York POP	Complete	✓ Passed
Frankfurt POP	Complete	✓ Passed

RFC 2544 Throughput Test Configuration - New York POP							
Frame Contents	VLAN Id	VLAN Priority	DSCP	Duration (Sec)	Meas. Accuracy	Pass/Fail Rate	Max. Rate (bps)
Incrementing Byte	n/a	n/a	0	2	99.5%	10.00M	10.00M
Device	Name	IP	Port	Duplex	Link		
Local	MetroScope	129.196.196.135	3842	Full	1Gb		
Remote	New York POP	129.196.196.186	3842	Full	100Mb		

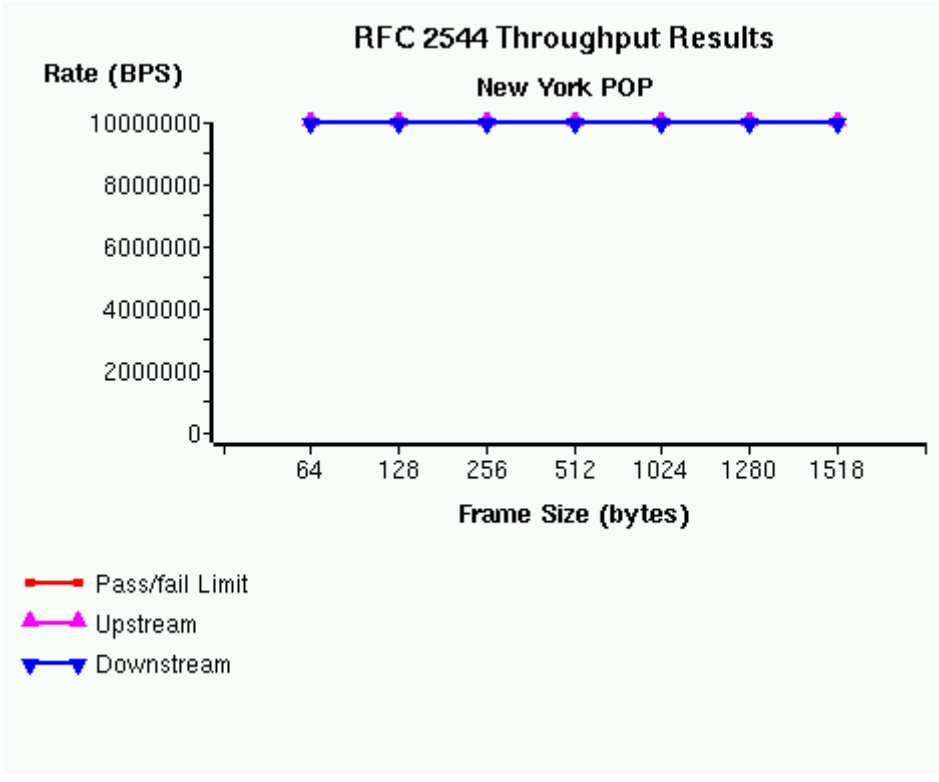
RFC 2544 Upstream(local to remote) Throughput Results - New York POP						
Status	Frame Size	Max Rate# (bps)	Max Rate* (fps)	Actual Rate# (bps)	Actual Rate* (fps)	Frames Lost
✓ Passed	64	9999360	14880	9999360	14880	0
✓ Passed	128	9998880	8445	9998880	8445	0
✓ Passed	256	9997824	4528	9997824	4528	0
✓ Passed	512	9997344	2349	9997344	2349	0
✓ Passed	1024	9997344	1197	9997344	1197	0
✓ Passed	1280	9994400	961	9994400	961	0
✓ Passed	1518	9990848	812	9990848	812	0

RFC 2544 Downstream(remote to local) Throughput Results - New York POP						
Status	Frame Size	Max Rate# (bps)	Max Rate* (fps)	Actual Rate# (bps)	Actual Rate* (fps)	Frames Lost
✓ Passed	64	9999360	14880	9999360	14880	0
✓ Passed	128	9998880	8445	9998880	8445	0
✓ Passed	256	9997824	4528	9997824	4528	0
✓ Passed	512	9997344	2349	9997344	2349	0
✓ Passed	1024	9997344	1197	9997344	1197	0
✓ Passed	1280	9994400	961	9994400	961	0
✓ Passed	1518	9990848	812	9990848	812	0

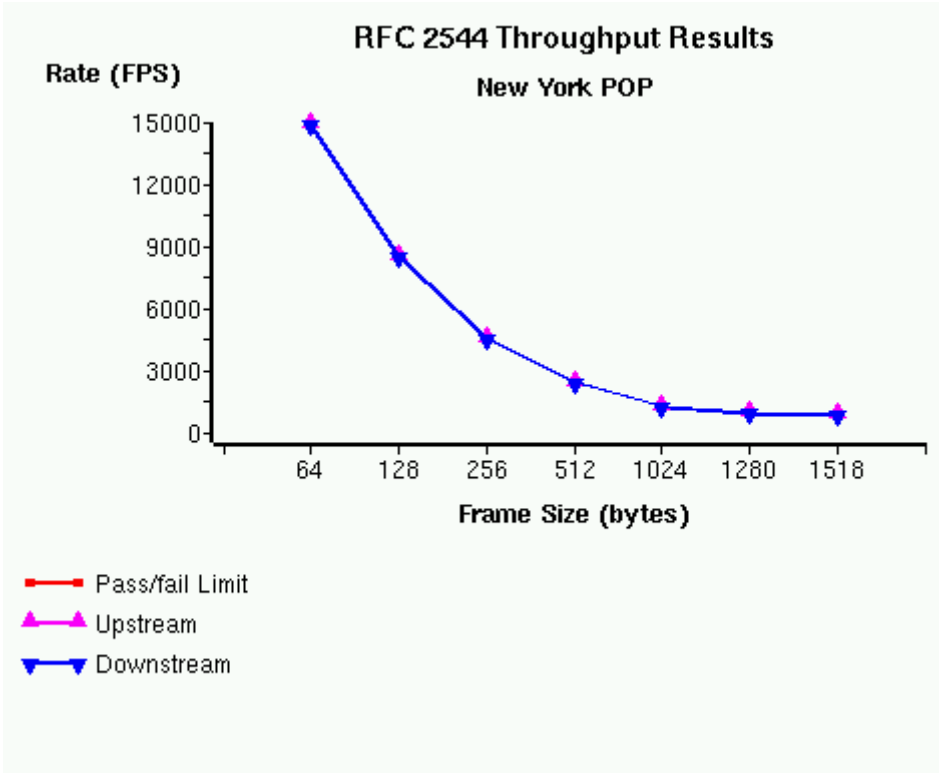
#-"Maximum Test Rate" is the "Target Rate" quantized to whole (nonfractional) FPS.

*-"Throughput Rate" is the rate actually achieved within the "Measurement Accuracy" limit.

RFC 2544 Throughput Graph - New York POP



RFC 2544 Throughput Graph - New York POP



RFC 2544 Throughput Test Configuration - Frankfurt POP							
Frame Contents	VLAN Id	VLAN Priority	DSCP	Duration (Sec)	Meas. Accuracy	Pass/Fail Rate	Max. Rate (bps)
Incrementing Byte	n/a	n/a	0	2	99.5%	10.00M	10.00M
Device	Name	IP	Port	Duplex	Link		
Local	MetroScope	129.196.196.135	3842	Full	1Gb		
Remote	Frankfurt POP	129.196.196.183	3842	Full	100Mb		

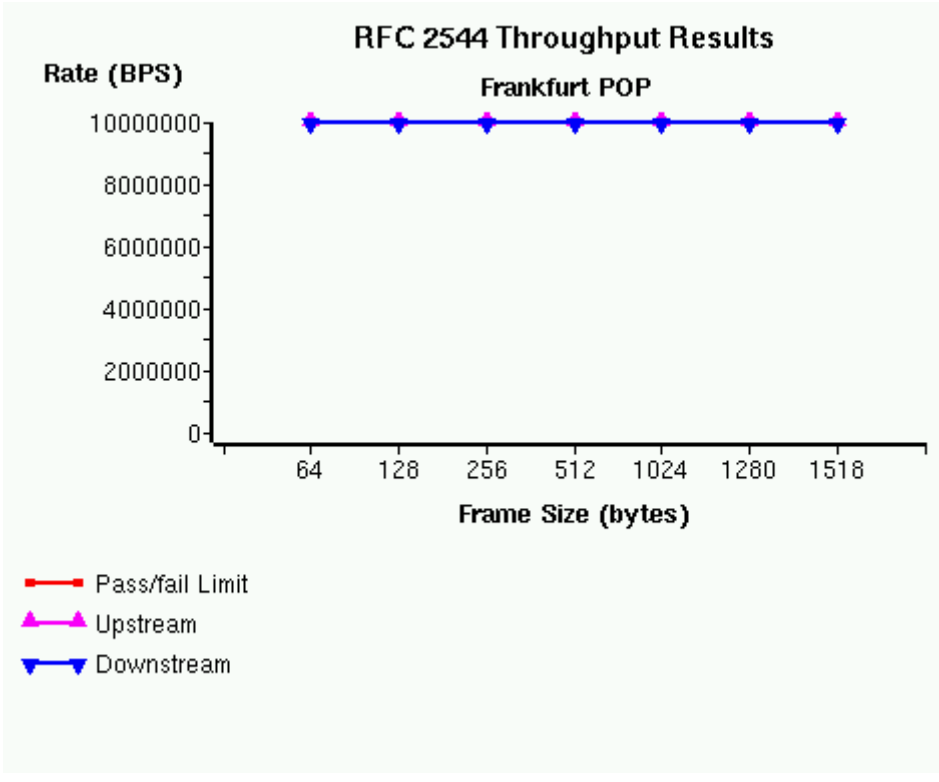
RFC 2544 Upstream(local to remote) Throughput Results - Frankfurt POP						
Status	Frame Size	Max Rate# (bps)	Max Rate* (fps)	Actual Rate# (bps)	Actual Rate* (fps)	Frames Lost
✓ Passed	64	9999360	14880	9999360	14880	0
✓ Passed	128	9998880	8445	9998880	8445	0
✓ Passed	256	9997824	4528	9997824	4528	0
✓ Passed	512	9997344	2349	9997344	2349	0
✓ Passed	1024	9997344	1197	9997344	1197	0
✓ Passed	1280	9994400	961	9994400	961	0
✓ Passed	1518	9990848	812	9990848	812	0

RFC 2544 Downstream(remote to local) Throughput Results - Frankfurt POP						
Status	Frame Size	Max Rate# (bps)	Max Rate* (fps)	Actual Rate# (bps)	Actual Rate* (fps)	Frames Lost
✓ Passed	64	9999360	14880	9999360	14880	0
✓ Passed	128	9998880	8445	9998880	8445	0
✓ Passed	256	9997824	4528	9997824	4528	0
✓ Passed	512	9997344	2349	9997344	2349	0
✓ Passed	1024	9997344	1197	9997344	1197	0
✓ Passed	1280	9994400	961	9994400	961	0
✓ Passed	1518	9990848	812	9990848	812	0

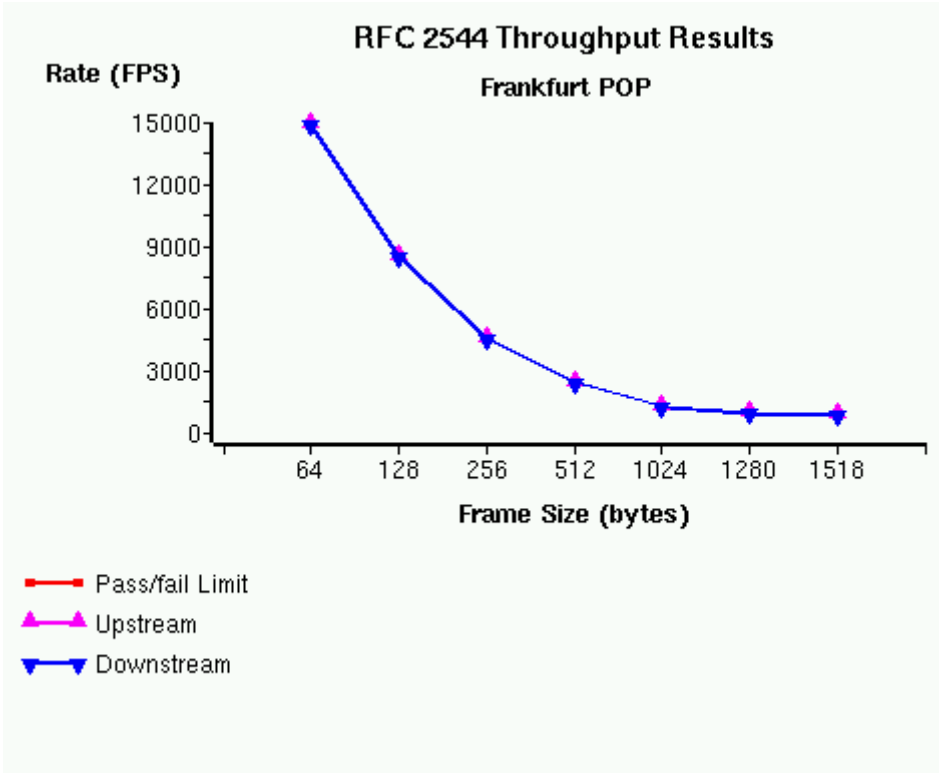
#-"Maximum Test Rate" is the "Target Rate" quantized to whole (nonfractional) FPS.

*-"Throughput Rate" is the rate actually achieved within the "Measurement Accuracy" limit.

RFC 2544 Throughput Graph - Frankfurt POP



RFC 2544 Throughput Graph - Frankfurt POP



RFC 2544 Latency Results

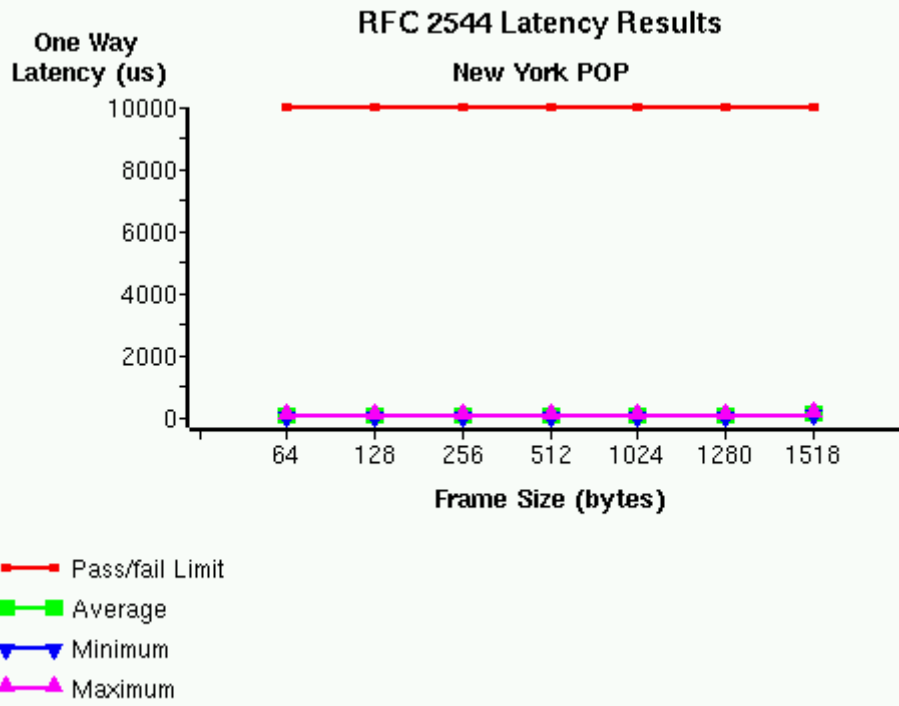
RFC 2544 Latency Summary		
Device Name	Status	Details
New York POP	Complete	✔ Passed
Frankfurt POP	Complete	❌ Failed

RFC 2544 Latency Test Configuration - New York POP							
Frame Contents	VLAN Id	VLAN Priority	DSCP	Duration (Sec)	Iterations	Pass/Fail Latency	Rate (bps)
Incrementing Byte	n/a	n/a	0	2	1	10.0 ms	Use Tput Rate
Device	Name	IP	Port	Duplex	Link		
Local	MetroScope	129.196.196.135	3842	Full	1Gb		
Remote	New York POP	129.196.196.186	3842	Full	100Mb		

RFC 2544 Latency Results - New York POP					
Status	Frame Size	Iteration	Round Trip	One Way	
✓ Passed	64	1/1	12.0 us	6.0 us	
✓ Passed	128	1/1	17.0 us	8.5 us	
✓ Passed	256	1/1	28.0 us	14.0 us	
✓ Passed	512	1/1	51.0 us	25.5 us	
✓ Passed	1024	1/1	96.0 us	48.0 us	
✓ Passed	1280	1/1	119.0 us	59.5 us	
✓ Passed	1518	1/1	138.0 us	69.0 us	

RFC 2544 (One Way) Latency Statistics - New York POP					
Frame Size	Iterations	Minimum	Average	Maximum	
64	1	6.0 us	6.0 us	6.0 us	
128	1	8.5 us	8.5 us	8.5 us	
256	1	14.0 us	14.0 us	14.0 us	
512	1	25.5 us	25.5 us	25.5 us	
1024	1	48.0 us	48.0 us	48.0 us	
1280	1	59.5 us	59.5 us	59.5 us	
1518	1	69.0 us	69.0 us	69.0 us	

RFC 2544 Latency Graph - New York POP

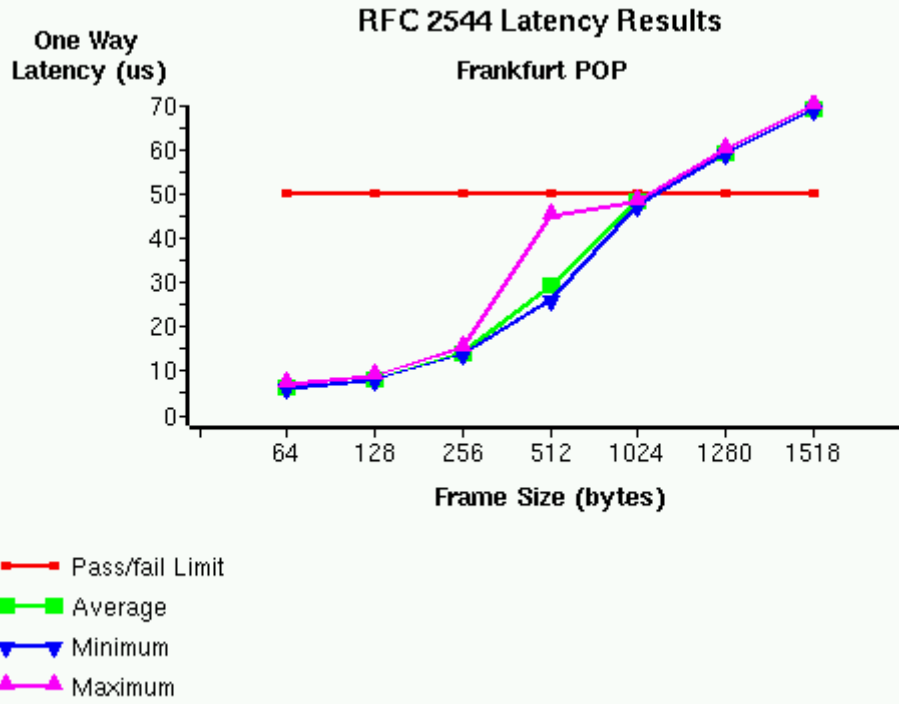


RFC 2544 Latency Test Configuration - Frankfurt POP							
Frame Contents	VLAN Id	VLAN Priority	DSCP	Duration (Sec)	Iterations	Pass/Fail Latency	Rate (bps)
Incrementing Byte	n/a	n/a	0	2	5	50.0 us	Use Tput Rate
Device	Name	IP	Port	Duplex	Link		
Local	MetroScope	129.196.196.135	3842	Full	1Gb		
Remote	Frankfurt POP	129.196.196.183	3842	Full	100Mb		

RFC 2544 Latency Results - Frankfurt POP					
Status	Frame Size	Iteration	Round Trip	One Way	
✓ Passed	64	5/5	12.0 us	6.0 us	
✓ Passed	128	5/5	17.0 us	8.5 us	
✓ Passed	256	5/5	28.0 us	14.0 us	
✓ Passed	512	5/5	89.0 us	44.5 us	
✓ Passed	1024	5/5	96.0 us	48.0 us	
✗ Failed	1280	5/5	119.0 us	59.5 us	
✗ Failed	1518	5/5	138.0 us	69.0 us	

RFC 2544 (One Way) Latency Statistics - Frankfurt POP					
Frame Size	Iterations	Minimum	Average	Maximum	
64	5	6.0 us	6.1 us	6.5 us	
128	5	8.0 us	8.2 us	8.5 us	
256	5	13.5 us	14.0 us	14.5 us	
512	5	25.5 us	29.3 us	44.5 us	
1024	5	47.0 us	47.7 us	48.0 us	
1280	5	59.0 us	59.1 us	59.5 us	
1518	5	69.0 us	69.1 us	69.5 us	

RFC 2544 Latency Graph - Frankfurt POP



RFC 2544 Loss Results

RFC 2544 Loss Summary		
Device Name	Status	Details

RFC 2544 Back to Back Results

RFC 2544 Back To Back Summary		
Device Name	Status	Details

Jitter Results

Jitter Summary		
Device Name	Status	Details
New York POP	Complete	✓ Passed
Frankfurt POP	Complete	✓ Passed

Jitter Test Configuration - New York POP						
Frame Contents	VLAN Id	VLAN Priority	DSCP	Duration (Sec)	Pass/Fail Jitter	Target Rate (bps)
Incrementing Byte	n/a	n/a	0	2	100.0Kus	10.00M
Device	Name	IP	Port	Duplex	Link	
Local	MetroScope	129.196.196.135	3842	Full	1Gb	
Remote	New York POP	129.196.196.186	3842	Full	100Mb	

Jitter Upstream(local to remote) Results - New York POP				
Status	Frame Size	Frames Rcvd	Frames Lost	Jitter
✓ Passed	64	29.76K	0	866.4 ns
✓ Passed	128	16.89K	0	1.2 us
✓ Passed	256	9057	0	425.0 ns
✓ Passed	512	4700	0	61.8 ns
✓ Passed	1024	2396	0	1.6 us
✓ Passed	1280	1924	0	782.8 ns
✓ Passed	1518	1625	0	508.1 ns

Jitter Downstream(remote to local) Results - New York POP				
Status	Frame Size	Frames Rcvd	Frames Lost	Jitter
✓ Passed	64	29.76K	0	80.9 ns
✓ Passed	128	16.89K	0	18.2 ns
✓ Passed	256	9058	0	43.7 ns
✓ Passed	512	4700	0	31.1 ns
✓ Passed	1024	2395	0	38.7 ns
✓ Passed	1280	1923	0	39.8 ns
✓ Passed	1518	1625	0	39.6 ns

Jitter Graph - New York POP



Jitter Test Configuration - Frankfurt POP						
Frame Contents	VLAN Id	VLAN Priority	DSCP	Duration (Sec)	Pass/Fail Jitter	Target Rate (bps)
Incrementing Byte	n/a	n/a	0	2	1us	1.000M
Device	Name	IP	Port	Duplex	Link	
Local	MetroScope	129.196.196.135	3842	Full	1Gb	
Remote	Frankfurt POP	129.196.196.183	3842	Full	100Mb	

Jitter Upstream(local to remote) Results - Frankfurt POP				
Status	Frame Size	Frames Rcvd	Frames Lost	Jitter
✓ Passed	64	2978	0	64.9 ns
✓ Passed	128	1690	0	200.6 ns
✓ Passed	256	906	0	60.5 ns
✓ Passed	512	469	0	49.8 ns
✓ Passed	1024	239	0	272.8 ns
✓ Passed	1280	193	0	56.8 ns
✓ Passed	1518	163	0	47.0 ns

Jitter Downstream(remote to local) Results - Frankfurt POP				
Status	Frame Size	Frames Rcvd	Frames Lost	Jitter
✓ Passed	64	2978	0	40.1 ns
✓ Passed	128	1690	0	40.3 ns
✓ Passed	256	906	0	22.5 ns
✓ Passed	512	469	0	43.3 ns
✓ Passed	1024	239	0	24.3 ns
✓ Passed	1280	193	0	43.7 ns
✓ Passed	1518	163	0	49.4 ns

Jitter Graph - Frankfurt POP



Bit Error Rate Results

Bit Error Rate Summary		
Device Name	Status	Details

MetroScope Configuration				
Software Versions	Application: 1.0.02	Language Support: 1.0.02	Qt: 2.3.4	
Hardware Information	MAC Address: 00c017c0239a	Serial Number: 0009387201	Hardware Version: 105 (Series II)	Manufacture Date: 040407
Fiber Module	Status: SFP module present (active)	Type: SX (850nm)	Vendor: FIBERXON INC.	Part Number: FTM-8112C-SLG (rev 10)
Report Comment	Point to Multipoint SLA test from headquarters to NewYork and Frankfurt. The latency to Frankfort failed on the 2 largest frame sizes			