IxNetwork Report

Test: **RFC2544 - Throughput/Latency**

Test Date: **08/02/2017** **19:56:47**

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RFC2544 - Throughput/Latency - Info

Test Information

Product Information

Product Label :	Your switch/router name here
Product Version :	Your firmware version here
Serial Number :	Your switch/router serial number here
Comments :	

Test Settings

Date Executed :	08/02/2017
Time Executed :	19:56:47
User Name :	
Number of Trials Executed :	1
Stream Duration (sec) :	20

Output Parameters

Number of Trials Passed :	N/A
Test Duration :	00:03:16

RFC2544 - Throughput/Latency - Port Map Information

Port Map :	Tx Port	Tx Speed (Mbps)	Rx Port	Rx Speed (Mbps)
	172.16.0.9:2:1	10000	172.16.0.9:2:2	10000

RFC2544 - Throughput/Latency - Aggregated Graph
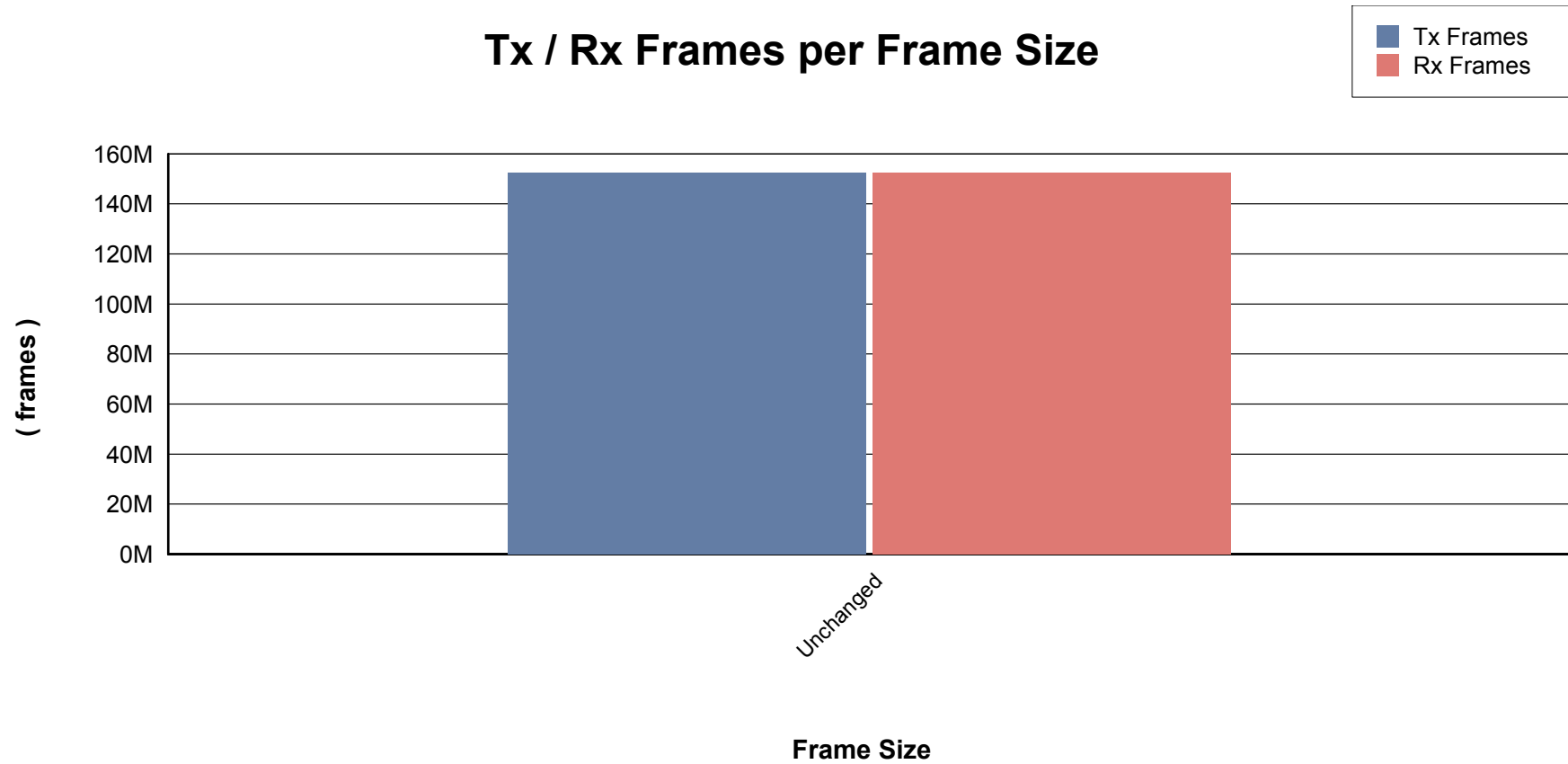
Total Frames Transmitted and Received

■ Tx Frames
■ Rx Frames
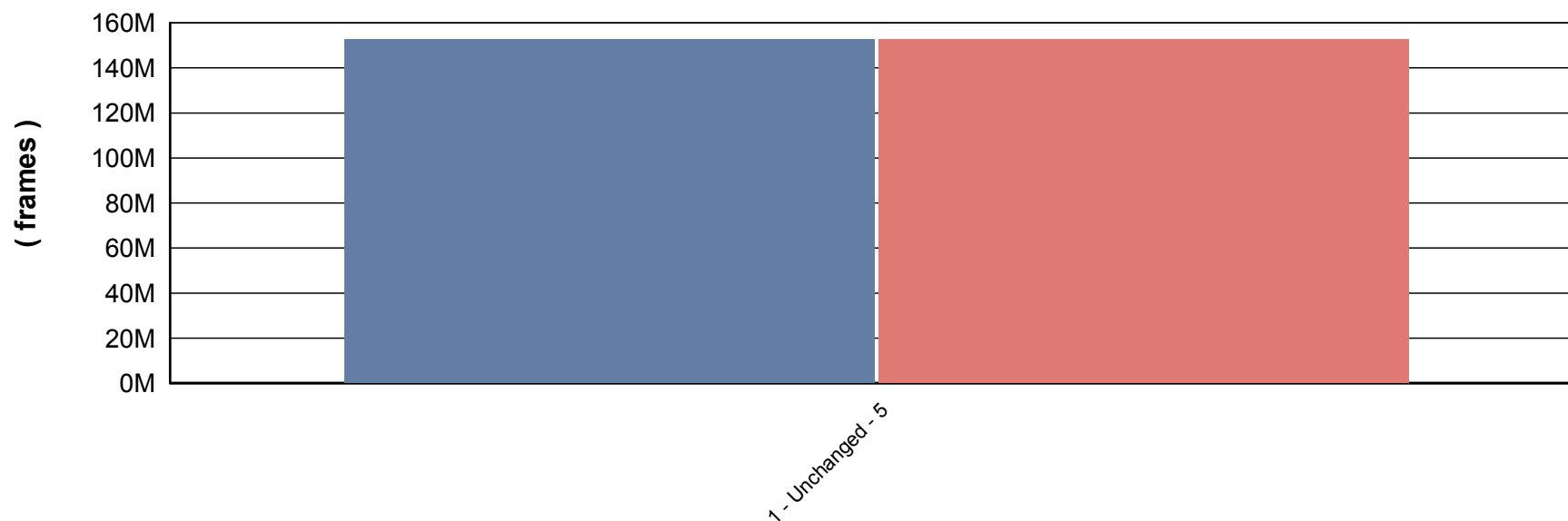
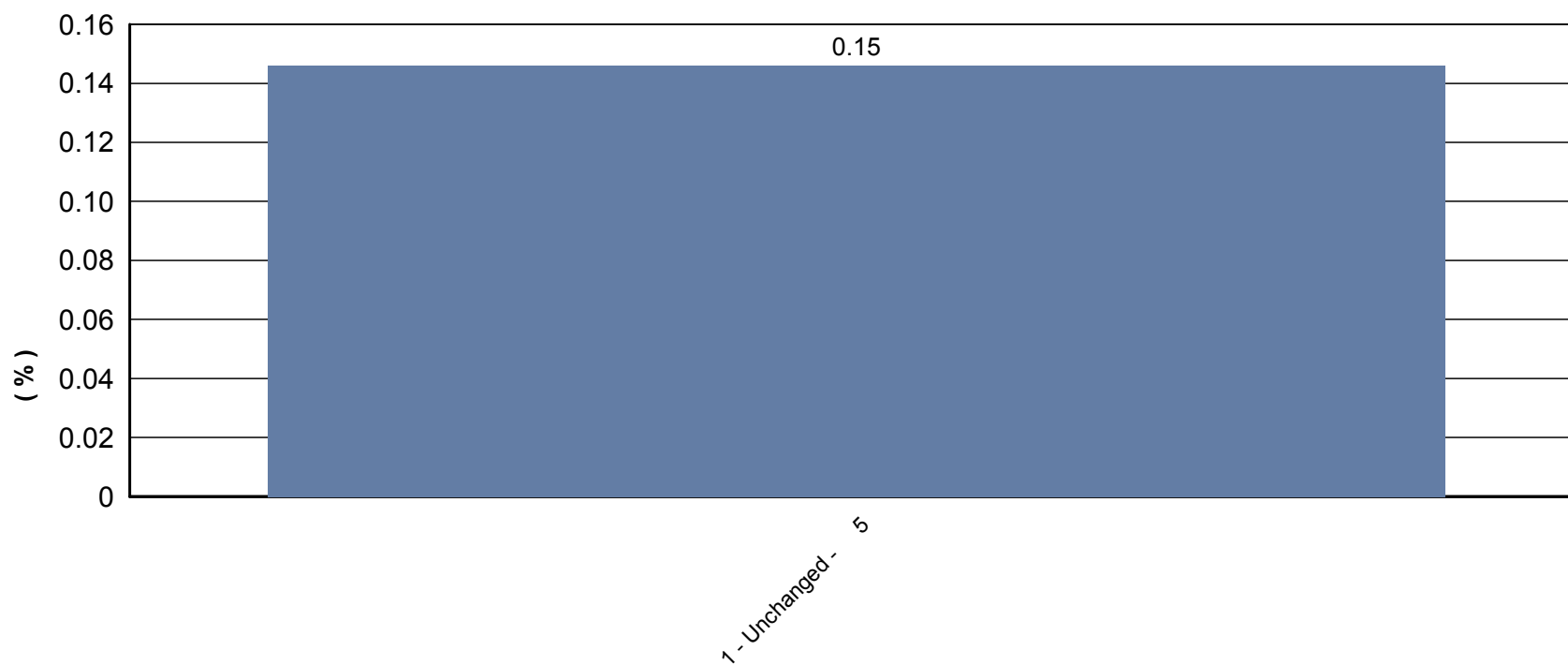**Trial - Framesize - Iteration**

RFC2544 - Throughput/Latency - Aggregated Graph

Tx / Rx Frames per Frame Size

Frame Size

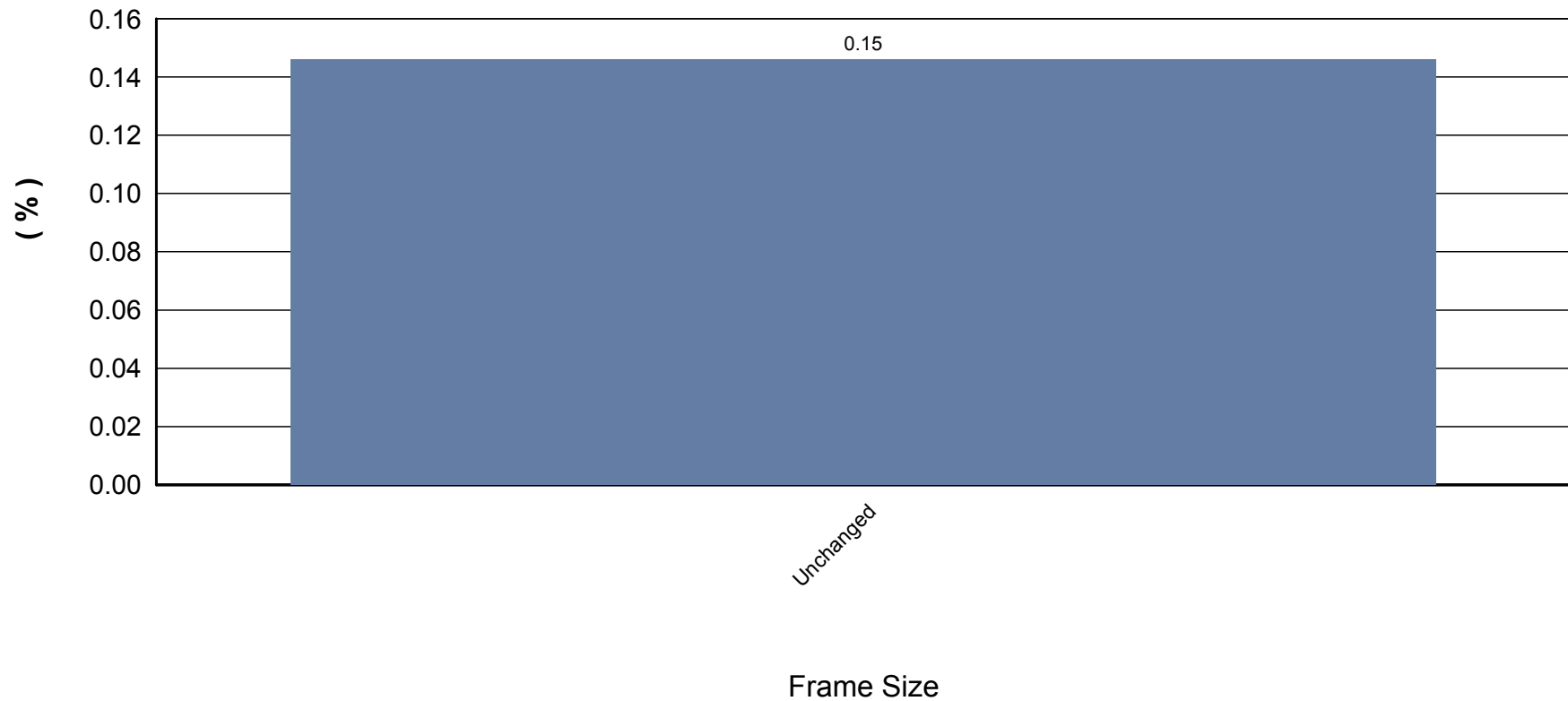**RFC2544 - Throughput/Latency - Aggregated Graph**

Aggregated Frame Loss

Trial - Framesize - Iteration

RFC2544 - Throughput/Latency - Aggregated Graph

Aggregated Frame Loss per Frame Size

0.15

(%)

0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00

Unchanged

Frame Size

RFC2544 - Throughput/Latency - Aggregated Graph

Aggregated Frame Loss per Line Rate

Line Rate (%)
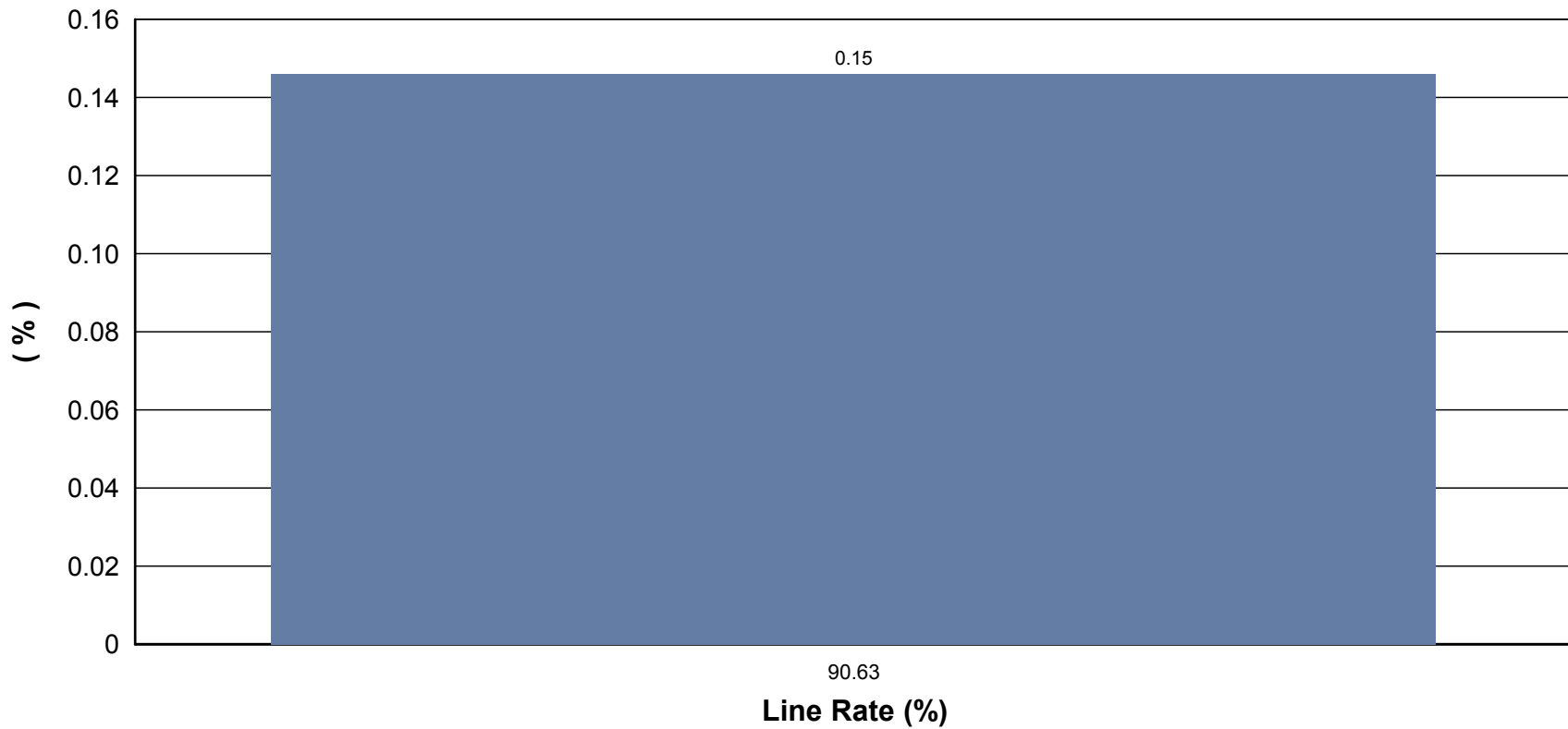
RFC2544 - Throughput/Latency - Per Flow Graph

Average Frame Loss per Flow

(%)

0.15
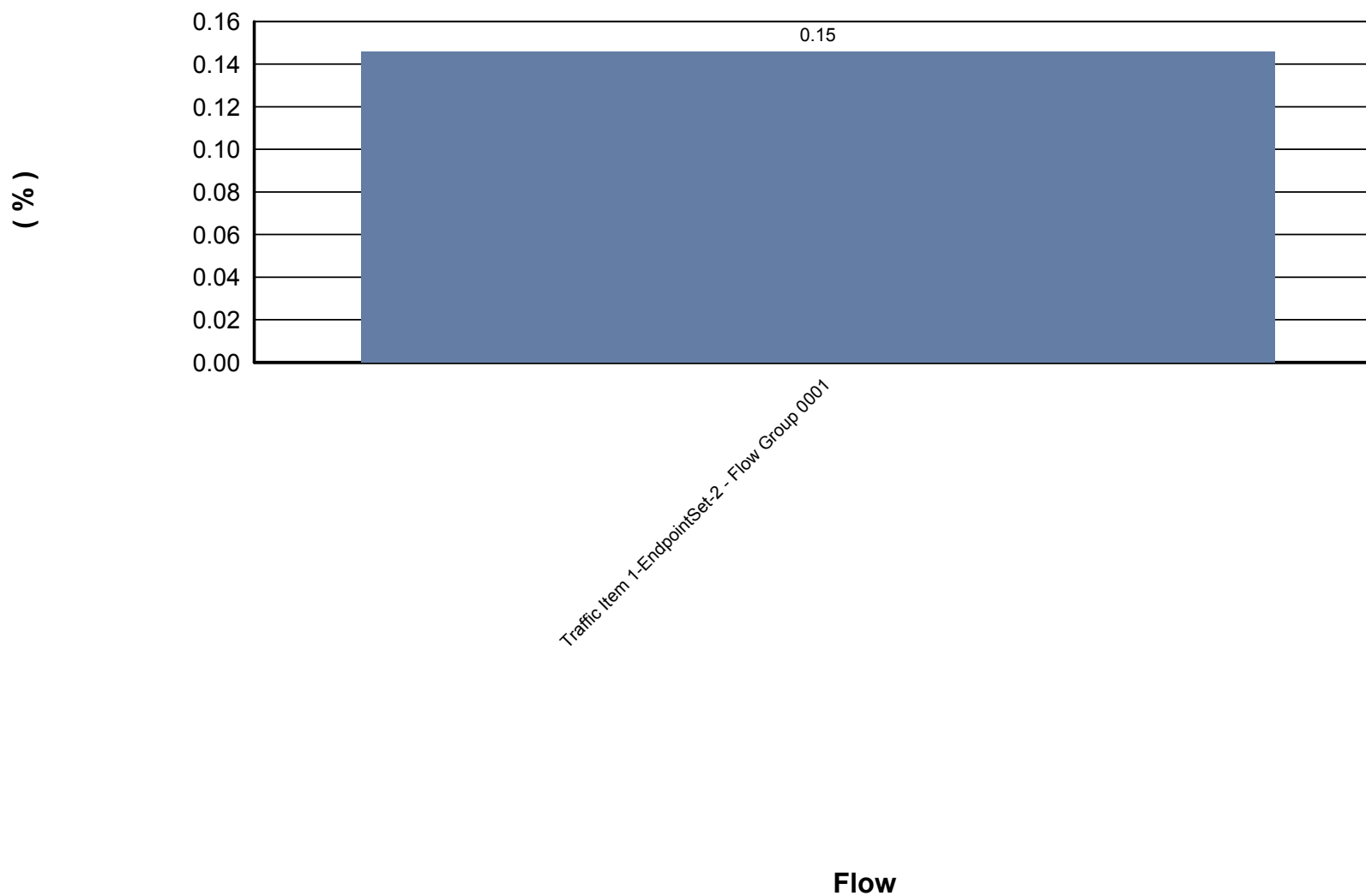
Flow

RFC2544 - Throughput/Latency - Aggregated Graph

Aggregated Latency

■ Minimum
■ Average
■ Maximum
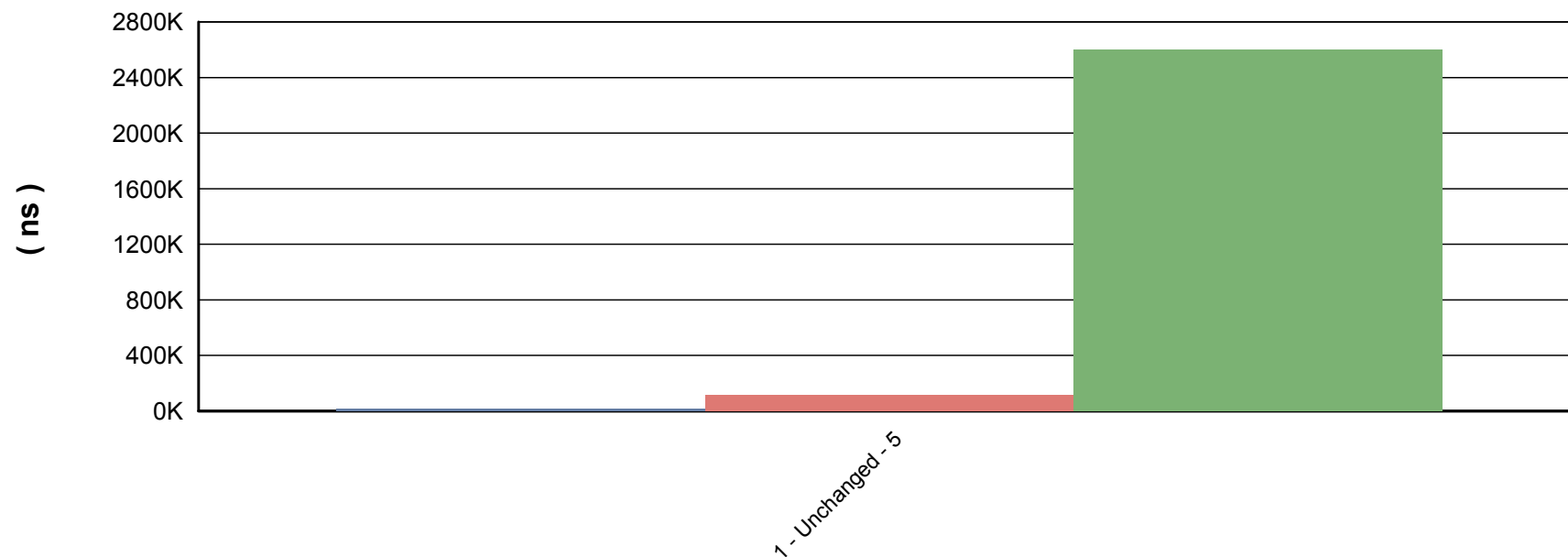
Trial - Framesize - Iteration

RFC2544 - Throughput/Latency - Per Flow Graph

Tx / Rx Frame Count

Tx Count
Rx Count

(frames)

160M
140M
120M
100M
80M
60M
40M
20M
0M

1
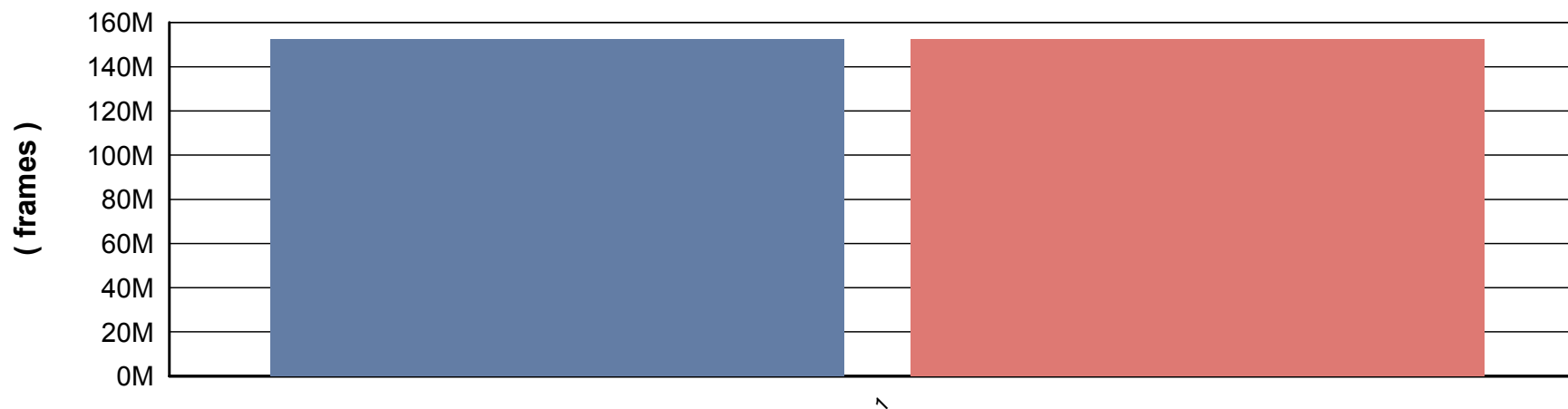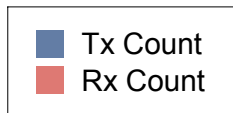
Trial

RFC2544 - Throughput/Latency - Iteration Graph

Aggregated Frame Loss (%)

Trial - Frame Size - Iteration
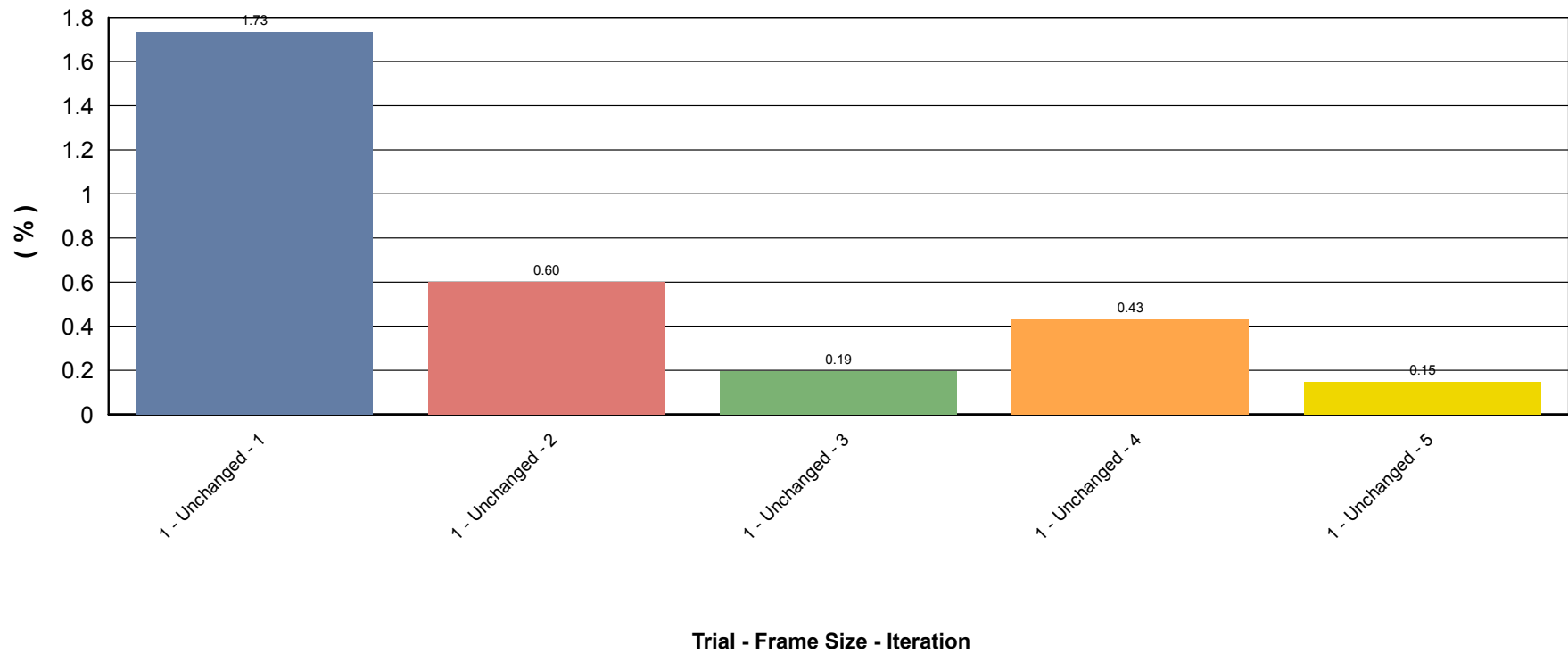
RFC2544 - Throughput/Latency - Iteration Graph

Tx / Rx Frames per Frame Size

Trial - Frame Size

RFC2544 - Throughput/Latency - Iteration Graph

Latency per frame size

Legend:
- ■ Min Latency
- ■ Avg Latency
- ■ Max Latency

(ns)

Y-axis values: 2.80M, 2.40M, 2.00M, 1.60M, 1.20M, 0.80M, 0.40M, 0.00M

X-axis label: 1 - Unchanged
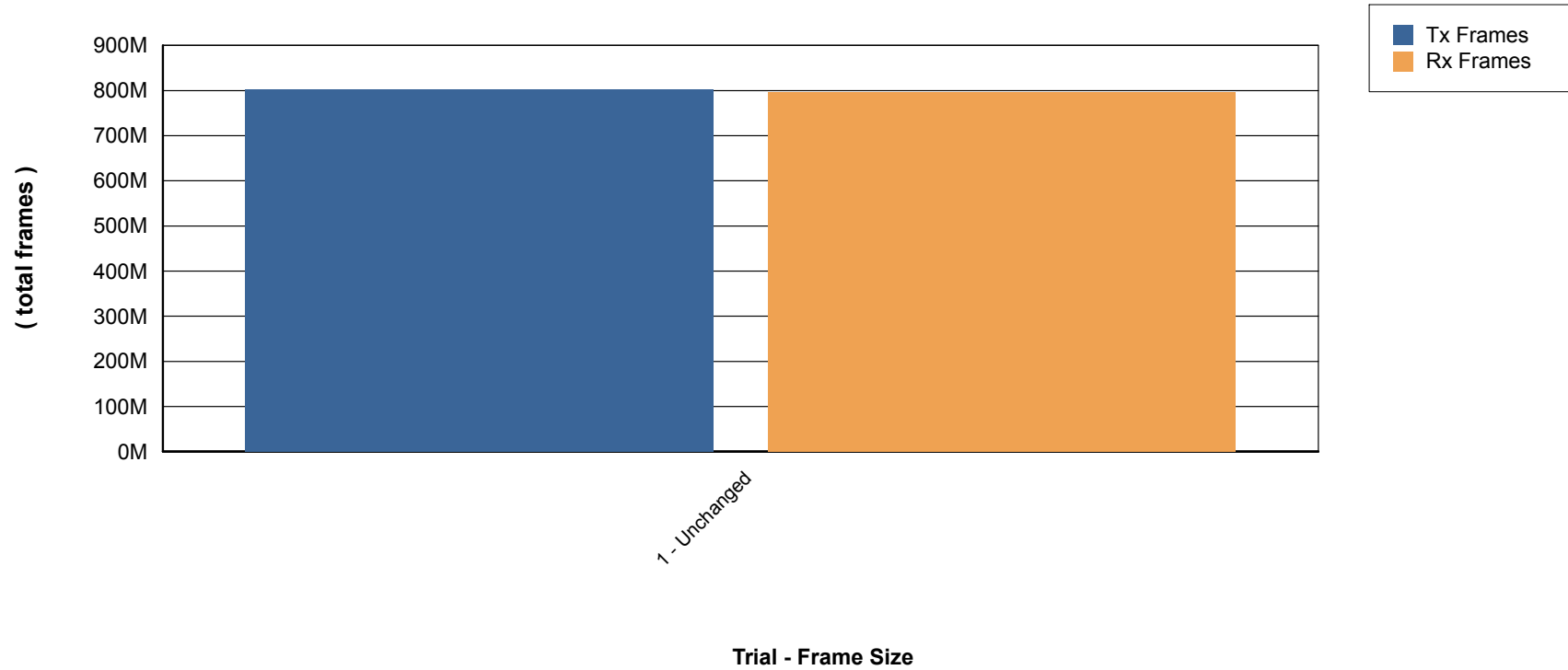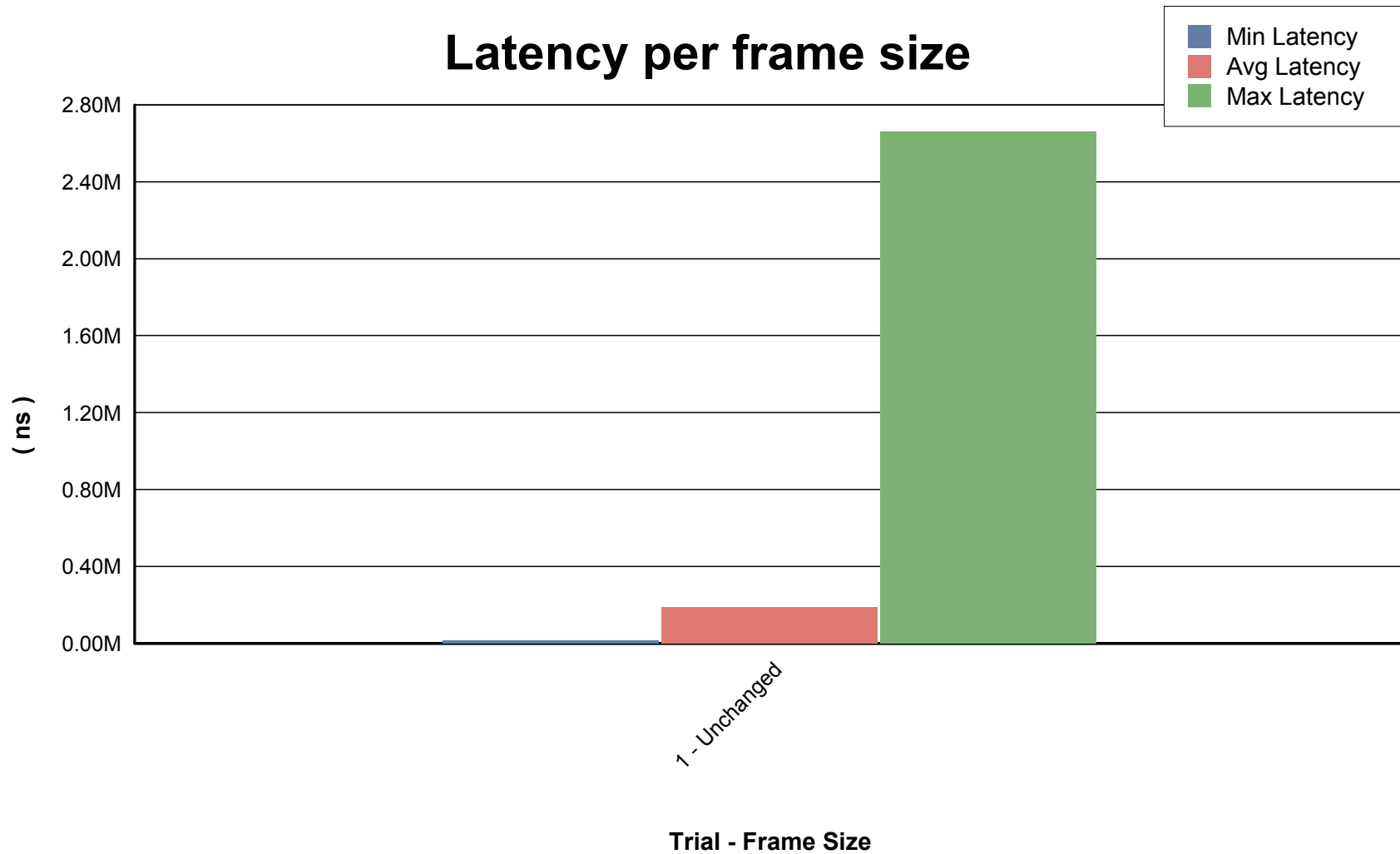
Trial - Frame Size

RFC2544 - Throughput/Latency - Aggregated Results

Trial / Framesize / Iteration	Agg L2 Throughput				Agg L1 Throughput		Throughput (frames)		Agg Latency			
	AggTx Rate %	Agg Rx Rate			Tx Rate Mbps	Rx Rate Mbps			Min (ns)	Max (ns)	Average (ns)	
		%	FPS	Mbps								
Trial: 1 / FS: Unchanged / Iter: 5	90.63	90	7547134.8	7840.338			Tx : 152635004.000 Rx : 152412784.000 Loss : 222220 Loss% : 0.15		15437	2602772	113250.000	

RFC2544 - Throughput/Latency - Per Flow Statistics - Part 1 of 2

Trial / Framesize / Iteration	Tx Port	Rx Port	Flow Group	L2 Throughput				L1 Throughput		Throughput (frames)	
				Tx Rate %	Rx Rate			Tx Rate Mbps	Rx Rate Mbps		
					%	FPS	Mbps				
Trial: 1 / FS: Unchanged / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	90.63	90	7547134.8	7840.34			Tx : 152635004 Rx : 152412784 Loss : 222220 Loss% : 0.146	

RFC2544 - Throughput/Latency - Per Flow Statistics - Part 2 of 2

Trial / Framesize / Iteration	Tx Port	Rx Port	Flow Group	Min Latency (ns)	Max Latency (ns)	Avg Latency (ns)	
Trial: 1 / FS: Unchanged / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	15437	2602772	113250	

RFC2544 - Throughput/Latency - Iteration Statistics - Part 1 of 2

Trial / Framesize / Iteration	Tx Port	Rx Port	Flow Group	L2 Throughput				L1 Throughput		Throughput (frames)		
				Tx Rate %	Rx Rate			Tx Rate Mbps	Rx Rate Mbps			
					%	FPS	Mbps					
Trial: 1 / FS: Unchanged / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	98.05	8185623.6	8495.54			Tx Rx Loss Loss%	: : : :	172680227 169690518 2989709 1.731
Trial: 1 / FS: Unchanged / Iter: 2	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	95.00	94.41	7875648.8	8180.72			Tx Rx Loss Loss%	: : : :	161023975 160060591 963384 0.598
Trial: 1 / FS: Unchanged / Iter: 3	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	92.50	92.32	7699556.5	7999.52			Tx Rx Loss Loss%	: : : :	156052747 155750048 302699 0.194
Trial: 1 / FS: Unchanged / Iter: 4	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	91.25	90.83	7577046.0	7870.23			Tx Rx Loss Loss%	: : : :	159978322 159289477 688845 0.431
Trial: 1 / FS: Unchanged / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	90.63	90.48	7547134.8	7840.34			Tx Rx Loss Loss%	: : : :	152635004 152412784 222220 0.146

RFC2544 - Throughput/Latency - Iteration Statistics - Part 2 of 2

Trial / Framesize / Iteration	Tx Port	Rx Port	Flow Group	Min Latency (ns)	Max Latency (ns)	Avg Latency (ns)
Trial: 1 / FS: Unchanged / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	17890	2605832	421253.00
Trial: 1 / FS: Unchanged / Iter: 2	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	13352	2661275	147825.00
Trial: 1 / FS: Unchanged / Iter: 3	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	14187	2560447	124834.00
Trial: 1 / FS: Unchanged / Iter: 4	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	14097	2621732	127997.00
Trial: 1 / FS: Unchanged / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	15437	2602772	113250.00

Theoretical maximum Frame Rates (frames/second) for different frame sizes (bytes)

Speed	64	128	256	512	1024	1280	1518
10 Mbps	14881	8446	4529	2350	1198	962	813
100 Mbps	148810	84460	45290	23497	11973	9616	8128
1000 Mbps	1488096	844595	452899	234963	119732	96154	81275
10 Gbps	14880952	8445946	4528986	2349625	1197318	961539	812744
25 Gbps	37202380	21114864	11322463	5874060	2993295	2403846	2031859
40 Gbps	59523809	33783783	18115942	9398496	4789272	3846153	3250975
100 Gbps	148809523	84459459	45289855	23496240	11973180	9615384	8127438
155 Mbps (Oc - 3)	288000	145116	72840	36491	18263	14614	12324
622 Mbps (Oc - 12)	1152000	580465	291362	145965	73054	58454	49296
2488 Mbps (Oc - 48)	4608000	2321860	1165447	583860	292215	233817	197182
9952 Mbps (Oc - 192)	18432000	9287442	4661790	2335439	1168859	935270	788730