General Simulation Information

Num Servers Per TOR:	4	Num Sender Hosts:	28	Load Factor:	%0.1785714
Num TORs:	8	Num Receiver Hosts:	1	Start Time:	0s
Server Link Speed:	10Gb/s	Workload Type:	TEST_DIST	Stop Time:	19.5s
Fabric Link Speed:	40Gb/s	InterArrival Dist:	exponential	Warmup Time:	0ms
Fabric Link Delay	0.25us	hostNicThinkTime:	0.5us		
Edge Link Delay	0.5us				

Traffic Characteristic (Rates, Bytes, and DutyCycle)

Measurement Point	AvgRate (Gb/s)	CumRate (Gb/s)	MinRate (Gb/s)	MaxRate (Gb/s)	CumBytes (MB)	Avg Duty Cycle(%)	Min Duty Cycle(%)	Max Duty Cycle(%)
SX Apps Send:	0.02	0.50	0.02	0.02	1228.94			
SX NICs Send:	0.02	0.52	0.02	0.02	1271.27	0.19	0.17	0.21
All NICs Send:	0.02	0.54	0.00	0.02	1326.16	0.17	0.00	0.25
TORs Down Recv:	0.02	0.54	0.00	0.02	1326.16	0.17	0.00	0.25
TORs Up Send:	0.07	0.54	0.02	0.08	1326.16	0.17	0.06	0.19
TORs Up Recv:	0.07	0.54	0.00	0.52	1326.16	0.17	0.01	1.31
TORs Down Send:	0.02	0.54	0.00	0.52	1326.16	0.17	0.00	5.25
ALL NICs Recv:	0.02	0.54	0.00	0.52	1326.16	0.17	0.00	5.25
RX NICs Recv:	0.52	0.52	0.52	0.52	1271.27	5.25	5.25	5.25
RX Apps Recv:	0.50	0.50	0.50	0.50	1228.94			

Queue Length (Stats Collected At Pkt Arrivals)

Queue Location	Mean (Pkts)	StdDev (Pkts)	Mean (KB)	StdDev (KB)	Empty %	OnePkt %	Min (Pkts)	Min (KB)	Max (Pkts)	Max (KB)
SX Transports	0.00	0.05	0.14	3.81	nan	nan	0.00	0.00	2.00	963.20
SX NICs	1.00	0.01	1.41	0.38	0.00	100.00	0.00	0.00	2.00	1.58
All NICs	1.00	0.00	0.75	0.19	0.00	100.00	0.00	0.00	2.00	1.58
SX TORs Up	1.00	0.00	1.41	0.38	0.00	100.00	0.00	0.00	1.00	1.52
All TORs Up	1.00	0.00	0.75	0.19	0.00	100.00	0.00	0.00	1.00	1.52
RX TORs Down	1.00	0.04	1.41	0.37	0.00	99.81	0.00	0.00	3.00	3.18
All TORs Down	1.00	0.03	0.75	0.19	0.00	99.90	0.00	0.00	3.00	3.18

Queue Wait Time Stats

Packet Type: Requst

Queue Location	mean (us)	mean (%)	stddev (us)	min (us)	median (us)	75%ile (us)	99%ile (us)	max (us)	count
Host NICs:	0.00	1.97	0.03	0.00	0.00	0.00	0.00	1.21	45070
TORs upward NICs:	0.00	1.26	0.01	0.00	0.00	0.00	0.00	0.30	45070
Aggr Switch NICs:	0.00	5.42	0.03	0.00	0.00	0.00	0.14	0.31	45070
TORs downward NICs:	0.05	91.35	0.22	0.00	0.00	0.00	1.19	1.47	45070
Total:	0.05	100.00							

Packet Type: Grant

Queue Location	mean (us)	mean (%)	stddev (us)	min (us)	median (us)	75%ile (us)	99%ile (us)	max (us)	count
Host NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	857636
TORs upward NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	857636
Aggr Switch NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	857636
TORs downward NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	857636
Total:	0.00	0.00							

Packet Type: Data

Queue Location	mean (us)	mean (%)	stddev (us)	min (us)	median (us)	75%ile (us)	99%ile (us)	max (us)	count
Host NICs:	0.00	3.80	0.01	0.00	0.00	0.00	0.00	0.52	857636
TORs upward NICs:	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.17	857636
Aggr Switch NICs:	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.27	857636
TORs downward NICs:	0.02	95.66	0.05	0.00	0.00	0.00	0.26	1.66	857636
Total	0.02	100.00							

packet Type: All Pkts

Queue Location	mean (us)	mean (%)	stddev (us)	min (us)	median (us)	75%ile (us)	99%ile (us)	max (us)	count
SX Host NICs:	0.00	3.55	0.01	0.00	0.00	0.00	0.00	1.21	902734
SX TORs UP NICs:	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.30	902713
Aggr Switch NICs:	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.31	1760378
RX TORs Down NICs:	0.02	95.53	0.07	0.00	0.00	0.00	0.22	1.66	902707
Total	0.02	100.00							

End To End Message Latency For Different Ranges of Message Sizes

Msg Size Range	mean (us)	stddev (us)	min (us)	median (us)	75%ile (us)	99%ile (us)	max (us)	count	count (%)
(0, 100]	6.70	0.45	6.60	6.60	6.60	8.23	11.56	22604	50.15
(100, 1472]	9.42	0.33	9.34	9.34	9.34	10.91	13.63	6675	14.81
(1472, 10000]	16.59	0.65	16.48	16.48	16.48	18.38	27.10	4495	9.97
(10000, 100000]	94.30	11.76	91.70	91.70	91.70	162.33	226.95	11249	24.96
(100000, 1000000]	893.18	65.28	844.01	844.01	875.99	1094.99	1094.99	47	0.10
(1000000, Huge]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00

Total Queue Delay (ie. real_e2e_latency - ideal_e2e_latency) For Different Ranges of Message Sizes

Msg Size Range	mean (us)	stddev (us)	min (us)	median (us)	75%ile (us)	99%ile (us)	max (us)	count	count (%)
(0, 100]	3.24	0.45	3.14	3.14	3.14	5.18	8.11	22604	50.15
(100, 1472]	6.70	0.33	6.62	6.62	6.62	8.00	10.91	6675	14.81
(1472, 10000]	5.32	0.65	5.21	5.21	5.21	7.36	15.83	4495	9.97
(10000, 100000]	8.15	11.76	5.55	5.55	5.55	74.18	140.80	11249	24.96
(100000, 1000000]	61.62	65.28	12.46	12.46	87.81	263.43	263.43	47	0.10
(1000000, Huge]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00

End To End Message Stretch For Different Ranges of Message Sizes

Msg Size Range	mean	stddev	min	median	75%ile	99%ile	max	count	count%
(0, 100]	1.94	0.13	1.91	1.91	1.91	2.38	3.35	22604	50.15
(100, 1472]	3.46	0.12	3.43	3.43	3.43	4.01	5.01	6675	14.81
(1472, 10000]	1.47	0.06	1.46	1.46	1.46	1.63	2.40	4495	9.97
(10000, 100000]	1.09	0.14	1.06	1.06	1.06	1.88	2.63	11249	24.96
(100000, 1000000]	1.07	0.08	1.01	1.01	1.05	1.32	1.32	47	0.10
(1000000, Huge]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00