
General Simulation Information

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Num Servers Per TOR:      4      Num Sender Hosts:      28      Load Factor:           %1.785714
Num TORs:                 8      Num Receiver Hosts:    1      Start Time:            0s
Server Link Speed:        10Gb/s  Workload Type:         TEST_DIST  Stop Time:             9.5s
Fabric Link Speed:        40Gb/s  InterArrival Dist:    exponential  Warmup Time:          0ms
Fabric Link Delay         0.25us  hostNicThinkTime:     0.5us
Edge Link Delay           0.5us
    
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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:	0.18	5.04	0.17	0.19	5989.99			
SX NICs Send:	0.19	5.22	0.18	0.20	6196.24	1.87	1.79	1.96
All NICs Send:	0.17	5.44	0.00	0.23	6463.72	1.72	0.00	2.53
TORs Down Recv:	0.17	5.44	0.00	0.23	6463.72	1.72	0.00	2.53
TORs Up Send:	0.68	5.44	0.23	0.76	6463.72	1.72	0.63	1.91
TORs Up Recv:	0.68	5.44	0.03	5.22	6463.72	1.72	0.09	13.12
TORs Down Send:	0.17	5.44	0.00	5.22	6463.72	1.72	0.00	52.47
ALL NICs Recv:	0.17	5.44	0.00	5.22	6463.72	1.72	0.00	52.47
RX NICs Recv:	5.22	5.22	5.22	5.22	6196.24	52.47	52.47	52.47
RX Apps Recv:	5.04	5.04	5.04	5.04	5989.99			

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	0.03	0.18	2.72	27.09	nan	nan	0.00	0.00	3.00	1100.00
SX NICs	1.00	0.01	1.41	0.37	0.00	100.00	0.00	0.00	2.00	3.04
All NICs	1.00	0.00	0.75	0.19	0.00	100.00	0.00	0.00	2.00	3.04
SX TORs Up	1.00	0.00	1.41	0.37	0.00	100.00	0.00	0.00	2.00	1.66
All TORs Up	1.00	0.00	0.75	0.19	0.00	100.00	0.00	0.00	2.00	1.66
RX TORs Down	1.19	0.63	1.69	0.93	0.00	87.01	0.00	0.00	15.00	21.32
All TORs Down	1.10	0.32	0.90	0.47	0.00	93.34	0.00	0.00	15.00	21.32

Queue Wait Time Stats

Packet Type: Request

Queue Location	mean (us)	mean (%)	stddev (us)	min (us)	median (us)	75%ile (us)	99%ile (us)	max (us)	count
Host NICs:	0.01	1.51	0.10	0.00	0.00	0.00	0.52	1.28	218758
TORs upward NICs:	0.01	0.87	0.04	0.00	0.00	0.00	0.23	0.31	218758
Aggr Switch NICs:	0.03	3.77	0.08	0.00	0.00	0.00	0.28	0.31	218758
TORs downward NICs:	0.71	93.85	0.92	0.00	0.26	1.04	3.66	16.19	218758
Total:	0.76	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	4179278
TORs upward NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4179278
Aggr Switch NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4179278
TORs downward NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4179278
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	0.33	0.01	0.00	0.00	0.00	0.03	0.81	4179278
TORs upward NICs:	0.00	0.07	0.01	0.00	0.00	0.00	0.00	0.24	4179278
Aggr Switch NICs:	0.00	0.12	0.01	0.00	0.00	0.00	0.00	0.30	4179278
TORs downward NICs:	0.45	99.48	0.81	0.00	0.15	0.46	3.64	15.82	4179278
Total	0.45	100.00							

packet Type: All Pkts

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Queue Location      mean    mean    stddev  min    median  75%ile  99%ile  max    count
                   (us)    (%)    (us)    (us)    (us)    (us)    (us)    (us)
SX Host NICs:      0.00    0.42    0.02    0.00    0.00    0.00    0.02    1.28  4398064
SX TORs UP NICs:   0.00    0.14    0.01    0.00    0.00    0.00    0.00    0.31  4398043
Aggr Switch NICs: 0.00    0.21    0.01    0.00    0.00    0.00    0.00    0.31  8577350
RX TORs Down NICs: 0.46    99.23   0.82    0.00    0.15    0.46    3.64    16.19 4398037
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Total              0.47    100.00
    
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End To End Message Latency For Different Ranges of Message Sizes

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Msg Size Range      mean    stddev  min    median  75%ile  99%ile  max    count  count
                   (us)    (us)    (us)    (us)    (us)    (us)    (us)
(0, 100]            8.26    2.05    6.60    7.39    9.51    14.79   38.59  109104  49.87
(100, 1472]         10.70    1.83    9.34    9.61    10.98   16.47   40.50  32605  14.90
(1472, 10000]       18.12    2.26    16.48   16.48   17.53   25.32   45.23  22139  10.12
(10000, 100000]    136.63   76.22   91.70   91.70   114.35  400.22  1606.07 54667  24.99
(100000, 1000000] 1733.38  614.15  857.05  1463.68 1756.42 3512.84 4391.05  243    0.11
(1000000, Huge]    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0      0.00
    
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Total Queue Delay (ie. real_e2e_latency - ideal_e2e_latency) For Different Ranges of Message Sizes

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Msg Size Range      mean    stddev  min    median  75%ile  99%ile  max    count  count
                   (us)    (us)    (us)    (us)    (us)    (us)    (us)
(0, 100]            6.45    2.05    4.79    5.62    7.49    13.10   36.79  109104  49.87
(100, 1472]         6.15    1.83    4.79    5.34    6.41    11.76   35.95  32605  14.90
(1472, 10000]       6.48    2.26    4.85    4.85    7.03    14.06   33.59  22139  10.12
(10000, 100000]    50.36   76.22   5.43    5.43    51.42   308.54  1519.81 54667  24.99
(100000, 1000000] 900.68  614.15  24.34   711.67  948.89  2846.67 3558.34  243    0.11
(1000000, Huge]    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0      0.00
    
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End To End Message Stretch For Different Ranges of Message Sizes

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Msg Size Range      mean    stddev  min    median  75%ile  99%ile  max    count  count%
                   (us)    (us)    (us)    (us)    (us)    (us)    (us)
(0, 100]            4.57    1.13    3.65    4.09    5.26    8.18    21.35  109104  49.87
(100, 1472]         2.35    0.40    2.05    2.11    2.41    3.62    8.90   32605  14.90
(1472, 10000]       1.56    0.19    1.42    1.42    1.51    2.18    3.89   22139  10.12
(10000, 100000]    1.58    0.88    1.06    1.06    1.33    4.64    18.62  54667  24.99
(100000, 1000000] 2.08    0.74    1.03    1.76    2.11    4.22    5.27   243    0.11
(1000000, Huge]    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0      0.00
    
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