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General Simulation Information

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Num Servers Per TOR:      4      Num Sender Hosts:      28      Load Factor:           %3.214286
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:	0.32	8.99	0.31	0.34	10672.74			
SX NICs Send:	0.33	9.30	0.32	0.35	11040.55	3.34	3.21	3.50
All NICs Send:	0.30	9.70	0.00	0.40	11517.25	3.06	0.00	4.52
TORs Down Recv:	0.30	9.70	0.00	0.40	11517.25	3.06	0.00	4.52
TORs Up Send:	1.21	9.70	0.40	1.35	11517.25	3.06	1.13	3.39
TORs Up Recv:	1.21	9.70	0.06	9.30	11517.25	3.06	0.16	23.37
TORs Down Send:	0.30	9.70	0.00	9.30	11517.25	3.06	0.00	93.50
ALL NICs Recv:	0.30	9.70	0.00	9.30	11517.25	3.06	0.00	93.50
RX NICs Recv:	9.30	9.30	9.30	9.30	11040.54	93.50	93.50	93.50
RX Apps Recv:	8.99	8.99	8.99	8.99	10672.74			

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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	0.28	0.58	37.52	139.69	nan	nan	0.00	0.00	9.00	2910.11
SX NICs	1.00	0.01	1.41	0.38	0.00	99.99	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	0.38	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	41.61	68.40	58.80	96.64	0.00	14.52	0.00	0.00	457.00	641.80
All TORs Down	21.83	35.08	30.19	49.56	0.00	56.16	0.00	0.00	457.00	641.80

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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:	0.02	0.04	0.12	0.00	0.00	0.00	0.80	1.29	393289
TORs upward NICs:	0.01	0.03	0.05	0.00	0.00	0.00	0.23	0.31	393289
Aggr Switch NICs:	0.05	0.11	0.10	0.00	0.00	0.04	0.28	0.32	393289
TORs downward NICs:	45.55	99.82	77.23	0.00	12.22	45.82	45.82	519.45	393289
Total:	45.63	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	7448564
TORs upward NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7448564
Aggr Switch NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7448564
TORs downward NICs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7448564
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	0.00	0.01	0.00	0.00	0.00	0.04	0.81	7448564
TORs upward NICs:	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.24	7448564
Aggr Switch NICs:	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.30	7448564
TORs downward NICs:	47.15	99.99	78.48	0.00	5.63	5.63	5.63	519.15	7448564
Total	47.15	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    0.01    0.03    0.00   0.00    0.00    0.02    1.29  7841881
SX TORs UP NICs:   0.00    0.00    0.02    0.00   0.00    0.00    0.00    0.31  7841860
Aggr Switch NICs:  0.00    0.00    0.01    0.00   0.00    0.00    0.10    0.32  15290453
RX TORs Down NICs: 47.07   99.99   78.42    0.00   6.60    6.60    6.60   519.45 7841854
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Total              47.07   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]           98.13   154.31   6.60   32.33   107.78  107.78  1044.32 196655  50.00
(100, 1472]       100.06  154.18   9.34   35.61   106.83  178.04  1045.48  59160  15.04
(1472, 10000]     108.49  155.14  16.48   30.70   107.46  460.53  1052.63  39379  10.01
(10000, 100000]   593.29  1375.85  91.70  237.35  474.71  5459.11  64732.22 97692  24.84
(100000, 1000000] 16295.76 15639.23 1227.27 7333.32 14666.63 73333.16 109999.74 403  0.10
(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]           96.33   154.31   4.79   31.25   104.16  104.16  1042.51 196655  50.00
(100, 1472]       95.51   154.18   4.79   28.16   107.00  168.94  1040.93  59160  15.04
(1472, 10000]     96.85   155.14   4.85   29.15   102.03  437.26  1041.00  39379  10.01
(10000, 100000]   507.02  1375.85   5.43   5.43    231.60  5558.43  64645.95 97692  24.84
(100000, 1000000] 15463.06 15639.23 394.57 7277.80 14555.60 72778.02 109167.03 403  0.10
(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]           54.28   85.35    3.65   17.88   59.61   59.61   577.61 196655  50.00
(100, 1472]       21.98   33.87    2.05   7.82    23.47   39.11   229.68  59160  15.04
(1472, 10000]     9.33    13.34    1.42   2.64    9.24    39.59   90.48   39379  10.01
(10000, 100000]   6.88    15.95    1.06   2.75   5.50    63.28   750.35  97692  24.84
(100000, 1000000] 19.57   18.78    1.47   8.81   17.61   88.07   132.10  403  0.10
(1000000, Huge]   0.00    0.00    0.00    0.00    0.00    0.00    0.00    0  0.00
    
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