
 |General Simulation Information|

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Num Servers Per TOR:      3      Num Sender Hosts:      2      Load Factor:          %1.785714
Num TORs:                 1      Num Receiver Hosts:    1      Start Time:           0s
Server Link Speed:       10Gb/s  Workload Type:         PRESET_IN_FILE        Stop Time:             9.5s
Fabric Link Speed:       40Gb/s  InterArrival Dist:     preset_in_file        Warmup Time:          0ms
Fabric Link Delay        0.0us   SW Turn-around Time:   0.5us   NIC Send ThinkTime:   0.5us
Edge Link Delay          0.0us   Switch Fix Delay:      0.25us
    
```

 |Receiver's Outstanding Bytes(@ packet arrivals) and Grants (@ new grants)|

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=====
In Flight Bytes          mean   stddev   min    median  75%ile  99%ile  max    count
                        (KB)   (KB)    (KB)   (KB)    (KB)    (KB)   (KB)
-----
Outstanding Grant Bytes: 7.51   0.10    1.50   7.44    7.44    7.44    7.51   6869
Outstanding Total Bytes: 7.51   0.13    0.17   7.44    7.44    7.44    7.51   6869
    
```

 |Homa Packets Traffic Rates|

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=====
Homa Packet Type        AvgRate   CumRate   MinRate   MaxRate
                        (Mb/s)    (Mb/s)    (Mb/s)    (Mb/s)
-----
SX NICs Req. SxRate:    4005.47   8010.94   0.02      8010.92
SX NICs Unsched. SxRate: 0.00      0.00      0.00      0.00
SX NICs Sched. SxRate:  493.28   986.55    0.00      986.55
RX NICs Grant SxRate:   42.90    42.90    42.90     42.90
    
```

 |Traffic Characteristic (Rates, Bytes, and DutyCycle)|

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=====
Measurement Point      AvgRate   CumRate   MinRate   MaxRate   CumBytes   Avg Duty   Min Duty   Max Duty
                        (Gb/s)    (Gb/s)    (Gb/s)    (Gb/s)    (MB)       Cycle(%)  Cycle(%)  Cycle(%)
-----
SX Apps Send:         inf       inf       4.95      inf       62.26
SX NICs Send:         4.50     9.00     0.99      8.01     95.08
All NICs Send:        3.01     9.04     0.04      8.01     95.54      31.49     0.48      84.07
TORs Down Recv:       3.01     9.04     0.04      8.01     95.54      31.49     0.48      84.06
TORs Up Send:
TORs Up Recv:
TORs Down Send:       3.01     9.04     0.00      9.00     95.54      31.49     0.00      93.98
ALL NICs Recv:        3.01     9.04     0.00      9.00     95.54      31.49     0.00      93.98
RX NICs Recv:         9.00     9.00     9.00      9.00     95.08      93.98     93.98     93.98
RX Apps Recv:         5.89     5.89     5.89      5.89     62.26
    
```

 |Queue Length (Stats Collected At Pkt Arrivals)|

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=====
Queue Location         Mean     StdDev   Mean     StdDev   Empty   OnePkt   Min     Min     Max     Max
                        (Pkts)  (Pkts)  (KB)    (KB)    %       %       (Pkts) (KB)   (Pkts) (KB)
-----
SX Transports         0.00    0.00    0.00    0.00    nan     nan     0.00   0.00   0.00   0.00
SX NICs               0.00    0.10    0.00    0.02    99.98   0.00   0.00   0.00  12.00  1.82
All NICs              0.00    0.10    0.00    0.02    99.98   0.00   0.00   0.00  12.00  1.82
SX TORs Up            nan     nan     nan     nan     nan     nan     nan    nan    nan    nan
All TORs Up           nan     nan     nan     nan     nan     nan     nan    nan    nan    nan
RX TORs Down          8.82    1.84    7.35    0.47    0.00    0.00   0.00   0.00  18.00  9.42
All TORs Down         8.71    1.82    7.25    0.46    1.28    0.00   0.00   0.00  18.00  9.42
    
```

 |Queue Wait Time Stats|

Packet Type: Request

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=====
Queue Location         mean     mean     stddev   min     median  75%ile  99%ile  max     count
                        (us)    (%)     (us)    (us)    (us)    (us)    (us)    (us)
-----
Host NICs:             0.00    0.03    -nan     0.00    0.00    0.00    0.00    1.66   522586
TORs upward NICs:     0.00    0.00    0.00    inf     0.00    0.00    0.00    0.00    0
Aggr Switch NICs:    0.00    0.00    0.00    inf     0.00    0.00    0.00    0.00    0
TORs downward NICs:  0.62    99.97   0.36    0.00    0.61    0.86    1.10    1.84   522582
Total:                 0.62    100.00
    
```

Packet Type: Unsched. Data

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=====
Queue Location         mean     mean     stddev   min     median  75%ile  99%ile  max     count
                        (us)    (us)    (us)    (us)    (us)    (us)    (us)    (us)
-----
    
```

| | (us) | (%) | (us) | (us) | (us) | (us) | (us) | (us) | (us) |
|---------------------|------|------|------|------|------|------|------|------|------|
| Host NICs: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| TORs upward NICs: | 0.00 | 0.00 | 0.00 | inf | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Aggr Switch NICs: | 0.00 | 0.00 | 0.00 | inf | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| TORs downward NICs: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Total | 0.00 | 0.00 | | | | | | | |

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 | 6869 |
| TORs upward NICs: | 0.00 | 0.00 | 0.00 | inf | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Aggr Switch NICs: | 0.00 | 0.00 | 0.00 | inf | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| TORs downward NICs: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6869 |
| Total: | 0.00 | 0.00 | | | | | | | |

Packet Type: Sched. 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6869 |
| TORs upward NICs: | 0.00 | 0.00 | 0.00 | inf | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Aggr Switch NICs: | 0.00 | 0.00 | 0.00 | inf | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| TORs downward NICs: | 55.45 | 100.00 | 0.45 | 0.00 | 53.47 | 53.47 | 53.47 | 72.91 | 6869 |
| Total | 55.45 | 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 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 1.66 | 529457 |
| SX TORs UP NICs: | 0.00 | 0.00 | 0.00 | inf | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Aggr Switch NICs: | 0.00 | 0.00 | 0.00 | inf | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| RX TORs Down NICs: | 1.33 | 99.99 | 6.22 | 0.00 | 0.00 | 0.00 | 53.47 | 72.91 | 529452 |
| Total | 1.33 | 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] | 2.65 | 0.36 | 2.03 | 2.29 | 2.68 | 3.06 | 5.74 | 522575 | 100.00 |
| (100, 1448] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| (1448, 10000] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| (10000, 100000] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| (100000, 1000000] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| (1000000, Huge] | 84543.20 | -nan | 84543.20 | 84543.20 | 84543.20 | 84543.20 | 84543.20 | 1 | 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] | 0.63 | 0.36 | 0.02 | 0.50 | 0.74 | 0.99 | 3.72 | 522575 | 100.00 |
| (100, 1448] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| (1448, 10000] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| (10000, 100000] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| (100000, 1000000] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| (1000000, Huge] | 76181.50 | -nan | 76181.50 | 76181.50 | 76181.50 | 76181.50 | 76181.50 | 1 | 0.00 |

|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%
-----
(0, 100]            1.31      0.18      1.01     1.14     1.33     1.52     2.85     522575   100.00
(100, 1448]         0.00      0.00      0.00     0.00     0.00     0.00     0.00      0        0.00
(1448, 10000]       0.00      0.00      0.00     0.00     0.00     0.00     0.00      0        0.00
(10000, 100000]    0.00      0.00      0.00     0.00     0.00     0.00     0.00      0        0.00
(100000, 1000000]  0.00      0.00      0.00     0.00     0.00     0.00     0.00      0        0.00
(1000000, Huge]    10.11     -nan      10.11    10.11    10.11    10.11    10.11      1        0.00
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