Pantheon Report

Data path: GCE London on ens4 (local) → GCE Iowa on ens4 (remote).
Repeated the test of 19 congestion control schemes 5 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against time.google.com and have been applied to correct the timestamps in logs.

System info:
Linux 4.15.0-1019-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 190986 254651 381972

Git summary:
branch: muses @ 90192f6b64ce1a1191dcca0e9ff9ee24950674d7
third_party/fillp @ d47f4fa1b454a5e3c053f115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f9851712514b2231f43ec901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143ceddbfe58e562f4
third_party/indigo @ 2011c92e4a9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8a0bcb967ed7048ba6a8f994ab95
third_party/libutp @ b3465b94e2826f2b179eaaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19b1f0fed0c6399aee86009b4a86434c40a
third_party/pantheon-tunnel @ cbfcee6db5ff5740dae1771f813cd646339e1952
third_party/pcc @ 1afc958fa0d66d18b263c091a55feca872b4981e1
M receiver/src/core.cpp
M sender/src/core.cpp

third_party/pcc-experimental @ cd43e34e3f5f5613e8ac0d8fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ecb978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3b8b2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a6ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d44b47ea74c6c60a261145af2629562939f9a494
test from GCE London to GCE Iowa, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>5</td>
<td>548.66</td>
<td>516.51</td>
<td>502.59</td>
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<td>Copa</td>
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<td>325.52</td>
<td>313.26</td>
<td>288.26</td>
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</table>
Run 1: Statistics of TCP BBR

Start at: 2018-09-26 04:39:35
End at: 2018-09-26 04:40:05
Local clock offset: 0.636 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2018-09-26 07:59:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1020.03 Mbit/s
  95th percentile per-packet one-way delay: 141.881 ms
  Loss rate: 0.67%
-- Flow 1:
  Average throughput: 498.34 Mbit/s
  95th percentile per-packet one-way delay: 132.546 ms
  Loss rate: 0.43%
-- Flow 2:
  Average throughput: 527.93 Mbit/s
  95th percentile per-packet one-way delay: 143.821 ms
  Loss rate: 0.94%
-- Flow 3:
  Average throughput: 510.48 Mbit/s
  95th percentile per-packet one-way delay: 150.917 ms
  Loss rate: 0.81%
Run 1: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 500.48 Mbps)
Flow 1 egress (mean 498.34 Mbps)
Flow 2 ingress (mean 532.92 Mbps)
Flow 2 egress (mean 527.93 Mbps)
Flow 3 ingress (mean 514.59 Mbps)
Flow 3 egress (mean 510.48 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 132.55 ms)
Flow 2 (95th percentile 143.82 ms)
Flow 3 (95th percentile 150.92 ms)
Run 2: Statistics of TCP BBR

Start at: 2018-09-26 05:13:05
End at: 2018-09-26 05:13:35
Local clock offset: -0.049 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-09-26 07:59:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1036.37 Mbit/s
95th percentile per-packet one-way delay: 129.227 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 543.09 Mbit/s
95th percentile per-packet one-way delay: 134.905 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 492.86 Mbit/s
95th percentile per-packet one-way delay: 118.059 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 496.33 Mbit/s
95th percentile per-packet one-way delay: 134.758 ms
Loss rate: 0.31%
Run 2: Report of TCP BBR — Data Link
Run 3: Statistics of TCP BBR

Start at: 2018-09-26 05:46:27
End at: 2018-09-26 05:46:57
Local clock offset: -0.139 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-09-26 07:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1051.21 Mbit/s
95th percentile per-packet one-way delay: 137.295 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 557.25 Mbit/s
95th percentile per-packet one-way delay: 145.858 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 494.75 Mbit/s
95th percentile per-packet one-way delay: 117.129 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 497.36 Mbit/s
95th percentile per-packet one-way delay: 123.797 ms
Loss rate: 0.11%
Run 3: Report of TCP BBR — Data Link

Graph 1: Throughput (Mbps) vs. Time (s)
- Flow 1 ingress (mean 558.95 Mbps)
- Flow 1 egress (mean 557.25 Mbps)
- Flow 2 ingress (mean 500.97 Mbps)
- Flow 2 egress (mean 494.75 Mbps)
- Flow 3 ingress (mean 497.91 Mbps)
- Flow 3 egress (mean 497.96 Mbps)

Graph 2: Per-packet one-way delay (ms) vs. Time (s)
- Flow 1 (95th percentile 145.86 ms)
- Flow 2 (95th percentile 117.13 ms)
- Flow 3 (95th percentile 123.00 ms)
Run 4: Statistics of TCP BBR

Start at: 2018-09-26 06:20:16
End at: 2018-09-26 06:20:46
Local clock offset: -0.079 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-09-26 08:00:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1121.36 Mbit/s
95th percentile per-packet one-way delay: 155.570 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 584.64 Mbit/s
95th percentile per-packet one-way delay: 143.675 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 563.83 Mbit/s
95th percentile per-packet one-way delay: 145.220 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 485.15 Mbit/s
95th percentile per-packet one-way delay: 172.260 ms
Loss rate: 2.77%
Run 4: Report of TCP BBR — Data Link

![Graph of Throughput and Per-packet one-way delay](image)

- Flow 1 ingress (mean 587.56 Mbit/s)
- Flow 1 egress (mean 584.64 Mbit/s)
- Flow 2 ingress (mean 570.93 Mbit/s)
- Flow 2 egress (mean 563.83 Mbit/s)
- Flow 3 ingress (mean 498.88 Mbit/s)
- Flow 3 egress (mean 485.15 Mbit/s)
Run 5: Statistics of TCP BBR

Start at: 2018-09-26 06:54:03
End at: 2018-09-26 06:54:33
Local clock offset: -0.023 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-09-26 08:00:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1069.39 Mbit/s
95th percentile per-packet one-way delay: 145.371 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 559.96 Mbit/s
95th percentile per-packet one-way delay: 152.986 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 503.18 Mbit/s
95th percentile per-packet one-way delay: 141.543 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 523.63 Mbit/s
95th percentile per-packet one-way delay: 122.435 ms
Loss rate: 0.25%
Run 5: Report of TCP BBR — Data Link

![Graph of Throughput (Mbps) over Time (s)]

- Flow 1 ingress (mean 564.60 Mbps)
- Flow 1 egress (mean 559.96 Mbps)
- Flow 2 ingress (mean 504.70 Mbps)
- Flow 2 egress (mean 503.18 Mbps)
- Flow 3 ingress (mean 525.00 Mbps)
- Flow 3 egress (mean 523.63 Mbps)

![Graph of Per-packet one-way delay (ms) over Time (s)]

- Flow 1 (95th percentile 152.99 ms)
- Flow 2 (95th percentile 141.54 ms)
- Flow 3 (95th percentile 122.44 ms)
Run 1: Statistics of Copa

Start at: 2018-09-26 04:45:00
End at: 2018-09-26 04:45:30
Local clock offset: 0.167 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-09-26 08:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 601.81 Mbit/s
95th percentile per-packet one-way delay: 70.800 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 298.78 Mbit/s
95th percentile per-packet one-way delay: 64.767 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 319.97 Mbit/s
95th percentile per-packet one-way delay: 65.038 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 270.00 Mbit/s
95th percentile per-packet one-way delay: 107.036 ms
Loss rate: 0.01%
Run 1: Report of Copa — Data Link

![Graph showing throughput and packet delay over time for different flows.]
Run 2: Statistics of Copa

Start at: 2018-09-26 05:18:30
End at: 2018-09-26 05:19:00
Local clock offset: -0.054 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2018-09-26 08:01:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 616.56 Mbit/s
95th percentile per-packet one-way delay: 69.573 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 311.93 Mbit/s
95th percentile per-packet one-way delay: 63.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 322.63 Mbit/s
95th percentile per-packet one-way delay: 57.748 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 270.14 Mbit/s
95th percentile per-packet one-way delay: 81.839 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link

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### Throughput (Mbps)

- **Flow 1 ingress** (mean 311.93 Mbps)
- **Flow 1 egress** (mean 311.93 Mbps)
- **Flow 2 ingress** (mean 322.63 Mbps)
- **Flow 2 egress** (mean 322.63 Mbps)
- **Flow 3 ingress** (mean 270.17 Mbps)
- **Flow 3 egress** (mean 270.14 Mbps)

### Packet size one way delay (ms)

- **Flow 1** (95th percentile 63.98 ms)
- **Flow 2** (95th percentile 57.75 ms)
- **Flow 3** (95th percentile 81.84 ms)
Run 3: Statistics of Copa

Start at: 2018-09-26 05:51:51
End at: 2018-09-26 05:52:21
Local clock offset: 0.26 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-09-26 08:02:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 649.80 Mbit/s
95th percentile per-packet one-way delay: 64.738 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 334.81 Mbit/s
95th percentile per-packet one-way delay: 60.541 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 313.26 Mbit/s
95th percentile per-packet one-way delay: 67.935 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 319.68 Mbit/s
95th percentile per-packet one-way delay: 64.152 ms
Loss rate: 0.02%
Run 3: Report of Copa — Data Link
Run 4: Statistics of Copa

Start at: 2018-09-26 06:25:46
End at: 2018-09-26 06:26:16
Local clock offset: -0.397 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2018-09-26 08:19:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 654.66 Mbit/s
  95th percentile per-packet one-way delay: 60.794 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 350.20 Mbit/s
  95th percentile per-packet one-way delay: 60.915 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 310.89 Mbit/s
  95th percentile per-packet one-way delay: 58.648 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 293.56 Mbit/s
  95th percentile per-packet one-way delay: 65.286 ms
  Loss rate: 0.02%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-09-26 06:59:33
End at: 2018-09-26 07:00:03
Local clock offset: 0.385 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-09-26 08:19:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 626.05 Mbit/s
95th percentile per-packet one-way delay: 75.689 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 331.89 Mbit/s
95th percentile per-packet one-way delay: 75.340 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 299.53 Mbit/s
95th percentile per-packet one-way delay: 73.983 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 287.94 Mbit/s
95th percentile per-packet one-way delay: 77.959 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link

![Graph 1: Throughput vs Time](image1)

- Flow 1 ingress (mean 331.94 Mbit/s)
- Flow 1 egress (mean 331.99 Mbit/s)
- Flow 2 ingress (mean 297.95 Mbit/s)
- Flow 2 egress (mean 299.53 Mbit/s)
- Flow 3 ingress (mean 287.94 Mbit/s)
- Flow 3 egress (mean 287.94 Mbit/s)

![Graph 2: Per-packet end-to-end delay vs Time](image2)

- Flow 1 (95th percentile 75.34 ms)
- Flow 2 (95th percentile 73.98 ms)
- Flow 3 (95th percentile 77.96 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-09-26 05:00:42
End at: 2018-09-26 05:01:12
Local clock offset: -0.02 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-09-26 08:19:03
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 1084.66 Mbit/s
   95th percentile per-packet one-way delay: 87.103 ms
   Loss rate: 0.01%
-- Flow 1:
   Average throughput: 580.68 Mbit/s
   95th percentile per-packet one-way delay: 87.990 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 555.25 Mbit/s
   95th percentile per-packet one-way delay: 85.990 ms
   Loss rate: 0.01%
-- Flow 3:
   Average throughput: 403.83 Mbit/s
   95th percentile per-packet one-way delay: 79.737 ms
   Loss rate: 0.01%
Run 1: Report of TCP Cubic — Data Link

![Graphs showing throughput and per-packet end-to-end delay over time for different flows.]

Legend for Graphs:
- Flow 1 ingress (mean 580.68 Mbit/s)
- Flow 1 egress (mean 580.68 Mbit/s)
- Flow 2 ingress (mean 555.27 Mbit/s)
- Flow 2 egress (mean 555.25 Mbit/s)
- Flow 3 ingress (mean 403.83 Mbit/s)
- Flow 3 egress (mean 403.83 Mbit/s)
Run 2: Statistics of TCP Cubic

Start at: 2018-09-26 05:34:07
End at: 2018-09-26 05:34:37
Local clock offset: 0.277 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2018-09-26 08:19:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1090.11 Mbit/s
  95th percentile per-packet one-way delay: 129.606 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 552.82 Mbit/s
  95th percentile per-packet one-way delay: 113.273 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 568.79 Mbit/s
  95th percentile per-packet one-way delay: 137.942 ms
  Loss rate: 0.09%
-- Flow 3:
  Average throughput: 477.39 Mbit/s
  95th percentile per-packet one-way delay: 104.855 ms
  Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link

![Graph showing throughput and per-packet round-trip delay over time for different flows.]

- Flow 1 ingress (mean 553.24 Mbit/s)
- Flow 1 egress (mean 552.82 Mbit/s)
- Flow 2 ingress (mean 569.32 Mbit/s)
- Flow 2 egress (mean 568.79 Mbit/s)
- Flow 3 ingress (mean 477.39 Mbit/s)
- Flow 3 egress (mean 477.39 Mbit/s)

- Flow 1 (95th percentile 113.27 ms)
- Flow 2 (95th percentile 137.94 ms)
- Flow 3 (95th percentile 104.86 ms)
Run 3: Statistics of TCP Cubic

Start at: 2018-09-26 06:07:53
End at: 2018-09-26 06:08:23
Local clock offset: -0.416 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-09-26 08:19:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1140.63 Mbit/s
95th percentile per-packet one-way delay: 98.747 ms
Loss rate: 0.14%

-- Flow 1:
Average throughput: 609.12 Mbit/s
95th percentile per-packet one-way delay: 105.526 ms
Loss rate: 0.26%

-- Flow 2:
Average throughput: 536.30 Mbit/s
95th percentile per-packet one-way delay: 96.093 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 524.87 Mbit/s
95th percentile per-packet one-way delay: 94.385 ms
Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-09-26 06:41:41
End at: 2018-09-26 06:42:12
Local clock offset: -0.037 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2018-09-26 08:19:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1133.43 Mbit/s
95th percentile per-packet one-way delay: 95.337 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 616.04 Mbit/s
95th percentile per-packet one-way delay: 96.973 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 508.47 Mbit/s
95th percentile per-packet one-way delay: 73.406 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 537.91 Mbit/s
95th percentile per-packet one-way delay: 92.515 ms
Loss rate: 0.34%
Run 4: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps) vs. Time (s) for different flows.]

- **Flow 1** (ingress mean 616.03 Mbps, egress mean 616.04 Mbps)
- **Flow 2** (ingress mean 508.72 Mbps, egress mean 508.47 Mbps)
- **Flow 3** (ingress mean 539.75 Mbps, egress mean 537.91 Mbps)

![Graph 2: Per-packet one-way delay (ms) vs. Time (s) for different flows.]

- **Flow 1** (95th percentile 96.97 ms)
- **Flow 2** (95th percentile 73.41 ms)
- **Flow 3** (95th percentile 92.52 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-09-26 07:15:07
End at: 2018-09-26 07:15:37
Local clock offset: -0.311 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-09-26 08:20:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1148.01 Mbit/s
95th percentile per-packet one-way delay: 120.572 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 619.77 Mbit/s
95th percentile per-packet one-way delay: 134.196 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 520.96 Mbit/s
95th percentile per-packet one-way delay: 73.449 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 546.07 Mbit/s
95th percentile per-packet one-way delay: 108.636 ms
Loss rate: 0.63%
Run 5: Report of TCP Cubic — Data Link

![Graph 1: Throughput vs Time](image1)

- Flow 1 ingress (mean 620.48 Mbit/s)
- Flow 1 egress (mean 619.77 Mbit/s)
- Flow 2 ingress (mean 520.99 Mbit/s)
- Flow 2 egress (mean 520.96 Mbit/s)
- Flow 3 ingress (mean 549.43 Mbit/s)
- Flow 3 egress (mean 546.07 Mbit/s)

![Graph 2: Round-Trip Time vs Time](image2)

- Flow 1 (95th percentile 134.20 ms)
- Flow 2 (95th percentile 73.45 ms)
- Flow 3 (95th percentile 108.64 ms)
Run 1: Statistics of FillP

Start at: 2018-09-26 04:48:49  
End at: 2018-09-26 04:49:19  
Local clock offset: 0.118 ms  
Remote clock offset: 0.005 ms  

# Below is generated by plot.py at 2018-09-26 08:28:35  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 1414.70 Mbit/s  
  95th percentile per-packet one-way delay: 119.117 ms  
  Loss rate: 1.52%  
-- Flow 1:  
  Average throughput: 723.43 Mbit/s  
  95th percentile per-packet one-way delay: 123.801 ms  
  Loss rate: 2.77%  
-- Flow 2:  
  Average throughput: 725.23 Mbit/s  
  95th percentile per-packet one-way delay: 108.632 ms  
  Loss rate: 0.27%  
-- Flow 3:  
  Average throughput: 624.28 Mbit/s  
  95th percentile per-packet one-way delay: 52.943 ms  
  Loss rate: 0.00%
Run 1: Report of FillP — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 2: Statistics of FILLP

Start at: 2018-09-26 05:22:22
End at: 2018-09-26 05:22:52
Local clock offset: 0.3 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2018-09-26 08:47:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1492.87 Mbit/s
95th percentile per-packet one-way delay: 118.038 ms
Loss rate: 2.53%
-- Flow 1:
Average throughput: 809.37 Mbit/s
95th percentile per-packet one-way delay: 119.663 ms
Loss rate: 3.41%
-- Flow 2:
Average throughput: 757.21 Mbit/s
95th percentile per-packet one-way delay: 115.464 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 541.48 Mbit/s
95th percentile per-packet one-way delay: 52.247 ms
Loss rate: 0.02%
Run 2: Report of FillP — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 837.93 Mbit/s)
- Flow 2 ingress (mean 772.21 Mbit/s)
- Flow 3 ingress (mean 541.59 Mbit/s)
- Flow 1 egress (mean 809.37 Mbit/s)
- Flow 2 egress (mean 757.21 Mbit/s)
- Flow 3 egress (mean 541.48 Mbit/s)

![Packet Delay Graph](image2)

- Flow 1 (95th percentile 119.66 ms)
- Flow 2 (95th percentile 115.46 ms)
- Flow 3 (95th percentile 52.25 ms)
Run 3: Statistics of FillP

Start at: 2018-09-26 05:55:47
End at: 2018-09-26 05:56:17
Local clock offset: -0.442 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-09-26 08:48:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1517.60 Mbit/s
95th percentile per-packet one-way delay: 115.438 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 810.99 Mbit/s
95th percentile per-packet one-way delay: 113.896 ms
Loss rate: 1.95%
-- Flow 2:
Average throughput: 743.35 Mbit/s
95th percentile per-packet one-way delay: 116.824 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 637.83 Mbit/s
95th percentile per-packet one-way delay: 115.221 ms
Loss rate: 2.19%
Run 3: Report of FillP — Data Link

![Graph showing throughput and delay over time for different flows.]

**Throughput (Mbps)**
- Flow 1 ingress (mean 827.15 Mbps)
- Flow 1 egress (mean 810.99 Mbps)
- Flow 2 ingress (mean 760.36 Mbps)
- Flow 2 egress (mean 743.35 Mbps)
- Flow 3 ingress (mean 652.15 Mbps)
- Flow 3 egress (mean 637.83 Mbps)

**Per-packet one-way delay (ms)**
- Flow 1 (95th percentile 113.90 ms)
- Flow 2 (95th percentile 116.82 ms)
- Flow 3 (95th percentile 115.22 ms)
Run 4: Statistics of FillP

Start at: 2018-09-26 06:29:42
End at: 2018-09-26 06:30:12
Local clock offset: -0.073 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-09-26 08:48:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1513.88 Mbit/s
  95th percentile per-packet one-way delay: 88.901 ms
  Loss rate: 0.17%
-- Flow 1:
  Average throughput: 801.77 Mbit/s
  95th percentile per-packet one-way delay: 90.636 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 750.00 Mbit/s
  95th percentile per-packet one-way delay: 91.730 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 642.56 Mbit/s
  95th percentile per-packet one-way delay: 59.509 ms
  Loss rate: 0.63%
Run 4: Report of FillP — Data Link

Graph 1: Throughput (Mbps/s) vs Time (s)

Graph 2: Per-packet one-way delay (ms) vs Time (s)

Legend:
- Flow 1 Ingress (mean 802.05 Mbps/s)
- Flow 1 Egress (mean 801.77 Mbps/s)
- Flow 2 Ingress (mean 751.44 Mbps/s)
- Flow 2 Egress (mean 750.00 Mbps/s)
- Flow 3 Ingress (mean 646.63 Mbps/s)
- Flow 3 Egress (mean 642.56 Mbps/s)
Run 5: Statistics of FillP

Start at: 2018-09-26 07:03:26
End at: 2018-09-26 07:03:56
Local clock offset: 0.028 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-09-26 08:48:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1339.85 Mbit/s
95th percentile per-packet one-way delay: 122.343 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 715.49 Mbit/s
95th percentile per-packet one-way delay: 124.909 ms
Loss rate: 2.88%
-- Flow 2:
Average throughput: 677.13 Mbit/s
95th percentile per-packet one-way delay: 122.949 ms
Loss rate: 2.10%
-- Flow 3:
Average throughput: 523.70 Mbit/s
95th percentile per-packet one-way delay: 67.871 ms
Loss rate: 0.01%
Run 5: Report of FillP — Data Link

![Graph 1: Throughput (Mbps/s)]

![Graph 2: Per-packet one-way delay (ms)]
Run 1: Statistics of FillP-Sheep

Start at: 2018-09-26 04:52:56
End at: 2018-09-26 04:53:26
Local clock offset: 0.065 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-09-26 08:48:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1317.43 Mbit/s
  95th percentile per-packet one-way delay: 97.961 ms
  Loss rate: 0.20%
-- Flow 1:
  Average throughput: 718.78 Mbit/s
  95th percentile per-packet one-way delay: 100.399 ms
  Loss rate: 0.36%
-- Flow 2:
  Average throughput: 638.19 Mbit/s
  95th percentile per-packet one-way delay: 99.879 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 518.35 Mbit/s
  95th percentile per-packet one-way delay: 68.572 ms
  Loss rate: 0.00%
Run 1: Report of FillP-Sheep — Data Link

![Graph 1: Throughput (Mbps/s) vs. Time (s)]

- Flow 1 Ingress (mean 721.38 Mbps/s)
- Flow 1 Egress (mean 718.78 Mbps/s)
- Flow 2 Ingress (mean 638.19 Mbps/s)
- Flow 2 Egress (mean 638.19 Mbps/s)
- Flow 3 Ingress (mean 518.40 Mbps/s)
- Flow 3 Egress (mean 518.35 Mbps/s)

![Graph 2: Per-packet one-way delay (ms)]

- Flow 1 (95th percentile 100.40 ms)
- Flow 2 (95th percentile 99.88 ms)
- Flow 3 (95th percentile 68.57 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2018-09-26 05:26:21
End at: 2018-09-26 05:26:51
Local clock offset: -0.448 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-09-26 08:48:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1369.47 Mbit/s
95th percentile per-packet one-way delay: 91.891 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 749.16 Mbit/s
95th percentile per-packet one-way delay: 93.962 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 675.39 Mbit/s
95th percentile per-packet one-way delay: 91.567 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 516.62 Mbit/s
95th percentile per-packet one-way delay: 67.520 ms
Loss rate: 0.00%
Run 2: Report of FillP-Sheep — Data Link

**Throughput (Mbps):**
- Flow 1 ingress (mean 750.06 Mbps)
- Flow 1 egress (mean 749.16 Mbps)
- Flow 2 ingress (mean 676.63 Mbps)
- Flow 2 egress (mean 675.39 Mbps)
- Flow 3 ingress (mean 516.66 Mbps)
- Flow 3 egress (mean 516.62 Mbps)

**Per-packet end-to-end delay (ms):**
- Flow 1 (95th percentile 93.96 ms)
- Flow 2 (95th percentile 91.57 ms)
- Flow 3 (95th percentile 67.52 ms)
Run 3: Statistics of FillP-Sheep

Start at: 2018-09-26 06:00:00
End at: 2018-09-26 06:00:30
Local clock offset: -0.434 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-09-26 08:48:47
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1414.20 Mbit/s
  95th percentile per-packet one-way delay: 93.337 ms
  Loss rate: 0.10%
-- Flow 1:
  Average throughput: 790.01 Mbit/s
  95th percentile per-packet one-way delay: 93.235 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 627.99 Mbit/s
  95th percentile per-packet one-way delay: 97.877 ms
  Loss rate: 0.27%
-- Flow 3:
  Average throughput: 622.08 Mbit/s
  95th percentile per-packet one-way delay: 70.446 ms
  Loss rate: 0.01%
Run 3: Report of FillP-Sheep — Data Link

![Graph showing throughput and delay over time for different flows.](image-url)
Run 4: Statistics of FillP-Sheep

Start at: 2018-09-26 06:33:55
End at: 2018-09-26 06:34:25
Local clock offset: -0.029 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-09-26 09:01:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1416.60 Mbit/s
  95th percentile per-packet one-way delay: 120.363 ms
  Loss rate: 0.79%
-- Flow 1:
  Average throughput: 743.96 Mbit/s
  95th percentile per-packet one-way delay: 133.995 ms
  Loss rate: 1.14%
-- Flow 2:
  Average throughput: 690.44 Mbit/s
  95th percentile per-packet one-way delay: 113.330 ms
  Loss rate: 0.36%
-- Flow 3:
  Average throughput: 644.18 Mbit/s
  95th percentile per-packet one-way delay: 95.908 ms
  Loss rate: 0.50%
Run 4: Report of FillP-Sheep — Data Link

![Graph showing throughput and packet delay over time for different flows.]

- Flow 1 ingress (mean 752.55 Mbit/s)
- Flow 1 egress (mean 743.96 Mbit/s)
- Flow 2 ingress (mean 692.94 Mbit/s)
- Flow 2 egress (mean 690.44 Mbit/s)
- Flow 3 ingress (mean 647.46 Mbit/s)
- Flow 3 egress (mean 644.18 Mbit/s)

![Graph showing packet delay over time for different flows.]

- Flow 1 (95th percentile 134.00 ms)
- Flow 2 (95th percentile 113.33 ms)
- Flow 3 (95th percentile 95.91 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2018-09-26 07:07:20
End at: 2018-09-26 07:07:50
Local clock offset: 0.028 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 1335.05 Mbit/s
   95th percentile per-packet one-way delay: 97.235 ms
   Loss rate: 0.01%
-- Flow 1:
   Average throughput: 730.86 Mbit/s
   95th percentile per-packet one-way delay: 96.128 ms
   Loss rate: 0.02%
-- Flow 2:
   Average throughput: 626.80 Mbit/s
   95th percentile per-packet one-way delay: 82.131 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 565.69 Mbit/s
   95th percentile per-packet one-way delay: 115.432 ms
   Loss rate: 0.00%
Run 5: Report of FillP-Sheep — Data Link
Run 1: Statistics of Indigo

Start at: 2018-09-26 04:47:05
End at: 2018-09-26 04:47:35
Local clock offset: 0.137 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 371.33 Mbit/s
95th percentile per-packet one-way delay: 52.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 173.00 Mbit/s
95th percentile per-packet one-way delay: 52.718 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 211.44 Mbit/s
95th percentile per-packet one-way delay: 53.179 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 178.52 Mbit/s
95th percentile per-packet one-way delay: 51.806 ms
Loss rate: 0.01%
Run 1: Report of Indigo — Data Link

![Graph showing network performance metrics over time.](image-url)
Run 2: Statistics of Indigo

Start at: 2018-09-26 05:20:36
End at: 2018-09-26 05:21:06
Local clock offset: -0.066 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 392.00 Mbit/s
  95th percentile per-packet one-way delay: 51.462 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 207.06 Mbit/s
  95th percentile per-packet one-way delay: 51.808 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 199.04 Mbit/s
  95th percentile per-packet one-way delay: 50.966 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 162.62 Mbit/s
  95th percentile per-packet one-way delay: 50.906 ms
  Loss rate: 0.00%
Run 2: Report of Indigo — Data Link
Run 3: Statistics of Indigo

Start at: 2018-09-26 05:54:00
End at: 2018-09-26 05:54:30
Local clock offset: -0.463 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 410.24 Mbit/s
95th percentile per-packet one-way delay: 52.063 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.41 Mbit/s
95th percentile per-packet one-way delay: 51.088 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 200.05 Mbit/s
95th percentile per-packet one-way delay: 52.783 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 182.30 Mbit/s
95th percentile per-packet one-way delay: 51.684 ms
Loss rate: 0.00%
Run 3: Report of Indigo — Data Link
Run 4: Statistics of Indigo

Start at: 2018-09-26 06:27:55
End at: 2018-09-26 06:28:25
Local clock offset: -0.072 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.13 Mbit/s
95th percentile per-packet one-way delay: 51.699 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 210.53 Mbit/s
95th percentile per-packet one-way delay: 51.395 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 211.26 Mbit/s
95th percentile per-packet one-way delay: 52.148 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 185.79 Mbit/s
95th percentile per-packet one-way delay: 51.034 ms
Loss rate: 0.00%
Run 4: Report of Indigo — Data Link

Throughput vs. Time

- Flow 1 ingress (mean 210.53 Mbps)
- Flow 1 egress (mean 210.53 Mbps)
- Flow 2 ingress (mean 211.26 Mbps)
- Flow 2 egress (mean 211.26 Mbps)
- Flow 3 ingress (mean 185.79 Mbps)
- Flow 3 egress (mean 185.79 Mbps)

Packet delay vs. Time

- Flow 1 (95th percentile 51.40 ms)
- Flow 2 (95th percentile 52.15 ms)
- Flow 3 (95th percentile 51.03 ms)
Run 5: Statistics of Indigo

Start at: 2018-09-26 07:01:40
End at: 2018-09-26 07:02:10
Local clock offset: 0.034 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 395.47 Mbit/s
95th percentile per-packet one-way delay: 51.249 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 198.28 Mbit/s
95th percentile per-packet one-way delay: 50.036 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 208.57 Mbit/s
95th percentile per-packet one-way delay: 51.861 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 181.47 Mbit/s
95th percentile per-packet one-way delay: 51.414 ms
Loss rate: 0.00%
Run 5: Report of Indigo — Data Link

![Graph showing network throughput and packet delay over time for different flows.](image-url)
Run 1: Statistics of Indigo-96d2da3

Start at: 2018-09-26 04:54:58
End at: 2018-09-26 04:55:28
Local clock offset: -0.346 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 553.70 Mbit/s
  95th percentile per-packet one-way delay: 68.452 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 291.95 Mbit/s
  95th percentile per-packet one-way delay: 66.041 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 273.55 Mbit/s
  95th percentile per-packet one-way delay: 71.869 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 243.83 Mbit/s
  95th percentile per-packet one-way delay: 66.664 ms
  Loss rate: 0.00%
Run 1: Report of Indigo-96d2da3 — Data Link

![Graphs showing throughput and per-packet one-way delay over time for different flows.]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 291.96 Mbps)
  - Flow 1 egress (mean 291.95 Mbps)
  - Flow 2 ingress (mean 273.53 Mbps)
  - Flow 2 egress (mean 273.55 Mbps)
  - Flow 3 ingress (mean 244.13 Mbps)
  - Flow 3 egress (mean 243.63 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 66.04 ms)
  - Flow 2 (95th percentile 71.87 ms)
  - Flow 3 (95th percentile 66.66 ms)
Run 2: Statistics of Indigo-96d2da3

Start at: 2018-09-26 05:28:26
End at: 2018-09-26 05:28:56
Local clock offset: -0.108 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 532.15 Mbit/s
95th percentile per-packet one-way delay: 67.423 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 270.64 Mbit/s
95th percentile per-packet one-way delay: 71.180 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 276.88 Mbit/s
95th percentile per-packet one-way delay: 64.364 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 237.69 Mbit/s
95th percentile per-packet one-way delay: 65.723 ms
Loss rate: 0.23%
Run 2: Report of Indigo-96d2da3 — Data Link

The graphs show the throughput and per-packet one-way delay for different flows over time. The throughput graphs indicate the amount of data transmitted per second, while the per-packet delay graphs show the delay experienced by each packet.

Key observations:
- **Throughput:**
  - Flow 1 ingress (mean 270.74 Mbit/s)
  - Flow 1 egress (mean 270.64 Mbit/s)
  - Flow 2 ingress (mean 270.94 Mbit/s)
  - Flow 2 egress (mean 270.68 Mbit/s)
  - Flow 3 ingress (mean 238.21 Mbit/s)
  - Flow 3 egress (mean 237.69 Mbit/s)

- **Per-packet one-way delay:**
  - Flow 1 (95th percentile 71.18 ms)
  - Flow 2 (95th percentile 64.36 ms)
  - Flow 3 (95th percentile 65.72 ms)
Run 3: Statistics of Indigo-96d2da3

Start at: 2018-09-26 06:02:06
End at: 2018-09-26 06:02:36
Local clock offset: -0.118 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 530.26 Mbit/s
95th percentile per-packet one-way delay: 75.551 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 275.61 Mbit/s
95th percentile per-packet one-way delay: 80.774 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 264.67 Mbit/s
95th percentile per-packet one-way delay: 73.213 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 244.96 Mbit/s
95th percentile per-packet one-way delay: 65.945 ms
Loss rate: 0.00%
Run 3: Report of Indigo-96d2da3 — Data Link

![Graph 1: Throughput (Mbps) vs Time (s)]

- Flow 1 Ingress (mean 275.61 Mbps)
- Flow 1 Egress (mean 275.61 Mbps)
- Flow 2 Ingress (mean 264.71 Mbps)
- Flow 2 Egress (mean 264.67 Mbps)
- Flow 3 Ingress (mean 245.21 Mbps)
- Flow 3 Egress (mean 244.96 Mbps)

![Graph 2: Per-packet round trip delay (ms) vs Time (s)]

- Flow 1 (95th percentile 80.77 ms)
- Flow 2 (95th percentile 73.21 ms)
- Flow 3 (95th percentile 65.94 ms)
Run 4: Statistics of Indigo-96d2da3

Start at: 2018-09-26 06:36:01
End at: 2018-09-26 06:36:31
Local clock offset: -0.018 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 532.44 Mbit/s
  95th percentile per-packet one-way delay: 71.506 ms
  Loss rate: 0.07%
-- Flow 1:
  Average throughput: 276.09 Mbit/s
  95th percentile per-packet one-way delay: 73.708 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 269.99 Mbit/s
  95th percentile per-packet one-way delay: 74.224 ms
  Loss rate: 0.17%
-- Flow 3:
  Average throughput: 236.75 Mbit/s
  95th percentile per-packet one-way delay: 65.489 ms
  Loss rate: 0.00%
Run 4: Report of Indigo-96d2da3 — Data Link

![Graph of Throughput and Per-packet one-way delay over time for different flows.]

- Flow 1 ingress (mean 276.13 Mbit/s)
- Flow 1 egress (mean 276.09 Mbit/s)
- Flow 2 ingress (mean 270.51 Mbit/s)
- Flow 2 egress (mean 269.99 Mbit/s)
- Flow 3 ingress (mean 236.94 Mbit/s)
- Flow 3 egress (mean 236.75 Mbit/s)
Run 5: Statistics of Indigo-96d2da3

Start at: 2018-09-26 07:09:23
End at: 2018-09-26 07:09:53
Local clock offset: -0.388 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 520.40 Mbit/s
95th percentile per-packet one-way delay: 68.227 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 272.55 Mbit/s
95th percentile per-packet one-way delay: 68.526 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 255.76 Mbit/s
95th percentile per-packet one-way delay: 66.389 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 238.80 Mbit/s
95th percentile per-packet one-way delay: 70.307 ms
Loss rate: 0.00%
Run 5: Report of Indigo-96d2da3 — Data Link

![Data Link Graph](image)

**Throughput (Mbps):**
- Flow 1 ingress (mean 272.69 Mbps)
- Flow 1 egress (mean 272.55 Mbps)
- Flow 2 ingress (mean 235.76 Mbps)
- Flow 2 egress (mean 255.76 Mbps)
- Flow 3 ingress (mean 238.80 Mbps)
- Flow 3 egress (mean 238.80 Mbps)

**Per-packet one way delay (ms):**
- Flow 1 (95th percentile 68.53 ms)
- Flow 2 (95th percentile 66.39 ms)
- Flow 3 (95th percentile 70.31 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-09-26 04:59:26
End at: 2018-09-26 04:59:56
Local clock offset: 0.006 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.76 Mbit/s
95th percentile per-packet one-way delay: 50.991 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 36.65 Mbit/s
95th percentile per-packet one-way delay: 50.753 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.26 Mbit/s
95th percentile per-packet one-way delay: 51.262 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.13 Mbit/s
95th percentile per-packet one-way delay: 51.117 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-09-26 05:32:51
End at: 2018-09-26 05:33:21
Local clock offset: -0.105 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.47 Mbit/s
95th percentile per-packet one-way delay: 51.228 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 36.83 Mbit/s
95th percentile per-packet one-way delay: 51.390 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.97 Mbit/s
95th percentile per-packet one-way delay: 50.191 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.18 Mbit/s
95th percentile per-packet one-way delay: 50.427 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-09-26 06:06:37
End at: 2018-09-26 06:07:07
Local clock offset: -0.102 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.55 Mbit/s
95th percentile per-packet one-way delay: 51.455 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 36.36 Mbit/s
95th percentile per-packet one-way delay: 51.377 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.27 Mbit/s
95th percentile per-packet one-way delay: 51.644 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 50.310 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-09-26 06:40:25
End at: 2018-09-26 06:40:55
Local clock offset: -0.062 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.67 Mbit/s
95th percentile per-packet one-way delay: 51.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 37.37 Mbit/s
95th percentile per-packet one-way delay: 50.906 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.49 Mbit/s
95th percentile per-packet one-way delay: 51.735 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.42 Mbit/s
95th percentile per-packet one-way delay: 49.510 ms
Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

- Throughput (Mbps):
  - Flow 1 ingress (mean 37.37 Mbps)
  - Flow 1 egress (mean 37.37 Mbps)
  - Flow 2 ingress (mean 24.49 Mbps)
  - Flow 2 egress (mean 24.49 Mbps)
  - Flow 3 ingress (mean 12.42 Mbps)
  - Flow 3 egress (mean 12.42 Mbps)

- Per-packet one-way delay (ms):
  - Flow 1 (95th percentile 50.91 ms)
  - Flow 2 (95th percentile 51.73 ms)
  - Flow 3 (95th percentile 49.51 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-09-26 07:13:51
End at: 2018-09-26 07:14:21
Local clock offset: 0.386 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-09-26 09:12:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 58.73 Mbit/s
  95th percentile per-packet one-way delay: 50.962 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 38.58 Mbit/s
  95th percentile per-packet one-way delay: 49.878 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 24.25 Mbit/s
  95th percentile per-packet one-way delay: 51.263 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 12.21 Mbit/s
  95th percentile per-packet one-way delay: 51.017 ms
  Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

[Graph showing throughput and delay over time for different flows]
Run 1: Statistics of Indigo-Muses

Start at: 2018-09-26 05:04:40
End at: 2018-09-26 05:05:10
Local clock offset: -0.332 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2018-09-26 09:22:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1152.12 Mbit/s
95th percentile per-packet one-way delay: 73.043 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 617.48 Mbit/s
95th percentile per-packet one-way delay: 73.587 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 561.85 Mbit/s
95th percentile per-packet one-way delay: 76.208 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 495.06 Mbit/s
95th percentile per-packet one-way delay: 59.933 ms
Loss rate: 0.01%
Run 1: Report of Indigo-Muses — Data Link
Run 2: Statistics of Indigo-Muses

Start at: 2018-09-26 05:38:07
End at: 2018-09-26 05:38:37
Local clock offset: -0.466 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2018-09-26 09:24:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1149.21 Mbit/s
95th percentile per-packet one-way delay: 70.940 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 622.71 Mbit/s
95th percentile per-packet one-way delay: 74.416 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 553.29 Mbit/s
95th percentile per-packet one-way delay: 65.281 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 486.14 Mbit/s
95th percentile per-packet one-way delay: 70.864 ms
Loss rate: 0.25%
Run 2: Report of Indigo-Muses — Data Link

[Graph showing throughput over time and per-packet size over delay for different flows, with legend indicating mean speeds and 95th percentiles for each flow.]
Run 3: Statistics of Indigo-Muses

Start at: 2018-09-26 06:11:55
End at: 2018-09-26 06:12:25
Local clock offset: -0.434 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2018-09-26 09:24:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1084.46 Mbit/s
95th percentile per-packet one-way delay: 75.397 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 585.35 Mbit/s
95th percentile per-packet one-way delay: 68.795 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 530.59 Mbit/s
95th percentile per-packet one-way delay: 95.901 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 448.31 Mbit/s
95th percentile per-packet one-way delay: 77.870 ms
Loss rate: 0.00%
Run 3: Report of Indigo-Muses — Data Link

Throughput (Mbps) vs Time (s)

- Flow 1 ingress (mean 585.40 Mbps)
- Flow 1 egress (mean 585.35 Mbps)
- Flow 2 ingress (mean 530.57 Mbps)
- Flow 2 egress (mean 530.59 Mbps)
- Flow 3 ingress (mean 448.30 Mbps)
- Flow 3 egress (mean 448.31 Mbps)

Packet one way delay (ms) vs Time (s)

- Flow 1 (95th percentile 68.80 ms)
- Flow 2 (95th percentile 95.90 ms)
- Flow 3 (95th percentile 77.87 ms)
Run 4: Statistics of Indigo-Muses

Start at: 2018-09-26 06:45:43
End at: 2018-09-26 06:46:13
Local clock offset: -0.024 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-09-26 09:25:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1150.36 Mbit/s
95th percentile per-packet one-way delay: 68.038 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 615.04 Mbit/s
95th percentile per-packet one-way delay: 68.712 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 588.46 Mbit/s
95th percentile per-packet one-way delay: 68.622 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 448.43 Mbit/s
95th percentile per-packet one-way delay: 60.686 ms
Loss rate: 0.00%
Run 4: Report of Indigo-Muses — Data Link

![Graph showing throughput and packet loss over time for different flows.]

- Flow 1 ingress (mean 615.10 Mbit/s)
- Flow 1 egress (mean 615.04 Mbit/s)
- Flow 2 ingress (mean 588.46 Mbit/s)
- Flow 2 egress (mean 588.46 Mbit/s)
- Flow 3 ingress (mean 448.46 Mbit/s)
- Flow 3 egress (mean 448.43 Mbit/s)
Run 5: Statistics of Indigo-Muses

Start at: 2018-09-26 07:19:08
End at: 2018-09-26 07:19:38
Local clock offset: 0.023 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-09-26 09:26:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1131.94 Mbit/s
95th percentile per-packet one-way delay: 68.363 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 600.61 Mbit/s
95th percentile per-packet one-way delay: 72.524 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 569.92 Mbit/s
95th percentile per-packet one-way delay: 64.101 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 476.49 Mbit/s
95th percentile per-packet one-way delay: 58.119 ms
Loss rate: 0.06%
Run 5: Report of Indigo-Muses — Data Link

![Graph showing throughput and packet size distribution over time for different flows.](image)

Legend:
- Flow 1 ingress (mean 600.61 Mbit/s)
- Flow 1 egress (mean 600.61 Mbit/s)
- Flow 2 ingress (mean 569.91 Mbit/s)
- Flow 2 egress (mean 569.92 Mbit/s)
- Flow 3 ingress (mean 476.80 Mbit/s)
- Flow 3 egress (mean 476.49 Mbit/s)

Legend for packet size distribution:
- Flow 1 (95th percentile 72.52 ms)
- Flow 2 (95th percentile 64.10 ms)
- Flow 3 (95th percentile 58.12 ms)
Run 1: Statistics of PCC-Allegro

Start at: 2018-09-26 04:42:54
End at: 2018-09-26 04:43:24
Local clock offset: 0.236 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-09-26 09:34:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 829.39 Mbit/s
95th percentile per-packet one-way delay: 198.522 ms
Loss rate: 8.21%
-- Flow 1:
Average throughput: 462.87 Mbit/s
95th percentile per-packet one-way delay: 217.582 ms
Loss rate: 8.94%
-- Flow 2:
Average throughput: 427.85 Mbit/s
95th percentile per-packet one-way delay: 167.541 ms
Loss rate: 8.19%
-- Flow 3:
Average throughput: 247.41 Mbit/s
95th percentile per-packet one-way delay: 203.759 ms
Loss rate: 3.89%
Run 1: Report of PCC-Allegro — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 508.33 Mbps)  
Flow 1 egress (mean 462.87 Mbps)  
Flow 2 ingress (mean 466.01 Mbps)  
Flow 2 egress (mean 427.55 Mbps)  
Flow 3 ingress (mean 257.43 Mbps)  
Flow 3 egress (mean 247.41 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 217.58 ms)  
Flow 2 (95th percentile 167.54 ms)  
Flow 3 (95th percentile 203.76 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2018-09-26 05:16:26
End at: 2018-09-26 05:16:56
Local clock offset: -0.049 ms
Remote clock offset: 0.025 ms

# Below is generated by plot.py at 2018-09-26 09:35:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 823.42 Mbit/s
95th percentile per-packet one-way delay: 164.311 ms
Loss rate: 4.48%
-- Flow 1:
Average throughput: 467.07 Mbit/s
95th percentile per-packet one-way delay: 159.072 ms
Loss rate: 4.15%
-- Flow 2:
Average throughput: 396.31 Mbit/s
95th percentile per-packet one-way delay: 184.795 ms
Loss rate: 6.30%
-- Flow 3:
Average throughput: 282.18 Mbit/s
95th percentile per-packet one-way delay: 104.547 ms
Loss rate: 0.79%
Run 2: Report of PCC-Allegro — Data Link

![Graph 1: Throughput Over Time](chart1)

- **Flow 1 Ingress** (mean 487.29 Mbit/s)
- **Flow 1 Egress** (mean 467.07 Mbit/s)
- **Flow 2 Ingress** (mean 422.91 Mbit/s)
- **Flow 2 Egress** (mean 396.31 Mbit/s)
- **Flow 3 Ingress** (mean 284.42 Mbit/s)
- **Flow 3 Egress** (mean 282.18 Mbit/s)

![Graph 2: Round-Trip Time Over Time](chart2)

- **Flow 1 95th percentile** 159.07 ms
- **Flow 2 95th percentile** 184.79 ms
- **Flow 3 95th percentile** 104.55 ms

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Run 3: Statistics of PCC-Allegro

Start at: 2018-09-26 05:49:50
End at: 2018-09-26 05:50:20
Local clock offset: -0.492 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-09-26 09:38:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 782.53 Mbit/s
95th percentile per-packet one-way delay: 167.074 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 447.37 Mbit/s
95th percentile per-packet one-way delay: 169.958 ms
Loss rate: 3.96%
-- Flow 2:
Average throughput: 361.40 Mbit/s
95th percentile per-packet one-way delay: 125.033 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 288.51 Mbit/s
95th percentile per-packet one-way delay: 80.209 ms
Loss rate: 0.12%
Run 3: Report of PCC-Allegro — Data Link

```
Throughput (Mbit/s)
0 100 200 300 400 500 600
0 5 10 15 20 25 30
Time (s)

- Flow 1 ingress (mean 465.85 Mbit/s)
- Flow 1 egress (mean 447.37 Mbit/s)
- Flow 2 ingress (mean 361.86 Mbit/s)
- Flow 2 egress (mean 361.40 Mbit/s)
- Flow 3 ingress (mean 288.90 Mbit/s)
- Flow 3 egress (mean 288.51 Mbit/s)
```

```
Ping packet one way delay (ms)
0 60 120 180
0 5 10 15 20 25 30
Time (s)

- Flow 1 (95th percentile 169.96 ms)
- Flow 2 (95th percentile 125.03 ms)
- Flow 3 (95th percentile 80.21 ms)
```
Run 4: Statistics of PCC-Allegro

Start at: 2018-09-26 06:23:42
End at: 2018-09-26 06:24:12
Local clock offset: -0.057 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-09-26 09:50:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 831.99 Mbit/s
95th percentile per-packet one-way delay: 156.513 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 460.51 Mbit/s
95th percentile per-packet one-way delay: 155.421 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 397.93 Mbit/s
95th percentile per-packet one-way delay: 166.709 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 325.14 Mbit/s
95th percentile per-packet one-way delay: 86.520 ms
Loss rate: 0.00%
Run 4: Report of PCC-Allegro — Data Link

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**Throughput (Mbit/s)**

- **Flow 1 ingress** (mean 468.44 Mbit/s)
- **Flow 1 egress** (mean 460.51 Mbit/s)
- **Flow 2 ingress** (mean 402.86 Mbit/s)
- **Flow 2 egress** (mean 397.93 Mbit/s)
- **Flow 3 ingress** (mean 326.13 Mbit/s)
- **Flow 3 egress** (mean 325.14 Mbit/s)

---

**Per-packet one-way delay (ms)**

- **Flow 1** (95th percentile 155.42 ms)
- **Flow 2** (95th percentile 166.71 ms)
- **Flow 3** (95th percentile 86.52 ms)
Run 5: Statistics of PCC-Allegro

Start at: 2018-09-26 06:57:27
End at: 2018-09-26 06:57:57
Local clock offset: 0.024 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2018-09-26 09:52:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 850.87 Mbit/s
95th percentile per-packet one-way delay: 179.349 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 460.88 Mbit/s
95th percentile per-packet one-way delay: 155.206 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 371.40 Mbit/s
95th percentile per-packet one-way delay: 185.470 ms
Loss rate: 3.11%
-- Flow 3:
Average throughput: 433.99 Mbit/s
95th percentile per-packet one-way delay: 162.287 ms
Loss rate: 2.68%
Run 5: Report of PCC-Allegro — Data Link
Run 1: Statistics of PCC-Expr

Start at: 2018-09-26 04:36:22
End at: 2018-09-26 04:36:52
Local clock offset: -0.027 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2018-09-26 09:52:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 596.37 Mbit/s
  95th percentile per-packet one-way delay: 147.717 ms
  Loss rate: 0.78%
-- Flow 1:
  Average throughput: 311.55 Mbit/s
  95th percentile per-packet one-way delay: 132.326 ms
  Loss rate: 0.54%
-- Flow 2:
  Average throughput: 297.77 Mbit/s
  95th percentile per-packet one-way delay: 161.014 ms
  Loss rate: 1.26%
-- Flow 3:
  Average throughput: 259.80 Mbit/s
  95th percentile per-packet one-way delay: 135.725 ms
  Loss rate: 0.53%
Run 1: Report of PCC-Expr — Data Link
Run 2: Statistics of PCC-Expr

Start at: 2018-09-26 05:09:52
End at: 2018-09-26 05:10:22
Local clock offset: 0.348 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-09-26 09:52:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 583.15 Mbit/s
  95th percentile per-packet one-way delay: 152.672 ms
  Loss rate: 1.18%
-- Flow 1:
  Average throughput: 309.81 Mbit/s
  95th percentile per-packet one-way delay: 151.118 ms
  Loss rate: 1.07%
-- Flow 2:
  Average throughput: 260.05 Mbit/s
  95th percentile per-packet one-way delay: 150.984 ms
  Loss rate: 0.54%
-- Flow 3:
  Average throughput: 304.88 Mbit/s
  95th percentile per-packet one-way delay: 161.448 ms
  Loss rate: 2.61%
Run 2: Report of PCC-Expr — Data Link

![Graph 1: Throughput vs Time](image)

- Flow 1 ingress (mean 313.16 Mbit/s)
- Flow 1 egress (mean 309.81 Mbit/s)
- Flow 2 ingress (mean 261.47 Mbit/s)
- Flow 2 egress (mean 260.05 Mbit/s)
- Flow 3 ingress (mean 313.09 Mbit/s)
- Flow 3 egress (mean 304.88 Mbit/s)

![Graph 2: Per-packet one-way delay vs Time](image)

- Flow 1 (95th percentile 151.12 ms)
- Flow 2 (95th percentile 150.99 ms)
- Flow 3 (95th percentile 161.45 ms)
Run 3: Statistics of PCC-Expr

Start at: 2018-09-26 05:43:16
End at: 2018-09-26 05:43:46
Local clock offset: -0.528 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-09-26 09:52:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 547.91 Mbit/s
  95th percentile per-packet one-way delay: 126.114 ms
  Loss rate: 0.71%
-- Flow 1:
  Average throughput: 333.30 Mbit/s
  95th percentile per-packet one-way delay: 140.245 ms
  Loss rate: 1.17%
-- Flow 2:
  Average throughput: 279.57 Mbit/s
  95th percentile per-packet one-way delay: 72.071 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 94.04 Mbit/s
  95th percentile per-packet one-way delay: 51.187 ms
  Loss rate: 0.00%
Run 3: Report of PCC-Expr — Data Link

![Graph of Throughput and Delay](image)

- Flow 1 ingress (mean 337.25 Mbit/s)
- Flow 1 egress (mean 333.30 Mbit/s)
- Flow 2 ingress (mean 279.59 Mbit/s)
- Flow 2 egress (mean 279.57 Mbit/s)
- Flow 3 ingress (mean 94.04 Mbit/s)
- Flow 3 egress (mean 94.04 Mbit/s)

![Graph of Delay](image)

- Flow 1 (95th percentile 140.25 ms)
- Flow 2 (95th percentile 72.07 ms)
- Flow 3 (95th percentile 51.19 ms)
Run 4: Statistics of PCC-Expr

Start at: 2018-09-26 06:16:59
End at: 2018-09-26 06:17:29
Local clock offset: 0.255 ms
Remote clock offset: 0.107 ms

# Below is generated by plot.py at 2018-09-26 09:56:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 628.25 Mbit/s
95th percentile per-packet one-way delay: 148.379 ms
Loss rate: 3.62%
-- Flow 1:
Average throughput: 368.43 Mbit/s
95th percentile per-packet one-way delay: 151.520 ms
Loss rate: 5.84%
-- Flow 2:
Average throughput: 291.66 Mbit/s
95th percentile per-packet one-way delay: 95.575 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 199.90 Mbit/s
95th percentile per-packet one-way delay: 85.959 ms
Loss rate: 0.62%
Run 5: Statistics of PCC-Expr

Start at: 2018-09-26 06:50:49  
End at: 2018-09-26 06:51:19  
Local clock offset: -0.034 ms  
Remote clock offset: -0.02 ms  

# Below is generated by plot.py at 2018-09-26 09:56:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 605.68 Mbit/s  
95th percentile per-packet one-way delay: 78.954 ms  
Loss rate: 0.33%  
-- Flow 1:  
Average throughput: 338.13 Mbit/s  
95th percentile per-packet one-way delay: 85.958 ms  
Loss rate: 0.31%  
-- Flow 2:  
Average throughput: 308.53 Mbit/s  
95th percentile per-packet one-way delay: 62.871 ms  
Loss rate: 0.26%  
-- Flow 3:  
Average throughput: 189.55 Mbit/s  
95th percentile per-packet one-way delay: 55.288 ms  
Loss rate: 0.68%
Run 5: Report of PCC-Expr — Data Link

![Graphs showing throughput and packet loss delay over time for different flows.]

Legend:
- Flow 1 ingress (mean 190.84 Mbit/s)
- Flow 1 egress (mean 338.13 Mbit/s)
- Flow 2 ingress (mean 309.36 Mbit/s)
- Flow 2 egress (mean 308.53 Mbit/s)
- Flow 3 ingress (mean 339.19 Mbit/s)
- Flow 3 egress (mean 189.55 Mbit/s)

- Flow 1 (95th percentile 85.96 ms)
- Flow 2 (95th percentile 62.87 ms)
- Flow 3 (95th percentile 55.29 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-09-26 04:41:39
End at: 2018-09-26 04:42:09
Local clock offset: 0.263 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-09-26 09:56:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.07 Mbit/s
95th percentile per-packet one-way delay: 50.256 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 50.332 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.76 Mbit/s
95th percentile per-packet one-way delay: 50.261 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 24.46 Mbit/s
95th percentile per-packet one-way delay: 50.231 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet delay over time for different flows.]

Flow 1 ingress (mean 0.01 Mbit/s)
Flow 1 egress (mean 0.01 Mbit/s)
Flow 2 ingress (mean 52.76 Mbit/s)
Flow 2 egress (mean 52.76 Mbit/s)
Flow 3 ingress (mean 24.46 Mbit/s)
Flow 3 egress (mean 24.46 Mbit/s)

Flow 1 (95th percentile 50.33 ms)
Flow 2 (95th percentile 50.26 ms)
Flow 3 (95th percentile 50.23 ms)
Run 2: Statistics of QUIC Cubic

Start at: 2018-09-26 05:15:10
End at: 2018-09-26 05:15:40
Local clock offset: -0.409 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-09-26 09:56:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.07 Mbit/s
95th percentile per-packet one-way delay: 51.020 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 63.01 Mbit/s
95th percentile per-packet one-way delay: 51.038 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 35.12 Mbit/s
95th percentile per-packet one-way delay: 50.652 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 63.19 Mbit/s
95th percentile per-packet one-way delay: 50.338 ms
Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-09-26 05:48:34
End at: 2018-09-26 05:49:04
Local clock offset: -0.138 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-09-26 09:56:00
# Datalink statistics
-- Total of 3 flows:
    Average throughput: 88.52 Mbit/s
    95th percentile per-packet one-way delay: 50.664 ms
    Loss rate: 0.00%
-- Flow 1:
    Average throughput: 58.42 Mbit/s
    95th percentile per-packet one-way delay: 50.639 ms
    Loss rate: 0.00%
-- Flow 2:
    Average throughput: 31.05 Mbit/s
    95th percentile per-packet one-way delay: 50.700 ms
    Loss rate: 0.00%
-- Flow 3:
    Average throughput: 28.97 Mbit/s
    95th percentile per-packet one-way delay: 50.197 ms
    Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

![Graph showing throughput and per-packet one-way delays over time for three flows.]

- Flow 1 ingress (mean 58.42 Mbit/s)
- Flow 1 egress (mean 58.42 Mbit/s)
- Flow 2 ingress (mean 31.05 Mbit/s)
- Flow 2 egress (mean 31.05 Mbit/s)
- Flow 3 ingress (mean 26.97 Mbit/s)
- Flow 3 egress (mean 28.97 Mbit/s)
Run 4: Statistics of QUIC Cubic

Start at: 2018-09-26 06:22:25
End at: 2018-09-26 06:22:55
Local clock offset: 0.237 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-09-26 09:56:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.70 Mbit/s
95th percentile per-packet one-way delay: 50.345 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.56 Mbit/s
95th percentile per-packet one-way delay: 49.355 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 49.983 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.84 Mbit/s
95th percentile per-packet one-way delay: 50.405 ms
Loss rate: 0.01%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-09-26 06:56:10
End at: 2018-09-26 06:56:40
Local clock offset: 0.354 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-09-26 09:56:00
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 115.02 Mbit/s
  95th percentile per-packet one-way delay: 49.462 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 51.49 Mbit/s
  95th percentile per-packet one-way delay: 49.236 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 64.60 Mbit/s
  95th percentile per-packet one-way delay: 49.493 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 62.84 Mbit/s
  95th percentile per-packet one-way delay: 48.763 ms
  Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

![Graph showing throughput and per-packet round-trip delay over time for three flows.]

- Flow 1 ingress (mean 51.49 Mbit/s)
- Flow 1 egress (mean 51.49 Mbit/s)
- Flow 2 ingress (mean 64.60 Mbit/s)
- Flow 2 egress (mean 64.60 Mbit/s)
- Flow 3 ingress (mean 62.84 Mbit/s)
- Flow 3 egress (mean 62.84 Mbit/s)
Run 1: Statistics of SCReAM

Start at: 2018-09-26 04:58:16
End at: 2018-09-26 04:58:46
Local clock offset: 0.362 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
  -- Total of 3 flows:
    Average throughput: 0.43 Mbit/s
    95th percentile per-packet one-way delay: 50.522 ms
    Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 50.015 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 48.628 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 0.22 Mbit/s
    95th percentile per-packet one-way delay: 50.668 ms
    Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

---

**Graph 1:**
- **Y-axis:** Throughput (Mbps)
- **X-axis:** Time (s)
- **Legend:**
  - Blue dashed line: Flow 1 ingress (mean 0.22 Mbps)
  - Blue solid line: Flow 1 egress (mean 0.22 Mbps)
  - Red dashed line: Flow 2 ingress (mean 0.22 Mbps)
  - Red solid line: Flow 2 egress (mean 0.22 Mbps)
  - Green dashed line: Flow 3 ingress (mean 0.22 Mbps)
  - Green solid line: Flow 3 egress (mean 0.22 Mbps)

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**Graph 2:**
- **Y-axis:** Per-packet end-to-end delay (ms)
- **X-axis:** Time (s)
- **Legend:**
  - Blue circle: Flow 1 (95th percentile 50.02 ms)
  - Red circle: Flow 2 (95th percentile 48.63 ms)
  - Green circle: Flow 3 (95th percentile 50.67 ms)
Run 2: Statistics of SCReAM

Start at: 2018-09-26 05:31:41
End at: 2018-09-26 05:32:11
Local clock offset: -0.479 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 51.103 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.075 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.692 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 51.254 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

![Graph showing network throughput and packet delay over time for different flows.]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 0.22 Mbps)
  - Flow 1 egress (mean 0.22 Mbps)
  - Flow 2 ingress (mean 0.22 Mbps)
  - Flow 2 egress (mean 0.22 Mbps)
  - Flow 3 ingress (mean 0.22 Mbps)
  - Flow 3 egress (mean 0.22 Mbps)

- **Packet Delay (ms):**
  - Flow 1 (95th percentile 50.08 ms)
  - Flow 2 (95th percentile 50.69 ms)
  - Flow 3 (95th percentile 51.25 ms)
Run 3: Statistics of SCReAM

Start at: 2018-09-26 06:05:28
End at: 2018-09-26 06:05:58
Local clock offset: 0.456 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 50.882 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.914 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.818 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 50.057 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-09-26 06:39:16
End at: 2018-09-26 06:39:46
Local clock offset: -0.397 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.222 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.239 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.396 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.795 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 0.22 Mbps)
- Flow 1 egress (mean 0.22 Mbps)
- Flow 2 ingress (mean 0.22 Mbps)
- Flow 2 egress (mean 0.22 Mbps)
- Flow 3 ingress (mean 0.22 Mbps)
- Flow 3 egress (mean 0.22 Mbps)

Graph 2: Per-packet one-way delay (ms)
- Flow 1 (95th percentile 51.24 ms)
- Flow 2 (95th percentile 49.40 ms)
- Flow 3 (95th percentile 50.80 ms)
Run 5: Statistics of SCReAM

Start at: 2018-09-26 07:12:41
End at: 2018-09-26 07:13:11
Local clock offset: -0.325 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 50.928 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.981 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.466 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.374 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 0.22 Mbps)
- Flow 2 ingress (mean 0.22 Mbps)
- Flow 3 ingress (mean 0.22 Mbps)
- Flow 1 egress (mean 0.22 Mbps)
- Flow 2 egress (mean 0.22 Mbps)
- Flow 3 egress (mean 0.22 Mbps)

Delay (ms):

- Flow 1 (95th percentile 50.98 ms)
- Flow 2 (95th percentile 49.47 ms)
- Flow 3 (95th percentile 50.37 ms)
Run 1: Statistics of Sprout

Start at: 2018-09-26 04:35:10
End at: 2018-09-26 04:35:40
Local clock offset: -0.046 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.30 Mbit/s
95th percentile per-packet one-way delay: 51.507 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 49.846 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 51.644 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.78 Mbit/s
95th percentile per-packet one-way delay: 51.270 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

---

**Graph 1:**

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 8.27 Mbps)
  - Flow 1 egress (mean 8.27 Mbps)
  - Flow 2 ingress (mean 8.15 Mbps)
  - Flow 2 egress (mean 8.16 Mbps)
  - Flow 3 ingress (mean 7.76 Mbps)
  - Flow 3 egress (mean 7.76 Mbps)

**Graph 2:**

- **Per packet one-way delay (ms):**
  - Flow 1 (95th percentile 49.85 ms)
  - Flow 2 (95th percentile 51.64 ms)
  - Flow 3 (95th percentile 51.27 ms)
Run 2: Statistics of Sprout

Start at: 2018-09-26 05:08:41
End at: 2018-09-26 05:09:11
Local clock offset: -0.376 ms
Remote clock offset: 0.025 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.31 Mbit/s
95th percentile per-packet one-way delay: 51.143 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 51.241 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 49.898 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 49.959 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

**Throughput (Mbps):**

- **Flow 1** ingress (mean 8.29 Mbps)
- **Flow 1** egress (mean 8.29 Mbps)
- **Flow 2** ingress (mean 8.20 Mbps)
- **Flow 2** egress (mean 8.20 Mbps)
- **Flow 3** ingress (mean 7.94 Mbps)
- **Flow 3** egress (mean 7.95 Mbps)

**Packet Error Rate Delay (ms):**

- **Flow 1** (95th percentile 51.24 ms)
- **Flow 2** (95th percentile 49.90 ms)
- **Flow 3** (95th percentile 49.96 ms)
Run 3: Statistics of Sprout

Start at: 2018-09-26 05:42:04
End at: 2018-09-26 05:42:34
Local clock offset: -0.117 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.32 Mbit/s
95th percentile per-packet one-way delay: 51.211 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.25 Mbit/s
95th percentile per-packet one-way delay: 51.301 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 49.532 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 50.858 ms
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-09-26 06:15:47
End at: 2018-09-26 06:16:17
Local clock offset: -0.101 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 16.25 Mbit/s
  95th percentile per-packet one-way delay: 50.491 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 8.22 Mbit/s
  95th percentile per-packet one-way delay: 50.248 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 8.14 Mbit/s
  95th percentile per-packet one-way delay: 50.662 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 7.89 Mbit/s
  95th percentile per-packet one-way delay: 49.512 ms
  Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

![Graph showing throughput and delay over time for different flows]
Run 5: Statistics of Sprout

Start at: 2018-09-26 06:49:37
End at: 2018-09-26 06:50:07
Local clock offset: -0.355 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-09-26 09:56:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.26 Mbit/s
95th percentile per-packet one-way delay: 51.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.25 Mbit/s
95th percentile per-packet one-way delay: 49.768 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 50.582 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 51.664 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

![Graph 1: Throughput (Mbps/s)]

- Flow 1 ingress (mean 8.25 Mbps/s)
- Flow 1 egress (mean 8.25 Mbps/s)
- Flow 2 ingress (mean 8.16 Mbps/s)
- Flow 2 egress (mean 8.16 Mbps/s)
- Flow 3 ingress (mean 7.90 Mbps/s)
- Flow 3 egress (mean 7.90 Mbps/s)

![Graph 2: Per packet one way delay (ms)]

- Flow 1 (95th percentile 49.77 ms)
- Flow 2 (95th percentile 50.38 ms)
- Flow 3 (95th percentile 51.66 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-09-26 05:02:46
End at: 2018-09-26 05:03:16
Local clock offset: -0.004 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-09-26 10:01:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.12 Mbit/s
95th percentile per-packet one-way delay: 50.851 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 239.11 Mbit/s
95th percentile per-packet one-way delay: 50.748 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 241.46 Mbit/s
95th percentile per-packet one-way delay: 50.826 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 208.07 Mbit/s
95th percentile per-packet one-way delay: 51.519 ms
Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet delay over time for different flows.]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 239.11 Mbps)
  - Flow 1 egress (mean 239.11 Mbps)
  - Flow 2 ingress (mean 241.47 Mbps)
  - Flow 2 egress (mean 241.46 Mbps)
  - Flow 3 ingress (mean 208.07 Mbps)
  - Flow 3 egress (mean 208.07 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 50.75 ms)
  - Flow 2 (95th percentile 50.83 ms)
  - Flow 3 (95th percentile 51.52 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2018-09-26 05:36:13
End at: 2018-09-26 05:36:43
Local clock offset: -0.497 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2018-09-26 10:02:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 474.93 Mbit/s
95th percentile per-packet one-way delay: 50.833 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 242.42 Mbit/s
95th percentile per-packet one-way delay: 50.938 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 243.23 Mbit/s
95th percentile per-packet one-way delay: 49.375 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 212.93 Mbit/s
95th percentile per-packet one-way delay: 50.985 ms
Loss rate: 0.01%
Run 2: Report of TaoVA-100x — Data Link

![Graph 1: Throughput vs Time](image1)

![Graph 2: Per-packet one-way delay vs Time](image2)

Legend:
- Flow 1 ingress (mean 242.42 Mbit/s)
- Flow 1 egress (mean 242.42 Mbit/s)
- Flow 2 ingress (mean 243.22 Mbit/s)
- Flow 2 egress (mean 243.23 Mbit/s)
- Flow 3 ingress (mean 212.94 Mbit/s)
- Flow 3 egress (mean 212.93 Mbit/s)
Run 3: Statistics of TaoVA-100x

Start at: 2018-09-26 06:10:00
End at: 2018-09-26 06:10:30
Local clock offset: -0.407 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-09-26 10:02:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 479.80 Mbit/s
95th percentile per-packet one-way delay: 50.861 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 243.96 Mbit/s
95th percentile per-packet one-way delay: 50.166 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 244.34 Mbit/s
95th percentile per-packet one-way delay: 49.350 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 220.10 Mbit/s
95th percentile per-packet one-way delay: 51.080 ms
Loss rate: 0.02%
Run 3: Report of TaoVA-100x — Data Link
Run 4: Statistics of TaoVA-100x

Start at: 2018-09-26 06:43:49
End at: 2018-09-26 06:44:19
Local clock offset: -0.032 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2018-09-26 10:02:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.78 Mbit/s
95th percentile per-packet one-way delay: 50.800 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 243.00 Mbit/s
95th percentile per-packet one-way delay: 50.700 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 234.99 Mbit/s
95th percentile per-packet one-way delay: 51.134 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 235.90 Mbit/s
95th percentile per-packet one-way delay: 50.768 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2018-09-26 07:17:13
End at: 2018-09-26 07:17:43
Local clock offset: 0.05 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-09-26 10:06:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 471.02 Mbit/s
95th percentile per-packet one-way delay: 50.679 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 240.56 Mbit/s
95th percentile per-packet one-way delay: 50.471 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 235.72 Mbit/s
95th percentile per-packet one-way delay: 50.063 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 221.28 Mbit/s
95th percentile per-packet one-way delay: 50.816 ms
Loss rate: 0.01%
Run 5: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-09-26 04:50:55
End at: 2018-09-26 04:51:25
Local clock offset: -0.273 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-09-26 10:10:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1046.48 Mbit/s
95th percentile per-packet one-way delay: 68.987 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 538.37 Mbit/s
95th percentile per-packet one-way delay: 56.174 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 512.73 Mbit/s
95th percentile per-packet one-way delay: 72.729 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 501.50 Mbit/s
95th percentile per-packet one-way delay: 70.869 ms
Loss rate: 0.17%
Run 1: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.]

- **Throughput Graph:**
  - Flow 1 ingress (mean 538.48 Mbit/s)
  - Flow 1 egress (mean 538.37 Mbit/s)
  - Flow 2 ingress (mean 512.74 Mbit/s)
  - Flow 2 egress (mean 512.73 Mbit/s)
  - Flow 3 ingress (mean 502.29 Mbit/s)
  - Flow 3 egress (mean 501.50 Mbit/s)

- **Per-packet one-way delay Graph:**
  - Flow 1 (95th percentile 56.17 ms)
  - Flow 2 (95th percentile 72.73 ms)
  - Flow 3 (95th percentile 70.87 ms)
Run 2: Statistics of TCP Vegas

Start at: 2018-09-26 05:24:31
End at: 2018-09-26 05:25:01
Local clock offset: -0.052 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-09-26 10:10:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 769.37 Mbit/s
95th percentile per-packet one-way delay: 76.439 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 287.61 Mbit/s
95th percentile per-packet one-way delay: 54.816 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 472.49 Mbit/s
95th percentile per-packet one-way delay: 89.413 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 502.57 Mbit/s
95th percentile per-packet one-way delay: 57.767 ms
Loss rate: 0.02%
Run 2: Report of TCP Vegas — Data Link

![Graph showing network performance metrics over time]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 287.59 Mbps)
  - Flow 1 egress (mean 287.61 Mbps)
  - Flow 2 ingress (mean 473.04 Mbps)
  - Flow 2 egress (mean 472.49 Mbps)
  - Flow 3 ingress (mean 502.58 Mbps)
  - Flow 3 egress (mean 502.57 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile: 54.82 ms)
  - Flow 2 (95th percentile: 89.41 ms)
  - Flow 3 (95th percentile: 57.77 ms)
Run 3: Statistics of TCP Vegas

Start at: 2018-09-26 05:57:59
End at: 2018-09-26 05:58:29
Local clock offset: -0.093 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-09-26 10:15:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1042.97 Mbit/s
95th percentile per-packet one-way delay: 70.629 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 530.76 Mbit/s
95th percentile per-packet one-way delay: 74.325 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 520.89 Mbit/s
95th percentile per-packet one-way delay: 66.584 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 497.11 Mbit/s
95th percentile per-packet one-way delay: 65.906 ms
Loss rate: 0.06%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-09-26 06:31:52
End at: 2018-09-26 06:32:22
Local clock offset: -0.046 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2018-09-26 10:20:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1050.42 Mbit/s
  95th percentile per-packet one-way delay: 70.091 ms
  Loss rate: 0.09%
-- Flow 1:
  Average throughput: 562.45 Mbit/s
  95th percentile per-packet one-way delay: 53.490 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 539.23 Mbit/s
  95th percentile per-packet one-way delay: 79.424 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 386.51 Mbit/s
  95th percentile per-packet one-way delay: 52.597 ms
  Loss rate: 0.69%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-09-26 07:05:30
End at: 2018-09-26 07:06:00
Local clock offset: -0.354 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-09-26 10:20:14
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 805.08 Mbit/s
  95th percentile per-packet one-way delay: 65.223 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 403.20 Mbit/s
  95th percentile per-packet one-way delay: 58.185 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 374.39 Mbit/s
  95th percentile per-packet one-way delay: 79.763 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 458.97 Mbit/s
  95th percentile per-packet one-way delay: 52.079 ms
  Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

![Graph showing throughput and packet delay over time for different flows.]

Legend:
- Flow 1 ingress (mean 403.19 Mbit/s)
- Flow 1 egress (mean 403.20 Mbit/s)
- Flow 2 ingress (mean 374.39 Mbit/s)
- Flow 2 egress (mean 374.39 Mbit/s)
- Flow 3 ingress (mean 458.96 Mbit/s)
- Flow 3 egress (mean 458.97 Mbit/s)
Run 1: Statistics of Verus

Start at: 2018-09-26 04:56:36
End at: 2018-09-26 04:57:06
Local clock offset: 0.01 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2018-09-26 10:20:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.54 Mbit/s
95th percentile per-packet one-way delay: 127.938 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 186.08 Mbit/s
95th percentile per-packet one-way delay: 136.189 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 129.87 Mbit/s
95th percentile per-packet one-way delay: 88.228 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 170.99 Mbit/s
95th percentile per-packet one-way delay: 126.736 ms
Loss rate: 0.00%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

Start at: 2018-09-26 05:30:03
End at: 2018-09-26 05:30:33
Local clock offset: 0.284 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-09-26 10:20:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 290.64 Mbit/s
95th percentile per-packet one-way delay: 91.866 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 146.65 Mbit/s
95th percentile per-packet one-way delay: 89.623 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 142.58 Mbit/s
95th percentile per-packet one-way delay: 97.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 150.43 Mbit/s
95th percentile per-packet one-way delay: 82.795 ms
Loss rate: 0.00%
Run 2: Report of Verus — Data Link

![Graph showing throughput and packet delay over time for different flows.]

- **Flow 1** ing (mean 146.65 Mbit/s)
- **Flow 1** egress (mean 146.65 Mbit/s)
- **Flow 2** ing (mean 142.58 Mbit/s)
- **Flow 2** egress (mean 142.58 Mbit/s)
- **Flow 3** ing (mean 150.43 Mbit/s)
- **Flow 3** egress (mean 150.43 Mbit/s)
Run 3: Statistics of Verus

Start at: 2018-09-26 06:03:44
End at: 2018-09-26 06:04:14
Local clock offset: -0.039 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-09-26 10:20:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 361.62 Mbit/s
95th percentile per-packet one-way delay: 167.611 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 198.40 Mbit/s
95th percentile per-packet one-way delay: 179.108 ms
Loss rate: 3.17%
-- Flow 2:
Average throughput: 195.53 Mbit/s
95th percentile per-packet one-way delay: 151.301 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 100.95 Mbit/s
95th percentile per-packet one-way delay: 56.541 ms
Loss rate: 0.00%
Run 3: Report of Verus — Data Link

![Graph showing throughput and delay over time for different flows.]

Flow 1 ingress (mean 204.90 Mbit/s)  
Flow 1 egress (mean 198.40 Mbit/s)  
Flow 2 ingress (mean 195.93 Mbit/s)  
Flow 2 egress (mean 195.33 Mbit/s)  
Flow 3 ingress (mean 190.95 Mbit/s)  
Flow 3 egress (mean 100.09 Mbit/s)

![Graph showing per-packet one-way delay over time for different flows.]

Flow 1 (95th percentile 179.11 ms)  
Flow 2 (95th percentile 151.30 ms)  
Flow 3 (95th percentile 56.54 ms)
Run 4: Statistics of Verus

Start at: 2018-09-26 06:37:38  
End at: 2018-09-26 06:38:08  
Local clock offset: -0.023 ms  
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-09-26 10:20:45  
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 297.24 Mbit/s  
95th percentile per-packet one-way delay: 82.362 ms  
Loss rate: 0.06%  
-- Flow 1:  
Average throughput: 139.89 Mbit/s  
95th percentile per-packet one-way delay: 64.077 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 174.25 Mbit/s  
95th percentile per-packet one-way delay: 83.563 ms  
Loss rate: 0.15%  
-- Flow 3:  
Average throughput: 127.51 Mbit/s  
95th percentile per-packet one-way delay: 137.529 ms  
Loss rate: 0.00%
Run 4: Report of Verus — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows with specified mean throughput and 95th percentile delay values.]
Run 5: Statistics of Verus

Start at: 2018-09-26 07:10:58
End at: 2018-09-26 07:11:28
Local clock offset: 0.058 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2018-09-26 10:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 347.07 Mbit/s
95th percentile per-packet one-way delay: 142.382 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 172.77 Mbit/s
95th percentile per-packet one-way delay: 131.428 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 203.60 Mbit/s
95th percentile per-packet one-way delay: 156.960 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 118.45 Mbit/s
95th percentile per-packet one-way delay: 100.176 ms
Loss rate: 0.00%
Run 5: Report of Verus — Data Link
Run 1: Statistics of PCC-Vivace

Start at: 2018-09-26 05:06:46
End at: 2018-09-26 05:07:16
Local clock offset: 0.355 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-09-26 10:23:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 669.11 Mbit/s
95th percentile per-packet one-way delay: 61.735 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 352.27 Mbit/s
95th percentile per-packet one-way delay: 51.623 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 305.96 Mbit/s
95th percentile per-packet one-way delay: 56.449 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 339.23 Mbit/s
95th percentile per-packet one-way delay: 127.893 ms
Loss rate: 0.01%
Run 1: Report of PCC-Vivace — Data Link

![Graph showing data throughput and packet delay over time.](image-url)

Flow 1 ingress (mean 352.22 Mb/s) | Flow 1 egress (mean 352.27 Mb/s)
Flow 2 ingress (mean 335.99 Mb/s) | Flow 2 egress (mean 305.96 Mb/s)
Flow 3 ingress (mean 339.22 Mb/s) | Flow 3 egress (mean 339.23 Mb/s)

Flow 1 (95th percentile 51.62 ms) | Flow 2 (95th percentile 56.45 ms) | Flow 3 (95th percentile 127.89 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2018-09-26 05:40:14
End at: 2018-09-26 05:40:44
Local clock offset: 0.237 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-09-26 10:23:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 572.12 Mbit/s
95th percentile per-packet one-way delay: 52.260 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 374.45 Mbit/s
95th percentile per-packet one-way delay: 51.803 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 271.83 Mbit/s
95th percentile per-packet one-way delay: 53.054 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.70 Mbit/s
95th percentile per-packet one-way delay: 48.739 ms
Loss rate: 0.00%
Run 2: Report of PCC-Vivace — Data Link

![Graph 1: Throughput vs Time](image1)

- Flow 1 ingress (mean 374.45 Mbit/s)
- Flow 1 egress (mean 374.45 Mbit/s)
- Flow 2 ingress (mean 271.83 Mbit/s)
- Flow 2 egress (mean 271.83 Mbit/s)
- Flow 3 ingress (mean 51.70 Mbit/s)
- Flow 3 egress (mean 51.70 Mbit/s)

![Graph 2: Per-packet one-way delay vs Time](image2)

- Flow 1 (95th percentile 51.80 ms)
- Flow 2 (95th percentile 53.05 ms)
- Flow 3 (95th percentile 48.74 ms)
Run 3: Statistics of PCC-Vivace

Start at: 2018-09-26 06:13:58
End at: 2018-09-26 06:14:28
Local clock offset: -0.466 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-09-26 10:24:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 594.50 Mbit/s
95th percentile per-packet one-way delay: 51.947 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 351.88 Mbit/s
95th percentile per-packet one-way delay: 51.862 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 346.67 Mbit/s
95th percentile per-packet one-way delay: 52.075 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 51.145 ms
Loss rate: 0.03%
Run 3: Report of PCC-Vivace — Data Link

Throughput (Mbit/s) over time for different flows:

- Flow 1 ingress (mean 351.89 Mbit/s)
- Flow 1 egress (mean 351.88 Mbit/s)
- Flow 2 ingress (mean 346.65 Mbit/s)
- Flow 2 egress (mean 346.67 Mbit/s)
- Flow 3 ingress (mean 34.95 Mbit/s)
- Flow 3 egress (mean 34.95 Mbit/s)

Per-packet one way delay (ms) over time for different flows:

- Flow 1 (95th percentile 51.86 ms)
- Flow 2 (95th percentile 52.08 ms)
- Flow 3 (95th percentile 51.15 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2018-09-26 06:47:48
End at: 2018-09-26 06:48:18
Local clock offset: -0.021 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2018-09-26 10:24:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 567.61 Mbit/s
95th percentile per-packet one-way delay: 57.073 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 362.89 Mbit/s
95th percentile per-packet one-way delay: 60.161 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 286.24 Mbit/s
95th percentile per-packet one-way delay: 55.396 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.72 Mbit/s
95th percentile per-packet one-way delay: 50.379 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link
Run 5: Statistics of PCC-Vivace

Start at: 2018-09-26 07:21:13
End at: 2018-09-26 07:21:43
Local clock offset: 0.393 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2018-09-26 10:24:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 593.54 Mbit/s
  95th percentile per-packet one-way delay: 51.312 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 363.24 Mbit/s
  95th percentile per-packet one-way delay: 51.164 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 332.84 Mbit/s
  95th percentile per-packet one-way delay: 52.084 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 27.54 Mbit/s
  95th percentile per-packet one-way delay: 50.406 ms
  Loss rate: 0.02%
Run 5: Report of PCC-Vivace — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-09-26 04:38:25
End at: 2018-09-26 04:38:55
Local clock offset: -0.006 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-09-26 10:24:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 50.996 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 50.988 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 50.727 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 51.049 ms
Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-09-26 05:11:55
End at: 2018-09-26 05:12:25
Local clock offset: -0.026 ms
Remote clock offset: 0.072 ms

# Below is generated by plot.py at 2018-09-26 10:24:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.70 Mbit/s
  95th percentile per-packet one-way delay: 50.319 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 49.066 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.22 Mbit/s
  95th percentile per-packet one-way delay: 49.750 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 50.410 ms
  Loss rate: 0.06%
Run 2: Report of WebRTC media — Data Link
Run 3: Statistics of WebRTC media

Start at: 2018-09-26 05:45:17
End at: 2018-09-26 05:45:47
Local clock offset: -0.193 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-09-26 10:24:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 50.860 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.879 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 50.471 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 50.526 ms
Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-09-26 06:19:06
End at: 2018-09-26 06:19:36
Local clock offset: -0.484 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2018-09-26 10:24:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.76 Mbit/s
  95th percentile per-packet one-way delay: 51.158 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 51.187 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.23 Mbit/s
  95th percentile per-packet one-way delay: 50.192 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.50 Mbit/s
  95th percentile per-packet one-way delay: 50.124 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.]

Flow 1 ingress (mean 2.04 Mbit/s) — Flow 1 egress (mean 2.04 Mbit/s)
Flow 2 ingress (mean 1.23 Mbit/s) — Flow 2 egress (mean 1.23 Mbit/s)
Flow 3 ingress (mean 0.50 Mbit/s) — Flow 3 egress (mean 0.50 Mbit/s)
Run 5: Statistics of WebRTC media

Start at: 2018-09-26 06:52:53
End at: 2018-09-26 06:53:23
Local clock offset: -0.002 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2018-09-26 10:24:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 50.658 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 50.389 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 50.558 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 50.741 ms
Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link

![Graph of Throughput (Mbps) over Time (s) for different flows.]

- Flow 1 ingress (mean 2.04 Mbit/s)
- Flow 1 egress (mean 2.04 Mbit/s)
- Flow 2 ingress (mean 1.21 Mbit/s)
- Flow 2 egress (mean 1.21 Mbit/s)
- Flow 3 ingress (mean 0.48 Mbit/s)
- Flow 3 egress (mean 0.48 Mbit/s)

![Graph of Per-packet one-way delay (ms) over Time (s) for different flows.]

- Flow 1 (95th percentile 50.39 ms)
- Flow 2 (95th percentile 50.56 ms)
- Flow 3 (95th percentile 50.74 ms)