Pantheon Report

Generated at 2020-04-17 17:59:24 (UTC).
Data path: GCE London on ens4 (local) → GCE Iowa on ens4 (remote).
Repeated the test of 24 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 5.0.0-1031-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

Git summary:
branch: muses @ de42328552b3776a75a932a94dfaf7d22537b0ec
third_party/fillp @ d6da1459332fcee56963885d7e9a17e6a3d24519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd4e12e923f9
third_party/genericCC @ d0153f8e694aa93b032143ceedb658e562f4
third_party/indigo @ 2601c92e4a99d58d38cd4dfe0edceb90cc077e6d4
third_party/libutp @ b3465b942e2826f2b179eaab4a906e6b7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddeb92d708a8869ffbb84eb200
third_party/pantheon-tunnel @ f866ef5d27afa942717625ee3a354cc2e802bd
third_party/pcc @ lafc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f64613e8acd08fab92c4ebf24a974ab
third_party/proto-quic @ 7796ef1a82733a8642bc8143ebc978f3cf4f2
third_party/scream-reproduce @ f099118d1421aa313b1f14f964974e1da3dbb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webRTC @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1     flow 2     flow 3</td>
<td>flow 1     flow 2     flow 3</td>
<td>flow 1     flow 2     flow 3</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>5</td>
<td>579.71     485.46     472.58</td>
<td>174.87     169.22     166.19</td>
<td>3.40       1.49       2.53</td>
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<tr>
<td>Copa</td>
<td>5</td>
<td>263.08     250.47     206.49</td>
<td>66.90      72.97      78.16</td>
<td>0.00       0.03       0.05</td>
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<tr>
<td>TCP Cubic</td>
<td>5</td>
<td>503.28     401.86     237.98</td>
<td>133.68     109.64     94.82</td>
<td>0.11       0.14       0.54</td>
</tr>
<tr>
<td>FillP</td>
<td>5</td>
<td>553.10     361.97     261.71</td>
<td>87.90      54.16      52.62</td>
<td>0.85       0.00       0.00</td>
</tr>
<tr>
<td>FillP-Sheep</td>
<td>5</td>
<td>469.55     307.14     245.93</td>
<td>71.72      51.14      50.61</td>
<td>0.04       0.00       0.00</td>
</tr>
<tr>
<td>Indigo</td>
<td>5</td>
<td>198.87     179.64     130.49</td>
<td>50.56      50.52      50.74</td>
<td>0.00       0.00       0.01</td>
</tr>
<tr>
<td>Indigo-MusesC3</td>
<td>5</td>
<td>419.78     348.96     246.27</td>
<td>64.79      57.14      51.19</td>
<td>0.00       0.01       0.00</td>
</tr>
<tr>
<td>Indigo-MusesC5</td>
<td>5</td>
<td>470.52     393.29     99.97</td>
<td>73.61      65.18      48.73</td>
<td>0.01       0.01       0.00</td>
</tr>
<tr>
<td>Indigo-MusesD</td>
<td>5</td>
<td>391.34     321.63     245.49</td>
<td>62.33      66.47      49.73</td>
<td>0.00       0.00       0.00</td>
</tr>
<tr>
<td>Indigo-MusesT</td>
<td>4</td>
<td>457.74     384.19     154.75</td>
<td>76.99      60.47      51.01</td>
<td>0.00       0.00       0.04</td>
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<td>LEDBAT</td>
<td>5</td>
<td>38.92      27.14      13.67</td>
<td>48.98      48.53      47.82</td>
<td>0.01       0.00       0.00</td>
</tr>
<tr>
<td>Muses_DecisionTree</td>
<td>5</td>
<td>380.72     290.00     226.11</td>
<td>61.32      50.48      49.82</td>
<td>0.00       0.00       0.01</td>
</tr>
<tr>
<td>Muses_DecisionTreeH0</td>
<td>5</td>
<td>304.30     309.39     264.02</td>
<td>93.87      79.09      68.28</td>
<td>0.08       0.02       0.01</td>
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<tr>
<td>Muses_DecisionTreeR0</td>
<td>5</td>
<td>394.45     327.10     221.31</td>
<td>64.33      55.73      50.12</td>
<td>0.00       0.00       0.01</td>
</tr>
<tr>
<td>PCC-Allegro</td>
<td>5</td>
<td>362.94     334.96     223.49</td>
<td>172.10     156.34     96.81</td>
<td>3.03       4.30       1.70</td>
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<tr>
<td>PCC-Expr</td>
<td>5</td>
<td>265.81     241.61     155.82</td>
<td>104.03     138.37     62.47</td>
<td>0.09       1.29       0.00</td>
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<td>QUIC Cubic</td>
<td>5</td>
<td>46.00      49.48      32.86</td>
<td>49.20      49.17      47.36</td>
<td>0.00       0.01       0.00</td>
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<td>SCReAM</td>
<td>5</td>
<td>0.22       0.22       0.22</td>
<td>48.14      47.31      48.04</td>
<td>0.00       0.00       0.07</td>
</tr>
<tr>
<td>Sprout</td>
<td>5</td>
<td>9.11       9.15       8.51</td>
<td>47.48      48.35      49.20</td>
<td>0.00       0.00       0.00</td>
</tr>
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<td>TaoVA-100x</td>
<td>5</td>
<td>234.01     224.81     203.35</td>
<td>52.49      54.14      59.22</td>
<td>0.00       0.00       0.00</td>
</tr>
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<td>TCP Vegas</td>
<td>5</td>
<td>271.31     435.04     320.61</td>
<td>61.94      84.03      72.36</td>
<td>0.03       0.06       0.17</td>
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<td>Verus</td>
<td>5</td>
<td>156.51     114.14     91.07</td>
<td>116.46     91.31      81.59</td>
<td>0.04       0.01       0.00</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>5</td>
<td>272.02     234.51     120.25</td>
<td>59.08      77.21      59.30</td>
<td>0.01       0.11       0.02</td>
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<td>WebRTC media</td>
<td>0</td>
<td>N/A        N/A        N/A</td>
<td>N/A        N/A        N/A</td>
<td>N/A        N/A        N/A</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2020-04-17 10:45:24
End at: 2020-04-17 10:45:54
Local clock offset: -0.502 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2020-04-17 14:27:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1162.95 Mbit/s
95th percentile per-packet one-way delay: 164.508 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 687.42 Mbit/s
95th percentile per-packet one-way delay: 149.314 ms
Loss rate: 2.61%
-- Flow 2:
Average throughput: 510.27 Mbit/s
95th percentile per-packet one-way delay: 175.016 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 407.97 Mbit/s
95th percentile per-packet one-way delay: 188.458 ms
Loss rate: 1.50%
Run 1: Report of TCP BBR — Data Link

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

- **Flow 1** ingress (mean 705.86 Mbit/s)
- **Flow 1** egress (mean 687.42 Mbit/s)
- **Flow 2** ingress (mean 517.74 Mbit/s)
- **Flow 2** egress (mean 510.27 Mbit/s)
- **Flow 3** ingress (mean 414.33 Mbit/s)
- **Flow 3** egress (mean 407.97 Mbit/s)
Run 2: Statistics of TCP BBR

Start at: 2020-04-17 11:25:44
End at: 2020-04-17 11:26:14
Local clock offset: -0.127 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2020-04-17 14:27:28
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 1018.09 Mbit/s
   95th percentile per-packet one-way delay: 168.721 ms
   Loss rate: 3.23%
-- Flow 1:
   Average throughput: 575.70 Mbit/s
   95th percentile per-packet one-way delay: 179.722 ms
   Loss rate: 5.08%
-- Flow 2:
   Average throughput: 481.17 Mbit/s
   95th percentile per-packet one-way delay: 154.841 ms
   Loss rate: 0.95%
-- Flow 3:
   Average throughput: 366.87 Mbit/s
   95th percentile per-packet one-way delay: 94.821 ms
   Loss rate: 0.08%
Run 2: Report of TCP BBR — Data Link

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

- **Flow 1**: Ingress (mean 696.52 Mbit/s), Egress (mean 575.70 Mbit/s)
- **Flow 2**: Ingress (mean 485.80 Mbit/s), Egress (mean 481.17 Mbit/s)
- **Flow 3**: Ingress (mean 367.18 Mbit/s), Egress (mean 366.87 Mbit/s)

- **Flow 1** (95th percentile 179.72 ms)
- **Flow 2** (95th percentile 154.84 ms)
- **Flow 3** (95th percentile 94.82 ms)
Run 3: Statistics of TCP BBR

Start at: 2020-04-17 12:05:58
End at: 2020-04-17 12:06:28
Local clock offset: 0.157 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2020-04-17 14:27:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1143.67 Mbit/s
  95th percentile per-packet one-way delay: 172.612 ms
  Loss rate: 3.26%
-- Flow 1:
  Average throughput: 564.25 Mbit/s
  95th percentile per-packet one-way delay: 174.838 ms
  Loss rate: 3.21%
-- Flow 2:
  Average throughput: 584.48 Mbit/s
  95th percentile per-packet one-way delay: 167.086 ms
  Loss rate: 2.86%
-- Flow 3:
  Average throughput: 574.49 Mbit/s
  95th percentile per-packet one-way delay: 173.445 ms
  Loss rate: 4.20%
Run 3: Report of TCP BBR — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 582.90 Mbit/s) — Flow 1 egress (mean 564.25 Mbit/s)
Flow 2 ingress (mean 691.68 Mbit/s) — Flow 2 egress (mean 584.48 Mbit/s)
Flow 3 ingress (mean 599.73 Mbit/s) — Flow 3 egress (mean 574.49 Mbit/s)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 174.84 ms) — Flow 2 (95th percentile 167.09 ms) — Flow 3 (95th percentile 173.44 ms)
Run 4: Statistics of TCP BBR

Start at: 2020-04-17 12:46:17
End at: 2020-04-17 12:46:47
Local clock offset: -0.041 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2020-04-17 14:27:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 967.35 Mbit/s
95th percentile per-packet one-way delay: 183.492 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 542.77 Mbit/s
95th percentile per-packet one-way delay: 182.863 ms
Loss rate: 3.07%
-- Flow 2:
Average throughput: 389.59 Mbit/s
95th percentile per-packet one-way delay: 186.865 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 497.78 Mbit/s
95th percentile per-packet one-way delay: 157.759 ms
Loss rate: 1.15%
Run 4: Report of TCP BBR — Data Link

![Graph showing throughput over time for different flows.](image1)

![Graph showing per-packet one-way delay over time for different flows.](image2)
Run 5: Statistics of TCP BBR

Start at: 2020-04-17 13:26:23
End at: 2020-04-17 13:26:53
Local clock offset: -0.147 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2020-04-17 14:27:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1007.26 Mbit/s
95th percentile per-packet one-way delay: 187.467 ms
Loss rate: 3.04%
-- Flow 1:
Average throughput: 528.43 Mbit/s
95th percentile per-packet one-way delay: 187.603 ms
Loss rate: 3.03%
-- Flow 2:
Average throughput: 461.81 Mbit/s
95th percentile per-packet one-way delay: 162.304 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 515.79 Mbit/s
95th percentile per-packet one-way delay: 216.492 ms
Loss rate: 5.73%
Run 5: Report of TCP BBR — Data Link
Run 1: Statistics of Copa

Start at: 2020-04-17 10:33:25
End at: 2020-04-17 10:33:55
Local clock offset: -0.111 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2020-04-17 14:27:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 511.73 Mbit/s
95th percentile per-packet one-way delay: 65.408 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 259.46 Mbit/s
95th percentile per-packet one-way delay: 62.796 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 269.17 Mbit/s
95th percentile per-packet one-way delay: 70.558 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 220.09 Mbit/s
95th percentile per-packet one-way delay: 62.749 ms
Loss rate: 0.01%
Run 1: Report of Copa — Data Link

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

Flow 1 (ingress: 259.46 Mbit/s, egress: 259.46 Mbit/s)
Flow 2 (ingress: 269.44 Mbit/s, egress: 269.17 Mbit/s)
Flow 3 (ingress: 220.08 Mbit/s, egress: 220.09 Mbit/s)
Run 2: Statistics of Copa

Start at: 2020-04-17 11:14:00
End at: 2020-04-17 11:14:30
Local clock offset: -0.527 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2020-04-17 14:27:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 503.12 Mbit/s
95th percentile per-packet one-way delay: 78.179 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 259.58 Mbit/s
95th percentile per-packet one-way delay: 73.690 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 269.29 Mbit/s
95th percentile per-packet one-way delay: 80.493 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 193.24 Mbit/s
95th percentile per-packet one-way delay: 79.811 ms
Loss rate: 0.17%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa

Start at: 2020-04-17 11:54:12
End at: 2020-04-17 11:54:42
Local clock offset: 0.115 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2020-04-17 14:27:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 473.60 Mbit/s
95th percentile per-packet one-way delay: 68.974 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 266.17 Mbit/s
95th percentile per-packet one-way delay: 68.723 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 226.33 Mbit/s
95th percentile per-packet one-way delay: 65.969 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 170.67 Mbit/s
95th percentile per-packet one-way delay: 74.108 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

[Graphs showing throughput and per-packet one-way delay for different flows with specified mean and 95th percentile values]
Run 4: Statistics of Copa

Start at: 2020-04-17 12:34:29
End at: 2020-04-17 12:34:59
Local clock offset: -0.129 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2020-04-17 14:43:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 490.44 Mbit/s
95th percentile per-packet one-way delay: 72.843 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 259.96 Mbit/s
95th percentile per-packet one-way delay: 65.875 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 235.30 Mbit/s
95th percentile per-packet one-way delay: 76.572 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 222.29 Mbit/s
95th percentile per-packet one-way delay: 90.199 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

Graph 1: Throughput (Mbps)

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

Legend:
- Flow 1 ingress (mean 259.96 Mbps)
- Flow 1 egress (mean 259.96 Mbps)
- Flow 2 ingress (mean 235.32 Mbps)
- Flow 2 egress (mean 235.30 Mbps)
- Flow 3 ingress (mean 222.29 Mbps)
- Flow 3 egress (mean 222.29 Mbps)
Run 5: Statistics of Copa

Start at: 2020-04-17 13:14:46
End at: 2020-04-17 13:15:16
Local clock offset: -0.082 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2020-04-17 14:47:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 513.30 Mbit/s
95th percentile per-packet one-way delay: 70.120 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 270.21 Mbit/s
95th percentile per-packet one-way delay: 63.427 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 252.24 Mbit/s
95th percentile per-packet one-way delay: 71.269 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 226.17 Mbit/s
95th percentile per-packet one-way delay: 83.909 ms
Loss rate: 0.07%
Run 5: Report of Copa — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2020-04-17 10:40:27
End at: 2020-04-17 10:40:57
Local clock offset: -0.106 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2020-04-17 14:47:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 885.90 Mbit/s
95th percentile per-packet one-way delay: 90.007 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 509.39 Mbit/s
95th percentile per-packet one-way delay: 98.968 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 444.55 Mbit/s
95th percentile per-packet one-way delay: 69.111 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 238.12 Mbit/s
95th percentile per-packet one-way delay: 55.188 ms
Loss rate: 0.03%
Run 1: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 509.97 Mbit/s)
- Flow 1 egress (mean 509.39 Mbit/s)
- Flow 2 ingress (mean 445.22 Mbit/s)
- Flow 2 egress (mean 444.55 Mbit/s)
- Flow 3 ingress (mean 238.15 Mbit/s)
- Flow 3 egress (mean 238.12 Mbit/s)

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

- Flow 1 (95th percentile 98.97 ms)
- Flow 2 (95th percentile 69.11 ms)
- Flow 3 (95th percentile 55.19 ms)
Run 2: Statistics of TCP Cubic

Start at: 2020-04-17 11:20:53
End at: 2020-04-17 11:21:23
Local clock offset: -0.507 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2020-04-17 14:47:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 849.60 Mbit/s
95th percentile per-packet one-way delay: 156.235 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 495.27 Mbit/s
95th percentile per-packet one-way delay: 166.055 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 397.06 Mbit/s
95th percentile per-packet one-way delay: 67.416 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 269.43 Mbit/s
95th percentile per-packet one-way delay: 75.929 ms
Loss rate: 0.41%
Run 2: Report of TCP Cubic — Data Link

![Graph 1: Throughput (Mbps)](image1)

- **Flow 1 ingress** (mean 495.71 Mbps)
- **Flow 1 egress** (mean 495.27 Mbps)
- **Flow 2 ingress** (mean 397.68 Mbps)
- **Flow 2 egress** (mean 397.06 Mbps)
- **Flow 3 ingress** (mean 270.57 Mbps)
- **Flow 3 egress** (mean 269.43 Mbps)

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

- **Flow 1** (95th percentile 166.06 ms)
- **Flow 2** (95th percentile 67.42 ms)
- **Flow 3** (95th percentile 75.93 ms)
Run 3: Statistics of TCP Cubic

Start at: 2020-04-17 12:01:04
End at: 2020-04-17 12:01:34
Local clock offset: -0.29 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2020-04-17 14:48:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 929.24 Mbit/s
95th percentile per-packet one-way delay: 127.025 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 584.12 Mbit/s
95th percentile per-packet one-way delay: 99.960 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 409.82 Mbit/s
95th percentile per-packet one-way delay: 147.577 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 218.03 Mbit/s
95th percentile per-packet one-way delay: 124.586 ms
Loss rate: 1.20%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2020-04-17 12:41:25
End at: 2020-04-17 12:41:55
Local clock offset: -0.087 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2020-04-17 14:48:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 832.54 Mbit/s
95th percentile per-packet one-way delay: 146.541 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 472.26 Mbit/s
95th percentile per-packet one-way delay: 148.616 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 354.28 Mbit/s
95th percentile per-packet one-way delay: 98.925 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 374.37 Mbit/s
95th percentile per-packet one-way delay: 171.170 ms
Loss rate: 1.07%
Run 4: Report of TCP Cubic — Data Link

Graph 1: Throughput (Mbps) vs Time (s)
- Flow 1 ingress (mean 473.35 Mbps)
- Flow 1 egress (mean 472.26 Mbps)
- Flow 2 ingress (mean 354.30 Mbps)
- Flow 2 egress (mean 354.28 Mbps)
- Flow 3 ingress (mean 378.31 Mbps)
- Flow 3 egress (mean 374.37 Mbps)

Graph 2: Per-packet one-way delay (ms) vs Time (s)
- Flow 1 (95th percentile 148.62 ms)
- Flow 2 (95th percentile 98.92 ms)
- Flow 3 (95th percentile 171.17 ms)
Run 5: Statistics of TCP Cubic

Start at: 2020-04-17 13:21:35
End at: 2020-04-17 13:22:05
Local clock offset: -0.548 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2020-04-17 14:48:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 754.13 Mbit/s
95th percentile per-packet one-way delay: 160.701 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 455.35 Mbit/s
95th percentile per-packet one-way delay: 154.817 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 403.61 Mbit/s
95th percentile per-packet one-way delay: 165.166 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 89.93 Mbit/s
95th percentile per-packet one-way delay: 47.218 ms
Loss rate: 0.00%
Run 5: Report of TCP Cubic — Data Link

![Graph showing throughput and per-packet round-trip delay over time for flows 1, 2, and 3.]
Run 1: Statistics of FillP

Start at: 2020-04-17 10:49:12
End at: 2020-04-17 10:49:42
Local clock offset: -0.111 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2020-04-17 14:53:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 881.62 Mbit/s
95th percentile per-packet one-way delay: 55.111 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 573.04 Mbit/s
95th percentile per-packet one-way delay: 57.042 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 331.70 Mbit/s
95th percentile per-packet one-way delay: 49.693 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 263.78 Mbit/s
95th percentile per-packet one-way delay: 52.674 ms
Loss rate: 0.00%
Run 2: Statistics of FillP

Start at: 2020-04-17 11:29:25
End at: 2020-04-17 11:29:55
Local clock offset: -0.188 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2020-04-17 15:11:50
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 873.38 Mbit/s
  95th percentile per-packet one-way delay: 106.957 ms
  Loss rate: 1.03%
-- Flow 1:
  Average throughput: 538.04 Mbit/s
  95th percentile per-packet one-way delay: 110.770 ms
  Loss rate: 1.67%
-- Flow 2:
  Average throughput: 390.50 Mbit/s
  95th percentile per-packet one-way delay: 54.051 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 226.87 Mbit/s
  95th percentile per-packet one-way delay: 52.840 ms
  Loss rate: 0.00%
Run 2: Report of FillP — Data Link

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 547.16 Mbit/s) and Flow 1 egress (mean 538.04 Mbit/s)
- Blue dash-dotted line: Flow 2 ingress (mean 390.50 Mbit/s) and Flow 2 egress (mean 390.50 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 226.88 Mbit/s) and Flow 3 egress (mean 226.87 Mbit/s)

Legend for packet delay:
- Blue dots: Flow 1 (95th percentile 110.77 ms)
- Red dots: Flow 2 (95th percentile 54.05 ms)
- Green dots: Flow 3 (95th percentile 52.64 ms)
Run 3: Statistics of FillP

Start at: 2020-04-17 12:09:43
End at: 2020-04-17 12:10:13
Local clock offset: -0.185 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2020-04-17 15:12:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 901.49 Mbit/s
  95th percentile per-packet one-way delay: 64.608 ms
  Loss rate: 0.27%
-- Flow 1:
  Average throughput: 590.15 Mbit/s
  95th percentile per-packet one-way delay: 70.400 ms
  Loss rate: 0.42%
-- Flow 2:
  Average throughput: 321.89 Mbit/s
  95th percentile per-packet one-way delay: 51.589 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 293.62 Mbit/s
  95th percentile per-packet one-way delay: 53.443 ms
  Loss rate: 0.00%
Run 3: Report of FillP — Data Link

![Graph 1: Throughput](image1)

- Flow 1 Ingress (mean 592.60 Mbit/s)
- Flow 1 Egress (mean 590.15 Mbit/s)
- Flow 2 Ingress (mean 321.91 Mbit/s)
- Flow 2 Egress (mean 321.89 Mbit/s)
- Flow 3 Ingress (mean 293.67 Mbit/s)
- Flow 3 Egress (mean 293.62 Mbit/s)

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

- Flow 1 (95th percentile 70.40 ms)
- Flow 2 (95th percentile 51.59 ms)
- Flow 3 (95th percentile 53.44 ms)
Run 4: Statistics of FillP

Start at: 2020-04-17 12:49:58
End at: 2020-04-17 12:50:28
Local clock offset: -0.418 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2020-04-17 15:14:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 938.09 Mbit/s
  95th percentile per-packet one-way delay: 89.452 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 568.15 Mbit/s
  95th percentile per-packet one-way delay: 99.185 ms
  Loss rate: 0.72%
-- Flow 2:
  Average throughput: 422.62 Mbit/s
  95th percentile per-packet one-way delay: 53.378 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 268.87 Mbit/s
  95th percentile per-packet one-way delay: 52.535 ms
  Loss rate: 0.00%
Run 4: Report of FillP — Data Link

![Graph showing throughput and delay over time for different flows.](image-url)
Run 5: Statistics of FillP

Start at: 2020-04-17 13:30:07
End at: 2020-04-17 13:30:37
Local clock offset: -0.127 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2020-04-17 15:14:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 809.14 Mbit/s
95th percentile per-packet one-way delay: 82.810 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 496.14 Mbit/s
95th percentile per-packet one-way delay: 102.109 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 343.14 Mbit/s
95th percentile per-packet one-way delay: 62.071 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 255.43 Mbit/s
95th percentile per-packet one-way delay: 51.628 ms
Loss rate: 0.00%
Run 5: Report of FillP — Data Link

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

- Flow 1 ingress (mean 303.32 Mbit/s)
- Flow 1 egress (mean 496.14 Mbit/s)
- Flow 2 ingress (mean 343.23 Mbit/s)
- Flow 2 egress (mean 343.14 Mbit/s)
- Flow 3 ingress (mean 255.47 Mbit/s)
- Flow 3 egress (mean 255.43 Mbit/s)

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

- Flow 1 (95th percentile 102.11 ms)
- Flow 2 (95th percentile 82.07 ms)
- Flow 3 (95th percentile 51.63 ms)
Run 1: Statistics of FillP-Sheep

Start at: 2020-04-17 10:17:04
End at: 2020-04-17 10:17:34
Local clock offset: -0.077 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2020-04-17 15:14:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 760.28 Mbit/s
95th percentile per-packet one-way delay: 51.712 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 469.86 Mbit/s
95th percentile per-packet one-way delay: 53.279 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 303.86 Mbit/s
95th percentile per-packet one-way delay: 50.557 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 265.56 Mbit/s
95th percentile per-packet one-way delay: 50.137 ms
Loss rate: 0.00%
Run 1: Report of FillP-Sheep — Data Link

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

- **Flow 1 Ingress** (mean 469.88 Mbit/s)
- **Flow 1 Egress** (mean 469.88 Mbit/s)
- **Flow 2 Ingress** (mean 303.90 Mbit/s)
- **Flow 2 Egress** (mean 303.86 Mbit/s)
- **Flow 3 Ingress** (mean 265.58 Mbit/s)
- **Flow 3 Egress** (mean 265.56 Mbit/s)

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

- **Flow 1** (95th percentile 53.28 ms)
- **Flow 2** (95th percentile 50.56 ms)
- **Flow 3** (95th percentile 50.14 ms)
Run 2: Statistics of FillP-Sheep

Start at: 2020-04-17 10:57:25
End at: 2020-04-17 10:57:55
Local clock offset: -0.15 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2020-04-17 15:14:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 779.16 Mbit/s
95th percentile per-packet one-way delay: 82.037 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 500.13 Mbit/s
95th percentile per-packet one-way delay: 88.536 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 304.20 Mbit/s
95th percentile per-packet one-way delay: 49.535 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 231.54 Mbit/s
95th percentile per-packet one-way delay: 50.445 ms
Loss rate: 0.00%
Run 2: Report of FillP-Sheep — Data Link

![Throughput Graph]

- Flow 1 Ingress (mean 500.97 Mb/s)
- Flow 1 Egress (mean 500.33 Mb/s)
- Flow 2 Ingress (mean 304.21 Mb/s)
- Flow 2 Egress (mean 304.26 Mb/s)
- Flow 3 Ingress (mean 231.56 Mb/s)
- Flow 3 Egress (mean 231.54 Mb/s)

![Per-packet delay Graph]

- Flow 1 (95th percentile 88.54 ms)
- Flow 2 (95th percentile 49.53 ms)
- Flow 3 (95th percentile 50.45 ms)
Run 3: Statistics of FillP-Sheep

Start at: 2020-04-17 11:37:41
End at: 2020-04-17 11:38:11
Local clock offset: -0.249 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2020-04-17 15:14:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 685.51 Mbit/s
95th percentile per-packet one-way delay: 56.475 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 397.18 Mbit/s
95th percentile per-packet one-way delay: 59.623 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 307.32 Mbit/s
95th percentile per-packet one-way delay: 50.980 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 252.26 Mbit/s
95th percentile per-packet one-way delay: 52.430 ms
Loss rate: 0.00%
Run 3: Report of FillP-Sheep — Data Link
Run 4: Statistics of FillP-Sheep

Start at: 2020-04-17 12:17:57
End at: 2020-04-17 12:18:27
Local clock offset: -0.544 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2020-04-17 15:17:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 759.33 Mbit/s
95th percentile per-packet one-way delay: 71.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 483.11 Mbit/s
95th percentile per-packet one-way delay: 77.724 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 303.55 Mbit/s
95th percentile per-packet one-way delay: 52.066 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 225.34 Mbit/s
95th percentile per-packet one-way delay: 48.977 ms
Loss rate: 0.00%
Run 4: Report of FillP-Sheep — Data Link

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**Graph 1:**

 throughput (Mbps) over time (s)

- Flow 1 ingress (mean 483.09 Mbps)
- Flow 1 egress (mean 483.11 Mbps)
- Flow 2 ingress (mean 303.55 Mbps)
- Flow 2 egress (mean 303.55 Mbps)
- Flow 3 ingress (mean 225.34 Mbps)
- Flow 3 egress (mean 225.34 Mbps)

**Graph 2:**

 per-packet one-way delay (ms)

- Flow 1 (95th percentile 77.72 ms)
- Flow 2 (95th percentile 52.07 ms)
- Flow 3 (95th percentile 48.98 ms)
Run 5: Statistics of FillP-Sheep

Start at: 2020-04-17 12:58:16
End at: 2020-04-17 12:58:46
Local clock offset: 0.412 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2020-04-17 15:33:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 792.73 Mbit/s
  95th percentile per-packet one-way delay: 71.365 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 497.45 Mbit/s
  95th percentile per-packet one-way delay: 79.459 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 316.75 Mbit/s
  95th percentile per-packet one-way delay: 52.566 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 254.95 Mbit/s
  95th percentile per-packet one-way delay: 51.068 ms
  Loss rate: 0.00%
Run 5: Report of FillP-Sheep — Data Link

Throughput (Mbps):

- Flow 1 ingress (mean 497.45 Mbps)
- Flow 1 egress (mean 497.45 Mbps)
- Flow 2 ingress (mean 316.75 Mbps)
- Flow 2 egress (mean 316.75 Mbps)
- Flow 3 ingress (mean 254.95 Mbps)
- Flow 3 egress (mean 254.95 Mbps)

Per-packet end-to-end delay (ms):

- Flow 1 (95th percentile 79.46 ms)
- Flow 2 (95th percentile 52.57 ms)
- Flow 3 (95th percentile 51.07 ms)
Run 1: Statistics of Indigo

Start at: 2020-04-17 10:28:45
End at: 2020-04-17 10:29:15
Local clock offset: -0.098 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2020-04-17 15:33:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.23 Mbit/s
95th percentile per-packet one-way delay: 48.833 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.86 Mbit/s
95th percentile per-packet one-way delay: 48.379 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 188.20 Mbit/s
95th percentile per-packet one-way delay: 49.203 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 165.61 Mbit/s
95th percentile per-packet one-way delay: 49.323 ms
Loss rate: 0.00%
Run 1: Report of Indigo — Data Link

The first graph shows the throughput over time for different flows. The legend indicates:
- Flow 1 ingress (mean 193.86 Mbit/s)
- Flow 1 egress (mean 193.86 Mbit/s)
- Flow 2 ingress (mean 188.20 Mbit/s)
- Flow 2 egress (mean 188.20 Mbit/s)
- Flow 3 ingress (mean 165.61 Mbit/s)
- Flow 3 egress (mean 165.61 Mbit/s)

The second graph displays the per-packet round-trip delay over time. The legend indicates:
- Flow 1 (95th percentile 48.38 ms)
- Flow 2 (95th percentile 49.20 ms)
- Flow 3 (95th percentile 49.32 ms)
Run 2: Statistics of Indigo

Start at: 2020-04-17 11:09:22
End at: 2020-04-17 11:09:52
Local clock offset: -0.101 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2020-04-17 15:33:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 351.84 Mbit/s
95th percentile per-packet one-way delay: 49.682 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.85 Mbit/s
95th percentile per-packet one-way delay: 50.052 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 173.24 Mbit/s
95th percentile per-packet one-way delay: 49.359 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 108.43 Mbit/s
95th percentile per-packet one-way delay: 48.644 ms
Loss rate: 0.00%
Run 2: Report of Indigo — Data Link
Run 3: Statistics of Indigo

Start at: 2020-04-17 11:49:32
End at: 2020-04-17 11:50:02
Local clock offset: -0.257 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2020-04-17 15:33:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 371.28 Mbit/s
95th percentile per-packet one-way delay: 52.146 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 198.73 Mbit/s
95th percentile per-packet one-way delay: 51.373 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 183.19 Mbit/s
95th percentile per-packet one-way delay: 50.648 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 158.15 Mbit/s
95th percentile per-packet one-way delay: 54.845 ms
Loss rate: 0.05%
Run 3: Report of Indigo — Data Link

![Graph 1: Throughput (Mbps)]

- **Flow 1 ingress (mean 198.73 Mbps)**
- **Flow 1 egress (mean 198.73 Mbps)**
- **Flow 2 ingress (mean 183.19 Mbps)**
- **Flow 2 egress (mean 183.19 Mbps)**
- **Flow 3 ingress (mean 158.20 Mbps)**
- **Flow 3 egress (mean 158.20 Mbps)**

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

- **Flow 1 (95th percentile 51.37 ms)**
- **Flow 2 (95th percentile 50.65 ms)**
- **Flow 3 (95th percentile 54.84 ms)**

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Run 4: Statistics of Indigo

Start at: 2020-04-17 12:29:49
End at: 2020-04-17 12:30:19
Local clock offset: -0.183 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2020-04-17 15:33:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 340.12 Mbit/s
95th percentile per-packet one-way delay: 52.404 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 190.56 Mbit/s
95th percentile per-packet one-way delay: 52.142 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 172.62 Mbit/s
95th percentile per-packet one-way delay: 52.691 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 110.48 Mbit/s
95th percentile per-packet one-way delay: 52.705 ms
Loss rate: 0.01%
Run 4: Report of Indigo — Data Link
Run 5: Statistics of Indigo

Start at: 2020-04-17 13:10:08
End at: 2020-04-17 13:10:38
Local clock offset: 0.351 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2020-04-17 15:33:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 364.77 Mbit/s
95th percentile per-packet one-way delay: 50.576 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 209.34 Mbit/s
95th percentile per-packet one-way delay: 50.841 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 180.96 Mbit/s
95th percentile per-packet one-way delay: 50.700 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 109.76 Mbit/s
95th percentile per-packet one-way delay: 48.192 ms
Loss rate: 0.00%
Run 5: Report of Indigo — Data Link

[Graph showing throughput and per-packet-one-way-delay over time for different flows, with legend indicating mean speeds and 95th percentile delays.]
Run 1: Statistics of Indigo-MusesC3

Start at: 2020-04-17 10:51:00
End at: 2020-04-17 10:51:30
Local clock offset: -0.141 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2020-04-17 15:33:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 724.69 Mbit/s
95th percentile per-packet one-way delay: 58.828 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 432.51 Mbit/s
95th percentile per-packet one-way delay: 63.479 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 366.08 Mbit/s
95th percentile per-packet one-way delay: 52.437 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 235.13 Mbit/s
95th percentile per-packet one-way delay: 49.272 ms
Loss rate: 0.00%
Run 1: Report of Indigo-MusesC3 — Data Link
Run 2: Statistics of Indigo-MusesC3

Start at: 2020-04-17 11:31:12
End at: 2020-04-17 11:31:42
Local clock offset: 0.212 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2020-04-17 15:35:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 692.29 Mbit/s
  95th percentile per-packet one-way delay: 63.568 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 424.87 Mbit/s
  95th percentile per-packet one-way delay: 66.489 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 347.91 Mbit/s
  95th percentile per-packet one-way delay: 55.909 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 230.32 Mbit/s
  95th percentile per-packet one-way delay: 49.564 ms
  Loss rate: 0.00%
Run 2: Report of Indigo-MusesC3 — Data Link
Run 3: Statistics of Indigo-MusesC3

Start at: 2020-04-17 12:11:32
End at: 2020-04-17 12:12:02
Local clock offset: -0.182 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2020-04-17 15:46:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 710.92 Mbit/s
95th percentile per-packet one-way delay: 58.527 ms
Loss rate: 0.01%

-- Flow 1:
Average throughput: 429.89 Mbit/s
95th percentile per-packet one-way delay: 58.890 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 342.53 Mbit/s
95th percentile per-packet one-way delay: 59.409 ms
Loss rate: 0.03%

-- Flow 3:
Average throughput: 271.13 Mbit/s
95th percentile per-packet one-way delay: 51.206 ms
Loss rate: 0.00%
Run 3: Report of Indigo-MusesC3 — Data Link

![Graph of Throughput vs Time for different flows]

- Flow 1 ingress (mean 429.91 Mbit/s)
- Flow 1 egress (mean 429.99 Mbit/s)
- Flow 2 ingress (mean 342.60 Mbit/s)
- Flow 2 egress (mean 342.53 Mbit/s)
- Flow 3 ingress (mean 271.13 Mbit/s)
- Flow 3 egress (mean 271.13 Mbit/s)

![Graph of Per-packet Round Trip Delay vs Time for different flows]

- Flow 1 (95th percentile 58.89 ms)
- Flow 2 (95th percentile 59.41 ms)
- Flow 3 (95th percentile 51.21 ms)
Run 4: Statistics of Indigo-MusesC3

Start at: 2020-04-17 12:51:48
End at: 2020-04-17 12:52:18
Local clock offset: -0.389 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2020-04-17 15:46:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 681.71 Mbit/s
  95th percentile per-packet one-way delay: 65.809 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 403.34 Mbit/s
  95th percentile per-packet one-way delay: 68.118 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 350.20 Mbit/s
  95th percentile per-packet one-way delay: 63.704 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 243.88 Mbit/s
  95th percentile per-packet one-way delay: 52.684 ms
  Loss rate: 0.00%
Run 4: Report of Indigo-MusesC3 — Data Link
Run 5: Statistics of Indigo-MusesC3

Start at: 2020-04-17 13:31:53
End at: 2020-04-17 13:32:23
Local clock offset: -0.158 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2020-04-17 15:46:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 682.34 Mbit/s
95th percentile per-packet one-way delay: 62.339 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 408.31 Mbit/s
95th percentile per-packet one-way delay: 66.997 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 338.07 Mbit/s
95th percentile per-packet one-way delay: 54.228 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 250.88 Mbit/s
95th percentile per-packet one-way delay: 53.217 ms
Loss rate: 0.00%
Run 5: Report of Indigo-MusesC3 — Data Link
Run 1: Statistics of Indigo-MusesC5

Start at: 2020-04-17 10:23:22
End at: 2020-04-17 10:23:52
Local clock offset: -0.092 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2020-04-17 15:49:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 767.65 Mbit/s
95th percentile per-packet one-way delay: 56.302 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 475.55 Mbit/s
95th percentile per-packet one-way delay: 55.856 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 422.09 Mbit/s
95th percentile per-packet one-way delay: 57.325 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 98.92 Mbit/s
95th percentile per-packet one-way delay: 51.307 ms
Loss rate: 0.00%
Run 1: Report of Indigo-MusesC5 — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 475.66 Mbit/s)
Flow 1 egress (mean 475.55 Mbit/s)
Flow 2 ingress (mean 422.20 Mbit/s)
Flow 2 egress (mean 422.09 Mbit/s)
Flow 3 ingress (mean 98.84 Mbit/s)
Flow 3 egress (mean 98.92 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 55.86 ms)
Flow 2 (95th percentile 57.33 ms)
Flow 3 (95th percentile 51.31 ms)
Run 2: Statistics of Indigo-MusesC5

Start at: 2020-04-17 11:04:00
End at: 2020-04-17 11:04:30
Local clock offset: -0.134 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2020-04-17 15:49:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 742.01 Mbit/s
95th percentile per-packet one-way delay: 71.11 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 484.89 Mbit/s
95th percentile per-packet one-way delay: 76.35 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 367.61 Mbit/s
95th percentile per-packet one-way delay: 61.59 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 98.53 Mbit/s
95th percentile per-packet one-way delay: 48.41 ms
Loss rate: 0.00%
Run 2: Report of Indigo-MusesC5 — Data Link

Graph 1: Throughput (Mbps) vs. Time (s)
- Flow 1 ingress (mean 484.89 Mbps)
- Flow 1 egress (mean 484.89 Mbps)
- Flow 2 ingress (mean 367.61 Mbps)
- Flow 2 egress (mean 367.61 Mbps)
- Flow 3 ingress (mean 98.53 Mbps)
- Flow 3 egress (mean 98.53 Mbps)

Graph 2: Per-packet one-way delay (ms) vs. Time (s)
- Flow 1 (95th percentile 76.35 ms)
- Flow 2 (95th percentile 61.60 ms)
- Flow 3 (95th percentile 48.41 ms)
Run 3: Statistics of Indigo-MusesC5

Start at: 2020-04-17 11:44:12
End at: 2020-04-17 11:44:42
Local clock offset: -0.257 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2020-04-17 15:51:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 727.61 Mbit/s
95th percentile per-packet one-way delay: 71.635 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 441.78 Mbit/s
95th percentile per-packet one-way delay: 74.714 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 416.83 Mbit/s
95th percentile per-packet one-way delay: 68.147 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 105.10 Mbit/s
95th percentile per-packet one-way delay: 48.117 ms
Loss rate: 0.00%
Run 3: Report of Indigo-MusesC5 — Data Link

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

- Flow 1 ingress (mean 441.77 Mbit/s)
- Flow 1 egress (mean 441.78 Mbit/s)
- Flow 2 ingress (mean 416.85 Mbit/s)
- Flow 2 egress (mean 416.83 Mbit/s)
- Flow 3 ingress (mean 105.10 Mbit/s)
- Flow 3 egress (mean 105.10 Mbit/s)

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

- Flow 1 (95th percentile 74.71 ms)
- Flow 2 (95th percentile 68.15 ms)
- Flow 3 (95th percentile 48.12 ms)
Run 4: Statistics of Indigo-MusesC5

Start at: 2020-04-17 12:24:30
End at: 2020-04-17 12:25:00
Local clock offset: -0.183 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2020-04-17 15:52:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 731.52 Mbit/s
  95th percentile per-packet one-way delay: 67.418 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 477.62 Mbit/s
  95th percentile per-packet one-way delay: 70.865 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 360.90 Mbit/s
  95th percentile per-packet one-way delay: 54.196 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 98.42 Mbit/s
  95th percentile per-packet one-way delay: 47.609 ms
  Loss rate: 0.00%
Run 4: Report of Indigo-MusesC5 — Data Link

**Graph 1:** Throughput (Mbps) over Time (s)

- **Flow 1 Ingress (mean 477.61 Mbps)**
- **Flow 1 Egress (mean 477.62 Mbps)**
- **Flow 2 Ingress (mean 360.89 Mbps)**
- **Flow 2 Egress (mean 360.90 Mbps)**
- **Flow 3 Ingress (mean 98.42 Mbps)**
- **Flow 3 Egress (mean 98.42 Mbps)**

**Graph 2:** Packet one way delay (ms) Over Time (s)

- **Flow 1 (95th percentile 70.86 ms)**
- **Flow 2 (95th percentile 54.20 ms)**
- **Flow 3 (95th percentile 47.61 ms)**
Run 5: Statistics of Indigo-MusesC5

Start at: 2020-04-17 13:04:51
End at: 2020-04-17 13:05:21
Local clock offset: 0.049 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2020-04-17 15:53:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 747.81 Mbit/s
95th percentile per-packet one-way delay: 87.828 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 472.75 Mbit/s
95th percentile per-packet one-way delay: 90.248 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 399.00 Mbit/s
95th percentile per-packet one-way delay: 84.610 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 98.90 Mbit/s
95th percentile per-packet one-way delay: 48.195 ms
Loss rate: 0.00%
Run 5: Report of Indigo-MusesC5 — Data Link
Run 1: Statistics of Indigo-MusesD

Start at: 2020-04-17 10:47:29
End at: 2020-04-17 10:47:59
Local clock offset: -0.073 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2020-04-17 16:03:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 681.97 Mbit/s
95th percentile per-packet one-way delay: 51.999 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 383.21 Mbit/s
95th percentile per-packet one-way delay: 51.252 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 354.66 Mbit/s
95th percentile per-packet one-way delay: 54.991 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 291.64 Mbit/s
95th percentile per-packet one-way delay: 50.228 ms
Loss rate: 0.00%
Run 1: Report of Indigo-MusesD — Data Link

Throughput (Mbps) vs. Time (s)

Flow 1 ingress (mean 383.20 Mbps), Flow 1 egress (mean 383.21 Mbps), Flow 2 ingress (mean 354.50 Mbps), Flow 2 egress (mean 354.66 Mbps), Flow 3 ingress (mean 291.64 Mbps), Flow 3 egress (mean 291.64 Mbps)

Per packet one way delay (ms)

Flow 1 (95th percentile 51.25 ms), Flow 2 (95th percentile 54.99 ms), Flow 3 (95th percentile 50.23 ms)
Run 2: Statistics of Indigo-MusesD

Start at: 2020-04-17 11:27:45
End at: 2020-04-17 11:28:15
Local clock offset: -0.151 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2020-04-17 16:03:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 613.95 Mbit/s
95th percentile per-packet one-way delay: 76.448 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 372.03 Mbit/s
95th percentile per-packet one-way delay: 83.129 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 308.37 Mbit/s
95th percentile per-packet one-way delay: 69.685 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 206.18 Mbit/s
95th percentile per-packet one-way delay: 50.048 ms
Loss rate: 0.00%
Run 2: Report of Indigo-MusesD — Data Link
Run 3: Statistics of Indigo-MusesD

Start at: 2020-04-17 12:08:02
End at: 2020-04-17 12:08:32
Local clock offset: -0.193 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2020-04-17 16:03:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 623.08 Mbit/s
  95th percentile per-packet one-way delay: 57.782 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 390.48 Mbit/s
  95th percentile per-packet one-way delay: 56.628 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 256.90 Mbit/s
  95th percentile per-packet one-way delay: 62.320 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 276.82 Mbit/s
  95th percentile per-packet one-way delay: 49.630 ms
  Loss rate: 0.00%
Run 3: Report of Indigo-MusesD — Data Link

---

**Throughput (Mbps):**

- **Flow 1 ingress (mean 390.47 Mbps):**
- **Flow 1 egress (mean 390.48 Mbps):**
- **Flow 2 ingress (mean 256.93 Mbps):**
- **Flow 2 egress (mean 256.90 Mbps):**
- **Flow 3 ingress (mean 276.81 Mbps):**
- **Flow 3 egress (mean 276.82 Mbps):**

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

- **Flow 1 (95th percentile 56.63 ms):**
- **Flow 2 (95th percentile 62.32 ms):**
- **Flow 3 (95th percentile 49.63 ms):**
Run 4: Statistics of Indigo-MusesD

Start at: 2020-04-17 12:48:15
End at: 2020-04-17 12:48:45
Local clock offset: 0.377 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2020-04-17 16:05:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 667.60 Mbit/s
95th percentile per-packet one-way delay: 55.342 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 394.79 Mbit/s
95th percentile per-packet one-way delay: 57.181 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 358.32 Mbit/s
95th percentile per-packet one-way delay: 53.949 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 205.74 Mbit/s
95th percentile per-packet one-way delay: 48.996 ms
Loss rate: 0.00%
Run 4: Report of Indigo-MusesD — Data Link

![Graph showing throughput and packet error rate over time for different flows.](image-url)
Run 5: Statistics of Indigo-MusesD

Start at: 2020-04-17 13:28:24
End at: 2020-04-17 13:28:54
Local clock offset: -0.199 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2020-04-17 16:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 684.54 Mbit/s
95th percentile per-packet one-way delay: 70.599 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 416.17 Mbit/s
95th percentile per-packet one-way delay: 63.471 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 329.90 Mbit/s
95th percentile per-packet one-way delay: 91.404 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 247.06 Mbit/s
95th percentile per-packet one-way delay: 49.771 ms
Loss rate: 0.00%
Run 5: Report of Indigo-MusesD — Data Link
Run 1: Statistics of Indigo-MusesT

Start at: 2020-04-17 10:19:58
End at: 2020-04-17 10:20:28
Local clock offset: -0.124 ms
Remote clock offset: -0.065 ms
Run 1: Report of Indigo-MusesT — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 322.77 Mbit/s)
- Flow 1 egress (mean 322.78 Mbit/s)
- Flow 2 ingress (mean 329.12 Mbit/s)
- Flow 2 egress (mean 329.15 Mbit/s)
- Flow 3 ingress (mean 298.30 Mbit/s)
- Flow 3 egress (mean 298.31 Mbit/s)

![Packet Delay Graph]

- Flow 1 (95th percentile 66.40 ms)
- Flow 2 (95th percentile 50.24 ms)
- Flow 3 (95th percentile 50.53 ms)
Run 2: Statistics of Indigo-MusesT

Start at: 2020-04-17 11:00:19
End at: 2020-04-17 11:00:49
Local clock offset: -0.083 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2020-04-17 16:12:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 795.65 Mbit/s
95th percentile per-packet one-way delay: 61.465 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 480.61 Mbit/s
95th percentile per-packet one-way delay: 63.227 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 382.14 Mbit/s
95th percentile per-packet one-way delay: 60.644 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 280.14 Mbit/s
95th percentile per-packet one-way delay: 53.373 ms
Loss rate: 0.05%
Run 2: Report of Indigo-MuseST — Data Link

![Graph 1: Throughout (Mbps) vs Time (s)](image1)

![Graph 2: Per-packet one way delay (ms) vs Time (s)](image2)
Run 3: Statistics of Indigo-MusesT

Start at: 2020-04-17 11:40:32
End at: 2020-04-17 11:41:02
Local clock offset: -0.255 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2020-04-17 16:12:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 755.86 Mbit/s
95th percentile per-packet one-way delay: 66.710 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 456.13 Mbit/s
95th percentile per-packet one-way delay: 68.003 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 392.04 Mbit/s
95th percentile per-packet one-way delay: 63.486 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 116.67 Mbit/s
95th percentile per-packet one-way delay: 51.359 ms
Loss rate: 0.00%
Run 3: Report of Indigo-MusesT — Data Link

Graph 1: Throughput (Mbps)

- Flow 1 ingress (mean 455.25 Mbps)
- Flow 1 egress (mean 456.13 Mbps)
- Flow 2 ingress (mean 391.69 Mbps)
- Flow 2 egress (mean 392.04 Mbps)
- Flow 3 ingress (mean 115.85 Mbps)
- Flow 3 egress (mean 116.67 Mbps)

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

- Flow 1 (95th percentile 68.00 ms)
- Flow 2 (95th percentile 63.49 ms)
- Flow 3 (95th percentile 51.36 ms)
Run 4: Statistics of Indigo-MusesT

Start at: 2020-04-17 12:20:50
End at: 2020-04-17 12:21:20
Local clock offset: -0.204 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2020-04-17 16:17:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 727.54 Mbit/s
95th percentile per-packet one-way delay: 86.115 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 456.71 Mbit/s
95th percentile per-packet one-way delay: 91.087 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 383.88 Mbit/s
95th percentile per-packet one-way delay: 55.700 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 113.09 Mbit/s
95th percentile per-packet one-way delay: 51.331 ms
Loss rate: 0.09%
Run 4: Report of Indigo-MusesT — Data Link

![Graph showing data link performance](image)

![Graph showing packet round trip delay](image)
Run 5: Statistics of Indigo-MusesT

Start at: 2020-04-17 13:01:11
End at: 2020-04-17 13:01:41
Local clock offset: 0.388 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2020-04-17 16:18:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 702.16 Mbit/s
95th percentile per-packet one-way delay: 79.166 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 437.51 Mbit/s
95th percentile per-packet one-way delay: 85.661 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 378.72 Mbit/s
95th percentile per-packet one-way delay: 62.045 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 109.09 Mbit/s
95th percentile per-packet one-way delay: 47.995 ms
Loss rate: 0.00%
Run 5: Report of Indigo-MusesT — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 437.52 Mbps)
- **Flow 1 egress** (mean 437.51 Mbps)
- **Flow 2 ingress** (mean 378.72 Mbps)
- **Flow 2 egress** (mean 378.72 Mbps)
- **Flow 3 ingress** (mean 109.09 Mbps)
- **Flow 3 egress** (mean 109.09 Mbps)

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

- **Flow 1 (95th percentile 85.66 ms)**
- **Flow 2 (95th percentile 62.05 ms)**
- **Flow 3 (95th percentile 47.99 ms)**
Run 1: Statistics of LEDBAT

Start at: 2020-04-17 10:37:23
End at: 2020-04-17 10:37:53
Local clock offset: ~0.055 ms
Remote clock offset: ~0.054 ms

# Below is generated by plot.py at 2020-04-17 16:18:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.14 Mbit/s
95th percentile per-packet one-way delay: 48.214 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.56 Mbit/s
95th percentile per-packet one-way delay: 48.192 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.54 Mbit/s
95th percentile per-packet one-way delay: 48.326 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.88 Mbit/s
95th percentile per-packet one-way delay: 47.904 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

![Graph of Throughput](image1)

![Graph of Per-packet Round Trip Time](image2)
Run 2: Statistics of LEDBAT

Start at: 2020-04-17 11:17:54
End at: 2020-04-17 11:18:24
Local clock offset: -0.136 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2020-04-17 16:18:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.99 Mbit/s
95th percentile per-packet one-way delay: 50.790 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 39.08 Mbit/s
95th percentile per-packet one-way delay: 51.077 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 27.53 Mbit/s
95th percentile per-packet one-way delay: 48.375 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.96 Mbit/s
95th percentile per-packet one-way delay: 47.953 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

![Graph showing throughput and packet loss over time with data link metrics for different flows.]

---

**Graph 1:**
- **Throughput (Mbps):**
- **Time (s):**
- **Legend:**
  - Flow 1 Ingress (mean 39.09 Mbps)
  - Flow 1 Egress (mean 39.08 Mbps)
  - Flow 2 Ingress (mean 27.53 Mbps)
  - Flow 2 Egress (mean 27.53 Mbps)
  - Flow 3 Ingress (mean 13.96 Mbps)
  - Flow 3 Egress (mean 13.96 Mbps)

**Graph 2:**
- **Per-packet end-to-end delay (ms):**
- **Time (s):**
- **Legend:**
  - Flow 1 (95th percentile 51.08 ms)
  - Flow 2 (95th percentile 48.38 ms)
  - Flow 3 (95th percentile 47.95 ms)
Run 3: Statistics of LEDBAT

Start at: 2020-04-17 11:58:02
End at: 2020-04-17 11:58:32
Local clock offset: -0.313 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2020-04-17 16:18:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.06 Mbit/s
95th percentile per-packet one-way delay: 48.237 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.12 Mbit/s
95th percentile per-packet one-way delay: 47.973 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.56 Mbit/s
95th percentile per-packet one-way delay: 48.674 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.85 Mbit/s
95th percentile per-packet one-way delay: 47.320 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2020-04-17 12:38:24
End at: 2020-04-17 12:38:54
Local clock offset: -0.068 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2020-04-17 16:18:53
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 57.79 Mbit/s
  95th percentile per-packet one-way delay: 48.520 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 34.99 Mbit/s
  95th percentile per-packet one-way delay: 48.456 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 27.48 Mbit/s
  95th percentile per-packet one-way delay: 48.688 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 13.65 Mbit/s
  95th percentile per-packet one-way delay: 48.224 ms
  Loss rate: 0.00%
Run 5: Statistics of LEDBAT

Start at: 2020-04-17 13:18:34
End at: 2020-04-17 13:19:04
Local clock offset: -0.108 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2020-04-17 16:18:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.53 Mbit/s
95th percentile per-packet one-way delay: 48.992 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 49.219 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.57 Mbit/s
95th percentile per-packet one-way delay: 48.577 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.99 Mbit/s
95th percentile per-packet one-way delay: 47.708 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 40.87 Mbit/s)
- Flow 1 egress (mean 40.87 Mbit/s)
- Flow 2 ingress (mean 25.57 Mbit/s)
- Flow 2 egress (mean 25.57 Mbit/s)
- Flow 3 ingress (mean 13.99 Mbit/s)
- Flow 3 egress (mean 13.99 Mbit/s)

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

- Flow 1 (95th percentile 49.22 ms)
- Flow 2 (95th percentile 48.58 ms)
- Flow 3 (95th percentile 47.71 ms)
Run 1: Statistics of Muses\_DecisionTree

Start at: 2020-04-17 10:30:31  
End at: 2020-04-17 10:31:01  
Local clock offset: 0.297 ms  
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2020-04-17 16:23:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 637.99 Mbit/s  
95th percentile per-packet one-way delay: 50.497 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 381.12 Mbit/s  
95th percentile per-packet one-way delay: 53.030 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 306.86 Mbit/s  
95th percentile per-packet one-way delay: 48.602 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 166.24 Mbit/s  
95th percentile per-packet one-way delay: 47.196 ms  
Loss rate: 0.00%
Run 1: Report of Muses_DecisionTree — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 381.04 Mbps)
- Flow 1 egress (mean 381.12 Mbps)
- Flow 2 ingress (mean 306.86 Mbps)
- Flow 2 egress (mean 306.86 Mbps)
- Flow 3 ingress (mean 166.10 Mbps)
- Flow 3 egress (mean 166.24 Mbps)

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

- Flow 1 (95th percentile 53.03 ms)
- Flow 2 (95th percentile 48.60 ms)
- Flow 3 (95th percentile 47.20 ms)
Run 2: Statistics of Muses\_DecisionTree

Start at: 2020-04-17 11:11:06
End at: 2020-04-17 11:11:36
Local clock offset: -0.176 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2020-04-17 16:25:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 636.22 Mbit/s
95th percentile per-packet one-way delay: 49.419 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 351.62 Mbit/s
95th percentile per-packet one-way delay: 48.946 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 304.82 Mbit/s
95th percentile per-packet one-way delay: 50.167 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 261.24 Mbit/s
95th percentile per-packet one-way delay: 50.008 ms
Loss rate: 0.00%
Run 2: Report of Muses_Document — Data Link

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

Legend:
- Flow 1 ingress (mean 351.61 Mbit/s)
- Flow 1 egress (mean 351.62 Mbit/s)
- Flow 2 ingress (mean 304.83 Mbit/s)
- Flow 2 egress (mean 304.82 Mbit/s)
- Flow 3 ingress (mean 261.25 Mbit/s)
- Flow 3 egress (mean 261.24 Mbit/s)
Run 3: Statistics of Muses\_DecisionTree

Start at: 2020-04-17 11:51:18
End at: 2020-04-17 11:51:48
Local clock offset: -0.224 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2020-04-17 16:25:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 637.65 Mbit/s
  95th percentile per-packet one-way delay: 60.394 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 380.72 Mbit/s
  95th percentile per-packet one-way delay: 65.351 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 281.64 Mbit/s
  95th percentile per-packet one-way delay: 54.185 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 222.78 Mbit/s
  95th percentile per-packet one-way delay: 52.898 ms
  Loss rate: 0.03%
Run 3: Report of Muses DecisionTree — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 380.72 Mbps)
  - Flow 1 egress (mean 380.72 Mbps)
  - Flow 2 ingress (mean 281.63 Mbps)
  - Flow 2 egress (mean 281.64 Mbps)
  - Flow 3 ingress (mean 222.81 Mbps)
  - Flow 3 egress (mean 222.78 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 65.35 ms)
  - Flow 2 (95th percentile 54.19 ms)
  - Flow 3 (95th percentile 52.90 ms)
Run 4: Statistics of Muses\_DecisionTree

Start at: 2020-04-17 12:31:32
End at: 2020-04-17 12:32:02
Local clock offset: -0.14 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2020-04-17 16:28:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 698.66 Mbit/s
95th percentile per-packet one-way delay: 64.771 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 427.37 Mbit/s
95th percentile per-packet one-way delay: 70.753 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 281.91 Mbit/s
95th percentile per-packet one-way delay: 50.252 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 266.77 Mbit/s
95th percentile per-packet one-way delay: 49.430 ms
Loss rate: 0.00%
Run 4: Report of Muses_DecisionTree — Data Link
Run 5: Statistics of Muses\_DecisionTree

Start at: 2020-04-17 13:11:53
End at: 2020-04-17 13:12:23
Local clock offset: -0.066 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2020-04-17 16:28:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 611.93 Mbit/s
  95th percentile per-packet one-way delay: 61.397 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 362.75 Mbit/s
  95th percentile per-packet one-way delay: 68.542 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 274.77 Mbit/s
  95th percentile per-packet one-way delay: 49.205 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 213.54 Mbit/s
  95th percentile per-packet one-way delay: 49.559 ms
  Loss rate: 0.01%
Run 5: Report of Muses_DecisionTree — Data Link

![Graph showing network throughput and per-packet delay over time for different flows.](image)

- Flow 1 ingress (mean 362.78 Mbit/s)
- Flow 1 egress (mean 362.75 Mbit/s)
- Flow 2 ingress (mean 274.70 Mbit/s)
- Flow 2 egress (mean 274.77 Mbit/s)
- Flow 3 ingress (mean 213.55 Mbit/s)
- Flow 3 egress (mean 213.54 Mbit/s)

![Graph showing per-packet delay distribution for different flows.](image)

- Flow 1 (95th percentile 68.54 ms)
- Flow 2 (95th percentile 49.20 ms)
- Flow 3 (95th percentile 49.56 ms)
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-17 10:27:03
End at: 2020-04-17 10:27:33
Local clock offset: -0.115 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2020-04-17 16:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 606.17 Mbit/s
95th percentile per-packet one-way delay: 68.002 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 288.66 Mbit/s
95th percentile per-packet one-way delay: 78.035 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 319.45 Mbit/s
95th percentile per-packet one-way delay: 64.129 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 316.64 Mbit/s
95th percentile per-packet one-way delay: 51.504 ms
Loss rate: 0.00%
Run 1: Report of Muses_DecisionTreeH0 — Data Link

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

- Flow 1 ingress (mean 288.78 Mbit/s)
- Flow 1 egress (mean 288.66 Mbit/s)
- Flow 2 ingress (mean 319.47 Mbit/s)
- Flow 2 egress (mean 319.45 Mbit/s)
- Flow 3 ingress (mean 316.64 Mbit/s)
- Flow 3 egress (mean 316.64 Mbit/s)
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-17 11:07:39
End at: 2020-04-17 11:08:09
Local clock offset: -0.075 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2020-04-17 16:33:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 631.65 Mbit/s
95th percentile per-packet one-way delay: 83.372 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 335.53 Mbit/s
95th percentile per-packet one-way delay: 92.332 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 336.25 Mbit/s
95th percentile per-packet one-way delay: 78.236 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 236.78 Mbit/s
95th percentile per-packet one-way delay: 72.587 ms
Loss rate: 0.00%
Run 2: Report of Muses_DecisionTreeH0 — Data Link

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

Flow 1 ingress (mean 335.85 Mbit/s) vs Flow 1 egress (mean 335.53 Mbit/s)
Flow 2 ingress (mean 336.25 Mbit/s) vs Flow 2 egress (mean 336.25 Mbit/s)
Flow 3 ingress (mean 236.85 Mbit/s) vs Flow 3 egress (mean 236.78 Mbit/s)
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-17 11:47:50
End at: 2020-04-17 11:48:20
Local clock offset: 0.117 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2020-04-17 16:34:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 579.92 Mbit/s
  95th percentile per-packet one-way delay: 97.951 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 306.49 Mbit/s
  95th percentile per-packet one-way delay: 106.833 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 303.83 Mbit/s
  95th percentile per-packet one-way delay: 81.015 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 228.94 Mbit/s
  95th percentile per-packet one-way delay: 89.974 ms
  Loss rate: 0.00%
Run 3: Report of Muses_DecisionTreeH0 — Data Link

![Graph of Throughput vs Time](image1)

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

- Flow 1 ingress (mean 306.61 Mbit/s)
- Flow 1 egress (mean 306.49 Mbit/s)
- Flow 2 ingress (mean 303.83 Mbit/s)
- Flow 2 egress (mean 303.83 Mbit/s)
- Flow 3 ingress (mean 226.94 Mbit/s)
- Flow 3 egress (mean 226.94 Mbit/s)

- Flow 1 (95th percentile 106.83 ms)
- Flow 2 (95th percentile 81.02 ms)
- Flow 3 (95th percentile 89.97 ms)
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-17 12:28:08
End at: 2020-04-17 12:28:38
Local clock offset: 0.209 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2020-04-17 16:38:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 593.18 Mbit/s
  95th percentile per-packet one-way delay: 80.698 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 314.64 Mbit/s
  95th percentile per-packet one-way delay: 82.686 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 294.17 Mbit/s
  95th percentile per-packet one-way delay: 82.035 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 264.94 Mbit/s
  95th percentile per-packet one-way delay: 59.927 ms
  Loss rate: 0.06%
Run 4: Report of Muses_DecisionTreeH0 — Data Link

![Graphs showing throughput and packet error rates over time for different flows.]

- **Throughput Graph**:
  - Y-axis: Throughput (Mbps)
  - X-axis: Time (s)
  - Legend:
    - Flow 1 ingress (mean 314.68 Mbit/s)
    - Flow 1 egress (mean 314.64 Mbit/s)
    - Flow 2 ingress (mean 294.17 Mbit/s)
    - Flow 2 egress (mean 294.17 Mbit/s)
    - Flow 3 ingress (mean 265.39 Mbit/s)
    - Flow 3 egress (mean 264.94 Mbit/s)

- **Packet Error Rate Graph**:
  - Y-axis: Per-packet one-way delay (ms)
  - X-axis: Time (s)
  - Legend:
    - Flow 1 (95th percentile 82.69 ms)
    - Flow 2 (95th percentile 82.03 ms)
    - Flow 3 (95th percentile 59.93 ms)
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-17 13:08:29
End at: 2020-04-17 13:08:59
Local clock offset: -0.356 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2020-04-17 16:40:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 556.33 Mbit/s
95th percentile per-packet one-way delay: 101.129 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 276.16 Mbit/s
95th percentile per-packet one-way delay: 109.443 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 293.27 Mbit/s
95th percentile per-packet one-way delay: 90.035 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 272.78 Mbit/s
95th percentile per-packet one-way delay: 67.387 ms
Loss rate: 0.00%
Run 5: Report of Muses_DecisionTreeH0 — Data Link
Run 1: Statistics of Muses\_DecisionTreeRO

Start at: 2020-04-17 10:42:22
End at: 2020-04-17 10:42:53
Local clock offset: -0.077 ms
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2020-04-17 16:45:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 746.35 Mbit/s
95th percentile per-packet one-way delay: 53.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 431.53 Mbit/s
95th percentile per-packet one-way delay: 53.524 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 361.90 Mbit/s
95th percentile per-packet one-way delay: 53.826 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 235.69 Mbit/s
95th percentile per-packet one-way delay: 52.376 ms
Loss rate: 0.03%
Run 1: Report of Muses_DecisionTreeR0 — Data Link
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-17 11:22:47
End at: 2020-04-17 11:23:17
Local clock offset: -0.135 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2020-04-17 16:45:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 658.38 Mbit/s
  95th percentile per-packet one-way delay: 60.527 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 382.46 Mbit/s
  95th percentile per-packet one-way delay: 64.590 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 318.57 Mbit/s
  95th percentile per-packet one-way delay: 54.306 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 210.05 Mbit/s
  95th percentile per-packet one-way delay: 49.478 ms
  Loss rate: 0.00%
Run 2: Report of Muses_DecisionTreeR0 — Data Link
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-17 12:03:01
End at: 2020-04-17 12:03:31
Local clock offset: -0.247 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2020-04-17 16:46:05
# Datalink statistics
  -- Total of 3 flows:
  Average throughput: 659.28 Mbit/s
  95th percentile per-packet one-way delay: 65.092 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 396.85 Mbit/s
  95th percentile per-packet one-way delay: 70.479 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 305.01 Mbit/s
  95th percentile per-packet one-way delay: 54.379 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 190.85 Mbit/s
  95th percentile per-packet one-way delay: 48.557 ms
  Loss rate: 0.00%
Run 3: Report of Muses: DecisionTreeR0 — Data Link

![Graph showing network throughput and packet loss over time for different flows.](image-url)
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-17 12:43:19
End at: 2020-04-17 12:43:49
Local clock offset: -0.429 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2020-04-17 16:46:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 661.64 Mbit/s
95th percentile per-packet one-way delay: 60.416 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 382.86 Mbit/s
95th percentile per-packet one-way delay: 63.721 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 315.18 Mbit/s
95th percentile per-packet one-way delay: 60.777 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 229.81 Mbit/s
95th percentile per-packet one-way delay: 49.452 ms
Loss rate: 0.00%
Run 4: Report of Muses_DeanTreeR0 — Data Link
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-17 13:23:25
End at: 2020-04-17 13:23:55
Local clock offset: -0.167 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2020-04-17 16:50:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 673.40 Mbit/s
  95th percentile per-packet one-way delay: 65.815 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 378.54 Mbit/s
  95th percentile per-packet one-way delay: 69.320 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 334.83 Mbit/s
  95th percentile per-packet one-way delay: 55.353 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 240.14 Mbit/s
  95th percentile per-packet one-way delay: 50.734 ms
  Loss rate: 0.03%
Run 5: Report of Muses_DecisionTreeR0 — Data Link
Run 1: Statistics of PCC-Allegro

Start at: 2020-04-17 10:35:24
End at: 2020-04-17 10:35:54
Local clock offset: -0.121 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2020-04-17 17:10:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 712.92 Mbit/s
95th percentile per-packet one-way delay: 185.749 ms
Loss rate: 5.67%
-- Flow 1:
Average throughput: 400.20 Mbit/s
95th percentile per-packet one-way delay: 180.612 ms
Loss rate: 3.29%
-- Flow 2:
Average throughput: 345.60 Mbit/s
95th percentile per-packet one-way delay: 195.158 ms
Loss rate: 11.26%
-- Flow 3:
Average throughput: 250.33 Mbit/s
95th percentile per-packet one-way delay: 56.679 ms
Loss rate: 0.00%
Run 1: Report of PCC-Allegro — Data Link

![Graph showing throughput and one-way delay over time for different flows.](image)

- **Throughput (Mbps)**
- **Time (s)**
- **Throughput**
  - Flow 1 ingress (mean 413.82 Mbps)  
  - Flow 1 egress (mean 400.20 Mbps)  
  - Flow 2 ingress (mean 389.52 Mbps)  
  - Flow 2 egress (mean 345.60 Mbps)  
  - Flow 3 ingress (mean 250.34 Mbps)  
  - Flow 3 egress (mean 250.33 Mbps)  

- **One-way delay (ms)**

  - Flow 1 (95th percentile 180.61 ms)  
  - Flow 2 (95th percentile 195.16 ms)  
  - Flow 3 (95th percentile 56.68 ms)
Run 2: Statistics of PCC-Allegro

Start at: 2020-04-17 11:15:58
End at: 2020-04-17 11:16:28
Local clock offset: -0.145 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2020-04-17 17:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 680.07 Mbit/s
95th percentile per-packet one-way delay: 193.415 ms
Loss rate: 3.51%
-- Flow 1:
Average throughput: 370.71 Mbit/s
95th percentile per-packet one-way delay: 198.504 ms
Loss rate: 5.03%
-- Flow 2:
Average throughput: 344.15 Mbit/s
95th percentile per-packet one-way delay: 189.472 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 246.60 Mbit/s
95th percentile per-packet one-way delay: 176.569 ms
Loss rate: 0.83%
Run 2: Report of PCC-Allegro — Data Link
Run 3: Statistics of PCC-Allegro

Start at: 2020-04-17 11:56:07
End at: 2020-04-17 11:56:37
Local clock offset: -0.309 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2020-04-17 17:13:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 657.06 Mbit/s
  95th percentile per-packet one-way delay: 159.316 ms
  Loss rate: 0.61%
-- Flow 1:
  Average throughput: 367.88 Mbit/s
  95th percentile per-packet one-way delay: 175.344 ms
  Loss rate: 0.88%
-- Flow 2:
  Average throughput: 322.79 Mbit/s
  95th percentile per-packet one-way delay: 119.899 ms
  Loss rate: 0.35%
-- Flow 3:
  Average throughput: 226.65 Mbit/s
  95th percentile per-packet one-way delay: 62.219 ms
  Loss rate: 0.00%
Run 3: Report of PCC-Allegro — Data Link
Run 4: Statistics of PCC-Allegro

Start at: 2020-04-17 12:36:26
End at: 2020-04-17 12:36:56
Local clock offset: -0.461 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2020-04-17 17:19:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 693.53 Mbit/s
  95th percentile per-packet one-way delay: 216.669 ms
  Loss rate: 6.05%
-- Flow 1:
  Average throughput: 367.34 Mbit/s
  95th percentile per-packet one-way delay: 221.050 ms
  Loss rate: 5.94%
-- Flow 2:
  Average throughput: 373.73 Mbit/s
  95th percentile per-packet one-way delay: 207.551 ms
  Loss rate: 7.98%
-- Flow 3:
  Average throughput: 238.03 Mbit/s
  95th percentile per-packet one-way delay: 139.983 ms
  Loss rate: 0.00%
Run 4: Report of PCC-Allegro — Data Link

![Graph showing throughput and per-packet one-way delay](image-url)
Run 5: Statistics of PCC-Allegro

Start at: 2020-04-17 13:16:45
End at: 2020-04-17 13:17:15
Local clock offset: -0.087 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2020-04-17 17:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 551.49 Mbit/s
95th percentile per-packet one-way delay: 77.100 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 308.55 Mbit/s
95th percentile per-packet one-way delay: 84.966 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 288.51 Mbit/s
95th percentile per-packet one-way delay: 69.621 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 155.82 Mbit/s
95th percentile per-packet one-way delay: 48.581 ms
Loss rate: 0.00%

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Run 5: Report of PCC-Allegro — Data Link
Run 1: Statistics of PCC-Expr

Start at: 2020-04-17 10:21:26
End at: 2020-04-17 10:21:56
Local clock offset: -0.094 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2020-04-17 17:19:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 493.76 Mbit/s
  95th percentile per-packet one-way delay: 122.964 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 296.17 Mbit/s
  95th percentile per-packet one-way delay: 127.625 ms
  Loss rate: 0.19%
-- Flow 2:
  Average throughput: 220.57 Mbit/s
  95th percentile per-packet one-way delay: 55.012 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 153.98 Mbit/s
  95th percentile per-packet one-way delay: 63.252 ms
  Loss rate: 0.00%
Run 1: Report of PCC-Expr — Data Link
Run 2: Statistics of PCC-Expr

Start at: 2020-04-17 11:02:07
End at: 2020-04-17 11:02:37
Local clock offset: -0.126 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2020-04-17 17:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 462.31 Mbit/s
95th percentile per-packet one-way delay: 121.288 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 248.48 Mbit/s
95th percentile per-packet one-way delay: 74.138 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 225.64 Mbit/s
95th percentile per-packet one-way delay: 148.503 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 193.68 Mbit/s
95th percentile per-packet one-way delay: 64.305 ms
Loss rate: 0.00%
Run 2: Report of PCC-Expr — Data Link

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

- Flow 1 ingress (mean 248.66 Mbit/s)
- Flow 1 egress (mean 248.48 Mbit/s)
- Flow 2 ingress (mean 225.62 Mbit/s)
- Flow 2 egress (mean 225.66 Mbit/s)
- Flow 3 ingress (mean 193.68 Mbit/s)
- Flow 3 egress (mean 193.68 Mbit/s)

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

- Flow 1 (95th percentile 74.14 ms)
- Flow 2 (95th percentile 148.50 ms)
- Flow 3 (95th percentile 64.31 ms)
Run 3: Statistics of PCC-Expr

Start at: 2020-04-17 11:42:16
End at: 2020-04-17 11:42:46
Local clock offset: -0.25 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2020-04-17 17:19:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 486.54 Mbit/s
  95th percentile per-packet one-way delay: 146.966 ms
  Loss rate: 0.61%
-- Flow 1:
  Average throughput: 250.80 Mbit/s
  95th percentile per-packet one-way delay: 78.810 ms
  Loss rate: 0.11%
-- Flow 2:
  Average throughput: 261.90 Mbit/s
  95th percentile per-packet one-way delay: 161.277 ms
  Loss rate: 1.52%
-- Flow 3:
  Average throughput: 186.72 Mbit/s
  95th percentile per-packet one-way delay: 57.228 ms
  Loss rate: 0.01%
Run 3: Report of PCC-Expr — Data Link
Run 4: Statistics of PCC-Expr

Start at: 2020-04-17 12:22:35
End at: 2020-04-17 12:23:05
Local clock offset: -0.165 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2020-04-17 17:29:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 477.26 Mbit/s
  95th percentile per-packet one-way delay: 158.335 ms
  Loss rate: 1.86%
-- Flow 1:
  Average throughput: 276.15 Mbit/s
  95th percentile per-packet one-way delay: 129.614 ms
  Loss rate: 0.09%
-- Flow 2:
  Average throughput: 268.46 Mbit/s
  95th percentile per-packet one-way delay: 173.466 ms
  Loss rate: 4.70%
-- Flow 3:
  Average throughput: 68.46 Mbit/s
  95th percentile per-packet one-way delay: 47.737 ms
  Loss rate: 0.00%
Run 4: Report of PCC-Expr — Data Link

![Graph of throughput and per-packet one-way delay for different flows over time.](Image)

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 276.40 Mbit/s) - Blue dashed line
Flow 1 egress (mean 276.15 Mbit/s) - Blue solid line
Flow 2 ingress (mean 281.71 Mbit/s) - Green dashed line
Flow 2 egress (mean 268.46 Mbit/s) - Green solid line
Flow 3 ingress (mean 68.46 Mbit/s) - Red dashed line
Flow 3 egress (mean 68.46 Mbit/s) - Red solid line

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 129.61 ms) - Blue circle
Flow 2 (95th percentile 173.47 ms) - Green circle
Flow 3 (95th percentile 47.74 ms) - Red circle

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Run 5: Statistics of PCC-Expr

Start at: 2020-04-17 13:02:57
End at: 2020-04-17 13:03:27
Local clock offset: 0.06 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.45 Mbit/s
95th percentile per-packet one-way delay: 122.042 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 257.47 Mbit/s
95th percentile per-packet one-way delay: 109.960 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 231.46 Mbit/s
95th percentile per-packet one-way delay: 153.594 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 176.24 Mbit/s
95th percentile per-packet one-way delay: 79.805 ms
Loss rate: 0.01%
Run 5: Report of PCC-Expr — Data Link
Run 1: Statistics of QUIC Cubic

Start at: 2020-04-17 10:56:11
End at: 2020-04-17 10:56:41
Local clock offset: -0.138 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.41 Mbit/s
95th percentile per-packet one-way delay: 47.507 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 50.038 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.79 Mbit/s
95th percentile per-packet one-way delay: 47.508 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.48 Mbit/s
95th percentile per-packet one-way delay: 47.501 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2020-04-17 11:36:24
End at: 2020-04-17 11:36:54
Local clock offset: -0.197 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.30 Mbit/s
  95th percentile per-packet one-way delay: 50.622 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 47.27 Mbit/s
  95th percentile per-packet one-way delay: 50.130 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 44.97 Mbit/s
  95th percentile per-packet one-way delay: 50.681 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 34.08 Mbit/s
  95th percentile per-packet one-way delay: 47.482 ms
  Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 47.27 Mbit/s)
- Flow 1 egress (mean 47.27 Mbit/s)
- Flow 2 ingress (mean 44.98 Mbit/s)
- Flow 2 egress (mean 44.97 Mbit/s)
- Flow 3 ingress (mean 34.08 Mbit/s)
- Flow 3 egress (mean 34.08 Mbit/s)

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

- Flow 1 (95th percentile 50.13 ms)
- Flow 2 (95th percentile 50.68 ms)
- Flow 3 (95th percentile 47.48 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2020-04-17 12:16:38
End at: 2020-04-17 12:17:08
Local clock offset: -0.173 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.93 Mbit/s
95th percentile per-packet one-way delay: 50.418 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.25 Mbit/s
95th percentile per-packet one-way delay: 47.826 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.49 Mbit/s
95th percentile per-packet one-way delay: 50.484 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 19.94 Mbit/s
95th percentile per-packet one-way delay: 46.606 ms
Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

![Graphs showing network performance metrics over time, including throughput and per-packet one-way delay.]
Run 4: Statistics of QUIC Cubic

Start at: 2020-04-17 12:56:59
End at: 2020-04-17 12:57:29
Local clock offset: 0.02 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.80 Mbit/s
95th percentile per-packet one-way delay: 50.449 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 57.95 Mbit/s
95th percentile per-packet one-way delay: 50.509 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 46.629 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 60.77 Mbit/s
95th percentile per-packet one-way delay: 47.470 ms
Loss rate: 0.00%
Run 5: Statistics of QUIC Cubic

Start at: 2020-04-17 13:36:45
End at: 2020-04-17 13:37:15
Local clock offset: -0.204 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.78 Mbit/s
95th percentile per-packet one-way delay: 50.484 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 51.53 Mbit/s
95th percentile per-packet one-way delay: 47.512 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 58.69 Mbit/s
95th percentile per-packet one-way delay: 50.567 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 16.01 Mbit/s
95th percentile per-packet one-way delay: 47.744 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link
Run 1: Statistics of SCReAM

Start at: 2020-04-17 10:32:14
End at: 2020-04-17 10:32:44
Local clock offset: -0.097 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.330 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.744 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.684 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.407 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link
Run 2: Statistics of SCReAM

Start at: 2020-04-17 11:12:49
End at: 2020-04-17 11:13:19
Local clock offset: -0.17 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.840 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.873 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.763 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.563 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2020-04-17 11:53:00
End at: 2020-04-17 11:53:30
Local clock offset: 0.096 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 50.204 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.228 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.496 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.304 ms
Loss rate: 0.35%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2020-04-17 12:33:18
End at: 2020-04-17 12:33:48
Local clock offset: -0.125 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.548 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.510 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.574 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.491 ms
Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

![Graph 1](image)

![Graph 2](image)
Run 5: Statistics of SCReAM

Start at: 2020-04-17 13:13:35
End at: 2020-04-17 13:14:05
Local clock offset: -0.461 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 51.327 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.351 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.049 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.439 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

**Throughput (Mb/s)**

- Flow 1 ingress (mean 0.22 Mb/s)
- Flow 1 egress (mean 0.22 Mb/s)
- Flow 2 ingress (mean 0.22 Mb/s)
- Flow 2 egress (mean 0.22 Mb/s)
- Flow 3 ingress (mean 0.22 Mb/s)
- Flow 3 egress (mean 0.22 Mb/s)

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

- Flow 1 (95th percentile 51.35 ms)
- Flow 2 (95th percentile 48.05 ms)
- Flow 3 (95th percentile 47.44 ms)
Run 1: Statistics of Sprout

Start at: 2020-04-17 10:44:11
End at: 2020-04-17 10:44:41
Local clock offset: -0.124 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.58 Mbit/s
95th percentile per-packet one-way delay: 50.905 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.74 Mbit/s
95th percentile per-packet one-way delay: 47.037 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 47.737 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 7.82 Mbit/s
95th percentile per-packet one-way delay: 51.349 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2020-04-17 11:24:31
End at: 2020-04-17 11:25:01
Local clock offset: -0.149 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.56 Mbit/s
95th percentile per-packet one-way delay: 47.956 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.23 Mbit/s
95th percentile per-packet one-way delay: 48.145 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 47.096 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.42 Mbit/s
95th percentile per-packet one-way delay: 47.850 ms
Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 8.23 Mbps/s)
- Flow 1 egress (mean 8.23 Mbps/s)
- Flow 2 ingress (mean 9.35 Mbps/s)
- Flow 2 egress (mean 9.35 Mbps/s)
- Flow 3 ingress (mean 9.42 Mbps/s)
- Flow 3 egress (mean 9.42 Mbps/s)

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

- Flow 1 (95th percentile 48.15 ms)
- Flow 2 (95th percentile 47.10 ms)
- Flow 3 (95th percentile 47.85 ms)
Run 3: Statistics of Sprout

Start at: 2020-04-17 12:04:45
End at: 2020-04-17 12:05:15
Local clock offset: -0.212 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.61 Mbit/s
95th percentile per-packet one-way delay: 50.537 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 46.981 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.48 Mbit/s
95th percentile per-packet one-way delay: 47.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 50.817 ms
Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

![Graph showing throughput and per-packet one-way delay for different flows.](image)

- Flow 1 ingress (mean 9.67 Mbit/s)
- Flow 1 egress (mean 9.67 Mbit/s)
- Flow 2 ingress (mean 9.48 Mbit/s)
- Flow 2 egress (mean 9.48 Mbit/s)
- Flow 3 ingress (mean 8.03 Mbit/s)
- Flow 3 egress (mean 8.03 Mbit/s)

![Graph showing per-packet one-way delay for different flows.](image)

- Flow 1 (95th percentile 46.98 ms)
- Flow 2 (95th percentile 47.83 ms)
- Flow 3 (95th percentile 50.82 ms)
Run 4: Statistics of Sprout

Start at: 2020-04-17 12:45:03
End at: 2020-04-17 12:45:33
Local clock offset: -0.023 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.05 Mbit/s
95th percentile per-packet one-way delay: 50.697 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 47.067 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 50.926 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.38 Mbit/s
95th percentile per-packet one-way delay: 48.083 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

Start at: 2020-04-17 13:25:10
End at: 2020-04-17 13:25:40
Local clock offset: -0.162 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2020-04-17 17:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.20 Mbit/s
95th percentile per-packet one-way delay: 48.163 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 48.188 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.57 Mbit/s
95th percentile per-packet one-way delay: 48.174 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 47.891 ms
Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

![Graph of throughput and per packet one way delay](image)

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 8.24 Mbps)
  - Flow 1 egress (mean 8.24 Mbps)
  - Flow 2 ingress (mean 9.57 Mbps)
  - Flow 2 egress (mean 9.57 Mbps)
  - Flow 3 ingress (mean 7.88 Mbps)
  - Flow 3 egress (mean 7.88 Mbps)

- **Per packet one way delay (ms):**
  - Flow 1 (95th percentile 48.19 ms)
  - Flow 2 (95th percentile 48.17 ms)
  - Flow 3 (95th percentile 47.89 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2020-04-17 10:25:09
End at: 2020-04-17 10:25:39
Local clock offset: -0.069 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2020-04-17 17:38:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 466.23 Mbit/s
  95th percentile per-packet one-way delay: 49.907 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 234.94 Mbit/s
  95th percentile per-packet one-way delay: 48.696 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 235.66 Mbit/s
  95th percentile per-packet one-way delay: 50.649 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 221.66 Mbit/s
  95th percentile per-packet one-way delay: 51.114 ms
  Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 234.95 Mbit/s)
- Flow 1 egress (mean 234.94 Mbit/s)
- Flow 2 ingress (mean 235.66 Mbit/s)
- Flow 2 egress (mean 235.66 Mbit/s)
- Flow 3 ingress (mean 221.65 Mbit/s)
- Flow 3 egress (mean 221.66 Mbit/s)

![Graph showing packet loss over time for different flows.](image)

- Flow 1 (95th percentile 48.70 ms)
- Flow 2 (95th percentile 50.65 ms)
- Flow 3 (95th percentile 51.11 ms)
Run 2: Statistics of TaoVA-100x

Start at: 2020-04-17 11:05:46
End at: 2020-04-17 11:06:16
Local clock offset: -0.12 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2020-04-17 17:38:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.10 Mbit/s
95th percentile per-packet one-way delay: 54.186 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 232.05 Mbit/s
95th percentile per-packet one-way delay: 52.327 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 223.26 Mbit/s
95th percentile per-packet one-way delay: 53.899 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 212.18 Mbit/s
95th percentile per-packet one-way delay: 59.446 ms
Loss rate: 0.02%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2020-04-17 11:45:58
End at: 2020-04-17 11:46:28
Local clock offset: -0.274 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2020-04-17 17:38:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 448.65 Mbit/s
95th percentile per-packet one-way delay: 54.845 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 240.62 Mbit/s
95th percentile per-packet one-way delay: 51.389 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 220.42 Mbit/s
95th percentile per-packet one-way delay: 56.324 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 183.99 Mbit/s
95th percentile per-packet one-way delay: 63.387 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

[Graph showing throughput and per-packet queue wait delay over time for different flows.

Legend:
- Flow 1 ingress (mean 240.62 Mbit/s)
- Flow 1 egress (mean 240.62 Mbit/s)
- Flow 2 ingress (mean 220.43 Mbit/s)
- Flow 2 egress (mean 220.42 Mbit/s)
- Flow 3 ingress (mean 184.00 Mbit/s)
- Flow 3 egress (mean 183.99 Mbit/s)
Run 4: Statistics of TaoVA-100x

Start at: 2020-04-17 12:26:15
End at: 2020-04-17 12:26:45
Local clock offset: 0.027 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2020-04-17 17:38:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.84 Mbit/s
95th percentile per-packet one-way delay: 56.290 ms
Loss rate: 0.00%

-- Flow 1:
Average throughput: 231.24 Mbit/s
95th percentile per-packet one-way delay: 56.250 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 223.93 Mbit/s
95th percentile per-packet one-way delay: 54.306 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 203.24 Mbit/s
95th percentile per-packet one-way delay: 60.617 ms
Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link
Run 5: Statistics of TaoVA-100x

Start at: 2020-04-17 13:06:37
End at: 2020-04-17 13:07:07
Local clock offset: -0.3 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2020-04-17 17:38:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 443.21 Mbit/s
95th percentile per-packet one-way delay: 55.639 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.18 Mbit/s
95th percentile per-packet one-way delay: 53.805 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 220.77 Mbit/s
95th percentile per-packet one-way delay: 55.528 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 195.66 Mbit/s
95th percentile per-packet one-way delay: 61.516 ms
Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2020-04-17 10:52:45
End at: 2020-04-17 10:53:15
Local clock offset: -0.099 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2020-04-17 17:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 785.41 Mbit/s
95th percentile per-packet one-way delay: 74.405 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 368.01 Mbit/s
95th percentile per-packet one-way delay: 74.801 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 533.45 Mbit/s
95th percentile per-packet one-way delay: 73.148 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 186.32 Mbit/s
95th percentile per-packet one-way delay: 75.532 ms
Loss rate: 0.04%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2020-04-17 11:32:57
End at: 2020-04-17 11:33:27
Local clock offset: -0.161 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2020-04-17 17:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 692.68 Mbit/s
95th percentile per-packet one-way delay: 76.496 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 270.08 Mbit/s
95th percentile per-packet one-way delay: 51.406 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 396.00 Mbit/s
95th percentile per-packet one-way delay: 74.209 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 477.76 Mbit/s
95th percentile per-packet one-way delay: 81.279 ms
Loss rate: 0.66%
Run 2: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 270.08 Mbit/s)
- Flow 1 egress (mean 270.08 Mbit/s)
- Flow 2 ingress (mean 396.00 Mbit/s)
- Flow 2 egress (mean 396.00 Mbit/s)
- Flow 3 ingress (mean 481.07 Mbit/s)
- Flow 3 egress (mean 477.76 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 51.41 ms)
- Flow 2 (95th percentile 74.21 ms)
- Flow 3 (95th percentile 81.28 ms)
Run 3: Statistics of TCP Vegas

Start at: 2020-04-17 12:13:17
End at: 2020-04-17 12:13:47
Local clock offset: -0.156 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2020-04-17 17:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 632.46 Mbit/s
95th percentile per-packet one-way delay: 87.358 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 239.60 Mbit/s
95th percentile per-packet one-way delay: 47.420 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 452.59 Mbit/s
95th percentile per-packet one-way delay: 96.843 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 275.40 Mbit/s
95th percentile per-packet one-way delay: 59.589 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 239.59 Mbit/s)
- Flow 1 egress (mean 239.60 Mbit/s)
- Flow 2 ingress (mean 452.78 Mbit/s)
- Flow 2 egress (mean 452.59 Mbit/s)
- Flow 3 ingress (mean 275.43 Mbit/s)
- Flow 3 egress (mean 275.40 Mbit/s)
Run 4: Statistics of TCP Vegas

Start at: 2020-04-17 12:53:32
End at: 2020-04-17 12:54:02
Local clock offset: -0.025 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2020-04-17 17:56:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 768.69 Mbit/s
95th percentile per-packet one-way delay: 90.764 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 410.63 Mbit/s
95th percentile per-packet one-way delay: 89.376 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 310.24 Mbit/s
95th percentile per-packet one-way delay: 92.058 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 455.89 Mbit/s
95th percentile per-packet one-way delay: 93.239 ms
Loss rate: 0.15%
Run 4: Report of TCP Vegas — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 411.08 Mbps)  Flow 1 egress (mean 410.63 Mbps)
Flow 2 ingress (mean 310.24 Mbps)  Flow 2 egress (mean 310.24 Mbps)
Flow 3 ingress (mean 456.68 Mbps)  Flow 3 egress (mean 455.89 Mbps)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 89.38 ms)  Flow 2 (95th percentile 92.06 ms)  Flow 3 (95th percentile 93.24 ms)
Run 5: Statistics of TCP Vegas

Start at: 2020-04-17 13:33:36
End at: 2020-04-17 13:34:06
Local clock offset: -0.146 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2020-04-17 17:56:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 458.87 Mbit/s
95th percentile per-packet one-way delay: 81.972 ms
Loss rate: 0.03%

-- Flow 1:
Average throughput: 68.24 Mbit/s
95th percentile per-packet one-way delay: 46.703 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 482.93 Mbit/s
95th percentile per-packet one-way delay: 83.890 ms
Loss rate: 0.04%

-- Flow 3:
Average throughput: 207.66 Mbit/s
95th percentile per-packet one-way delay: 52.139 ms
Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 68.24 Mbps)
- Flow 1 egress (mean 68.24 Mbps)
- Flow 2 ingress (mean 482.93 Mbps)
- Flow 2 egress (mean 482.93 Mbps)
- Flow 3 ingress (mean 207.66 Mbps)
- Flow 3 egress (mean 207.66 Mbps)

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

- Flow 1 (95th percentile 46.70 ms)
- Flow 2 (95th percentile 83.89 ms)
- Flow 3 (95th percentile 52.14 ms)
Run 1: Statistics of Verus

Start at: 2020-04-17 10:54:36
End at: 2020-04-17 10:55:06
Local clock offset: -0.08 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2020-04-17 17:56:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 242.94 Mbit/s
  95th percentile per-packet one-way delay: 98.671 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 122.19 Mbit/s
  95th percentile per-packet one-way delay: 73.815 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 129.41 Mbit/s
  95th percentile per-packet one-way delay: 108.405 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 107.22 Mbit/s
  95th percentile per-packet one-way delay: 124.189 ms
  Loss rate: 0.00%
Run 1: Report of Verus — Data Link

![Graphs showing data link throughput and per-packet one-way delay over time.]

- **Throughput (Mbps):**
  - Flow 1 ingress: 122.17 Mbps
  - Flow 1 egress: 122.19 Mbps
  - Flow 2 ingress: 129.59 Mbps
  - Flow 2 egress: 129.41 Mbps
  - Flow 3 ingress: 107.30 Mbps
  - Flow 3 egress: 107.22 Mbps

- **Per-packet one-way delay (ms):**
  - Flow 1: 95th percentile 73.81 ms
  - Flow 2: 95th percentile 108.41 ms
  - Flow 3: 95th percentile 124.19 ms
Run 2: Statistics of Verus

Start at: 2020-04-17 11:34:44
End at: 2020-04-17 11:35:14
Local clock offset: -0.191 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2020-04-17 17:56:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 303.30 Mbit/s
95th percentile per-packet one-way delay: 164.836 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 206.72 Mbit/s
95th percentile per-packet one-way delay: 169.211 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 115.76 Mbit/s
95th percentile per-packet one-way delay: 138.206 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 56.868 ms
Loss rate: 0.01%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2020-04-17 12:15:01
End at: 2020-04-17 12:15:31
Local clock offset: -0.206 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2020-04-17 17:56:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 264.17 Mbit/s
  95th percentile per-packet one-way delay: 104.286 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 145.88 Mbit/s
  95th percentile per-packet one-way delay: 112.975 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 119.38 Mbit/s
  95th percentile per-packet one-way delay: 80.162 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 119.42 Mbit/s
  95th percentile per-packet one-way delay: 79.666 ms
  Loss rate: 0.00%
Run 3: Report of Verus — Data Link

![Graph 1: Throughput vs Time](chart1.png)

- Flow 1 ingress (mean 145.88 Mbit/s)
- Flow 1 egress (mean 145.88 Mbit/s)
- Flow 2 ingress (mean 119.38 Mbit/s)
- Flow 2 egress (mean 119.38 Mbit/s)
- Flow 3 ingress (mean 119.43 Mbit/s)
- Flow 3 egress (mean 119.42 Mbit/s)

![Graph 2: Packet Delay vs Time](chart2.png)

- Flow 1 (95th percentile 112.97 ms)
- Flow 2 (95th percentile 80.16 ms)
- Flow 3 (95th percentile 79.67 ms)
Run 4: Statistics of Verus

Start at: 2020-04-17 12:55:22
End at: 2020-04-17 12:55:52
Local clock offset: -0.001 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2020-04-17 17:56:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.79 Mbit/s
95th percentile per-packet one-way delay: 112.246 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 166.42 Mbit/s
95th percentile per-packet one-way delay: 124.200 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 99.75 Mbit/s
95th percentile per-packet one-way delay: 61.293 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 103.27 Mbit/s
95th percentile per-packet one-way delay: 92.691 ms
Loss rate: 0.00%
Run 4: Report of Verus — Data Link

![Graph of throughput (Mbps) over time](image1)

- Flow 1 ingress (mean 166.65 Mbps)
- Flow 1 egress (mean 166.42 Mbps)
- Flow 2 ingress (mean 99.75 Mbps)
- Flow 2 egress (mean 99.75 Mbps)
- Flow 3 ingress (mean 103.27 Mbps)
- Flow 3 egress (mean 103.27 Mbps)

![Graph of per-packet one-way delay (ms) over time](image2)

- Flow 1 (95th percentile 124.20 ms)
- Flow 2 (95th percentile 61.29 ms)
- Flow 3 (95th percentile 92.69 ms)
Run 5: Statistics of Verus

Start at: 2020-04-17 13:35:11
End at: 2020-04-17 13:35:41
Local clock offset: -0.179 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2020-04-17 17:57:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 233.21 Mbit/s
  95th percentile per-packet one-way delay: 89.193 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 141.35 Mbit/s
  95th percentile per-packet one-way delay: 102.094 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 106.41 Mbit/s
  95th percentile per-packet one-way delay: 68.462 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 65.00 Mbit/s
  95th percentile per-packet one-way delay: 54.547 ms
  Loss rate: 0.00%
Run 5: Report of Verus — Data Link
Run 1: Statistics of PCC-Vivace

Start at: 2020-04-17 10:38:41
End at: 2020-04-17 10:39:11
Local clock offset: -0.075 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2020-04-17 17:58:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 507.37 Mbit/s
95th percentile per-packet one-way delay: 63.418 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 341.18 Mbit/s
95th percentile per-packet one-way delay: 65.889 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 234.93 Mbit/s
95th percentile per-packet one-way delay: 51.371 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.83 Mbit/s
95th percentile per-packet one-way delay: 47.413 ms
Loss rate: 0.00%
Run 1: Report of PCC-Vivace — Data Link

![Graph 1: Throughput (Mbps)](image1)

- **Flow 1 ingress** (mean 341.17 Mbps)
- **Flow 1 egress** (mean 341.18 Mbps)
- **Flow 2 ingress** (mean 234.92 Mbps)
- **Flow 2 egress** (mean 234.93 Mbps)
- **Flow 3 ingress** (mean 29.82 Mbps)
- **Flow 3 egress** (mean 29.83 Mbps)

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

- **Flow 1** (95th percentile 65.89 ms)
- **Flow 2** (95th percentile 51.37 ms)
- **Flow 3** (95th percentile 47.41 ms)
Run 2: Statistics of PCC-Vivace

Start at: 2020-04-17 11:19:12
End at: 2020-04-17 11:19:42
Local clock offset: -0.152 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2020-04-17 17:58:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 419.22 Mbit/s
95th percentile per-packet one-way delay: 54.260 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 259.82 Mbit/s
95th percentile per-packet one-way delay: 60.582 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 203.83 Mbit/s
95th percentile per-packet one-way delay: 49.694 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.66 Mbit/s
95th percentile per-packet one-way delay: 50.916 ms
Loss rate: 0.07%
Run 2: Report of PCC-Vivace — Data Link

Graph showing throughput and per-packet one-way delay over time for different flows.
Run 3: Statistics of PCC-Vivace

Start at: 2020-04-17 11:59:20
End at: 2020-04-17 11:59:50
Local clock offset: -0.302 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2020-04-17 17:59:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 471.26 Mbit/s
  95th percentile per-packet one-way delay: 51.793 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 300.79 Mbit/s
  95th percentile per-packet one-way delay: 50.279 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 174.93 Mbit/s
  95th percentile per-packet one-way delay: 53.114 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 164.65 Mbit/s
  95th percentile per-packet one-way delay: 75.479 ms
  Loss rate: 0.00%
Run 3: Report of PCC-Vivace — Data Link

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

**Throughput (Mbps)**
- Flow 1 ingress (mean 300.88 Mbps)
- Flow 1 egress (mean 300.79 Mbps)
- Flow 2 ingress (mean 174.98 Mbps)
- Flow 2 egress (mean 174.93 Mbps)
- Flow 3 ingress (mean 164.65 Mbps)
- Flow 3 egress (mean 164.65 Mbps)

**Packet Loss (ms)**
- Flow 1 (95th percentile 50.28 ms)
- Flow 2 (95th percentile 53.11 ms)
- Flow 3 (95th percentile 75.48 ms)
Run 4: Statistics of PCC-Vivace

Start at: 2020-04-17 12:39:41
End at: 2020-04-17 12:40:11
Local clock offset: -0.057 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2020-04-17 17:59:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.76 Mbit/s
95th percentile per-packet one-way delay: 94.662 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 206.58 Mbit/s
95th percentile per-packet one-way delay: 51.318 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 308.00 Mbit/s
95th percentile per-packet one-way delay: 181.153 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 174.29 Mbit/s
95th percentile per-packet one-way delay: 50.765 ms
Loss rate: 0.00%
Run 4: Report of PCC-Vivace — Data Link

![Graph showing network performance metrics over time]

**Throughput (Mbps):**
- Flow 1 Ingress (mean 206.57 Mbps)
- Flow 1 Egress (mean 206.58 Mbps)
- Flow 2 Ingress (mean 309.68 Mbps)
- Flow 2 Egress (mean 308.00 Mbps)
- Flow 3 Ingress (mean 174.28 Mbps)
- Flow 3 Egress (mean 174.29 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 51.32 ms)
- Flow 2 (95th percentile 181.15 ms)
- Flow 3 (95th percentile 50.77 ms)
Run 5: Statistics of PCC-Vivace

Start at: 2020-04-17 13:19:52
End at: 2020-04-17 13:20:22
Local clock offset: -0.112 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2020-04-17 17:59:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.76 Mbit/s
95th percentile per-packet one-way delay: 59.048 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.72 Mbit/s
95th percentile per-packet one-way delay: 67.345 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 250.87 Mbit/s
95th percentile per-packet one-way delay: 50.738 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 158.81 Mbit/s
95th percentile per-packet one-way delay: 71.927 ms
Loss rate: 0.03%
Run 5: Report of PCC-Vivace — Data Link

![Graph showing data link performance metrics over time, including throughput and per-packet loss delay.]
Run 1: Statistics of WebRTC media

Start at: 2020-04-17 10:18:47
End at: 2020-04-17 10:19:17
Local clock offset: -0.108 ms
Remote clock offset: -0.055 ms
Run 2: Statistics of WebRTC media

Start at: 2020-04-17 10:59:07
End at: 2020-04-17 10:59:37
Local clock offset: 0.244 ms
Remote clock offset: -0.013 ms
Run 2: Report of WebRTC media — Data Link

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

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.89 Mbps)
Flow 1 egress (mean 0.89 Mbps)
Flow 2 ingress (mean 0.89 Mbps)
Flow 2 egress (mean 0.89 Mbps)
Flow 3 ingress (mean 0.89 Mbps)
Flow 3 egress (mean 0.89 Mbps)

Per packet one way delay [ms]

Time (s)

Flow 1 (95th percentile 50.38 ms)
Flow 2 (95th percentile 47.57 ms)
Flow 3 (95th percentile 46.35 ms)
Run 3: Statistics of WebRTC media

Start at: 2020-04-17 11:39:21
End at: 2020-04-17 11:39:51
Local clock offset: -0.227 ms
Remote clock offset: -0.037 ms
Run 3: Report of WebRTC media — Data Link

![Throughput Plot]

Throughput (Mbit/s) vs Time (s)

<table>
<thead>
<tr>
<th>Flow</th>
<th>Type</th>
<th>Mean Throughput (Mbit/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ingress</td>
<td>0.58</td>
</tr>
<tr>
<td>1</td>
<td>egress</td>
<td>0.58</td>
</tr>
<tr>
<td>2</td>
<td>ingress</td>
<td>0.88</td>
</tr>
<tr>
<td>2</td>
<td>egress</td>
<td>0.88</td>
</tr>
<tr>
<td>3</td>
<td>ingress</td>
<td>0.07</td>
</tr>
<tr>
<td>3</td>
<td>egress</td>
<td>0.07</td>
</tr>
</tbody>
</table>

![Per-Packet RTT Plot]

Per-packet round trip time (ms) vs Time (s)

<table>
<thead>
<tr>
<th>Flow</th>
<th>95th percentile RTT (ms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>47.50</td>
</tr>
<tr>
<td>2</td>
<td>47.48</td>
</tr>
<tr>
<td>3</td>
<td>46.84</td>
</tr>
</tbody>
</table>
Run 4: Statistics of WebRTC media

Start at: 2020-04-17 12:19:39
End at: 2020-04-17 12:20:09
Local clock offset: -0.176 ms
Remote clock offset: -0.089 ms
Run 4: Report of WebRTC media — Data Link

![Graph showing throughput and packet round-trip time](image)

Throughput: Flow 1 ingress (mean 0.89 Mbit/s) — Flow 1 egress (mean 0.89 Mbit/s) — Flow 2 ingress (mean 0.86 Mbit/s) — Flow 2 egress (mean 0.86 Mbit/s) — Flow 3 ingress (mean 0.90 Mbit/s) — Flow 3 egress (mean 0.90 Mbit/s)

Per-packet round-trip delay: Flow 1 (95th percentile 47.91 ms) — Flow 2 (95th percentile 47.51 ms) — Flow 3 (95th percentile 47.73 ms)
Run 5: Statistics of WebRTC media

Start at: 2020-04-17 13:00:00
End at: 2020-04-17 13:00:30
Local clock offset: 0.005 ms
Remote clock offset: -0.043 ms
Run 5: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 0.88 Mbit/s)
- Flow 1 egress (mean 0.88 Mbit/s)
- Flow 2 ingress (mean 0.12 Mbit/s)
- Flow 2 egress (mean 0.12 Mbit/s)
- Flow 3 ingress (mean 0.87 Mbit/s)
- Flow 3 egress (mean 0.87 Mbit/s)