Pantheon Report

Generated at 2018-03-06 20:32:05 (UTC).
Data path: AWS Brazil 2 Ethernet (local) → Colombia Ethernet (remote).
Repeated the test of 17 congestion control schemes 10 times. Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (fq), and other schemes with the default Linux qdisc (pfifo_fast).
NTP offsets were measured against gps.ntp.br and have been applied to correct the timestamps in logs.

Git summary:
branch: master @ f12c42a2c663fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cd8f4e46ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5ccec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eaa3238475c4d8cca1443d28df70bfc34ca2
third_party/indigo @ a9b2060d39e4a2e8987e8933eca26c7dbca9
third_party/indigo-1-layer-128-unit @ 3ae9e4e4f4230db7484501f82ce8b377695f266d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfbe90c077ef64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f753b1135ed5b540c0f350593528e2a5f
third_party/indigo-no-calib @ 7224f202e8a044d8306fa0b93ad8436c53d89
third_party/kohoCc @ f0f2e693303aee82ea08e6928eac4f10836681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b17eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da5b9a9013b26744ccfc993
third_party/pcc @ 1af9955fa0d66d18b623c091a55f3c872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a856b24f1bc8143ebc978f3c42f
third_party/scream @ c3370f7bd717265a79e0ae3d6e016ad23f5965885
third_party/sourdough @ f1a4bffe749737437f61b1ae3e4b30b267c2de681
third_party/sprout @ 6f26ef6e088d91066a9f023d3f75ede2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ 2d64b47ea74c660a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vive @ 7a4ba531e7b54a6f66f5c4580192120401784ce3
third_party/webRTC @ a488197d041ace68a42849b2540ad834825f42
test from AWS Brazil 2 Ethernet to Colombia Ethernet, 10 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>10</td>
<td>54.34      36.55     23.86</td>
<td>117.86     117.20     116.78</td>
<td>6.90      9.64      10.82</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>50.57      35.66     22.55</td>
<td>109.78     112.92     113.61</td>
<td>0.33      0.89      0.95</td>
</tr>
<tr>
<td>LEDBAT</td>
<td>10</td>
<td>12.83      8.49      4.10</td>
<td>84.64      85.14      85.40</td>
<td>0.00      0.02      0.07</td>
</tr>
<tr>
<td>PCC</td>
<td>10</td>
<td>78.46      9.57      7.03</td>
<td>115.12     115.48     115.88</td>
<td>2.85      5.36      5.61</td>
</tr>
<tr>
<td>QUIC Cubic</td>
<td>10</td>
<td>36.44      21.19     13.89</td>
<td>113.57     110.45     108.39</td>
<td>0.98      1.45      3.19</td>
</tr>
<tr>
<td>SCReAM</td>
<td>10</td>
<td>0.22       0.22      0.22</td>
<td>85.15      85.42      85.63</td>
<td>0.03      0.04      0.03</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>2.01       1.19      0.34</td>
<td>84.90      85.26      85.69</td>
<td>0.00      0.00      0.03</td>
</tr>
<tr>
<td>Sprout</td>
<td>10</td>
<td>3.39       3.35      2.60</td>
<td>89.75      89.69      89.08</td>
<td>0.07      0.08      0.00</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>10</td>
<td>46.45      32.07     24.33</td>
<td>115.07     115.78     116.08</td>
<td>4.31      8.65      10.44</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>24.30      31.16     30.85</td>
<td>95.03      95.82      96.15</td>
<td>0.66      0.62      1.48</td>
</tr>
<tr>
<td>Verus</td>
<td>10</td>
<td>29.11      18.81     13.53</td>
<td>126.66     121.58     125.72</td>
<td>34.13     32.00     34.85</td>
</tr>
<tr>
<td>Copa</td>
<td>10</td>
<td>78.72      15.62     3.91</td>
<td>111.47     112.10     107.94</td>
<td>53.37     54.41     18.32</td>
</tr>
<tr>
<td>FillP</td>
<td>10</td>
<td>54.06      41.99     41.74</td>
<td>113.51     113.54     127.95</td>
<td>24.49     35.34     46.66</td>
</tr>
<tr>
<td>Indigo-1-32</td>
<td>10</td>
<td>63.35      24.24     42.38</td>
<td>114.28     115.20     115.13</td>
<td>17.40     35.21     57.70</td>
</tr>
<tr>
<td>Vivace-latency</td>
<td>10</td>
<td>68.60      11.09     6.61</td>
<td>108.96     106.31     105.21</td>
<td>0.15      0.27      0.48</td>
</tr>
<tr>
<td>Vivace-loss</td>
<td>10</td>
<td>81.94      7.81      4.27</td>
<td>113.54     114.19     114.50</td>
<td>2.93      3.82      4.27</td>
</tr>
<tr>
<td>Vivace-LTE</td>
<td>10</td>
<td>74.55      15.01     8.68</td>
<td>114.89     114.80     114.16</td>
<td>3.00      2.21      2.93</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-03-06 15:55:21
End at: 2018-03-06 15:55:51
Local clock offset: -6.463 ms
Remote clock offset: -0.521 ms

# Below is generated by plot.py at 2018-03-06 20:05:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.06 Mbit/s
95th percentile per-packet one-way delay: 119.568 ms
Loss rate: 9.22%
-- Flow 1:
Average throughput: 55.42 Mbit/s
95th percentile per-packet one-way delay: 119.655 ms
Loss rate: 7.79%
-- Flow 2:
Average throughput: 30.75 Mbit/s
95th percentile per-packet one-way delay: 117.689 ms
Loss rate: 10.28%
-- Flow 3:
Average throughput: 30.53 Mbit/s
95th percentile per-packet one-way delay: 117.802 ms
Loss rate: 14.42%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-03-06 16:19:06
End at: 2018-03-06 16:19:36
Local clock offset: -6.562 ms
Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2018-03-06 20:05:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.77 Mbit/s
95th percentile per-packet one-way delay: 119.338 ms
Loss rate: 7.79%
-- Flow 1:
Average throughput: 53.42 Mbit/s
95th percentile per-packet one-way delay: 119.399 ms
Loss rate: 6.47%
-- Flow 2:
Average throughput: 40.20 Mbit/s
95th percentile per-packet one-way delay: 119.273 ms
Loss rate: 11.01%
-- Flow 3:
Average throughput: 16.98 Mbit/s
95th percentile per-packet one-way delay: 117.740 ms
Loss rate: 4.26%
Run 2: Report of TCP BBR — Data Link

![Graph 1: Throughput](image)

- **Flow 1 ingress (mean 57.14 Mbit/s)**
- **Flow 2 ingress (mean 45.13 Mbit/s)**
- **Flow 3 ingress (mean 17.71 Mbit/s)**
- **Flow 1 egress (mean 53.42 Mbit/s)**
- **Flow 2 egress (mean 40.20 Mbit/s)**
- **Flow 3 egress (mean 16.98 Mbit/s)**

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

- **Flow 1 (95th percentile 119.40 ms)**
- **Flow 2 (95th percentile 119.27 ms)**
- **Flow 3 (95th percentile 117.74 ms)**
Run 3: Statistics of TCP BBR

Start at: 2018-03-06 16:42:49
End at: 2018-03-06 16:43:19
Local clock offset: -6.432 ms
Remote clock offset: -0.593 ms

# Below is generated by plot.py at 2018-03-06 20:05:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.08 Mbit/s
95th percentile per-packet one-way delay: 119.516 ms
Loss rate: 7.24%
-- Flow 1:
Average throughput: 56.44 Mbit/s
95th percentile per-packet one-way delay: 119.368 ms
Loss rate: 6.43%
-- Flow 2:
Average throughput: 35.27 Mbit/s
95th percentile per-packet one-way delay: 119.687 ms
Loss rate: 9.15%
-- Flow 3:
Average throughput: 21.50 Mbit/s
95th percentile per-packet one-way delay: 119.178 ms
Loss rate: 7.15%
Run 3: Report of TCP BBR — Data Link

![Graph showing throughput over time for different flows.

The graphs represent the throughput and per-packet one-way delays for each flow over time. The throughput graphs show the variation in data transmission rates across different time intervals, while the per-packet delay graphs illustrate the delay experienced by packets for each flow.

Key points:
- **Throughput**:
  - Flow 1 ingress (mean 60.38 Mbit/s)
  - Flow 1 egress (mean 56.44 Mbit/s)
  - Flow 2 ingress (mean 38.88 Mbit/s)
  - Flow 2 egress (mean 35.27 Mbit/s)
  - Flow 3 ingress (mean 23.22 Mbit/s)
  - Flow 3 egress (mean 21.50 Mbit/s)

- **Per-packet delay**:
  - Flow 1 (95th percentile 119.37 ms)
  - Flow 2 (95th percentile 119.69 ms)
  - Flow 3 (95th percentile 119.18 ms)
Run 4: Statistics of TCP BBR

Start at: 2018-03-06 17:06:25
End at: 2018-03-06 17:06:55
Local clock offset: -6.236 ms
Remote clock offset: -5.985 ms

# Below is generated by plot.py at 2018-03-06 20:05:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.77 Mbit/s
95th percentile per-packet one-way delay: 113.535 ms
Loss rate: 8.15%
-- Flow 1:
Average throughput: 52.95 Mbit/s
95th percentile per-packet one-way delay: 113.615 ms
Loss rate: 6.92%
-- Flow 2:
Average throughput: 38.70 Mbit/s
95th percentile per-packet one-way delay: 112.230 ms
Loss rate: 9.85%
-- Flow 3:
Average throughput: 24.31 Mbit/s
95th percentile per-packet one-way delay: 111.942 ms
Loss rate: 10.51%
Run 4: Report of TCP BBR — Data Link

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Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 56.94 Mbps)  
Flow 1 egress (mean 52.95 Mbps)

Flow 2 ingress (mean 42.94 Mbps)  
Flow 2 egress (mean 38.70 Mbps)

Flow 3 ingress (mean 27.19 Mbps)  
Flow 3 egress (mean 24.31 Mbps)

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Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 113.61 ms)  
Flow 2 (95th percentile 112.23 ms)  
Flow 3 (95th percentile 111.94 ms)
Run 5: Statistics of TCP BBR

Start at: 2018-03-06 17:29:52
End at: 2018-03-06 17:30:22
Local clock offset: -5.899 ms
Remote clock offset: -1.268 ms

# Below is generated by plot.py at 2018-03-06 20:05:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.54 Mbit/s
95th percentile per-packet one-way delay: 118.589 ms
Loss rate: 8.53%
-- Flow 1:
Average throughput: 51.31 Mbit/s
95th percentile per-packet one-way delay: 118.689 ms
Loss rate: 7.26%
-- Flow 2:
Average throughput: 39.73 Mbit/s
95th percentile per-packet one-way delay: 118.317 ms
Loss rate: 9.68%
-- Flow 3:
Average throughput: 26.36 Mbit/s
95th percentile per-packet one-way delay: 116.599 ms
Loss rate: 12.13%
Run 5: Report of TCP BBR — Data Link
Run 6: Statistics of TCP BBR

Start at: 2018-03-06 17:53:29
End at: 2018-03-06 17:53:59
Local clock offset: -6.594 ms
Remote clock offset: 0.62 ms

# Below is generated by plot.py at 2018-03-06 20:05:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.22 Mbit/s
95th percentile per-packet one-way delay: 120.322 ms
Loss rate: 8.43%
-- Flow 1:
Average throughput: 53.24 Mbit/s
95th percentile per-packet one-way delay: 120.152 ms
Loss rate: 6.93%
-- Flow 2:
Average throughput: 38.05 Mbit/s
95th percentile per-packet one-way delay: 120.469 ms
Loss rate: 9.39%
-- Flow 3:
Average throughput: 23.04 Mbit/s
95th percentile per-packet one-way delay: 118.335 ms
Loss rate: 14.92%
Run 6: Report of TCP BBR — Data Link

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

- **Flow 1 ingress (mean 57.25 Mbps)**
- **Flow 1 egress (mean 53.24 Mbps)**
- **Flow 2 ingress (mean 42.03 Mbps)**
- **Flow 2 egress (mean 38.05 Mbps)**
- **Flow 3 ingress (mean 27.07 Mbps)**
- **Flow 3 egress (mean 23.04 Mbps)**

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

- **Flow 1 (95th percentile 120.15 ms)**
- **Flow 2 (95th percentile 120.47 ms)**
- **Flow 3 (95th percentile 118.33 ms)**
Run 7: Statistics of TCP BBR

Start at: 2018-03-06 18:17:18
End at: 2018-03-06 18:17:48
Local clock offset: -6.799 ms
Remote clock offset: -5.704 ms

# Below is generated by plot.py at 2018-03-06 20:05:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.91 Mbit/s
95th percentile per-packet one-way delay: 113.755 ms
Loss rate: 8.14%
-- Flow 1:
Average throughput: 56.26 Mbit/s
95th percentile per-packet one-way delay: 113.821 ms
Loss rate: 6.95%
-- Flow 2:
Average throughput: 36.67 Mbit/s
95th percentile per-packet one-way delay: 111.979 ms
Loss rate: 9.83%
-- Flow 3:
Average throughput: 20.91 Mbit/s
95th percentile per-packet one-way delay: 111.888 ms
Loss rate: 11.82%
Run 7: Report of TCP BBR — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 60.52 Mbit/s)
- Flow 1 egress (mean 56.26 Mbit/s)
- Flow 2 ingress (mean 40.71 Mbit/s)
- Flow 2 egress (mean 36.67 Mbit/s)
- Flow 3 ingress (mean 21.26 Mbit/s)
- Flow 3 egress (mean 20.91 Mbit/s)

![Packet Delay Graph]

- Flow 1 (95th percentile 113.82 ms)
- Flow 2 (95th percentile 111.98 ms)
- Flow 3 (95th percentile 111.89 ms)
Run 8: Statistics of TCP BBR

Start at: 2018-03-06 18:41:08
End at: 2018-03-06 18:41:38
Local clock offset: -6.927 ms
Remote clock offset: 14.941 ms

# Below is generated by plot.py at 2018-03-06 20:05:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.31 Mbit/s
95th percentile per-packet one-way delay: 117.489 ms
Loss rate: 8.52%
-- Flow 1:
Average throughput: 57.68 Mbit/s
95th percentile per-packet one-way delay: 117.556 ms
Loss rate: 7.10%
-- Flow 2:
Average throughput: 26.16 Mbit/s
95th percentile per-packet one-way delay: 117.336 ms
Loss rate: 9.73%
-- Flow 3:
Average throughput: 30.72 Mbit/s
95th percentile per-packet one-way delay: 117.356 ms
Loss rate: 13.99%
Run 8: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 62.15 Mbit/s) vs egress (mean 57.68 Mbit/s)
- Flow 2 ingress (mean 29.02 Mbit/s) vs egress (mean 26.16 Mbit/s)
- Flow 3 ingress (mean 55.77 Mbit/s) vs egress (mean 30.72 Mbit/s)

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

- Flow 1 (95th percentile 117.56 ms) vs Flow 2 (95th percentile 117.34 ms) vs Flow 3 (95th percentile 117.36 ms)
Run 9: Statistics of TCP BBR

Start at: 2018-03-06 19:05:01
End at: 2018-03-06 19:05:31
Local clock offset: -6.075 ms
Remote clock offset: 20.648 ms

# Below is generated by plot.py at 2018-03-06 20:06:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.25 Mbit/s
95th percentile per-packet one-way delay: 119.080 ms
Loss rate: 7.43%
-- Flow 1:
Average throughput: 55.11 Mbit/s
95th percentile per-packet one-way delay: 119.137 ms
Loss rate: 6.73%
-- Flow 2:
Average throughput: 39.26 Mbit/s
95th percentile per-packet one-way delay: 117.673 ms
Loss rate: 9.33%
-- Flow 3:
Average throughput: 18.09 Mbit/s
95th percentile per-packet one-way delay: 119.116 ms
Loss rate: 5.27%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-03-06 19:28:54
End at: 2018-03-06 19:29:24
Local clock offset: -6.298 ms
Remote clock offset: 25.873 ms

# Below is generated by plot.py at 2018-03-06 20:06:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.28 Mbit/s
95th percentile per-packet one-way delay: 117.387 ms
Loss rate: 7.77%
-- Flow 1:
Average throughput: 51.55 Mbit/s
95th percentile per-packet one-way delay: 117.160 ms
Loss rate: 6.47%
-- Flow 2:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 117.314 ms
Loss rate: 8.16%
-- Flow 3:
Average throughput: 26.17 Mbit/s
95th percentile per-packet one-way delay: 117.810 ms
Loss rate: 13.76%
Run 10: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 55.12 Mbit/s)
- Flow 1 egress (mean 51.55 Mbit/s)
- Flow 2 ingress (mean 44.24 Mbit/s)
- Flow 2 egress (mean 40.69 Mbit/s)
- Flow 3 ingress (mean 30.26 Mbit/s)
- Flow 3 egress (mean 26.17 Mbit/s)

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

- Flow 1 (95th percentile 117.16 ms)
- Flow 2 (95th percentile 117.31 ms)
- Flow 3 (95th percentile 117.81 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-03-06 15:46:09
End at: 2018-03-06 15:46:39
Local clock offset: -6.422 ms
Remote clock offset: -6.24 ms

# Below is generated by plot.py at 2018-03-06 20:06:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.85 Mbit/s
95th percentile per-packet one-way delay: 109.768 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 53.29 Mbit/s
95th percentile per-packet one-way delay: 108.565 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 37.23 Mbit/s
95th percentile per-packet one-way delay: 110.022 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 17.39 Mbit/s
95th percentile per-packet one-way delay: 111.955 ms
Loss rate: 0.79%
Run 1: Report of TCP Cubic — Data Link
Run 2: Statistics of TCP Cubic

Start at: 2018-03-06 16:09:43
End at: 2018-03-06 16:10:13
Local clock offset: -6.531 ms
Remote clock offset: -5.826 ms

# Below is generated by plot.py at 2018-03-06 20:06:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 83.92 Mbit/s
  95th percentile per-packet one-way delay: 111.108 ms
  Loss rate: 0.48%
-- Flow 1:
  Average throughput: 53.26 Mbit/s
  95th percentile per-packet one-way delay: 109.377 ms
  Loss rate: 0.29%
-- Flow 2:
  Average throughput: 37.51 Mbit/s
  95th percentile per-packet one-way delay: 112.233 ms
  Loss rate: 0.78%
-- Flow 3:
  Average throughput: 17.06 Mbit/s
  95th percentile per-packet one-way delay: 113.031 ms
  Loss rate: 0.93%
Run 2: Report of TCP Cubic — Data Link

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

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

Legend:
- Flow 1 ingress (mean 53.42 Mbps)
- Flow 1 egress (mean 53.26 Mbps)
- Flow 2 ingress (mean 37.80 Mbps)
- Flow 2 egress (mean 37.51 Mbps)
- Flow 3 ingress (mean 17.21 Mbps)
- Flow 3 egress (mean 17.06 Mbps)
Run 3: Statistics of TCP Cubic

Start at: 2018-03-06 16:33:25
End at: 2018-03-06 16:33:55
Local clock offset: -6.535 ms
Remote clock offset: -6.26 ms

# Below is generated by plot.py at 2018-03-06 20:06:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.24 Mbit/s
95th percentile per-packet one-way delay: 110.437 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 53.92 Mbit/s
95th percentile per-packet one-way delay: 108.412 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 36.91 Mbit/s
95th percentile per-packet one-way delay: 112.718 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 17.35 Mbit/s
95th percentile per-packet one-way delay: 111.502 ms
Loss rate: 0.67%
Run 4: Statistics of TCP Cubic

Start at: 2018-03-06 16:57:14
End at: 2018-03-06 16:57:44
Local clock offset: -6.405 ms
Remote clock offset: -5.857 ms

# Below is generated by plot.py at 2018-03-06 20:06:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.68 Mbit/s
  95th percentile per-packet one-way delay: 110.692 ms
  Loss rate: 0.44%
-- Flow 1:
  Average throughput: 58.84 Mbit/s
  95th percentile per-packet one-way delay: 110.058 ms
  Loss rate: 0.23%
-- Flow 2:
  Average throughput: 29.37 Mbit/s
  95th percentile per-packet one-way delay: 110.987 ms
  Loss rate: 0.99%
-- Flow 3:
  Average throughput: 18.84 Mbit/s
  95th percentile per-packet one-way delay: 111.038 ms
  Loss rate: 0.65%
Run 4: Report of TCP Cubic — Data Link
Run 5: Statistics of TCP Cubic

Start at: 2018-03-06 17:20:42
End at: 2018-03-06 17:21:12
Local clock offset: -6.023 ms
Remote clock offset: -0.307 ms

# Below is generated by plot.py at 2018-03-06 20:06:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.39 Mbit/s
  95th percentile per-packet one-way delay: 111.895 ms
  Loss rate: 0.68%
-- Flow 1:
  Average throughput: 43.90 Mbit/s
  95th percentile per-packet one-way delay: 108.067 ms
  Loss rate: 0.35%
-- Flow 2:
  Average throughput: 38.38 Mbit/s
  95th percentile per-packet one-way delay: 113.441 ms
  Loss rate: 1.10%
-- Flow 3:
  Average throughput: 29.82 Mbit/s
  95th percentile per-packet one-way delay: 116.011 ms
  Loss rate: 1.07%
Run 5: Report of TCP Cubic — Data Link

---

**Throughput (Mbps)**

- **Flow 1 ingress** (mean 44.06 Mbps)
- **Flow 1 egress** (mean 43.90 Mbps)
- **Flow 2 ingress** (mean 38.81 Mbps)
- **Flow 2 egress** (mean 38.38 Mbps)
- **Flow 3 ingress** (mean 30.16 Mbps)
- **Flow 3 egress** (mean 29.62 Mbps)

---

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

- **Flow 1** (95th percentile 108.07 ms)
- **Flow 2** (95th percentile 113.44 ms)
- **Flow 3** (95th percentile 116.01 ms)
Run 6: Statistics of TCP Cubic

Start at: 2018-03-06 17:44:16
End at: 2018-03-06 17:44:46
Local clock offset: -6.419 ms
Remote clock offset: -5.98 ms

# Below is generated by plot.py at 2018-03-06 20:06:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 80.97 Mbit/s
  95th percentile per-packet one-way delay: 110.587 ms
  Loss rate: 0.55%
-- Flow 1:
  Average throughput: 53.13 Mbit/s
  95th percentile per-packet one-way delay: 108.574 ms
  Loss rate: 0.30%
-- Flow 2:
  Average throughput: 26.74 Mbit/s
  95th percentile per-packet one-way delay: 112.582 ms
  Loss rate: 1.07%
-- Flow 3:
  Average throughput: 30.29 Mbit/s
  95th percentile per-packet one-way delay: 112.653 ms
  Loss rate: 0.95%
Run 6: Report of TCP Cubic — Data Link
Run 7: Statistics of TCP Cubic

Start at: 2018-03-06 18:07:50
End at: 2018-03-06 18:08:20
Local clock offset: -6.737 ms
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-03-06 20:07:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.46 Mbit/s
95th percentile per-packet one-way delay: 116.092 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 48.15 Mbit/s
95th percentile per-packet one-way delay: 113.706 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 31.08 Mbit/s
95th percentile per-packet one-way delay: 117.622 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 28.98 Mbit/s
95th percentile per-packet one-way delay: 117.022 ms
Loss rate: 1.81%
Run 7: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 48.44 Mbps)
  - Flow 1 egress (mean 48.15 Mbps)
  - Flow 2 ingress (mean 31.48 Mbps)
  - Flow 2 egress (mean 31.08 Mbps)
  - Flow 3 ingress (mean 29.51 Mbps)
  - Flow 3 egress (mean 20.98 Mbps)

- **One-way delay (ms):**
  - Flow 1 (95th percentile 113.71 ms)
  - Flow 2 (95th percentile 117.62 ms)
  - Flow 3 (95th percentile 117.02 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-03-06 18:31:42
End at: 2018-03-06 18:32:12
Local clock offset: -6.885 ms
Remote clock offset: 4.418 ms

# Below is generated by plot.py at 2018-03-06 20:07:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.90 Mbit/s
95th percentile per-packet one-way delay: 109.523 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 36.78 Mbit/s
95th percentile per-packet one-way delay: 108.725 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 48.78 Mbit/s
95th percentile per-packet one-way delay: 109.616 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 20.02 Mbit/s
95th percentile per-packet one-way delay: 111.243 ms
Loss rate: 0.58%
Run 8: Report of TCP Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 35.92 Mbit/s)
- Flow 1 egress (mean 36.78 Mbit/s)
- Flow 2 ingress (mean 49.02 Mbit/s)
- Flow 2 egress (mean 48.78 Mbit/s)
- Flow 3 ingress (mean 20.15 Mbit/s)
- Flow 3 egress (mean 20.02 Mbit/s)
Run 9: Statistics of TCP Cubic

Start at: 2018-03-06 18:55:27
End at: 2018-03-06 18:55:57
Local clock offset: -6.191 ms
Remote clock offset: 17.802 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.05 Mbit/s
95th percentile per-packet one-way delay: 114.158 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 53.71 Mbit/s
95th percentile per-packet one-way delay: 113.336 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 36.93 Mbit/s
95th percentile per-packet one-way delay: 114.544 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 17.32 Mbit/s
95th percentile per-packet one-way delay: 114.840 ms
Loss rate: 0.80%
Run 9: Report of TCP Cubic — Data Link

![Graph of TCP Cubic Data Link](image)

Legend:
- Flow 1 ingress (mean 53.87 Mbit/s)
- Flow 1 egress (mean 53.71 Mbit/s)
- Flow 2 ingress (mean 37.22 Mbit/s)
- Flow 2 egress (mean 36.93 Mbit/s)
- Flow 3 ingress (mean 17.46 Mbit/s)
- Flow 3 egress (mean 17.32 Mbit/s)
Run 10: Statistics of TCP Cubic

Start at: 2018-03-06 19:19:20
End at: 2018-03-06 19:19:50
Local clock offset: -6.013 ms
Remote clock offset: 22.971 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 82.60 Mbit/s
  95th percentile per-packet one-way delay: 113.304 ms
  Loss rate: 0.60%
-- Flow 1:
  Average throughput: 50.74 Mbit/s
  95th percentile per-packet one-way delay: 109.018 ms
  Loss rate: 0.34%
-- Flow 2:
  Average throughput: 33.68 Mbit/s
  95th percentile per-packet one-way delay: 115.434 ms
  Loss rate: 0.90%
-- Flow 3:
  Average throughput: 28.44 Mbit/s
  95th percentile per-packet one-way delay: 116.757 ms
  Loss rate: 1.28%
Run 10: Report of TCP Cubic — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 1: Statistics of LEDBAT

Start at: 2018-03-06 15:50:06
End at: 2018-03-06 15:50:36
Local clock offset: -6.427 ms
Remote clock offset: -6.247 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.78 Mbit/s
95th percentile per-packet one-way delay: 82.662 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.89 Mbit/s
95th percentile per-packet one-way delay: 82.370 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.41 Mbit/s
95th percentile per-packet one-way delay: 81.648 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 83.714 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link
Run 2: Statistics of LEDBAT

Start at: 2018-03-06 16:13:39
End at: 2018-03-06 16:14:09
Local clock offset: -6.535 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.33 Mbit/s
95th percentile per-packet one-way delay: 88.437 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 87.642 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 88.703 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 89.320 ms
Loss rate: 0.12%
Run 2: Report of LEDBAT — Data Link
Run 3: Statistics of LEDBAT

Start at: 2018-03-06 16:37:21
End at: 2018-03-06 16:37:51
Local clock offset: -6.47 ms
Remote clock offset: -6.33 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.77 Mbit/s
95th percentile per-packet one-way delay: 84.395 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 84.207 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 85.089 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 84.301 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

![Graph showing throughput and round trip time for different flows.]

- Flow 1 ingress (mean 12.80 Mbit/s)
- Flow 1 egress (mean 12.80 Mbit/s)
- Flow 2 ingress (mean 8.43 Mbit/s)
- Flow 2 egress (mean 8.42 Mbit/s)
- Flow 3 ingress (mean 4.17 Mbit/s)
- Flow 3 egress (mean 4.17 Mbit/s)

![Graph showing packet round trip time for different flows.]

- Flow 1 (95th percentile 84.21 ms)
- Flow 2 (95th percentile 85.09 ms)
- Flow 3 (95th percentile 84.30 ms)
Run 4: Statistics of LEDBAT

Start at: 2018-03-06 17:01:10
End at: 2018-03-06 17:01:40
Local clock offset: -6.406 ms
Remote clock offset: -5.904 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 19.97 Mbit/s
  95th percentile per-packet one-way delay: 83.562 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 12.92 Mbit/s
  95th percentile per-packet one-way delay: 83.628 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 8.55 Mbit/s
  95th percentile per-packet one-way delay: 82.838 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 4.15 Mbit/s
  95th percentile per-packet one-way delay: 82.028 ms
  Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

![Graph showing throughput over time for different flows]

- Flow 1 ingress (mean 12.92 Mbit/s)
- Flow 1 egress (mean 12.92 Mbit/s)
- Flow 2 ingress (mean 8.55 Mbit/s)
- Flow 2 egress (mean 8.55 Mbit/s)
- Flow 3 ingress (mean 4.15 Mbit/s)
- Flow 3 egress (mean 4.15 Mbit/s)

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

- Flow 1 (95th percentile 83.63 ms)
- Flow 2 (95th percentile 82.84 ms)
- Flow 3 (95th percentile 82.03 ms)
Run 5: Statistics of LEDBAT

Start at: 2018-03-06 17:24:38
End at: 2018-03-06 17:25:08
Local clock offset: -5.921 ms
Remote clock offset: -5.175 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.42 Mbit/s
95th percentile per-packet one-way delay: 84.611 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 12.44 Mbit/s
95th percentile per-packet one-way delay: 84.142 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 84.997 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 84.330 ms
Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-03-06 17:48:13
End at: 2018-03-06 17:48:43
Local clock offset: -6.496 ms
Remote clock offset: -1.148 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.07 Mbit/s
95th percentile per-packet one-way delay: 88.680 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.03 Mbit/s
95th percentile per-packet one-way delay: 87.564 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 87.711 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 89.995 ms
Loss rate: 0.03%
Run 6: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 13.03 Mbit/s)
- Flow 1 egress (mean 13.03 Mbit/s)
- Flow 2 ingress (mean 8.57 Mbit/s)
- Flow 2 egress (mean 8.57 Mbit/s)
- Flow 3 ingress (mean 4.13 Mbit/s)
- Flow 3 egress (mean 4.13 Mbit/s)

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

- Flow 1 (95th percentile 87.56 ms)
- Flow 2 (95th percentile 87.71 ms)
- Flow 3 (95th percentile 90.00 ms)
Run 7: Statistics of LEDBAT

Start at: 2018-03-06 18:11:48
End at: 2018-03-06 18:12:18
Local clock offset: -6.746 ms
Remote clock offset: -4.963 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.68 Mbit/s
95th percentile per-packet one-way delay: 84.826 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 12.72 Mbit/s
95th percentile per-packet one-way delay: 82.976 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 85.167 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 84.156 ms
Loss rate: 0.18%
Run 7: Report of LEDBAT — Data Link

---

**Throughput (Mbps):**

- **Flow 1 Ingress (mean 12.72 Mbps):**
- **Flow 1 Egress (mean 12.72 Mbps):**
- **Flow 2 Ingress (mean 8.51 Mbps):**
- **Flow 2 Egress (mean 8.50 Mbps):**
- **Flow 3 Ingress (mean 4.03 Mbps):**
- **Flow 3 Egress (mean 4.02 Mbps):**

---

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

- **Flow 1 (95th percentile 82.98 ms):**
- **Flow 2 (95th percentile 85.17 ms):**
- **Flow 3 (95th percentile 84.16 ms):**
Run 8: Statistics of LEDBAT

Start at: 2018-03-06 18:35:37
End at: 2018-03-06 18:36:07
Local clock offset: -6.815 ms
Remote clock offset: 6.824 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.50 Mbit/s
95th percentile per-packet one-way delay: 84.022 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 84.016 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.25 Mbit/s
95th percentile per-packet one-way delay: 83.605 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 4.06 Mbit/s
95th percentile per-packet one-way delay: 84.457 ms
Loss rate: 0.40%
Run 8: Report of LEDBAT — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows with specified mean rates.]
Run 9: Statistics of LEDBAT

Start at: 2018-03-06 18:59:24
End at: 2018-03-06 18:59:54
Local clock offset: -6.167 ms
Remote clock offset: 20.368 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.64 Mbit/s
95th percentile per-packet one-way delay: 89.801 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.67 Mbit/s
95th percentile per-packet one-way delay: 88.114 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.46 Mbit/s
95th percentile per-packet one-way delay: 90.021 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 89.969 ms
Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-03-06 19:23:16
End at: 2018-03-06 19:23:46
Local clock offset: -6.251 ms
Remote clock offset: 19.0 ms

# Below is generated by plot.py at 2018-03-06 20:08:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 81.722 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.95 Mbit/s
95th percentile per-packet one-way delay: 81.747 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.55 Mbit/s
95th percentile per-packet one-way delay: 81.656 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 81.774 ms
Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link
Run 1: Statistics of PCC

Start at: 2018-03-06 15:47:27
End at: 2018-03-06 15:47:57
Local clock offset: -6.4 ms
Remote clock offset: -5.418 ms

# Below is generated by plot.py at 2018-03-06 20:08:45
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.74 Mbit/s
  95th percentile per-packet one-way delay: 114.794 ms
  Loss rate: 2.74%
-- Flow 1:
  Average throughput: 78.69 Mbit/s
  95th percentile per-packet one-way delay: 114.802 ms
  Loss rate: 2.52%
-- Flow 2:
  Average throughput: 8.08 Mbit/s
  95th percentile per-packet one-way delay: 112.876 ms
  Loss rate: 4.17%
-- Flow 3:
  Average throughput: 8.10 Mbit/s
  95th percentile per-packet one-way delay: 114.658 ms
  Loss rate: 5.98%
Run 1: Report of PCC — Data Link

![Graph showing throughput and packet delay over time](Image)

**Throughput (Mbps):**
- **Flow 1 ingress:** mean 80.79 Mbps
- **Flow 1 egress:** mean 78.69 Mbps
- **Flow 2 ingress:** mean 8.64 Mbps
- **Flow 2 egress:** mean 8.08 Mbps
- **Flow 3 ingress:** mean 8.62 Mbps
- **Flow 3 egress:** mean 8.10 Mbps

**Per-packet one-way delay (ms):**
- **Flow 1 (95th percentile):** 114.80 ms
- **Flow 2 (95th percentile):** 112.88 ms
- **Flow 3 (95th percentile):** 114.66 ms
Run 2: Statistics of PCC

Start at: 2018-03-06 16:11:01
End at: 2018-03-06 16:11:31
Local clock offset: -6.535 ms
Remote clock offset: 0.668 ms

# Below is generated by plot.py at 2018-03-06 20:08:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.43 Mbit/s
95th percentile per-packet one-way delay: 118.089 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 79.31 Mbit/s
95th percentile per-packet one-way delay: 118.052 ms
Loss rate: 2.05%
-- Flow 2:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 120.491 ms
Loss rate: 3.05%
-- Flow 3:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 120.281 ms
Loss rate: 2.93%
Run 2: Report of PCC — Data Link

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

- Flow 1 ingress (mean 80.97 Mbit/s)
- Flow 1 egress (mean 79.31 Mbit/s)
- Flow 2 ingress (mean 8.67 Mbit/s)
- Flow 2 egress (mean 8.60 Mbit/s)
- Flow 3 ingress (mean 4.37 Mbit/s)
- Flow 3 egress (mean 4.26 Mbit/s)

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

- Flow 1 (95th percentile 118.05 ms)
- Flow 2 (95th percentile 120.49 ms)
- Flow 3 (95th percentile 120.28 ms)
Run 3: Statistics of PCC

Start at: 2018-03-06 16:34:43
End at: 2018-03-06 16:35:13
Local clock offset: -6.485 ms
Remote clock offset: -1.542 ms

# Below is generated by plot.py at 2018-03-06 20:09:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.17 Mbit/s
95th percentile per-packet one-way delay: 118.661 ms
Loss rate: 4.94%
-- Flow 1:
Average throughput: 74.98 Mbit/s
95th percentile per-packet one-way delay: 116.657 ms
Loss rate: 4.26%
-- Flow 2:
Average throughput: 14.52 Mbit/s
95th percentile per-packet one-way delay: 119.421 ms
Loss rate: 10.27%
-- Flow 3:
Average throughput: 7.70 Mbit/s
95th percentile per-packet one-way delay: 118.376 ms
Loss rate: 3.37%
Run 3: Report of PCC — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 78.36 Mbps)
- Flow 1 egress (mean 74.98 Mbps)
- Flow 2 ingress (mean 16.19 Mbps)
- Flow 2 egress (mean 14.52 Mbps)
- Flow 3 ingress (mean 7.08 Mbps)
- Flow 3 egress (mean 7.70 Mbps)

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

- Flow 1 (95th percentile 116.66 ms)
- Flow 2 (95th percentile 119.42 ms)
- Flow 3 (95th percentile 118.38 ms)
Run 4: Statistics of PCC

Start at: 2018-03-06 16:58:32
End at: 2018-03-06 16:59:02
Local clock offset: -6.406 ms
Remote clock offset: -5.083 ms

# Below is generated by plot.py at 2018-03-06 20:09:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.47 Mbit/s
95th percentile per-packet one-way delay: 114.679 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 114.683 ms
Loss rate: 2.53%
-- Flow 2:
Average throughput: 7.83 Mbit/s
95th percentile per-packet one-way delay: 114.660 ms
Loss rate: 4.34%
-- Flow 3:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 112.717 ms
Loss rate: 6.46%
Run 4: Report of PCC — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 81.81 Mbps)
  - Flow 1 egress (mean 79.74 Mbps)
  - Flow 2 ingress (mean 8.18 Mbps)
  - Flow 2 egress (mean 7.63 Mbps)
  - Flow 3 ingress (mean 8.18 Mbps)
  - Flow 3 egress (mean 7.66 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 114.60 ms)
  - Flow 2 (95th percentile 114.66 ms)
  - Flow 3 (95th percentile 112.72 ms)
Run 5: Statistics of PCC

Start at: 2018-03-06 17:22:00
End at: 2018-03-06 17:22:30
Local clock offset: -5.955 ms
Remote clock offset: -5.162 ms

# Below is generated by plot.py at 2018-03-06 20:09:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.06 Mbit/s
95th percentile per-packet one-way delay: 113.186 ms
Loss rate: 3.63%
-- Flow 1:
Average throughput: 79.76 Mbit/s
95th percentile per-packet one-way delay: 113.160 ms
Loss rate: 3.12%
-- Flow 2:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 114.409 ms
Loss rate: 6.99%
-- Flow 3:
Average throughput: 6.90 Mbit/s
95th percentile per-packet one-way delay: 113.014 ms
Loss rate: 12.77%
Run 5: Report of PCC — Data Link
Run 6: Statistics of PCC

Start at: 2018-03-06 17:45:35
End at: 2018-03-06 17:46:05
Local clock offset: -6.428 ms
Remote clock offset: -6.012 ms

# Below is generated by plot.py at 2018-03-06 20:09:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.28 Mbit/s
95th percentile per-packet one-way delay: 111.829 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 78.90 Mbit/s
95th percentile per-packet one-way delay: 111.805 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 111.828 ms
Loss rate: 3.74%
-- Flow 3:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 113.585 ms
Loss rate: 4.23%
Run 6: Report of PCC — Data Link
Run 7: Statistics of PCC

Start at: 2018-03-06 18:09:08
End at: 2018-03-06 18:09:38
Local clock offset: -6.792 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-03-06 20:09:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.27 Mbit/s
  95th percentile per-packet one-way delay: 117.887 ms
  Loss rate: 2.72%
-- Flow 1:
  Average throughput: 78.67 Mbit/s
  95th percentile per-packet one-way delay: 117.822 ms
  Loss rate: 2.52%
-- Flow 2:
  Average throughput: 8.99 Mbit/s
  95th percentile per-packet one-way delay: 119.673 ms
  Loss rate: 3.91%
-- Flow 3:
  Average throughput: 7.96 Mbit/s
  95th percentile per-packet one-way delay: 119.419 ms
  Loss rate: 5.93%
Run 7: Report of PCC — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 8: Statistics of PCC

Start at: 2018-03-06 18:32:59
End at: 2018-03-06 18:33:29
Local clock offset: -6.803 ms
Remote clock offset: 11.162 ms

# Below is generated by plot.py at 2018-03-06 20:09:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.32 Mbit/s
95th percentile per-packet one-way delay: 119.100 ms
Loss rate: 5.45%
-- Flow 1:
Average throughput: 74.82 Mbit/s
95th percentile per-packet one-way delay: 119.097 ms
Loss rate: 4.68%
-- Flow 2:
Average throughput: 14.88 Mbit/s
95th percentile per-packet one-way delay: 117.173 ms
Loss rate: 10.78%
-- Flow 3:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 119.252 ms
Loss rate: 5.73%
Run 8: Report of PCC — Data Link

![Graph of data link throughputs and delays over time](image)

Legend for Throughput Graph:
- Flow 1 ingress (mean 78.50 Mbit/s)
- Flow 1 egress (mean 74.82 Mbit/s)
- Flow 2 ingress (mean 16.68 Mbit/s)
- Flow 2 egress (mean 14.88 Mbit/s)
- Flow 3 ingress (mean 8.38 Mbit/s)
- Flow 3 egress (mean 7.90 Mbit/s)

Legend for Delay Graph:
- Flow 1 (95th percentile 119.10 ms)
- Flow 2 (95th percentile 117.17 ms)
- Flow 3 (95th percentile 119.25 ms)
Run 9: Statistics of PCC

Start at: 2018-03-06 18:56:46
End at: 2018-03-06 18:57:16
Local clock offset: -6.178 ms
Remote clock offset: 14.144 ms

# Below is generated by plot.py at 2018-03-06 20:10:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.92 Mbit/s
95th percentile per-packet one-way delay: 113.360 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 79.54 Mbit/s
95th percentile per-packet one-way delay: 113.365 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 8.95 Mbit/s
95th percentile per-packet one-way delay: 112.683 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 114.014 ms
Loss rate: 2.14%
Run 9: Report of PCC — Data Link

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 81.21 Mbit/s)
- Blue solid line: Flow 1 egress (mean 79.54 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 9.15 Mbit/s)
- Green solid line: Flow 2 egress (mean 8.95 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 4.43 Mbit/s)
- Red solid line: Flow 3 egress (mean 4.34 Mbit/s)

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Run 10: Statistics of PCC

Start at: 2018-03-06 19:20:38
End at: 2018-03-06 19:21:08
Local clock offset: -6.138 ms
Remote clock offset: 18.451 ms

# Below is generated by plot.py at 2018-03-06 20:10:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.73 Mbit/s
  95th percentile per-packet one-way delay: 111.798 ms
  Loss rate: 2.68%
-- Flow 1:
  Average throughput: 80.18 Mbit/s
  95th percentile per-packet one-way delay: 111.783 ms
  Loss rate: 2.45%
-- Flow 2:
  Average throughput: 7.64 Mbit/s
  95th percentile per-packet one-way delay: 111.538 ms
  Loss rate: 4.27%
-- Flow 3:
  Average throughput: 7.47 Mbit/s
  95th percentile per-packet one-way delay: 113.533 ms
  Loss rate: 6.52%
Run 10: Report of PCC — Data Link

- Throughput (Mbps):
  - Flow 1 ingress (mean 82.20 Mbit/s)
  - Flow 1 egress (mean 80.18 Mbit/s)
  - Flow 2 ingress (mean 7.99 Mbit/s)
  - Flow 2 egress (mean 7.64 Mbit/s)
  - Flow 3 ingress (mean 7.99 Mbit/s)
  - Flow 3 egress (mean 7.47 Mbit/s)

- Per packet one-way delay (ms):
  - Flow 1 (95th percentile 111.78 ms)
  - Flow 2 (95th percentile 111.54 ms)
  - Flow 3 (95th percentile 113.53 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-06 15:54:03
End at: 2018-03-06 15:54:33
Local clock offset: -6.45 ms
Remote clock offset: -0.521 ms

# Below is generated by plot.py at 2018-03-06 20:10:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 59.26 Mbit/s
  95th percentile per-packet one-way delay: 112.415 ms
  Loss rate: 0.93%
-- Flow 1:
  Average throughput: 33.92 Mbit/s
  95th percentile per-packet one-way delay: 115.560 ms
  Loss rate: 1.08%
-- Flow 2:
  Average throughput: 32.03 Mbit/s
  95th percentile per-packet one-way delay: 109.145 ms
  Loss rate: 0.78%
-- Flow 3:
  Average throughput: 12.54 Mbit/s
  95th percentile per-packet one-way delay: 108.459 ms
  Loss rate: 0.41%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-06 16:17:49
End at: 2018-03-06 16:18:19
Local clock offset: -6.565 ms
Remote clock offset: 0.643 ms

# Below is generated by plot.py at 2018-03-06 20:10:15
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 57.15 Mbit/s
  95th percentile per-packet one-way delay: 116.639 ms
  Loss rate: 2.99%
-- Flow 1:
  Average throughput: 33.17 Mbit/s
  95th percentile per-packet one-way delay: 114.194 ms
  Loss rate: 2.09%
-- Flow 2:
  Average throughput: 30.24 Mbit/s
  95th percentile per-packet one-way delay: 110.228 ms
  Loss rate: 2.47%
-- Flow 3:
  Average throughput: 12.06 Mbit/s
  95th percentile per-packet one-way delay: 117.414 ms
  Loss rate: 12.10%
Run 2: Report of QUIC Cubic — Data Link

![Graph 1: Throughput](image1)

- Flow 1 ingress (mean 33.91 Mbps)
- Flow 1 egress (mean 33.17 Mbps)
- Flow 2 ingress (mean 31.05 Mbps)
- Flow 2 egress (mean 30.24 Mbps)
- Flow 3 ingress (mean 13.76 Mbps)
- Flow 3 egress (mean 12.06 Mbps)

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

- Flow 1 (95th percentile 114.19 ms)
- Flow 2 (95th percentile 110.23 ms)
- Flow 3 (95th percentile 117.41 ms)
Run 3: Statistics of QUIC Cubic

Start at: 2018-03-06 16:41:33
End at: 2018-03-06 16:42:03
Local clock offset: -6.489 ms
Remote clock offset: -1.446 ms

# Below is generated by plot.py at 2018-03-06 20:10:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.60 Mbit/s
95th percentile per-packet one-way delay: 115.691 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 113.907 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 28.63 Mbit/s
95th percentile per-packet one-way delay: 116.345 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 27.64 Mbit/s
95th percentile per-packet one-way delay: 115.660 ms
Loss rate: 1.08%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-03-06 17:05:08
End at: 2018-03-06 17:05:38
Local clock offset: -6.19 ms
Remote clock offset: 0.511 ms

# Below is generated by plot.py at 2018-03-06 20:10:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 61.74 Mbit/s
  95th percentile per-packet one-way delay: 112.761 ms
  Loss rate: 0.71%
-- Flow 1:
  Average throughput: 36.99 Mbit/s
  95th percentile per-packet one-way delay: 114.663 ms
  Loss rate: 0.80%
-- Flow 2:
  Average throughput: 28.61 Mbit/s
  95th percentile per-packet one-way delay: 112.440 ms
  Loss rate: 0.66%
-- Flow 3:
  Average throughput: 17.72 Mbit/s
  95th percentile per-packet one-way delay: 111.340 ms
  Loss rate: 0.26%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-06 17:28:35
End at: 2018-03-06 17:29:05
Local clock offset: -5.916 ms
Remote clock offset: -5.967 ms

# Below is generated by plot.py at 2018-03-06 20:10:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 56.49 Mbit/s
  95th percentile per-packet one-way delay: 108.191 ms
  Loss rate: 0.53%
-- Flow 1:
  Average throughput: 44.09 Mbit/s
  95th percentile per-packet one-way delay: 109.605 ms
  Loss rate: 0.60%
-- Flow 2:
  Average throughput: 12.01 Mbit/s
  95th percentile per-packet one-way delay: 103.336 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 13.68 Mbit/s
  95th percentile per-packet one-way delay: 101.699 ms
  Loss rate: 0.48%
Run 5: Report of QUIC Cubic — Data Link

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

Flow 1 ingress (mean 44.05 Mbit/s)  
Flow 1 egress (mean 44.09 Mbit/s)  
Flow 2 ingress (mean 12.02 Mbit/s)  
Flow 2 egress (mean 12.01 Mbit/s)  
Flow 3 ingress (mean 13.72 Mbit/s)  
Flow 3 egress (mean 13.66 Mbit/s)
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-06 17:52:11
End at: 2018-03-06 17:52:41
Local clock offset: -6.559 ms
Remote clock offset: -5.923 ms

# Below is generated by plot.py at 2018-03-06 20:10:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.49 Mbit/s
95th percentile per-packet one-way delay: 107.687 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 41.48 Mbit/s
95th percentile per-packet one-way delay: 108.963 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 12.54 Mbit/s
95th percentile per-packet one-way delay: 100.405 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 17.49 Mbit/s
95th percentile per-packet one-way delay: 103.065 ms
Loss rate: 0.79%
Run 6: Report of QUIC Cubic — Data Link
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-06 18:16:00
End at: 2018-03-06 18:16:30
Local clock offset: -6.754 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-03-06 20:11:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.85 Mbit/s
95th percentile per-packet one-way delay: 114.209 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 44.42 Mbit/s
95th percentile per-packet one-way delay: 114.272 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 19.39 Mbit/s
95th percentile per-packet one-way delay: 114.202 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 4.92 Mbit/s
95th percentile per-packet one-way delay: 97.244 ms
Loss rate: 0.14%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-03-06 18:39:50
End at: 2018-03-06 18:40:20
Local clock offset: -6.876 ms
Remote clock offset: 14.47 ms

# Below is generated by plot.py at 2018-03-06 20:11:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.16 Mbit/s
95th percentile per-packet one-way delay: 115.593 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 45.00 Mbit/s
95th percentile per-packet one-way delay: 115.952 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 19.21 Mbit/s
95th percentile per-packet one-way delay: 113.973 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 96.813 ms
Loss rate: 0.34%
Run 8: Report of QUIC Cubic — Data Link

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

![Graph 2: Per-packet one-way delay vs. Time](image2.png)
Run 9: Statistics of QUIC Cubic

Start at: 2018-03-06 19:03:44
End at: 2018-03-06 19:04:14
Local clock offset: -6.025 ms
Remote clock offset: 19.598 ms

# Below is generated by plot.py at 2018-03-06 20:11:24
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 52.45 Mbit/s
  95th percentile per-packet one-way delay: 114.942 ms
  Loss rate: 1.86%
-- Flow 1:
  Average throughput: 39.92 Mbit/s
  95th percentile per-packet one-way delay: 114.711 ms
  Loss rate: 1.25%
-- Flow 2:
  Average throughput: 10.96 Mbit/s
  95th percentile per-packet one-way delay: 108.923 ms
  Loss rate: 0.87%
-- Flow 3:
  Average throughput: 16.21 Mbit/s
  95th percentile per-packet one-way delay: 116.554 ms
  Loss rate: 7.42%
Run 9: Report of QUIC Cubic — Data Link

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

- **Flow 1 ingress** (mean 40.43 Mbps)
- **Flow 1 egress** (mean 39.92 Mbps)
- **Flow 2 ingress** (mean 11.05 Mbps)
- **Flow 2 egress** (mean 10.96 Mbps)
- **Flow 3 ingress** (mean 17.50 Mbps)
- **Flow 3 egress** (mean 16.21 Mbps)

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

- **Flow 1** (95th percentile 114.71 ms)
- **Flow 2** (95th percentile 108.92 ms)
- **Flow 3** (95th percentile 116.55 ms)
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-06 19:27:37
End at: 2018-03-06 19:28:07
Local clock offset: -6.292 ms
Remote clock offset: 25.596 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 51.93 Mbit/s
  95th percentile per-packet one-way delay: 115.524 ms
  Loss rate: 3.40%
-- Flow 1:
  Average throughput: 35.84 Mbit/s
  95th percentile per-packet one-way delay: 113.918 ms
  Loss rate: 1.72%
-- Flow 2:
  Average throughput: 18.27 Mbit/s
  95th percentile per-packet one-way delay: 115.543 ms
  Loss rate: 6.30%
-- Flow 3:
  Average throughput: 12.21 Mbit/s
  95th percentile per-packet one-way delay: 115.655 ms
  Loss rate: 8.90%
Run 10: Report of QUIC Cubic — Data Link

![Graph showing throughput and per-packet one-way delay](image-url)
Run 1: Statistics of SCReAM

Start at: 2018-03-06 15:56:40
End at: 2018-03-06 15:57:10
Local clock offset: -6.453 ms
Remote clock offset: -1.419 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 87.984 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.611 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.369 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.027 ms
Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

Throughput (Mbit/s)

Time (s)

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

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 85.61 ms)  Flow 2 (95th percentile 87.37 ms)  Flow 3 (95th percentile 88.03 ms)
Run 2: Statistics of SCReAM

Start at: 2018-03-06 16:20:26
End at: 2018-03-06 16:20:56
Local clock offset: -6.611 ms
Remote clock offset: -1.205 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
95th percentile per-packet one-way delay: 87.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.448 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.957 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.406 ms
Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-03-06 16:44:09
End at: 2018-03-06 16:44:39
Local clock offset: -6.409 ms
Remote clock offset: -6.081 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 83.353 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 80.928 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 83.384 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 80.806 ms
  Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

![Graph showing throughput and per-packet error rate over time for different flows.]

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

![Graph showing per-packet error rate and delay for different flows.]

- Flow 1 (95th percentile 80.93 ms)
- Flow 2 (95th percentile 83.38 ms)
- Flow 3 (95th percentile 80.81 ms)
Run 4: Statistics of SCReAM

Start at: 2018-03-06 17:07:45
End at: 2018-03-06 17:08:15
Local clock offset: -6.143 ms
Remote clock offset: 0.489 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 89.384 ms
  Loss rate: 0.13%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 89.327 ms
  Loss rate: 0.13%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 89.423 ms
  Loss rate: 0.19%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 87.442 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link
Run 5: Statistics of SCReAM

Start at: 2018-03-06 17:31:11
End at: 2018-03-06 17:31:41
Local clock offset: -5.947 ms
Remote clock offset: -5.163 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 83.689 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.597 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.516 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.747 ms
Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link
Run 6: Statistics of SCReAM

Start at: 2018-03-06 17:54:49
End at: 2018-03-06 17:55:19
Local clock offset: -6.679 ms
Remote clock offset: 0.667 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 89.930 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.964 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.898 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.451 ms
Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-03-06 18:18:39
End at: 2018-03-06 18:19:09
Local clock offset: -6.769 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 88.695 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.617 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.536 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.736 ms
Loss rate: 0.35%
Run 7: Report of SCReAM — Data Link
Run 8: Statistics of SCReAM

Start at: 2018-03-06 18:42:27
End at: 2018-03-06 18:42:57
Local clock offset: -6.841 ms
Remote clock offset: 9.747 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 83.161 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.973 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.572 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.283 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link
Run 9: Statistics of SCReAM

Start at: 2018-03-06 19:06:20
End at: 2018-03-06 19:06:50
Local clock offset: -5.959 ms
Remote clock offset: 20.999 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 88.480 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 88.536 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.721 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 86.624 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

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

- **Throughput**: The graphs illustrate the throughput measured in Mbit/s over a 30-second period, with distinct lines for each flow (1, 2, and 3) indicating ingress and egress data rates.
- **Per-packet-cosmetic delay**: The lower graph shows the per-packet-cosmetic delay in milliseconds (ms) for 5th and 95th percentiles, highlighting the variability in delay across different time intervals.
Run 10: Statistics of SCReAM

Start at: 2018-03-06 19:30:14
End at: 2018-03-06 19:30:44
Local clock offset: -6.296 ms
Remote clock offset: 20.462 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 80.759 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 80.477 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 80.798 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 80.729 ms
  Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link

[Graph showing throughput and one-packet-conveyed-delay with legends for different flows]
Run 1: Statistics of WebRTC media

Start at: 2018-03-06 16:03:06
End at: 2018-03-06 16:03:36
Local clock offset: -6.492 ms
Remote clock offset: -0.337 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.42 Mbit/s
  95th percentile per-packet one-way delay: 88.971 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.97 Mbit/s
  95th percentile per-packet one-way delay: 88.728 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.14 Mbit/s
  95th percentile per-packet one-way delay: 89.039 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.33 Mbit/s
  95th percentile per-packet one-way delay: 89.497 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 1.97 Mbit/s)  
Flow 1 egress (mean 1.97 Mbit/s)  
Flow 2 ingress (mean 1.14 Mbit/s)  
Flow 2 egress (mean 1.14 Mbit/s)  
Flow 3 ingress (mean 0.33 Mbit/s)  
Flow 3 egress (mean 0.33 Mbit/s)

Per-packet one-way delay [ms]

Time (s)

Flow 1 (95th percentile 88.73 ms)  
Flow 2 (95th percentile 89.04 ms)  
Flow 3 (95th percentile 89.50 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-03-06 16:26:51
End at: 2018-03-06 16:27:21
Local clock offset: -6.581 ms
Remote clock offset: -6.223 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.56 Mbit/s
  95th percentile per-packet one-way delay: 83.354 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 81.494 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.19 Mbit/s
  95th percentile per-packet one-way delay: 83.497 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.36 Mbit/s
  95th percentile per-packet one-way delay: 83.281 ms
  Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 2.03 Mbit/s)
Flow 1 egress (mean 2.03 Mbit/s)
Flow 2 ingress (mean 1.19 Mbit/s)
Flow 2 egress (mean 1.19 Mbit/s)
Flow 3 ingress (mean 0.36 Mbit/s)
Flow 3 egress (mean 0.36 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 81.49 ms)
Flow 2 (95th percentile 83.50 ms)
Flow 3 (95th percentile 83.28 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-03-06 16:50:35
End at: 2018-03-06 16:51:05
Local clock offset: -6.402 ms
Remote clock offset: -0.282 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.44 Mbit/s
  95th percentile per-packet one-way delay: 88.392 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.01 Mbit/s
  95th percentile per-packet one-way delay: 87.435 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.21 Mbit/s
  95th percentile per-packet one-way delay: 88.093 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.24 Mbit/s
  95th percentile per-packet one-way delay: 89.452 ms
  Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-03-06 17:14:09
End at: 2018-03-06 17:14:39
Local clock offset: -6.111 ms
Remote clock offset: -6.03 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.46 Mbit/s
  95th percentile per-packet one-way delay: 83.042 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 1.98 Mbit/s
  95th percentile per-packet one-way delay: 81.900 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.19 Mbit/s
  95th percentile per-packet one-way delay: 82.542 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.32 Mbit/s
  95th percentile per-packet one-way delay: 83.858 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

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

Flow 1 ingress (mean 1.98 Mbit/s) — Flow 1 egress (mean 1.98 Mbit/s)
Flow 2 ingress (mean 1.19 Mbit/s) — Flow 2 egress (mean 1.19 Mbit/s)
Flow 3 ingress (mean 0.32 Mbit/s) — Flow 3 egress (mean 0.32 Mbit/s)

Per packet one way delay [ms]:
- Flow 1 (95th percentile 81.90 ms)
- Flow 2 (95th percentile 82.54 ms)
- Flow 3 (95th percentile 81.86 ms)
Run 5: Statistics of WebRTC media

Start at: 2018-03-06 17:37:40
End at: 2018-03-06 17:38:10
Local clock offset: -6.16 ms
Remote clock offset: -5.93 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 83.698 ms
Loss rate: 0.01%

-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 83.656 ms
Loss rate: 0.00%

-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 83.309 ms
Loss rate: 0.00%

-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 84.385 ms
Loss rate: 0.08%
Run 5: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.03 Mbit/s)
- Flow 1 egress (mean 2.03 Mbit/s)
- Flow 2 ingress (mean 1.17 Mbit/s)
- Flow 2 egress (mean 1.17 Mbit/s)
- Flow 3 ingress (mean 0.35 Mbit/s)
- Flow 3 egress (mean 0.35 Mbit/s)

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

- Flow 1 (95th percentile 83.66 ms)
- Flow 2 (95th percentile 83.31 ms)
- Flow 3 (95th percentile 84.39 ms)
Run 6: Statistics of WebRTC media

Start at: 2018-03-06 18:01:14
End at: 2018-03-06 18:01:44
Local clock offset: -6.678 ms
Remote clock offset: -0.246 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 87.254 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 87.093 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 87.341 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 87.289 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link

![Plot 1: Throughput (Mbps)]

- Flow 1 ingress (mean 1.96 Mbps)
- Flow 1 egress (mean 1.96 Mbps)
- Flow 2 ingress (mean 1.20 Mbps)
- Flow 2 egress (mean 1.20 Mbps)
- Flow 3 ingress (mean 0.34 Mbps)
- Flow 3 egress (mean 0.34 Mbps)

![Plot 2: Per-packet round-trip delay (ms)]

- Flow 1 (95th percentile 87.09 ms)
- Flow 2 (95th percentile 87.34 ms)
- Flow 3 (95th percentile 87.29 ms)
Run 7: Statistics of WebRTC media

Start at: 2018-03-06 18:25:06
End at: 2018-03-06 18:25:36
Local clock offset: -6.848 ms
Remote clock offset: -2.343 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.67 Mbit/s
  95th percentile per-packet one-way delay: 82.910 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.07 Mbit/s
  95th percentile per-packet one-way delay: 82.884 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.23 Mbit/s
  95th percentile per-packet one-way delay: 83.013 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 80.959 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link
Run 8: Statistics of WebRTC media

Start at: 2018-03-06 18:48:54
End at: 2018-03-06 18:49:24
Local clock offset: -6.45 ms
Remote clock offset: 11.513 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 83.727 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 83.389 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 83.696 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 84.287 ms
Loss rate: 0.07%
Run 8: Report of WebRTC media — Data Link

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

Legend:
- Flow 1 ingress (mean 2.02 Mbps)
- Flow 1 egress (mean 2.03 Mbps)
- Flow 2 ingress (mean 1.20 Mbps)
- Flow 2 egress (mean 1.21 Mbps)
- Flow 3 ingress (mean 0.41 Mbps)
- Flow 3 egress (mean 0.41 Mbps)
Run 9: Statistics of WebRTC media

Start at: 2018-03-06 19:12:46
End at: 2018-03-06 19:13:16
Local clock offset: -5.874 ms
Remote clock offset: 17.584 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.33 Mbit/s
95th percentile per-packet one-way delay: 83.820 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 82.196 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 83.952 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 83.441 ms
Loss rate: 0.12%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-03-06 19:36:40
End at: 2018-03-06 19:37:10
Local clock offset: -5.123 ms
Remote clock offset: 13.685 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.67 Mbit/s
  95th percentile per-packet one-way delay: 90.210 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 90.268 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.23 Mbit/s
  95th percentile per-packet one-way delay: 88.101 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 90.438 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link
Run 1: Statistics of Sprout

Start at: 2018-03-06 16:01:52
End at: 2018-03-06 16:02:22
Local clock offset: -6.491 ms
Remote clock offset: -5.157 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.54 Mbit/s
95th percentile per-packet one-way delay: 89.786 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 90.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 87.795 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.00 Mbit/s
95th percentile per-packet one-way delay: 89.941 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link

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**Throughput (Mbps):**
- Flow 1 ingress (mean 3.30 Mbps)
- Flow 1 egress (mean 3.30 Mbps)
- Flow 2 ingress (mean 3.38 Mbps)
- Flow 2 egress (mean 3.38 Mbps)
- Flow 3 ingress (mean 3.00 Mbps)
- Flow 3 egress (mean 3.00 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 90.45 ms)
- Flow 2 (95th percentile 87.80 ms)
- Flow 3 (95th percentile 89.94 ms)
Run 2: Statistics of Sprout

Start at: 2018-03-06 16:25:37
End at: 2018-03-06 16:26:07
Local clock offset: -6.591 ms
Remote clock offset: -5.298 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.62 Mbit/s
  95th percentile per-packet one-way delay: 87.699 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.00 Mbit/s
  95th percentile per-packet one-way delay: 87.510 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.10 Mbit/s
  95th percentile per-packet one-way delay: 88.288 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.66 Mbit/s
  95th percentile per-packet one-way delay: 85.263 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

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

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

Legend:
- Flow 1 ingress (mean 3.00 Mbit/s)
- Flow 1 egress (mean 3.00 Mbit/s)
- Flow 2 ingress (mean 3.10 Mbit/s)
- Flow 2 egress (mean 3.10 Mbit/s)
- Flow 3 ingress (mean 1.66 Mbit/s)
- Flow 3 egress (mean 1.66 Mbit/s)
Run 3: Statistics of Sprout

Start at: 2018-03-06 16:49:21
End at: 2018-03-06 16:49:51
Local clock offset: -6.401 ms
Remote clock offset: -6.033 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.46 Mbit/s
  95th percentile per-packet one-way delay: 88.935 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.13 Mbit/s
  95th percentile per-packet one-way delay: 88.634 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.69 Mbit/s
  95th percentile per-packet one-way delay: 89.209 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.67 Mbit/s
  95th percentile per-packet one-way delay: 89.125 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

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

- **Throughput (Mbps)**:
  - Flow 1 ingress (mean 3.13 Mbps)
  - Flow 1 egress (mean 3.13 Mbps)
  - Flow 2 ingress (mean 3.69 Mbps)
  - Flow 2 egress (mean 3.69 Mbps)
  - Flow 3 ingress (mean 2.67 Mbps)
  - Flow 3 egress (mean 2.67 Mbps)

- **Per-packet one-way delay (ms)**:
  - Flow 1 (95th percentile 88.63 ms)
  - Flow 2 (95th percentile 89.21 ms)
  - Flow 3 (95th percentile 89.12 ms)
Run 4: Statistics of Sprout

Start at: 2018-03-06 17:12:55
End at: 2018-03-06 17:13:25
Local clock offset: -6.037 ms
Remote clock offset: -0.435 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.08 Mbit/s
95th percentile per-packet one-way delay: 94.453 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 94.365 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.18 Mbit/s
95th percentile per-packet one-way delay: 94.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 94.919 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

![Graph 1: Throughput (Mbps)](chart1)

- Flow 1 ingress (mean 4.19 Mbps)
- Flow 1 egress (mean 4.19 Mbps)
- Flow 2 ingress (mean 3.18 Mbps)
- Flow 2 egress (mean 3.18 Mbps)
- Flow 3 ingress (mean 2.34 Mbps)
- Flow 3 egress (mean 2.34 Mbps)

![Graph 2: Per-packet one way delay (ms)](chart2)

- Flow 1 (95th percentile 94.36 ms)
- Flow 2 (95th percentile 94.50 ms)
- Flow 3 (95th percentile 94.92 ms)
Run 5: Statistics of Sprout

Start at: 2018-03-06 17:36:26
End at: 2018-03-06 17:36:56
Local clock offset: -6.01 ms
Remote clock offset: -5.975 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.95 Mbit/s
  95th percentile per-packet one-way delay: 88.826 ms
  Loss rate: 0.39%
-- Flow 1:
  Average throughput: 3.72 Mbit/s
  95th percentile per-packet one-way delay: 89.396 ms
  Loss rate: 0.73%
-- Flow 2:
  Average throughput: 3.83 Mbit/s
  95th percentile per-packet one-way delay: 87.961 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 86.444 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link
Run 6: Statistics of Sprout

Start at: 2018-03-06 18:00:00
End at: 2018-03-06 18:00:30
Local clock offset: -6.737 ms
Remote clock offset: -5.875 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.66 Mbit/s
  95th percentile per-packet one-way delay: 88.119 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 3.44 Mbit/s
  95th percentile per-packet one-way delay: 88.690 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.77 Mbit/s
  95th percentile per-packet one-way delay: 87.420 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 2.17 Mbit/s
  95th percentile per-packet one-way delay: 86.866 ms
  Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

Graph 1: Throughput (Mbps)
- Flow 1 ingress (mean 3.44 Mbps)
- Flow 1 egress (mean 3.44 Mbps)
- Flow 2 ingress (mean 3.77 Mbps)
- Flow 2 egress (mean 3.77 Mbps)
- Flow 3 ingress (mean 2.17 Mbps)
- Flow 3 egress (mean 2.17 Mbps)

Graph 2: Per packet one way delay (ms)
- Flow 1 (95th percentile 88.69 ms)
- Flow 2 (95th percentile 87.42 ms)
- Flow 3 (95th percentile 86.87 ms)
Run 7: Statistics of Sprout

Start at: 2018-03-06 18:23:52
End at: 2018-03-06 18:24:22
Local clock offset: -6.844 ms
Remote clock offset: 1.608 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 92.222 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.41 Mbit/s
95th percentile per-packet one-way delay: 91.921 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 92.903 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 90.023 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link
Run 8: Statistics of Sprout

Start at: 2018-03-06 18:47:40
End at: 2018-03-06 18:48:10
Local clock offset: -6.512 ms
Remote clock offset: 12.039 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.84 Mbit/s
95th percentile per-packet one-way delay: 88.724 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 88.854 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 88.272 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 89.606 ms
Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

![Graph of Throughput vs Time](image1.png)

![Graph of Per Packet One Way Delay vs Time](image2.png)
Run 9: Statistics of Sprout

Start at: 2018-03-06 19:11:32
End at: 2018-03-06 19:12:02
Local clock offset: -5.906 ms
Remote clock offset: 17.358 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.16 Mbit/s
95th percentile per-packet one-way delay: 88.592 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 87.653 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 90.068 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 87.903 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link

![Graph 1: Throughput over time](image)

![Graph 2: Per-packet one-way delay](image)
Run 10: Statistics of Sprout

Start at: 2018-03-06 19:35:26
End at: 2018-03-06 19:35:56
Local clock offset: -6.349 ms
Remote clock offset: 10.623 ms

# Below is generated by plot.py at 2018-03-06 20:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 90.375 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 89.987 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 90.521 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 3.72 Mbit/s
95th percentile per-packet one-way delay: 90.748 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 2.92 Mbit/s)
Flow 1 egress (mean 2.92 Mbit/s)
Flow 2 ingress (mean 3.06 Mbit/s)
Flow 2 egress (mean 3.04 Mbit/s)
Flow 3 ingress (mean 3.72 Mbit/s)
Flow 3 egress (mean 3.72 Mbit/s)

Per packet one way delay [ms]

Time (s)

Flow 1 (95th percentile 89.99 ms)
Flow 2 (95th percentile 90.52 ms)
Flow 3 (95th percentile 90.75 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-06 15:59:11
End at: 2018-03-06 15:59:41
Local clock offset: -6.499 ms
Remote clock offset: -6.102 ms

# Below is generated by plot.py at 2018-03-06 20:13:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.32 Mbit/s
95th percentile per-packet one-way delay: 112.529 ms
Loss rate: 7.54%
-- Flow 1:
Average throughput: 44.43 Mbit/s
95th percentile per-packet one-way delay: 112.523 ms
Loss rate: 5.88%
-- Flow 2:
Average throughput: 25.90 Mbit/s
95th percentile per-packet one-way delay: 112.410 ms
Loss rate: 9.12%
-- Flow 3:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 112.646 ms
Loss rate: 10.93%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-06 16:22:56
End at: 2018-03-06 16:23:26
Local clock offset: -6.589 ms
Remote clock offset: -6.07 ms

# Below is generated by plot.py at 2018-03-06 20:13:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.44 Mbit/s
  95th percentile per-packet one-way delay: 111.601 ms
  Loss rate: 6.68%
-- Flow 1:
  Average throughput: 55.64 Mbit/s
  95th percentile per-packet one-way delay: 110.634 ms
  Loss rate: 4.39%
-- Flow 2:
  Average throughput: 27.84 Mbit/s
  95th percentile per-packet one-way delay: 112.697 ms
  Loss rate: 11.42%
-- Flow 3:
  Average throughput: 13.17 Mbit/s
  95th percentile per-packet one-way delay: 112.692 ms
  Loss rate: 13.42%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-06 16:46:39
End at: 2018-03-06 16:47:09
Local clock offset: -6.429 ms
Remote clock offset: 0.495 ms

# Below is generated by plot.py at 2018-03-06 20:13:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.99 Mbit/s
95th percentile per-packet one-way delay: 118.692 ms
Loss rate: 5.86%
-- Flow 1:
Average throughput: 44.60 Mbit/s
95th percentile per-packet one-way delay: 118.555 ms
Loss rate: 4.14%
-- Flow 2:
Average throughput: 34.27 Mbit/s
95th percentile per-packet one-way delay: 119.041 ms
Loss rate: 8.29%
-- Flow 3:
Average throughput: 26.07 Mbit/s
95th percentile per-packet one-way delay: 117.467 ms
Loss rate: 8.01%
Run 3: Report of TaoVA-100x — Data Link

![Graph showing throughput and delay data](image-url)

- **Throughput:**
  - Flow 1 ingress: Mean 46.56 Mbit/s
  - Flow 1 egress: Mean 44.60 Mbit/s
  - Flow 2 ingress: Mean 37.41 Mbit/s
  - Flow 2 egress: Mean 34.27 Mbit/s
  - Flow 3 ingress: Mean 28.35 Mbit/s
  - Flow 3 egress: Mean 26.07 Mbit/s

- **Delay:**
  - Flow 1 (95th percentile): 118.56 ms
  - Flow 2 (95th percentile): 119.04 ms
  - Flow 3 (95th percentile): 117.47 ms
Run 4: Statistics of TaoVA-100x

Start at: 2018-03-06 17:10:14
End at: 2018-03-06 17:10:44
Local clock offset: -6.1 ms
Remote clock offset: -0.341 ms

# Below is generated by plot.py at 2018-03-06 20:13:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.80 Mbit/s
95th percentile per-packet one-way delay: 116.981 ms
Loss rate: 4.52%
-- Flow 1:
Average throughput: 38.26 Mbit/s
95th percentile per-packet one-way delay: 115.906 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 30.50 Mbit/s
95th percentile per-packet one-way delay: 117.662 ms
Loss rate: 6.12%
-- Flow 3:
Average throughput: 21.98 Mbit/s
95th percentile per-packet one-way delay: 124.163 ms
Loss rate: 10.62%
Run 4: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 39.19 Mbit/s)
Flow 1 egress (mean 38.26 Mbit/s)
Flow 2 ingress (mean 32.50 Mbit/s)
Flow 2 egress (mean 30.50 Mbit/s)
Flow 3 ingress (mean 24.61 Mbit/s)
Flow 3 egress (mean 21.98 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 115.91 ms)
Flow 2 (95th percentile 117.66 ms)
Flow 3 (95th percentile 124.16 ms)
Run 5: Statistics of TaoVA-100x

Start at: 2018-03-06 17:33:42
End at: 2018-03-06 17:34:12
Local clock offset: -5.86 ms
Remote clock offset: -1.113 ms

# Below is generated by plot.py at 2018-03-06 20:13:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.65 Mbit/s
95th percentile per-packet one-way delay: 116.412 ms
Loss rate: 5.28%
-- Flow 1:
Average throughput: 41.54 Mbit/s
95th percentile per-packet one-way delay: 116.685 ms
Loss rate: 3.70%
-- Flow 2:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 115.473 ms
Loss rate: 6.63%
-- Flow 3:
Average throughput: 27.29 Mbit/s
95th percentile per-packet one-way delay: 117.126 ms
Loss rate: 8.35%
Run 5: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 43.15 Mbit/s)
Flow 1 egress (mean 41.54 Mbit/s)
Flow 2 ingress (mean 41.93 Mbit/s)
Flow 2 egress (mean 39.12 Mbit/s)
Flow 3 ingress (mean 29.81 Mbit/s)
Flow 3 egress (mean 27.29 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 116.69 ms)
Flow 2 (95th percentile 115.47 ms)
Flow 3 (95th percentile 117.13 ms)
Run 6: Statistics of TaoVA-100x

Start at: 2018-03-06 17:57:18
End at: 2018-03-06 17:57:48
Local clock offset: -6.671 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2018-03-06 20:13:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 75.94 Mbit/s
  95th percentile per-packet one-way delay: 117.864 ms
  Loss rate: 7.45%
-- Flow 1:
  Average throughput: 48.36 Mbit/s
  95th percentile per-packet one-way delay: 117.689 ms
  Loss rate: 5.87%
-- Flow 2:
  Average throughput: 24.44 Mbit/s
  95th percentile per-packet one-way delay: 118.447 ms
  Loss rate: 10.31%
-- Flow 3:
  Average throughput: 34.61 Mbit/s
  95th percentile per-packet one-way delay: 116.608 ms
  Loss rate: 9.73%
Run 6: Report of TaoVA-100x — Data Link

![Graph showing throughput and per-packet one-way delay over time.]
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-06 18:21:09
End at: 2018-03-06 18:21:39
Local clock offset: -6.754 ms
Remote clock offset: -5.695 ms

# Below is generated by plot.py at 2018-03-06 20:13:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.56 Mbit/s
95th percentile per-packet one-way delay: 112.430 ms
Loss rate: 6.20%
-- Flow 1:
Average throughput: 43.24 Mbit/s
95th percentile per-packet one-way delay: 112.378 ms
Loss rate: 5.09%
-- Flow 2:
Average throughput: 44.56 Mbit/s
95th percentile per-packet one-way delay: 112.454 ms
Loss rate: 6.91%
-- Flow 3:
Average throughput: 17.49 Mbit/s
95th percentile per-packet one-way delay: 112.643 ms
Loss rate: 10.58%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-03-06 18:44:58
End at: 2018-03-06 18:45:28
Local clock offset: -6.682 ms
Remote clock offset: 11.267 ms

# Below is generated by plot.py at 2018-03-06 20:13:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 77.44 Mbit/s
  95th percentile per-packet one-way delay: 111.398 ms
  Loss rate: 5.85%
-- Flow 1:
  Average throughput: 47.15 Mbit/s
  95th percentile per-packet one-way delay: 111.386 ms
  Loss rate: 3.40%
-- Flow 2:
  Average throughput: 34.99 Mbit/s
  95th percentile per-packet one-way delay: 111.422 ms
  Loss rate: 8.50%
-- Flow 3:
  Average throughput: 21.25 Mbit/s
  95th percentile per-packet one-way delay: 111.362 ms
  Loss rate: 12.24%
Run 8: Report of TaoVA-100x — Data Link

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

- **Flow 1 Ingress** (mean 48.86 Mbps)
- **Flow 1 Egress** (mean 47.15 Mbps)
- **Flow 2 Ingress** (mean 38.28 Mbps)
- **Flow 2 Egress** (mean 34.99 Mbps)
- **Flow 3 Ingress** (mean 24.28 Mbps)
- **Flow 3 Egress** (mean 21.25 Mbps)

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

- **Flow 1 (95th percentile 111.39 ms)**
- **Flow 2 (95th percentile 111.42 ms)**
- **Flow 3 (95th percentile 111.36 ms)**
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-06 19:08:51
End at: 2018-03-06 19:09:21
Local clock offset: -5.949 ms
Remote clock offset: 22.315 ms

# Below is generated by plot.py at 2018-03-06 20:15:11
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 75.33 Mbit/s
  95th percentile per-packet one-way delay: 117.271 ms
  Loss rate: 5.92%
-- Flow 1:
  Average throughput: 45.25 Mbit/s
  95th percentile per-packet one-way delay: 116.637 ms
  Loss rate: 3.88%
-- Flow 2:
  Average throughput: 32.24 Mbit/s
  95th percentile per-packet one-way delay: 117.814 ms
  Loss rate: 9.04%
-- Flow 3:
  Average throughput: 26.13 Mbit/s
  95th percentile per-packet one-way delay: 117.308 ms
  Loss rate: 8.29%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-06 19:32:44
End at: 2018-03-06 19:33:14
Local clock offset: -6.358 ms
Remote clock offset: 23.617 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.47 Mbit/s
  95th percentile per-packet one-way delay: 118.990 ms
  Loss rate: 6.30%
-- Flow 1:
  Average throughput: 55.98 Mbit/s
  95th percentile per-packet one-way delay: 118.280 ms
  Loss rate: 4.33%
-- Flow 2:
  Average throughput: 26.81 Mbit/s
  95th percentile per-packet one-way delay: 120.368 ms
  Loss rate: 10.18%
-- Flow 3:
  Average throughput: 17.06 Mbit/s
  95th percentile per-packet one-way delay: 118.755 ms
  Loss rate: 12.19%
Run 10: Report of TaoVA-100x — Data Link

![Graph of throughput over time for different flows with different colors and legends indicating mean throughput for each flow.]

- **Flow 1 ingress** (mean 58.53 Mbit/s)
- **Flow 1 egress** (mean 55.98 Mbit/s)
- **Flow 2 ingress** (mean 29.86 Mbit/s)
- **Flow 2 egress** (mean 26.81 Mbit/s)
- **Flow 3 ingress** (mean 19.39 Mbit/s)
- **Flow 3 egress** (mean 17.06 Mbit/s)

![Graph of per-packet one-way delay over time for different flows with different colors and legends indicating 95th percentile delay for each flow.]

- **Flow 1** (95th percentile 118.28 ms)
- **Flow 2** (95th percentile 120.37 ms)
- **Flow 3** (95th percentile 118.75 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-03-06 15:57:54
End at: 2018-03-06 15:58:24
Local clock offset: -6.473 ms
Remote clock offset: -6.146 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 59.19 Mbit/s
  95th percentile per-packet one-way delay: 89.337 ms
  Loss rate: 0.73%
-- Flow 1:
  Average throughput: 25.22 Mbit/s
  95th percentile per-packet one-way delay: 87.980 ms
  Loss rate: 0.52%
-- Flow 2:
  Average throughput: 32.54 Mbit/s
  95th percentile per-packet one-way delay: 91.003 ms
  Loss rate: 0.57%
-- Flow 3:
  Average throughput: 37.04 Mbit/s
  95th percentile per-packet one-way delay: 88.689 ms
  Loss rate: 1.45%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-03-06 16:21:39
End at: 2018-03-06 16:22:09
Local clock offset: -6.578 ms
Remote clock offset: -0.451 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 55.38 Mbit/s
  95th percentile per-packet one-way delay: 98.623 ms
  Loss rate: 0.95%
-- Flow 1:
  Average throughput: 21.66 Mbit/s
  95th percentile per-packet one-way delay: 99.865 ms
  Loss rate: 0.91%
-- Flow 2:
  Average throughput: 32.18 Mbit/s
  95th percentile per-packet one-way delay: 98.971 ms
  Loss rate: 0.59%
-- Flow 3:
  Average throughput: 37.04 Mbit/s
  95th percentile per-packet one-way delay: 92.709 ms
  Loss rate: 1.65%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-03-06 16:45:22
End at: 2018-03-06 16:45:52
Local clock offset: -6.416 ms
Remote clock offset: -1.245 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 60.59 Mbit/s
  95th percentile per-packet one-way delay: 94.533 ms
  Loss rate: 0.74%
-- Flow 1:
  Average throughput: 27.12 Mbit/s
  95th percentile per-packet one-way delay: 94.514 ms
  Loss rate: 0.50%
-- Flow 2:
  Average throughput: 31.71 Mbit/s
  95th percentile per-packet one-way delay: 94.431 ms
  Loss rate: 0.55%
-- Flow 3:
  Average throughput: 37.28 Mbit/s
  95th percentile per-packet one-way delay: 94.675 ms
  Loss rate: 1.58%
Run 3: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 27.36 Mbit/s)
- Flow 1 egress (mean 27.12 Mbit/s)
- Flow 2 ingress (mean 31.89 Mbit/s)
- Flow 2 egress (mean 31.71 Mbit/s)
- Flow 3 ingress (mean 37.87 Mbit/s)
- Flow 3 egress (mean 37.28 Mbit/s)

Per packet one way delay (ms)

- Flow 1 (95th percentile 94.51 ms)
- Flow 2 (95th percentile 94.43 ms)
- Flow 3 (95th percentile 94.67 ms)
Run 4: Statistics of TCP Vegas

Start at: 2018-03-06 17:08:58
End at: 2018-03-06 17:09:28
Local clock offset: -6.133 ms
Remote clock offset: -0.313 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.08 Mbit/s
95th percentile per-packet one-way delay: 98.916 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 15.88 Mbit/s
95th percentile per-packet one-way delay: 101.927 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 97.109 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 28.92 Mbit/s
95th percentile per-packet one-way delay: 98.444 ms
Loss rate: 1.50%
Run 4: Report of TCP Vegas — Data Link
Run 5: Statistics of TCP Vegas

Start at: 2018-03-06 17:32:25
End at: 2018-03-06 17:32:55
Local clock offset: -5.846 ms
Remote clock offset: -5.145 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.11 Mbit/s
95th percentile per-packet one-way delay: 93.772 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 37.32 Mbit/s
95th percentile per-packet one-way delay: 94.005 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 41.52 Mbit/s
95th percentile per-packet one-way delay: 90.728 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 12.42 Mbit/s
95th percentile per-packet one-way delay: 103.630 ms
Loss rate: 0.14%
Run 5: Report of TCP Vegas — Data Link

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

Legend:
- Blue dashed line: Flow 1 ingress (mean 37.45 Mbit/s)
- Blue solid line: Flow 1 egress (mean 37.32 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 41.70 Mbit/s)
- Green solid line: Flow 2 egress (mean 41.52 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 12.44 Mbit/s)
- Red solid line: Flow 3 egress (mean 12.42 Mbit/s)

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

Legend:
- Blue line with circles: Flow 1 (95th percentile 94.00 ms)
- Green line with circles: Flow 2 (95th percentile 90.73 ms)
- Red line with circles: Flow 3 (95th percentile 103.63 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-03-06 17:56:02
End at: 2018-03-06 17:56:32
Local clock offset: -6.634 ms
Remote clock offset: -4.988 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.22 Mbit/s
95th percentile per-packet one-way delay: 100.921 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 14.50 Mbit/s
95th percentile per-packet one-way delay: 100.542 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 27.91 Mbit/s
95th percentile per-packet one-way delay: 101.081 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 21.55 Mbit/s
95th percentile per-packet one-way delay: 103.659 ms
Loss rate: 2.35%
Run 6: Report of TCP Vegas — Data Link

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Throughput (Mbps/s) vs Time (s)

- Flow 1 ingress (mean 14.69 Mbps)
- Flow 1 egress (mean 14.50 Mbps)
- Flow 2 ingress (mean 28.12 Mbps)
- Flow 2 egress (mean 27.91 Mbps)
- Flow 3 ingress (mean 22.03 Mbps)
- Flow 3 egress (mean 21.55 Mbps)

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Per packet one way delay (ms) vs Time (s)

- Flow 1 (95th percentile 100.54 ms)
- Flow 2 (95th percentile 101.08 ms)
- Flow 3 (95th percentile 103.66 ms)
Run 7: Statistics of TCP Vegas

Start at: 2018-03-06 18:19:53
End at: 2018-03-06 18:20:23
Local clock offset: -6.77 ms
Remote clock offset: -0.829 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.45 Mbit/s
95th percentile per-packet one-way delay: 102.493 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 21.20 Mbit/s
95th percentile per-packet one-way delay: 99.275 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 103.143 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 21.42 Mbit/s
95th percentile per-packet one-way delay: 108.039 ms
Loss rate: 2.41%
Run 7: Report of TCP Vegas — Data Link
Run 8: Statistics of TCP Vegas

Start at: 2018-03-06 18:43:41
End at: 2018-03-06 18:44:11
Local clock offset: -6.78 ms
Remote clock offset: 10.898 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.46 Mbit/s
95th percentile per-packet one-way delay: 89.695 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 26.16 Mbit/s
95th percentile per-packet one-way delay: 86.849 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 32.73 Mbit/s
95th percentile per-packet one-way delay: 93.509 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 37.65 Mbit/s
95th percentile per-packet one-way delay: 90.141 ms
Loss rate: 1.39%
Run 8: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 26.29 Mbit/s)
- Flow 1 egress (mean 26.16 Mbit/s)
- Flow 2 ingress (mean 32.95 Mbit/s)
- Flow 2 egress (mean 32.73 Mbit/s)
- Flow 3 ingress (mean 38.18 Mbit/s)
- Flow 3 egress (mean 37.65 Mbit/s)

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

- Flow 1 (95th percentile 86.85 ms)
- Flow 2 (95th percentile 93.51 ms)
- Flow 3 (95th percentile 90.14 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-03-06 19:07:34
End at: 2018-03-06 19:08:04
Local clock offset: -6.038 ms
Remote clock offset: 15.504 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.43 Mbit/s
95th percentile per-packet one-way delay: 88.092 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 27.45 Mbit/s
95th percentile per-packet one-way delay: 87.781 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 88.889 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 38.03 Mbit/s
95th percentile per-packet one-way delay: 87.032 ms
Loss rate: 1.37%
Run 9: Report of TCP Vegas — Data Link

![Throughput Graph](image1)

*Flow 1 ingress (mean 27.60 Mbit/s) - Flow 1 egress (mean 27.45 Mbit/s)*
*Flow 2 ingress (mean 30.77 Mbit/s) - Flow 2 egress (mean 30.59 Mbit/s)*
*Flow 3 ingress (mean 38.57 Mbit/s) - Flow 3 egress (mean 30.03 Mbit/s)*

![Packet Delay Graph](image2)

*Flow 1 (95th percentile 87.78 ms) - Flow 2 (95th percentile 88.89 ms) - Flow 3 (95th percentile 87.03 ms)*
Run 10: Statistics of TCP Vegas

Start at: 2018-03-06 19:31:27
End at: 2018-03-06 19:31:57
Local clock offset: -6.327 ms
Remote clock offset: 27.159 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.94 Mbit/s
95th percentile per-packet one-way delay: 97.665 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 26.45 Mbit/s
95th percentile per-packet one-way delay: 97.604 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 22.74 Mbit/s
95th percentile per-packet one-way delay: 99.303 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 37.17 Mbit/s
95th percentile per-packet one-way delay: 94.464 ms
Loss rate: 1.01%
Run 10: Report of TCP Vegas — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 Ingress (mean 26.58 Mbit/s)
- Flow 1 Egress (mean 26.45 Mbit/s)
- Flow 2 Ingress (mean 22.94 Mbit/s)
- Flow 2 Egress (mean 22.74 Mbit/s)
- Flow 3 Ingress (mean 37.55 Mbit/s)
- Flow 3 Egress (mean 37.17 Mbit/s)

![Graph 2: Per Packet One-Way Delay vs Time]

- Flow 1 (95th percentile 97.60 ms)
- Flow 2 (95th percentile 99.30 ms)
- Flow 3 (95th percentile 94.46 ms)
Run 1: Statistics of Verus

Start at: 2018-03-06 15:43:31
End at: 2018-03-06 15:44:01
Local clock offset: -6.414 ms
Remote clock offset: -6.334 ms

# Below is generated by plot.py at 2018-03-06 20:15:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.77 Mbit/s
95th percentile per-packet one-way delay: 113.169 ms
Loss rate: 27.23%
-- Flow 1:
Average throughput: 26.16 Mbit/s
95th percentile per-packet one-way delay: 113.047 ms
Loss rate: 20.10%
-- Flow 2:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 113.563 ms
Loss rate: 37.07%
-- Flow 3:
Average throughput: 6.91 Mbit/s
95th percentile per-packet one-way delay: 111.071 ms
Loss rate: 19.08%
Run 1: Report of Verus — Data Link

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

- **Flow 1 ingress (mean 32.76 Mbit/s)**
- **Flow 1 egress (mean 26.16 Mbit/s)**
- **Flow 2 ingress (mean 39.44 Mbit/s)**
- **Flow 2 egress (mean 24.78 Mbit/s)**
- **Flow 3 ingress (mean 8.56 Mbit/s)**
- **Flow 3 egress (mean 6.91 Mbit/s)**

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

- **Flow 1 (95th percentile 113.05 ms)**
- **Flow 2 (95th percentile 113.56 ms)**
- **Flow 3 (95th percentile 111.07 ms)**
Run 2: Statistics of Verus

Start at: 2018-03-06 16:07:02
End at: 2018-03-06 16:07:32
Local clock offset: -6.5 ms
Remote clock offset: -5.968 ms

# Below is generated by plot.py at 2018-03-06 20:15:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 47.85 Mbit/s
  95th percentile per-packet one-way delay: 136.646 ms
  Loss rate: 73.03%
-- Flow 1:
  Average throughput: 35.33 Mbit/s
  95th percentile per-packet one-way delay: 128.026 ms
  Loss rate: 65.90%
-- Flow 2:
  Average throughput: 17.98 Mbit/s
  95th percentile per-packet one-way delay: 150.820 ms
  Loss rate: 83.67%
-- Flow 3:
  Average throughput: 2.27 Mbit/s
  95th percentile per-packet one-way delay: 108.527 ms
  Loss rate: 10.01%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2018-03-06 16:30:47
End at: 2018-03-06 16:31:17
Local clock offset: -6.544 ms
Remote clock offset: -1.347 ms

# Below is generated by plot.py at 2018-03-06 20:15:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.39 Mbit/s
95th percentile per-packet one-way delay: 117.308 ms
Loss rate: 12.84%
-- Flow 1:
Average throughput: 25.66 Mbit/s
95th percentile per-packet one-way delay: 118.280 ms
Loss rate: 12.01%
-- Flow 2:
Average throughput: 22.98 Mbit/s
95th percentile per-packet one-way delay: 116.492 ms
Loss rate: 12.59%
-- Flow 3:
Average throughput: 17.49 Mbit/s
95th percentile per-packet one-way delay: 116.746 ms
Loss rate: 17.01%
Run 3: Report of Verus — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 29.17 Mbps)
- Flow 2 ingress (mean 26.34 Mbps)
- Flow 3 ingress (mean 21.10 Mbps)
- Flow 1 egress (mean 25.66 Mbps)
- Flow 2 egress (mean 22.98 Mbps)
- Flow 3 egress (mean 17.49 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 118.28 ms)
- Flow 2 (95th percentile 116.49 ms)
- Flow 3 (95th percentile 116.75 ms)
Run 4: Statistics of Verus

Start at: 2018-03-06 16:54:30
End at: 2018-03-06 16:55:00
Local clock offset: -6.412 ms
Remote clock offset: 0.561 ms

# Below is generated by plot.py at 2018-03-06 20:17:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.95 Mbit/s
95th percentile per-packet one-way delay: 181.968 ms
Loss rate: 88.72%
-- Flow 1:
Average throughput: 52.93 Mbit/s
95th percentile per-packet one-way delay: 181.971 ms
Loss rate: 88.73%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 140.086 ms
Loss rate: 69.39%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 152.088 ms
Loss rate: 54.12%

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Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-03-06 17:18:04
End at: 2018-03-06 17:18:34
Local clock offset: -6.009 ms
Remote clock offset: -1.125 ms

# Below is generated by plot.py at 2018-03-06 20:17:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.83 Mbit/s
95th percentile per-packet one-way delay: 117.027 ms
Loss rate: 25.06%
-- Flow 1:
Average throughput: 22.58 Mbit/s
95th percentile per-packet one-way delay: 116.695 ms
Loss rate: 11.11%
-- Flow 2:
Average throughput: 19.40 Mbit/s
95th percentile per-packet one-way delay: 116.861 ms
Loss rate: 8.26%
-- Flow 3:
Average throughput: 29.15 Mbit/s
95th percentile per-packet one-way delay: 117.894 ms
Loss rate: 53.92%
Run 5: Report of Verus — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 25.40 Mbit/s) — Flow 1 egress (mean 22.58 Mbit/s)
Flow 2 ingress (mean 21.15 Mbit/s) — Flow 2 egress (mean 19.40 Mbit/s)
Flow 3 ingress (mean 63.30 Mbit/s) — Flow 3 egress (mean 29.15 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 116.69 ms) — Flow 2 (95th percentile 116.86 ms) — Flow 3 (95th percentile 117.89 ms)
Run 6: Statistics of Verus

Start at: 2018-03-06 17:41:38  
End at: 2018-03-06 17:42:08  
Local clock offset: -6.306 ms  
Remote clock offset: -0.353 ms

# Below is generated by plot.py at 2018-03-06 20:17:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 40.16 Mbit/s
  95th percentile per-packet one-way delay: 116.961 ms
  Loss rate: 13.30%
-- Flow 1:
  Average throughput: 22.00 Mbit/s
  95th percentile per-packet one-way delay: 116.789 ms
  Loss rate: 11.38%
-- Flow 2:
  Average throughput: 16.05 Mbit/s
  95th percentile per-packet one-way delay: 119.423 ms
  Loss rate: 10.49%
-- Flow 3:
  Average throughput: 23.13 Mbit/s
  95th percentile per-packet one-way delay: 117.182 ms
  Loss rate: 21.76%
Run 6: Report of Verus — Data Link

![Graph showing data link throughput and delay](image)

- Flow 1 ingress (mean 24.82 Mbit/s)
- Flow 1 egress (mean 22.00 Mbit/s)
- Flow 2 ingress (mean 17.94 Mbit/s)
- Flow 2 egress (mean 16.05 Mbit/s)
- Flow 3 ingress (mean 29.65 Mbit/s)
- Flow 3 egress (mean 23.13 Mbit/s)

- Flow 1 (95th percentile 116.79 ms)
- Flow 2 (95th percentile 119.42 ms)
- Flow 3 (95th percentile 117.18 ms)
Run 7: Statistics of Verus

Start at: 2018-03-06 18:05:10
End at: 2018-03-06 18:05:40
Local clock offset: -6.712 ms
Remote clock offset: -4.939 ms

# Below is generated by plot.py at 2018-03-06 20:17:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 47.76 Mbit/s
  95th percentile per-packet one-way delay: 136.364 ms
  Loss rate: 57.00%
-- Flow 1:
  Average throughput: 21.45 Mbit/s
  95th percentile per-packet one-way delay: 112.468 ms
  Loss rate: 21.59%
-- Flow 2:
  Average throughput: 26.97 Mbit/s
  95th percentile per-packet one-way delay: 114.167 ms
  Loss rate: 32.59%
-- Flow 3:
  Average throughput: 29.76 Mbit/s
  95th percentile per-packet one-way delay: 152.699 ms
  Loss rate: 83.97%
Run 7: Report of Verus — Data Link
Run 8: Statistics of Verus

Start at: 2018-03-06 18:29:02
End at: 2018-03-06 18:29:32
Local clock offset: -6.845 ms
Remote clock offset: 3.219 ms

# Below is generated by plot.py at 2018-03-06 20:17:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.93 Mbit/s
95th percentile per-packet one-way delay: 141.535 ms
Loss rate: 63.09%
-- Flow 1:
Average throughput: 31.48 Mbit/s
95th percentile per-packet one-way delay: 147.634 ms
Loss rate: 69.11%
-- Flow 2:
Average throughput: 14.91 Mbit/s
95th percentile per-packet one-way delay: 113.628 ms
Loss rate: 14.93%
-- Flow 3:
Average throughput: 14.19 Mbit/s
95th percentile per-packet one-way delay: 149.959 ms
Loss rate: 58.10%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

Start at: 2018-03-06 18:52:50
End at: 2018-03-06 18:53:20
Local clock offset: -6.291 ms
Remote clock offset: 12.432 ms

# Below is generated by plot.py at 2018-03-06 20:17:30
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 44.58 Mbit/s
  95th percentile per-packet one-way delay: 113.471 ms
  Loss rate: 26.49%
-- Flow 1:
  Average throughput: 29.84 Mbit/s
  95th percentile per-packet one-way delay: 113.599 ms
  Loss rate: 26.79%
-- Flow 2:
  Average throughput: 19.25 Mbit/s
  95th percentile per-packet one-way delay: 111.149 ms
  Loss rate: 27.08%
-- Flow 3:
  Average throughput: 6.40 Mbit/s
  95th percentile per-packet one-way delay: 113.043 ms
  Loss rate: 17.49%
Run 10: Statistics of Verus

Start at: 2018-03-06 19:16:42
End at: 2018-03-06 19:17:12
Local clock offset: -5.82 ms
Remote clock offset: 24.199 ms

# Below is generated by plot.py at 2018-03-06 20:17:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.66 Mbit/s
95th percentile per-packet one-way delay: 118.977 ms
Loss rate: 18.53%
-- Flow 1:
Average throughput: 23.70 Mbit/s
95th percentile per-packet one-way delay: 118.065 ms
Loss rate: 14.60%
-- Flow 2:
Average throughput: 25.78 Mbit/s
95th percentile per-packet one-way delay: 119.620 ms
Loss rate: 23.91%
-- Flow 3:
Average throughput: 5.88 Mbit/s
95th percentile per-packet one-way delay: 117.961 ms
Loss rate: 13.02%
Run 10: Report of Verus — Data Link

![Graph of network performance over time]

Flow 1 ingress (mean 27.76 Mbit/s), Flow 1 egress (mean 23.70 Mbit/s), Flow 2 ingress (mean 33.88 Mbit/s), Flow 2 egress (mean 25.78 Mbit/s), Flow 3 ingress (mean 6.76 Mbit/s), Flow 3 egress (mean 5.88 Mbit/s)

![Graph of packet delay over time]

Flow 1 (95th percentile 118.06 ms), Flow 2 (95th percentile 119.62 ms), Flow 3 (95th percentile 117.96 ms)
Run 1: Statistics of Copa

Start at: 2018-03-06 15:51:21
End at: 2018-03-06 15:51:51
Local clock offset: -6.419 ms
Remote clock offset: -0.613 ms

# Below is generated by plot.py at 2018-03-06 20:17:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.26 Mbit/s
95th percentile per-packet one-way delay: 114.510 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 77.08 Mbit/s
95th percentile per-packet one-way delay: 114.615 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 14.06 Mbit/s
95th percentile per-packet one-way delay: 113.020 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 8.54 Mbit/s
95th percentile per-packet one-way delay: 108.417 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

[Throughput graph]

[Delay graph]
Run 2: Statistics of Copa

Start at: 2018-03-06 16:14:55
End at: 2018-03-06 16:15:25
Local clock offset: -6.611 ms
Remote clock offset: -5.072 ms

# Below is generated by plot.py at 2018-03-06 20:22:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.21 Mbit/s
95th percentile per-packet one-way delay: 115.169 ms
Loss rate: 87.82%
-- Flow 1:
Average throughput: 90.21 Mbit/s
95th percentile per-packet one-way delay: 115.169 ms
Loss rate: 87.82%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 112.592 ms
Loss rate: 85.71%
-- Flow 3:
Average throughput: 0.00 Mbit/s
Run 2: Report of Copa — Data Link

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

- Flow 1 ingress (mean 741.18 Mbit/s)
- Flow 1 egress (mean 90.21 Mbit/s)
- Flow 2 ingress (mean 0.00 Mbit/s)
- Flow 2 egress (mean 0.00 Mbit/s)
- Flow 3 ingress (mean 0.00 Mbit/s)
- Flow 3 egress (mean 0.00 Mbit/s)
Run 3: Statistics of Copa

Start at: 2018-03-06 16:38:36
End at: 2018-03-06 16:39:06
Local clock offset: -6.456 ms
Remote clock offset: -1.435 ms

# Below is generated by plot.py at 2018-03-06 20:23:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.79 Mbit/s
  95th percentile per-packet one-way delay: 117.483 ms
  Loss rate: 89.11%
-- Flow 1:
  Average throughput: 92.79 Mbit/s
  95th percentile per-packet one-way delay: 117.483 ms
  Loss rate: 89.11%
-- Flow 2:
  Average throughput: 0.01 Mbit/s
  95th percentile per-packet one-way delay: 116.438 ms
  Loss rate: 94.62%
-- Flow 3:
  Average throughput: 0.00 Mbit/s
Run 3: Report of Copa — Data Link

![Graph showing network performance metrics over time. The graph includes two sub-plots: one for throughput and the other for one-way delay. Each subplot contains multiple lines representing different network flows, with legends indicating the mean throughput and delay for each flow.]

- Throughput (Mbps)
  - Flow 1 ingress (mean 853.01 Mbps)
  - Flow 1 egress (mean 92.79 Mbps)
  - Flow 2 ingress (mean 0.14 Mbps)
  - Flow 2 egress (mean 0.01 Mbps)
  - Flow 3 ingress (mean 0.00 Mbps)
  - Flow 3 egress (mean 0.00 Mbps)

- Per-packet one-way delay (ms)
  - Flow 1 (95th percentile 117.48 ms)
  - Flow 2 (95th percentile 116.44 ms)
Run 4: Statistics of Copa

Start at: 2018-03-06 17:02:26
End at: 2018-03-06 17:02:56
Local clock offset: -6.299 ms
Remote clock offset: -1.034 ms

# Below is generated by plot.py at 2018-03-06 20:23:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.95 Mbit/s
95th percentile per-packet one-way delay: 102.664 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 72.93 Mbit/s
95th percentile per-packet one-way delay: 102.140 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 18.67 Mbit/s
95th percentile per-packet one-way delay: 105.718 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 10.83 Mbit/s
95th percentile per-packet one-way delay: 102.233 ms
Loss rate: 0.00%
Run 4: Report of Copa — Data Link

![Graph showing network throughput and packet delay](image-url)
Run 5: Statistics of Copa

Start at: 2018-03-06 17:25:53
End at: 2018-03-06 17:26:23
Local clock offset: -5.928 ms
Remote clock offset: -1.172 ms

# Below is generated by plot.py at 2018-03-06 20:23:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.82 Mbit/s
95th percentile per-packet one-way delay: 105.283 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 70.53 Mbit/s
95th percentile per-packet one-way delay: 104.869 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 17.60 Mbit/s
95th percentile per-packet one-way delay: 105.842 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 10.73 Mbit/s
95th percentile per-packet one-way delay: 107.773 ms
Loss rate: 0.04%
Run 5: Report of Copa — Data Link

Throughput (Mbit/s)

Flow 1 ingress (mean 70.57 Mbit/s)  
Flow 1 egress (mean 70.53 Mbit/s)  
Flow 2 ingress (mean 17.62 Mbit/s)  
Flow 2 egress (mean 17.60 Mbit/s)  
Flow 3 ingress (mean 10.75 Mbit/s)  
Flow 3 egress (mean 10.73 Mbit/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 104.87 ms)  
Flow 2 (95th percentile 105.84 ms)  
Flow 3 (95th percentile 107.77 ms)
Run 6: Statistics of Copa

Start at: 2018-03-06 17:49:28
End at: 2018-03-06 17:49:58
Local clock offset: -6.546 ms
Remote clock offset: -5.215 ms

# Below is generated by plot.py at 2018-03-06 20:23:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.62 Mbit/s
  95th percentile per-packet one-way delay: 107.432 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 76.07 Mbit/s
  95th percentile per-packet one-way delay: 106.718 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 15.88 Mbit/s
  95th percentile per-packet one-way delay: 109.656 ms
  Loss rate: 0.11%
-- Flow 3:
  Average throughput: 8.98 Mbit/s
  95th percentile per-packet one-way delay: 108.922 ms
  Loss rate: 0.18%
Run 6: Report of Copa — Data Link

The first graph shows the throughput over time, with different lines representing different flows (1, 2, 3), ingress and egress data rates. The throughput values range from 0 to 100 Mbit/s.

The second graph illustrates the per-packet one-way delay, also showing different flows with 95th percentile delay values. The delay values range from 80 to 110 ms.
Run 7: Statistics of Copa

Start at: 2018-03-06 18:13:03
End at: 2018-03-06 18:13:33
Local clock offset: -6.737 ms
Remote clock offset: -5.817 ms

# Below is generated by plot.py at 2018-03-06 20:23:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.86 Mbit/s
  95th percentile per-packet one-way delay: 111.852 ms
  Loss rate: 88.57%
-- Flow 1:
  Average throughput: 92.86 Mbit/s
  95th percentile per-packet one-way delay: 111.852 ms
  Loss rate: 88.57%
-- Flow 2:
  Average throughput: 0.00 Mbit/s
  95th percentile per-packet one-way delay: 111.596 ms
  Loss rate: 88.89%
-- Flow 3:
  Average throughput: 0.01 Mbit/s
  95th percentile per-packet one-way delay: 112.339 ms
  Loss rate: 91.39%
Run 7: Report of Copa — Data Link

![Graph showing throughput and packet delay over time for different flows.]
Run 8: Statistics of Copa

Start at: 2018-03-06 18:36:52
End at: 2018-03-06 18:37:22
Local clock offset: -6.83 ms
Remote clock offset: 7.439 ms

# Below is generated by plot.py at 2018-03-06 20:25:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.84 Mbit/s
95th percentile per-packet one-way delay: 111.576 ms
Loss rate: 89.67%
-- Flow 1:
Average throughput: 92.84 Mbit/s
95th percentile per-packet one-way delay: 111.576 ms
Loss rate: 89.67%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 110.901 ms
Loss rate: 85.71%
-- Flow 3:
Average throughput: 0.00 Mbit/s
Run 8: Report of Copa — Data Link

![Graph of throughput and packet delay over time]

- **Throughput (Mbps):**
  - Flow 1 Ingress (mean 899.88 Mbps)
  - Flow 1 Egress (mean 92.84 Mbps)
  - Flow 2 Ingress (mean 0.06 Mbps)
  - Flow 2 Egress (mean 0.00 Mbps)
  - Flow 3 Ingress (mean 0.00 Mbps)
  - Flow 3 Egress (mean 0.00 Mbps)

- **Packet delay (ms):**
  - Flow 1 (95th percentile 111.58 ms)
  - Flow 2 (95th percentile 110.90 ms)
Run 9: Statistics of Copa

Start at: 2018-03-06 19:00:39
End at: 2018-03-06 19:01:09
Local clock offset: -6.156 ms
Remote clock offset: 14.081 ms

# Below is generated by plot.py at 2018-03-06 20:27:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.57 Mbit/s
95th percentile per-packet one-way delay: 116.110 ms
Loss rate: 91.68%
-- Flow 1:
Average throughput: 62.15 Mbit/s
95th percentile per-packet one-way delay: 116.129 ms
Loss rate: 89.34%
-- Flow 2:
Average throughput: 44.18 Mbit/s
95th percentile per-packet one-way delay: 115.043 ms
Loss rate: 94.32%
-- Flow 3:
Average throughput: 0.00 Mbit/s
Run 9: Report of Copa — Data Link

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

- Flow 1 ingress (mean 383.68 Mbit/s)
- Flow 1 egress (mean 62.15 Mbit/s)
- Flow 2 ingress (mean 770.67 Mbit/s)
- Flow 2 egress (mean 44.18 Mbit/s)
- Flow 3 ingress (mean 0.00 Mbit/s)
- Flow 3 egress (mean 0.00 Mbit/s)

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

- Flow 1 (95th percentile 116.13 ms)
- Flow 2 (95th percentile 115.04 ms)
Run 10: Statistics of Copa

Start at: 2018-03-06 19:24:31
End at: 2018-03-06 19:25:01
Local clock offset: -6.208 ms
Remote clock offset: 20.147 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.24 Mbit/s
95th percentile per-packet one-way delay: 119.970 ms
Loss rate: 91.83%
-- Flow 1:
Average throughput: 59.74 Mbit/s
95th percentile per-packet one-way delay: 114.121 ms
Loss rate: 89.02%
-- Flow 2:
Average throughput: 45.81 Mbit/s
95th percentile per-packet one-way delay: 120.154 ms
Loss rate: 94.55%
-- Flow 3:
Average throughput: 0.00 Mbit/s
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

Start at: 2018-03-06 16:00:32
End at: 2018-03-06 16:01:02
Local clock offset: -6.494 ms
Remote clock offset: -5.3 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 111.992 ms
Loss rate: 32.53%
-- Flow 1:
Average throughput: 52.17 Mbit/s
95th percentile per-packet one-way delay: 111.992 ms
Loss rate: 24.62%
-- Flow 2:
Average throughput: 47.93 Mbit/s
95th percentile per-packet one-way delay: 110.163 ms
Loss rate: 35.45%
-- Flow 3:
Average throughput: 35.49 Mbit/s
95th percentile per-packet one-way delay: 130.540 ms
Loss rate: 49.76%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Start at: 2018-03-06 16:24:17
End at: 2018-03-06 16:24:47
Local clock offset: -6.601 ms
Remote clock offset: -0.439 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.74 Mbit/s
  95th percentile per-packet one-way delay: 117.095 ms
  Loss rate: 31.39%
-- Flow 1:
  Average throughput: 54.90 Mbit/s
  95th percentile per-packet one-way delay: 115.890 ms
  Loss rate: 24.15%
-- Flow 2:
  Average throughput: 39.51 Mbit/s
  95th percentile per-packet one-way delay: 116.984 ms
  Loss rate: 35.05%
-- Flow 3:
  Average throughput: 43.97 Mbit/s
  95th percentile per-packet one-way delay: 128.612 ms
  Loss rate: 45.49%
Run 2: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 72.45 Mbps)
- Flow 1 egress (mean 54.90 Mbps)
- Flow 2 ingress (mean 60.84 Mbps)
- Flow 2 egress (mean 39.51 Mbps)
- Flow 3 ingress (mean 80.64 Mbps)
- Flow 3 egress (mean 43.97 Mbps)

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

- Flow 1 (95th percentile 115.99 ms)
- Flow 2 (95th percentile 116.98 ms)
- Flow 3 (95th percentile 128.61 ms)
Run 3: Statistics of FillP

Start at: 2018-03-06 16:48:00
End at: 2018-03-06 16:48:30
Local clock offset: -6.475 ms
Remote clock offset: 0.476 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 117.940 ms
Loss rate: 31.56%
-- Flow 1:
Average throughput: 56.24 Mbit/s
95th percentile per-packet one-way delay: 117.924 ms
Loss rate: 24.07%
-- Flow 2:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 117.798 ms
Loss rate: 34.28%
-- Flow 3:
Average throughput: 36.56 Mbit/s
95th percentile per-packet one-way delay: 139.209 ms
Loss rate: 49.86%
Run 3: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 74.12 Mbps)
- Flow 1 egress (mean 56.24 Mbps)
- Flow 2 ingress (mean 62.73 Mbps)
- Flow 2 egress (mean 41.23 Mbps)
- Flow 3 ingress (mean 72.88 Mbps)
- Flow 3 egress (mean 36.56 Mbps)

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

- Flow 1 (95th percentile 117.92 ms)
- Flow 2 (95th percentile 117.80 ms)
- Flow 3 (95th percentile 139.21 ms)
Run 4: Statistics of FillP

Start at: 2018-03-06 17:11:35
End at: 2018-03-06 17:12:05
Local clock offset: -6.055 ms
Remote clock offset: 0.428 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 116.196 ms
Loss rate: 31.50%
-- Flow 1:
Average throughput: 55.82 Mbit/s
95th percentile per-packet one-way delay: 116.206 ms
Loss rate: 23.97%
-- Flow 2:
Average throughput: 40.09 Mbit/s
95th percentile per-packet one-way delay: 115.937 ms
Loss rate: 35.77%
-- Flow 3:
Average throughput: 40.89 Mbit/s
95th percentile per-packet one-way delay: 129.320 ms
Loss rate: 46.38%
Run 4: Report of FillP — Data Link

![Graph 1: Throughput vs Time]

- Flow 1 ingress (mean 73.48 Mbit/s)
- Flow 1 egress (mean 55.82 Mbit/s)
- Flow 2 ingress (mean 61.94 Mbit/s)
- Flow 2 egress (mean 40.09 Mbit/s)
- Flow 3 ingress (mean 76.29 Mbit/s)
- Flow 3 egress (mean 40.89 Mbit/s)

![Graph 2: Per-packet delay vs Time]

- Flow 1 (95th percentile 116.21 ms)
- Flow 2 (95th percentile 115.94 ms)
- Flow 3 (95th percentile 129.32 ms)
Run 5: Statistics of FillP

Start at: 2018-03-06 17:35:04
End at: 2018-03-06 17:35:34
Local clock offset: -5.918 ms
Remote clock offset: -6.016 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 111.256 ms
Loss rate: 31.79%
-- Flow 1:
Average throughput: 58.15 Mbit/s
95th percentile per-packet one-way delay: 109.367 ms
Loss rate: 24.23%
-- Flow 2:
Average throughput: 35.72 Mbit/s
95th percentile per-packet one-way delay: 109.663 ms
Loss rate: 36.40%
-- Flow 3:
Average throughput: 41.36 Mbit/s
95th percentile per-packet one-way delay: 127.124 ms
Loss rate: 47.45%
Run 5: Report of FillP — Data Link

![Graph of Throughput (Mbps)](image1)

![Graph of Per-packet one-way delay (ms)](image2)
Run 6: Statistics of FillP

Start at: 2018-03-06 17:58:40
End at: 2018-03-06 17:59:10
Local clock offset: -6.658 ms
Remote clock offset: -4.961 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.72 Mbit/s
95th percentile per-packet one-way delay: 112.057 ms
Loss rate: 31.88%
-- Flow 1:
Average throughput: 52.52 Mbit/s
95th percentile per-packet one-way delay: 112.063 ms
Loss rate: 24.90%
-- Flow 2:
Average throughput: 42.86 Mbit/s
95th percentile per-packet one-way delay: 110.686 ms
Loss rate: 35.01%
-- Flow 3:
Average throughput: 44.38 Mbit/s
95th percentile per-packet one-way delay: 124.021 ms
Loss rate: 45.01%
Run 6: Report of FillP — Data Link

![Graph of throughput and per-packet one-way delay]

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 70.00 Mbps)
  - Flow 1 egress (mean 52.52 Mbps)
  - Flow 2 ingress (mean 85.96 Mbps)
  - Flow 2 egress (mean 42.86 Mbps)
  - Flow 3 ingress (mean 80.70 Mbps)
  - Flow 3 egress (mean 44.38 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 112.06 ms)
  - Flow 2 (95th percentile 110.69 ms)
  - Flow 3 (95th percentile 124.02 ms)
Run 7: Statistics of FillP

Start at: 2018-03-06 18:22:31
End at: 2018-03-06 18:23:01
Local clock offset: -6.819 ms
Remote clock offset: 0.036 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 116.676 ms
Loss rate: 31.87%
-- Flow 1:
Average throughput: 51.05 Mbit/s
95th percentile per-packet one-way delay: 115.151 ms
Loss rate: 25.22%
-- Flow 2:
Average throughput: 46.42 Mbit/s
95th percentile per-packet one-way delay: 116.795 ms
Loss rate: 33.41%
-- Flow 3:
Average throughput: 41.76 Mbit/s
95th percentile per-packet one-way delay: 128.369 ms
Loss rate: 46.64%
Run 7: Report of FillP — Data Link
Run 8: Statistics of FillP

Start at: 2018-03-06 18:46:19
End at: 2018-03-06 18:46:49
Local clock offset: -6.577 ms
Remote clock offset: 10.858 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 111.754 ms
Loss rate: 31.76%
-- Flow 1:
Average throughput: 52.07 Mbit/s
95th percentile per-packet one-way delay: 111.128 ms
Loss rate: 24.01%
-- Flow 2:
Average throughput: 41.32 Mbit/s
95th percentile per-packet one-way delay: 111.394 ms
Loss rate: 35.85%
-- Flow 3:
Average throughput: 48.77 Mbit/s
95th percentile per-packet one-way delay: 117.984 ms
Loss rate: 44.10%
Run 8: Report of FillP — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 68.58 Mbps)
- Flow 1 egress (mean 52.07 Mbps)
- Flow 2 ingress (mean 64.45 Mbps)
- Flow 2 egress (mean 41.32 Mbps)
- Flow 3 ingress (mean 87.24 Mbps)
- Flow 3 egress (mean 48.77 Mbps)

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

- Flow 1 (95th percentile 111.13 ms)
- Flow 2 (95th percentile 111.39 ms)
- Flow 3 (95th percentile 117.98 ms)
Run 9: Statistics of FillP

Start at: 2018-03-06 19:10:12
End at: 2018-03-06 19:10:42
Local clock offset: -5.924 ms
Remote clock offset: 20.986 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 115.742 ms
Loss rate: 32.98%
-- Flow 1:
Average throughput: 55.56 Mbit/s
95th percentile per-packet one-way delay: 114.309 ms
Loss rate: 24.81%
-- Flow 2:
Average throughput: 41.39 Mbit/s
95th percentile per-packet one-way delay: 114.723 ms
Loss rate: 37.82%
-- Flow 3:
Average throughput: 39.64 Mbit/s
95th percentile per-packet one-way delay: 131.737 ms
Loss rate: 48.43%
Run 9: Report of FillP — Data Link

![Graph of Throughput Over Time](image1)

**Throughput (Mbps):**
- Flow 1 ingress (mean 73.96 Mbps)
- Flow 2 ingress (mean 85.58 Mbps)
- Flow 3 ingress (mean 76.85 Mbps)
- Flow 1 egress (mean 55.56 Mbps)
- Flow 2 egress (mean 41.39 Mbps)
- Flow 3 egress (mean 39.64 Mbps)

![Graph of Per-Packet One-Way Delay Over Time](image2)

**Per-Packet One-Way Delay (ms):**
- Flow 1 (95th percentile 114.31 ms)
- Flow 2 (95th percentile 114.72 ms)
- Flow 3 (95th percentile 111.74 ms)
Run 10: Statistics of FillP

Start at: 2018-03-06 19:34:05
End at: 2018-03-06 19:34:35
Local clock offset: -6.359 ms
Remote clock offset: 13.116 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.74 Mbit/s
95th percentile per-packet one-way delay: 111.204 ms
Loss rate: 31.38%
-- Flow 1:
Average throughput: 52.10 Mbit/s
95th percentile per-packet one-way delay: 111.049 ms
Loss rate: 24.95%
-- Flow 2:
Average throughput: 43.41 Mbit/s
95th percentile per-packet one-way delay: 111.238 ms
Loss rate: 34.36%
-- Flow 3:
Average throughput: 44.59 Mbit/s
95th percentile per-packet one-way delay: 122.633 ms
Loss rate: 43.46%
Run 10: Report of FillIP — Data Link

![Throughput vs Time Graph]

- Flow 1 ingress (mean 69.49 Mbit/s)
- Flow 1 egress (mean 52.10 Mbit/s)
- Flow 2 ingress (mean 66.13 Mbit/s)
- Flow 2 egress (mean 43.41 Mbit/s)
- Flow 3 ingress (mean 76.88 Mbit/s)
- Flow 3 egress (mean 44.59 Mbit/s)

![Per-packet one-way delay vs Time Graph]

- Flow 1 (95th percentile 111.05 ms)
- Flow 2 (95th percentile 111.24 ms)
- Flow 3 (95th percentile 122.63 ms)
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-06 15:40:49
End at: 2018-03-06 15:41:19
Local clock offset: -6.396 ms
Remote clock offset: -1.466 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.23 Mbit/s
95th percentile per-packet one-way delay: 118.670 ms
Loss rate: 42.32%
-- Flow 1:
Average throughput: 63.22 Mbit/s
95th percentile per-packet one-way delay: 116.474 ms
Loss rate: 28.80%
-- Flow 2:
Average throughput: 21.96 Mbit/s
95th percentile per-packet one-way delay: 118.803 ms
Loss rate: 45.23%
-- Flow 3:
Average throughput: 48.27 Mbit/s
95th percentile per-packet one-way delay: 117.548 ms
Loss rate: 66.49%
Run 1: Report of Indigo-1-32 — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 88.88 Mbps)
  - Flow 1 egress (mean 63.22 Mbps)
  - Flow 2 ingress (mean 40.15 Mbps)
  - Flow 2 egress (mean 23.96 Mbps)
  - Flow 3 ingress (mean 144.02 Mbps)
  - Flow 3 egress (mean 48.27 Mbps)

- **Delay (ms):**
  - Flow 1 (95th percentile 116.47 ms)
  - Flow 2 (95th percentile 118.80 ms)
  - Flow 3 (95th percentile 117.55 ms)
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-06 16:04:21
End at: 2018-03-06 16:04:51
Local clock offset: -6.601 ms
Remote clock offset: -0.322 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.09 Mbit/s
95th percentile per-packet one-way delay: 119.533 ms
Loss rate: 21.31%
-- Flow 1:
Average throughput: 62.11 Mbit/s
95th percentile per-packet one-way delay: 117.684 ms
Loss rate: 15.60%
-- Flow 2:
Average throughput: 26.96 Mbit/s
95th percentile per-packet one-way delay: 119.599 ms
Loss rate: 26.48%
-- Flow 3:
Average throughput: 40.71 Mbit/s
95th percentile per-packet one-way delay: 119.681 ms
Loss rate: 35.76%
Run 2: Report of Indigo-1-32 — Data Link
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-06 16:28:05
End at: 2018-03-06 16:28:35
Local clock offset: -6.539 ms
Remote clock offset: -6.214 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.04 Mbit/s
  95th percentile per-packet one-way delay: 113.775 ms
  Loss rate: 24.02%
-- Flow 1:
  Average throughput: 66.18 Mbit/s
  95th percentile per-packet one-way delay: 112.881 ms
  Loss rate: 13.47%
-- Flow 2:
  Average throughput: 26.03 Mbit/s
  95th percentile per-packet one-way delay: 113.660 ms
  Loss rate: 22.88%
-- Flow 3:
  Average throughput: 30.04 Mbit/s
  95th percentile per-packet one-way delay: 114.016 ms
  Loss rate: 59.09%
Run 3: Report of Indigo-1-32 — Data Link
Run 4: Statistics of Indigo-1-32

Start at: 2018-03-06 16:51:49
End at: 2018-03-06 16:52:19
Local clock offset: -6.418 ms
Remote clock offset: -6.01 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 113.752 ms
Loss rate: 29.53%
-- Flow 1:
Average throughput: 61.77 Mbit/s
95th percentile per-packet one-way delay: 111.848 ms
Loss rate: 17.02%
-- Flow 2:
Average throughput: 26.43 Mbit/s
95th percentile per-packet one-way delay: 113.572 ms
Loss rate: 32.79%
-- Flow 3:
Average throughput: 42.89 Mbit/s
95th percentile per-packet one-way delay: 113.927 ms
Loss rate: 56.27%
Run 4: Report of Indigo-1-32 — Data Link

[Graphs showing network throughput and packet error rates over time for different flows.]
Run 5: Statistics of Indigo-1-32

Start at: 2018-03-06 17:15:23
End at: 2018-03-06 17:15:53
Local clock offset: -6.028 ms
Remote clock offset: -6.053 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.32 Mbit/s
95th percentile per-packet one-way delay: 113.258 ms
Loss rate: 14.10%
-- Flow 1:
Average throughput: 63.83 Mbit/s
95th percentile per-packet one-way delay: 112.601 ms
Loss rate: 10.21%
-- Flow 2:
Average throughput: 30.80 Mbit/s
95th percentile per-packet one-way delay: 113.733 ms
Loss rate: 11.56%
-- Flow 3:
Average throughput: 25.45 Mbit/s
95th percentile per-packet one-way delay: 112.137 ms
Loss rate: 39.03%
Run 5: Report of Indigo-1-32 — Data Link

![Graph showing throughput and per-packet one-way delay](image-url)
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-06 17:38:54
End at: 2018-03-06 17:39:24
Local clock offset: -6.196 ms
Remote clock offset: -5.127 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 114.677 ms
Loss rate: 34.15%
-- Flow 1:
Average throughput: 64.21 Mbit/s
95th percentile per-packet one-way delay: 113.144 ms
Loss rate: 15.20%
-- Flow 2:
Average throughput: 19.83 Mbit/s
95th percentile per-packet one-way delay: 112.788 ms
Loss rate: 43.07%
-- Flow 3:
Average throughput: 48.98 Mbit/s
95th percentile per-packet one-way delay: 114.811 ms
Loss rate: 62.97%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-06 18:02:28
End at: 2018-03-06 18:02:58
Local clock offset: -6.685 ms
Remote clock offset: -5.822 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.73 Mbit/s
  95th percentile per-packet one-way delay: 113.760 ms
  Loss rate: 36.75%
-- Flow 1:
  Average throughput: 63.20 Mbit/s
  95th percentile per-packet one-way delay: 113.711 ms
  Loss rate: 15.04%
-- Flow 2:
  Average throughput: 20.11 Mbit/s
  95th percentile per-packet one-way delay: 113.876 ms
  Loss rate: 42.21%
-- Flow 3:
  Average throughput: 50.36 Mbit/s
  95th percentile per-packet one-way delay: 111.985 ms
  Loss rate: 66.99%
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-06 18:26:20
End at: 2018-03-06 18:26:50
Local clock offset: -6.788 ms
Remote clock offset: 5.036 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 92.97 Mbit/s
  95th percentile per-packet one-way delay: 119.234 ms
  Loss rate: 31.69%
-- Flow 1:
  Average throughput: 65.96 Mbit/s
  95th percentile per-packet one-way delay: 118.355 ms
  Loss rate: 13.18%
-- Flow 2:
  Average throughput: 19.64 Mbit/s
  95th percentile per-packet one-way delay: 118.980 ms
  Loss rate: 43.25%
-- Flow 3:
  Average throughput: 43.87 Mbit/s
  95th percentile per-packet one-way delay: 119.444 ms
  Loss rate: 62.15%
Run 8: Report of Indigo-1-32 — Data Link

[Graphs showing throughput and packet latency over time for different flows.
Legend:
- Flow 1 ingress (mean 76.05 Mbit/s)
- Flow 1 egress (mean 65.96 Mbit/s)
- Flow 2 ingress (mean 34.66 Mbit/s)
- Flow 2 egress (mean 19.64 Mbit/s)
- Flow 3 ingress (mean 115.92 Mbit/s)
- Flow 3 egress (mean 42.87 Mbit/s)
- Flow 1 (95th percentile 118.36 ms)
- Flow 2 (95th percentile 118.99 ms)
- Flow 3 (95th percentile 119.44 ms)
Run 9: Statistics of Indigo-1-32

Start at: 2018-03-06 18:50:08
End at: 2018-03-06 18:50:38
Local clock offset: -6.377 ms
Remote clock offset: 11.782 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.90 Mbit/s
95th percentile per-packet one-way delay: 114.105 ms
Loss rate: 34.40%
-- Flow 1:
Average throughput: 57.37 Mbit/s
95th percentile per-packet one-way delay: 111.730 ms
Loss rate: 20.55%
-- Flow 2:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 114.280 ms
Loss rate: 35.51%
-- Flow 3:
Average throughput: 49.26 Mbit/s
95th percentile per-packet one-way delay: 113.567 ms
Loss rate: 59.14%
Run 9: Report of Indigo-1-32 — Data Link
Run 10: Statistics of Indigo-1-32

Start at: 2018-03-06 19:14:00  
End at: 2018-03-06 19:14:30  
Local clock offset: -5.862 ms  
Remote clock offset: 17.889 ms  

# Below is generated by plot.py at 2018-03-06 20:27:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.29 Mbit/s  
95th percentile per-packet one-way delay: 114.387 ms  
Loss rate: 41.64%  
-- Flow 1:  
Average throughput: 65.63 Mbit/s  
95th percentile per-packet one-way delay: 114.403 ms  
Loss rate: 24.91%  
-- Flow 2:  
Average throughput: 20.46 Mbit/s  
95th percentile per-packet one-way delay: 112.746 ms  
Loss rate: 49.16%  
-- Flow 3:  
Average throughput: 43.93 Mbit/s  
95th percentile per-packet one-way delay: 114.165 ms  
Loss rate: 69.12%
Run 10: Report of Indigo-1-32 — Data Link

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

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

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Run 1: Statistics of Vivace-latency

Start at: 2018-03-06 15:52:44
End at: 2018-03-06 15:53:14
Local clock offset: -6.456 ms
Remote clock offset: -0.525 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.31 Mbit/s
  95th percentile per-packet one-way delay: 117.067 ms
  Loss rate: 0.19%
-- Flow 1:
  Average throughput: 70.65 Mbit/s
  95th percentile per-packet one-way delay: 117.959 ms
  Loss rate: 0.17%
-- Flow 2:
  Average throughput: 9.40 Mbit/s
  95th percentile per-packet one-way delay: 116.229 ms
  Loss rate: 0.36%
-- Flow 3:
  Average throughput: 4.29 Mbit/s
  95th percentile per-packet one-way delay: 114.530 ms
  Loss rate: 0.68%
Run 1: Report of Vivace-latency — Data Link
Run 2: Statistics of Vivace-latency

Start at: 2018-03-06 16:16:29
End at: 2018-03-06 16:16:59
Local clock offset: -6.573 ms
Remote clock offset: -5.961 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.65 Mbit/s
  95th percentile per-packet one-way delay: 104.845 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 69.58 Mbit/s
  95th percentile per-packet one-way delay: 105.900 ms
  Loss rate: 0.04%
-- Flow 2:
  Average throughput: 12.38 Mbit/s
  95th percentile per-packet one-way delay: 95.474 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 5.60 Mbit/s
  95th percentile per-packet one-way delay: 92.019 ms
  Loss rate: 0.00%
Run 2: Report of Vivace-latency — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress (mean 69.60 Mbps)**
- **Flow 1 egress (mean 69.58 Mbps)**
- **Flow 2 ingress (mean 12.38 Mbps)**
- **Flow 2 egress (mean 12.38 Mbps)**
- **Flow 3 ingress (mean 5.60 Mbps)**
- **Flow 3 egress (mean 5.60 Mbps)**

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

- **Flow 1 (95th percentile 105.90 ms)**
- **Flow 2 (95th percentile 95.47 ms)**
- **Flow 3 (95th percentile 92.02 ms)**
Run 3: Statistics of Vivace-latency

Start at: 2018-03-06 16:40:13
End at: 2018-03-06 16:40:43
Local clock offset: -6.452 ms
Remote clock offset: -0.61 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.86 Mbit/s
95th percentile per-packet one-way delay: 117.762 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 66.40 Mbit/s
95th percentile per-packet one-way delay: 117.773 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 10.98 Mbit/s
95th percentile per-packet one-way delay: 117.974 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 12.64 Mbit/s
95th percentile per-packet one-way delay: 117.351 ms
Loss rate: 0.46%
Run 3: Report of Vivace-latency — Data Link
Run 4: Statistics of Vivace-latency

Start at: 2018-03-06 17:03:48
End at: 2018-03-06 17:04:18
Local clock offset: -6.341 ms
Remote clock offset: -1.089 ms

# Below is generated by plot.py at 2018-03-06 20:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.44 Mbit/s
95th percentile per-packet one-way delay: 105.262 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 70.70 Mbit/s
95th percentile per-packet one-way delay: 107.666 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 94.976 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 97.368 ms
Loss rate: 0.00%
Run 4: Report of Vivace-latency — Data Link
Run 5: Statistics of Vivace-latency

Start at: 2018-03-06 17:27:15
End at: 2018-03-06 17:27:45
Local clock offset: -5.911 ms
Remote clock offset: -5.126 ms

# Below is generated by plot.py at 2018-03-06 20:28:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.56 Mbit/s
95th percentile per-packet one-way delay: 95.820 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 70.10 Mbit/s
95th percentile per-packet one-way delay: 96.293 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 94.735 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 92.561 ms
Loss rate: 0.02%
Run 5: Report of Vivace-latency — Data Link
Run 6: Statistics of Vivace-latency

Start at: 2018-03-06 17:50:51
End at: 2018-03-06 17:51:21
Local clock offset: -6.616 ms
Remote clock offset: 0.557 ms

# Below is generated by plot.py at 2018-03-06 20:28:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.48 Mbit/s
95th percentile per-packet one-way delay: 116.497 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 66.96 Mbit/s
95th percentile per-packet one-way delay: 115.919 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 12.17 Mbit/s
95th percentile per-packet one-way delay: 117.971 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 7.39 Mbit/s
95th percentile per-packet one-way delay: 118.507 ms
Loss rate: 0.19%
Run 6: Report of Vivace-latency — Data Link

![Graph 1: Throughput (Mbps)](image1)
- Flow 1 ingress (mean 67.03 Mbps)
- Flow 1 egress (mean 66.96 Mbps)
- Flow 2 ingress (mean 12.18 Mbps)
- Flow 2 egress (mean 12.17 Mbps)
- Flow 3 ingress (mean 7.40 Mbps)
- Flow 3 egress (mean 7.39 Mbps)

![Graph 2: Packet one-way delay (ms)](image2)
- Flow 1 (95th percentile 115.92 ms)
- Flow 2 (95th percentile 117.97 ms)
- Flow 3 (95th percentile 118.51 ms)
Run 7: Statistics of Vivace-latency

Start at: 2018-03-06 18:14:39
End at: 2018-03-06 18:15:09
Local clock offset: -6.804 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-03-06 20:28:39
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 79.54 Mbit/s
  95th percentile per-packet one-way delay: 106.085 ms
  Loss rate: 0.09%
-- Flow 1:
  Average throughput: 70.90 Mbit/s
  95th percentile per-packet one-way delay: 106.694 ms
  Loss rate: 0.09%
-- Flow 2:
  Average throughput: 10.76 Mbit/s
  95th percentile per-packet one-way delay: 99.840 ms
  Loss rate: 0.07%
-- Flow 3:
  Average throughput: 4.51 Mbit/s
  95th percentile per-packet one-way delay: 99.876 ms
  Loss rate: 0.00%
Run 8: Statistics of Vivace-latency

Start at: 2018-03-06 18:38:30
End at: 2018-03-06 18:39:00
Local clock offset: -6.858 ms
Remote clock offset: 8.362 ms

# Below is generated by plot.py at 2018-03-06 20:28:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 78.07 Mbit/s
  95th percentile per-packet one-way delay: 95.160 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 69.95 Mbit/s
  95th percentile per-packet one-way delay: 94.832 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 9.27 Mbit/s
  95th percentile per-packet one-way delay: 97.843 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 5.91 Mbit/s
  95th percentile per-packet one-way delay: 99.746 ms
  Loss rate: 0.00%
Run 8: Report of Vivace-latency — Data Link
Run 9: Statistics of Vivace-latency

Start at: 2018-03-06 19:02:24
End at: 2018-03-06 19:02:54
Local clock offset: -6.035 ms
Remote clock offset: 20.153 ms

# Below is generated by plot.py at 2018-03-06 20:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.58 Mbit/s
95th percentile per-packet one-way delay: 116.242 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 64.11 Mbit/s
95th percentile per-packet one-way delay: 116.092 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 15.92 Mbit/s
95th percentile per-packet one-way delay: 117.543 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 5.71 Mbit/s
95th percentile per-packet one-way delay: 118.628 ms
Loss rate: 2.98%
Run 9: Report of Vivace-latency — Data Link

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

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

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Run 10: Statistics of Vivace-latency

Start at: 2018-03-06 19:26:17
End at: 2018-03-06 19:26:47
Local clock offset: -6.239 ms
Remote clock offset: 19.78 ms

# Below is generated by plot.py at 2018-03-06 20:29:05
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 76.95 Mbit/s
  95th percentile per-packet one-way delay: 110.405 ms
  Loss rate: 0.21%
-- Flow 1:
  Average throughput: 66.62 Mbit/s
  95th percentile per-packet one-way delay: 110.476 ms
  Loss rate: 0.19%
-- Flow 2:
  Average throughput: 12.19 Mbit/s
  95th percentile per-packet one-way delay: 110.473 ms
  Loss rate: 0.29%
-- Flow 3:
  Average throughput: 6.78 Mbit/s
  95th percentile per-packet one-way delay: 101.468 ms
  Loss rate: 0.47%
Run 10: Report of Vivace-latency — Data Link

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

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

Legend for Graph 1:
- Flow 1 ingress (mean 65.75 Mbit/s)
- Flow 1 egress (mean 66.62 Mbit/s)
- Flow 2 ingress (mean 12.22 Mbit/s)
- Flow 2 egress (mean 12.19 Mbit/s)
- Flow 3 ingress (mean 6.82 Mbit/s)
- Flow 3 egress (mean 6.78 Mbit/s)

Legend for Graph 2:
- Flow 1 (95th percentile 110.48 ms)
- Flow 2 (95th percentile 110.47 ms)
- Flow 3 (95th percentile 101.47 ms)
Run 1: Statistics of Vivace-loss

Start at: 2018-03-06 15:44:48
End at: 2018-03-06 15:45:18
Local clock offset: -6.403 ms
Remote clock offset: -6.314 ms

# Below is generated by plot.py at 2018-03-06 20:29:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.19 Mbit/s
95th percentile per-packet one-way delay: 112.207 ms
Loss rate: 3.19%
-- Flow 1:
Average throughput: 78.66 Mbit/s
95th percentile per-packet one-way delay: 112.142 ms
Loss rate: 3.14%
-- Flow 2:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 113.010 ms
Loss rate: 3.44%
-- Flow 3:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 112.311 ms
Loss rate: 4.13%
Run 1: Report of Vivace-loss — Data Link

![Graph showing throughput over time for different flows]

![Graph showing per-packet end-to-end delay for different flows]

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Run 2: Statistics of Vivace-loss

Start at: 2018-03-06 16:08:22
End at: 2018-03-06 16:08:52
Local clock offset: -6.516 ms
Remote clock offset: -1.029 ms

# Below is generated by plot.py at 2018-03-06 20:29:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 89.25 Mbit/s
  95th percentile per-packet one-way delay: 117.103 ms
  Loss rate: 3.06%
-- Flow 1:
  Average throughput: 83.53 Mbit/s
  95th percentile per-packet one-way delay: 117.106 ms
  Loss rate: 2.98%
-- Flow 2:
  Average throughput: 7.04 Mbit/s
  95th percentile per-packet one-way delay: 115.435 ms
  Loss rate: 4.26%
-- Flow 3:
  Average throughput: 3.19 Mbit/s
  95th percentile per-packet one-way delay: 117.174 ms
  Loss rate: 3.76%
Run 2: Report of Vivace-loss — Data Link

![Graph of Throughput and Delay](image)

- **Throughput**: Flow 1 ingress (mean 86.16 Mbit/s), Flow 1 egress (mean 83.53 Mbit/s), Flow 2 ingress (mean 7.35 Mbit/s), Flow 2 egress (mean 7.04 Mbit/s), Flow 3 ingress (mean 3.31 Mbit/s), Flow 3 egress (mean 3.19 Mbit/s)

- **Delay**: Flow 1 (95th percentile 117.11 ms), Flow 2 (95th percentile 115.44 ms), Flow 3 (95th percentile 117.17 ms)
Run 3: Statistics of Vivace-loss

Start at: 2018-03-06 16:32:04
End at: 2018-03-06 16:32:34
Local clock offset: -6.506 ms
Remote clock offset: -1.398 ms

# Below is generated by plot.py at 2018-03-06 20:29:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.40 Mbit/s
95th percentile per-packet one-way delay: 115.703 ms
Loss rate: 2.63%
-- Flow 1:
Average throughput: 84.34 Mbit/s
95th percentile per-packet one-way delay: 115.685 ms
Loss rate: 2.61%
-- Flow 2:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 117.862 ms
Loss rate: 3.04%
-- Flow 3:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 118.148 ms
Loss rate: 2.65%
Run 3: Report of Vivace-loss — Data Link

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

Flow 1 ingress (mean 86.65 Mbit/s)  Flow 1 egress (mean 84.34 Mbit/s)
Flow 2 ingress (mean 4.62 Mbit/s)  Flow 2 egress (mean 4.48 Mbit/s)
Flow 3 ingress (mean 3.38 Mbit/s)  Flow 3 egress (mean 3.30 Mbit/s)
Run 4: Statistics of Vivace-loss

Start at: 2018-03-06 16:55:53
End at: 2018-03-06 16:56:23
Local clock offset: -6.457 ms
Remote clock offset: -5.94 ms

# Below is generated by plot.py at 2018-03-06 20:29:56
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 88.34 Mbit/s
  95th percentile per-packet one-way delay: 110.923 ms
  Loss rate: 2.99%
-- Flow 1:
  Average throughput: 82.77 Mbit/s
  95th percentile per-packet one-way delay: 110.911 ms
  Loss rate: 2.88%
-- Flow 2:
  Average throughput: 5.74 Mbit/s
  95th percentile per-packet one-way delay: 110.805 ms
  Loss rate: 4.51%
-- Flow 3:
  Average throughput: 5.33 Mbit/s
  95th percentile per-packet one-way delay: 112.368 ms
  Loss rate: 4.75%
Run 4: Report of Vivace-loss — Data Link
Run 5: Statistics of Vivace-loss

Start at: 2018-03-06 17:19:21
End at: 2018-03-06 17:19:51
Local clock offset: -5.977 ms
Remote clock offset: -6.01 ms

# Below is generated by plot.py at 2018-03-06 20:30:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.04 Mbit/s
95th percentile per-packet one-way delay: 110.686 ms
Loss rate: 2.82%
-- Flow 1:
Average throughput: 80.79 Mbit/s
95th percentile per-packet one-way delay: 110.624 ms
Loss rate: 2.80%
-- Flow 2:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 112.327 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 112.589 ms
Loss rate: 4.36%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss

Start at: 2018-03-06 17:42:55
End at: 2018-03-06 17:43:25
Local clock offset: -6.353 ms
Remote clock offset: -5.134 ms

# Below is generated by plot.py at 2018-03-06 20:30:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.31 Mbit/s
95th percentile per-packet one-way delay: 112.216 ms
Loss rate: 2.97%
-- Flow 1:
Average throughput: 82.25 Mbit/s
95th percentile per-packet one-way delay: 112.194 ms
Loss rate: 2.88%
-- Flow 2:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 113.181 ms
Loss rate: 3.86%
-- Flow 3:
Average throughput: 3.11 Mbit/s
95th percentile per-packet one-way delay: 112.157 ms
Loss rate: 5.12%
Run 6: Report of Vivace-loss — Data Link
Run 7: Statistics of Vivace-loss

Start at: 2018-03-06 18:06:28
End at: 2018-03-06 18:06:58
Local clock offset: -6.738 ms
Remote clock offset: -0.18 ms

# Below is generated by plot.py at 2018-03-06 20:30:07
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.97 Mbit/s
  95th percentile per-packet one-way delay: 118.168 ms
  Loss rate: 3.33%
-- Flow 1:
  Average throughput: 79.69 Mbit/s
  95th percentile per-packet one-way delay: 118.174 ms
  Loss rate: 3.22%
-- Flow 2:
  Average throughput: 10.51 Mbit/s
  95th percentile per-packet one-way delay: 117.927 ms
  Loss rate: 4.40%
-- Flow 3:
  Average throughput: 3.93 Mbit/s
  95th percentile per-packet one-way delay: 117.944 ms
  Loss rate: 4.29%
Run 7: Report of Vivace-loss — Data Link

![Graph 1: Throughput over time](image1)

![Graph 2: Round-trip time over time](image2)
Run 8: Statistics of Vivace-loss

Start at: 2018-03-06 18:30:21
End at: 2018-03-06 18:30:51
Local clock offset: -6.806 ms
Remote clock offset: 4.173 ms

# Below is generated by plot.py at 2018-03-06 20:30:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.56 Mbit/s
95th percentile per-packet one-way delay: 110.811 ms
Loss rate: 2.92%
-- Flow 1:
Average throughput: 81.56 Mbit/s
95th percentile per-packet one-way delay: 110.754 ms
Loss rate: 2.90%
-- Flow 2:
Average throughput: 10.98 Mbit/s
95th percentile per-packet one-way delay: 111.363 ms
Loss rate: 2.82%
-- Flow 3:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 112.834 ms
Loss rate: 5.33%
Run 8: Report of Vivace-loss — Data Link
Run 9: Statistics of Vivace-loss

Start at: 2018-03-06 18:54:07
End at: 2018-03-06 18:54:37
Local clock offset: -6.252 ms
Remote clock offset: 13.586 ms

# Below is generated by plot.py at 2018-03-06 20:30:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.27 Mbit/s
95th percentile per-packet one-way delay: 111.450 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 81.83 Mbit/s
95th percentile per-packet one-way delay: 111.411 ms
Loss rate: 3.01%
-- Flow 2:
Average throughput: 5.92 Mbit/s
95th percentile per-packet one-way delay: 113.318 ms
Loss rate: 4.93%
-- Flow 3:
Average throughput: 7.63 Mbit/s
95th percentile per-packet one-way delay: 111.617 ms
Loss rate: 4.00%
Run 9: Report of Vivace-loss — Data Link

[Graph showing throughput and packet delay over time for different flows.]
Run 10: Statistics of Vivace-loss

Start at: 2018-03-06 19:17:59
End at: 2018-03-06 19:18:29
Local clock offset: -5.909 ms
Remote clock offset: 23.631 ms

# Below is generated by plot.py at 2018-03-06 20:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.97 Mbit/s
95th percentile per-packet one-way delay: 116.454 ms
Loss rate: 2.99%
-- Flow 1:
Average throughput: 83.98 Mbit/s
95th percentile per-packet one-way delay: 116.434 ms
Loss rate: 2.92%
-- Flow 2:
Average throughput: 5.43 Mbit/s
95th percentile per-packet one-way delay: 116.651 ms
Loss rate: 4.15%
-- Flow 3:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 117.870 ms
Loss rate: 4.31%
Run 10: Report of Vivace-loss — Data Link

![Graph of throughput and packet delay over time]

Legend:
- Flow 1 ingress (mean 86.59 Mbit/s)
- Flow 1 egress (mean 83.98 Mbit/s)
- Flow 2 ingress (mean 5.67 Mbit/s)
- Flow 2 egress (mean 5.43 Mbit/s)
- Flow 3 ingress (mean 4.39 Mbit/s)
- Flow 3 egress (mean 4.20 Mbit/s)
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-06 15:48:45
End at: 2018-03-06 15:49:15
Local clock offset: -6.428 ms
Remote clock offset: 0.201 ms

# Below is generated by plot.py at 2018-03-06 20:31:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.62 Mbit/s
95th percentile per-packet one-way delay: 119.035 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 75.05 Mbit/s
95th percentile per-packet one-way delay: 119.049 ms
Loss rate: 2.75%
-- Flow 2:
Average throughput: 16.33 Mbit/s
95th percentile per-packet one-way delay: 118.020 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 5.20 Mbit/s
95th percentile per-packet one-way delay: 117.268 ms
Loss rate: 2.44%
Run 1: Report of Vivace-LTE — Data Link
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-06 16:12:19
End at: 2018-03-06 16:12:49
Local clock offset: -6.556 ms
Remote clock offset: -0.941 ms

# Below is generated by plot.py at 2018-03-06 20:31:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.76 Mbit/s
  95th percentile per-packet one-way delay: 116.282 ms
  Loss rate: 2.79%
-- Flow 1:
  Average throughput: 72.43 Mbit/s
  95th percentile per-packet one-way delay: 116.221 ms
  Loss rate: 3.00%
-- Flow 2:
  Average throughput: 19.36 Mbit/s
  95th percentile per-packet one-way delay: 117.202 ms
  Loss rate: 1.67%
-- Flow 3:
  Average throughput: 7.43 Mbit/s
  95th percentile per-packet one-way delay: 115.639 ms
  Loss rate: 2.51%
Run 2: Report of Vivace-LTE — Data Link

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

- **Throughput:**
  - Flow 1 (ingress: mean 74.74 Mbit/s, egress: mean 72.43 Mbit/s)
  - Flow 2 (ingress: mean 19.71 Mbit/s, egress: mean 19.36 Mbit/s)
  - Flow 3 (ingress: mean 7.64 Mbit/s, egress: mean 7.43 Mbit/s)

- **Packet Delay:**
  - Flow 1 (95th percentile: 116.22 ms)
  - Flow 2 (95th percentile: 117.20 ms)
  - Flow 3 (95th percentile: 115.64 ms)
Run 3: Statistics of Vivace-LTE

Start at: 2018-03-06 16:36:00
End at: 2018-03-06 16:36:30
Local clock offset: -6.448 ms
Remote clock offset: -5.474 ms

# Below is generated by plot.py at 2018-03-06 20:31:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.13 Mbit/s
95th percentile per-packet one-way delay: 111.960 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 79.17 Mbit/s
95th percentile per-packet one-way delay: 111.931 ms
Loss rate: 2.55%
-- Flow 2:
Average throughput: 7.99 Mbit/s
95th percentile per-packet one-way delay: 113.108 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 8.05 Mbit/s
95th percentile per-packet one-way delay: 112.784 ms
Loss rate: 2.41%
Run 3: Report of Vivace-LTE — Data Link

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**Throughput (Mbps)**

- **Flow 1 ingress** (mean 81.25 Mbps)
- **Flow 2 ingress** (mean 8.15 Mbps)
- **Flow 3 ingress** (mean 8.25 Mbps)
- **Flow 1 egress** (mean 79.17 Mbps)
- **Flow 2 egress** (mean 7.99 Mbps)
- **Flow 3 egress** (mean 8.05 Mbps)

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

- **Flow 1** (95th percentile 111.93 ms)
- **Flow 2** (95th percentile 113.11 ms)
- **Flow 3** (95th percentile 112.78 ms)
Run 4: Statistics of Vivace-LTE

Start at: 2018-03-06 16:59:50  
End at: 2018-03-06 17:00:20  
Local clock offset: -6.432 ms  
Remote clock offset: -0.254 ms

# Below is generated by plot.py at 2018-03-06 20:31:33  
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.66 Mbit/s
  95th percentile per-packet one-way delay: 118.486 ms
  Loss rate: 3.26%
-- Flow 1:
  Average throughput: 73.09 Mbit/s
  95th percentile per-packet one-way delay: 118.500 ms
  Loss rate: 3.30%
-- Flow 2:
  Average throughput: 15.83 Mbit/s
  95th percentile per-packet one-way delay: 116.740 ms
  Loss rate: 2.90%
-- Flow 3:
  Average throughput: 12.23 Mbit/s
  95th percentile per-packet one-way delay: 118.021 ms
  Loss rate: 3.34%
Run 5: Statistics of Vivace-LTE

Start at: 2018-03-06 17:23:17
End at: 2018-03-06 17:23:47
Local clock offset: -6.013 ms
Remote clock offset: -0.353 ms

# Below is generated by plot.py at 2018-03-06 20:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.05 Mbit/s
95th percentile per-packet one-way delay: 116.288 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 77.92 Mbit/s
95th percentile per-packet one-way delay: 116.274 ms
Loss rate: 2.72%
-- Flow 2:
Average throughput: 9.62 Mbit/s
95th percentile per-packet one-way delay: 116.512 ms
Loss rate: 2.08%
-- Flow 3:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 116.303 ms
Loss rate: 2.07%
Run 5: Report of Vivace-LTE — Data Link

![Throughput Graph](image)

- **Flow 1 ingress** (mean 80.11 Mbit/s)
- **Flow 1 egress** (mean 77.92 Mbit/s)
- **Flow 2 ingress** (mean 9.62 Mbit/s)
- **Flow 2 egress** (mean 9.62 Mbit/s)
- **Flow 3 ingress** (mean 8.50 Mbit/s)
- **Flow 3 egress** (mean 8.33 Mbit/s)

![Delay Graph](image)

- **Flow 1 (95th percentile 116.27 ms)**
- **Flow 2 (95th percentile 116.51 ms)**
- **Flow 3 (95th percentile 116.30 ms)**
Run 6: Statistics of Vivace-LTE

Start at: 2018-03-06 17:46:52
End at: 2018-03-06 17:47:22
Local clock offset: -6.471 ms
Remote clock offset: -5.964 ms

# Below is generated by plot.py at 2018-03-06 20:31:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.39 Mbit/s
95th percentile per-packet one-way delay: 112.360 ms
Loss rate: 2.89%
-- Flow 1:
Average throughput: 75.14 Mbit/s
95th percentile per-packet one-way delay: 112.372 ms
Loss rate: 2.96%
-- Flow 2:
Average throughput: 11.99 Mbit/s
95th percentile per-packet one-way delay: 112.051 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 12.96 Mbit/s
95th percentile per-packet one-way delay: 110.556 ms
Loss rate: 2.87%
Run 6: Report of Vivace-LTE — Data Link

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

- **Flow 1 ingress** (mean 77.48 Mbps)
- **Flow 1 egress** (mean 75.14 Mbps)
- **Flow 2 ingress** (mean 12.27 Mbps)
- **Flow 2 egress** (mean 11.99 Mbps)
- **Flow 3 ingress** (mean 13.37 Mbps)
- **Flow 3 egress** (mean 12.96 Mbps)

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

- **Flow 1** (95th percentile 112.37 ms)
- **Flow 2** (95th percentile 112.05 ms)
- **Flow 3** (95th percentile 110.56 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-06 18:10:26
End at: 2018-03-06 18:10:56
Local clock offset: -6.721 ms
Remote clock offset: -5.807 ms

# Below is generated by plot.py at 2018-03-06 20:31:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.32 Mbit/s
95th percentile per-packet one-way delay: 112.273 ms
Loss rate: 3.17%
-- Flow 1:
Average throughput: 72.58 Mbit/s
95th percentile per-packet one-way delay: 112.236 ms
Loss rate: 3.24%
-- Flow 2:
Average throughput: 16.07 Mbit/s
95th percentile per-packet one-way delay: 112.461 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 12.29 Mbit/s
95th percentile per-packet one-way delay: 110.977 ms
Loss rate: 3.29%
Run 7: Report of Vivace-LTE — Data Link
Run 8: Statistics of Vivace-LTE

Start at: 2018-03-06 18:34:17
End at: 2018-03-06 18:34:47
Local clock offset: -6.828 ms
Remote clock offset: 11.817 ms

# Below is generated by plot.py at 2018-03-06 20:31:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.23 Mbit/s
  95th percentile per-packet one-way delay: 117.963 ms
  Loss rate: 3.18%
-- Flow 1:
  Average throughput: 71.77 Mbit/s
  95th percentile per-packet one-way delay: 117.983 ms
  Loss rate: 3.27%
-- Flow 2:
  Average throughput: 20.78 Mbit/s
  95th percentile per-packet one-way delay: 117.847 ms
  Loss rate: 2.54%
-- Flow 3:
  Average throughput: 4.99 Mbit/s
  95th percentile per-packet one-way delay: 115.861 ms
  Loss rate: 4.64%
Run 8: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 74.18 Mbps)
- Flow 1 egress (mean 71.77 Mbps)
- Flow 2 ingress (mean 21.32 Mbps)
- Flow 2 egress (mean 20.78 Mbps)
- Flow 3 ingress (mean 5.23 Mbps)
- Flow 3 egress (mean 4.99 Mbps)

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

- Flow 1 (95th percentile 117.98 ms)
- Flow 2 (95th percentile 117.85 ms)
- Flow 3 (95th percentile 115.86 ms)
Run 9: Statistics of Vivace-LTE

Start at: 2018-03-06 18:58:03
End at: 2018-03-06 18:58:33
Local clock offset: -6.13 ms
Remote clock offset: 14.395 ms

# Below is generated by plot.py at 2018-03-06 20:32:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.76 Mbit/s
95th percentile per-packet one-way delay: 111.346 ms
Loss rate: 3.02%

-- Flow 1:
Average throughput: 75.22 Mbit/s
95th percentile per-packet one-way delay: 111.049 ms
Loss rate: 3.10%

-- Flow 2:
Average throughput: 14.95 Mbit/s
95th percentile per-packet one-way delay: 113.080 ms
Loss rate: 2.54%

-- Flow 3:
Average throughput: 7.92 Mbit/s
95th percentile per-packet one-way delay: 112.962 ms
Loss rate: 2.38%
Run 9: Report of Vivace-LTE — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Per-packet Delay vs Time](image2)
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-06 19:21:55
End at: 2018-03-06 19:22:25
Local clock offset: -6.107 ms
Remote clock offset: 19.537 ms

# Below is generated by plot.py at 2018-03-06 20:32:04
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 87.01 Mbit/s
  95th percentile per-packet one-way delay: 113.230 ms
  Loss rate: 2.98%
-- Flow 1:
  Average throughput: 73.18 Mbit/s
  95th percentile per-packet one-way delay: 113.246 ms
  Loss rate: 3.11%
-- Flow 2:
  Average throughput: 17.14 Mbit/s
  95th percentile per-packet one-way delay: 110.947 ms
  Loss rate: 2.04%
-- Flow 3:
  Average throughput: 7.40 Mbit/s
  95th percentile per-packet one-way delay: 111.186 ms
  Loss rate: 3.33%
Run 10: Report of Vivace-LTE — Data Link

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

- **Flow 1 ingress (mean 75.53 Mbps)**
- **Flow 1 egress (mean 73.18 Mbps)**
- **Flow 2 ingress (mean 17.50 Mbps)**
- **Flow 2 egress (mean 17.14 Mbps)**
- **Flow 3 ingress (mean 7.65 Mbps)**
- **Flow 3 egress (mean 7.40 Mbps)**

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

- **Flow 1 (95th percentile 113.25 ms)**
- **Flow 2 (95th percentile 110.95 ms)**
- **Flow 3 (95th percentile 111.19 ms)**