Pantheon Report

Generated at 2018-03-07 23:56:06 (UTC).
Data path: GCE Sydney Ethernet (local) → GCE London 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).

Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5c9f90f281d1c69afe1a5c6
third_party/genericCC @ 9249eeaa3238475c4a8c4ca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
  third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f828e8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d8dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75344385ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303ae82ea088e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e28262f2b179eab4a906cc6b7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9113db26744ccfcff93
third_party/pcc @ 1afc958fa0d66d1b8b23c091a55feci872b4981e1
  M receiver/src/core.cpp
  M receiver/src/core.cpp
  M sender/src/core.cpp
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cc4f2
third_party/scream @ c3370fd7b1d1762a99e5b4016a23f5965885
third_party/sourdough @ f1a4bffe74973477437f61b1eaebe30b267cde681
third_party/sprout @ 6f2e6e60e088d90166a9f023df375ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c0a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
test from GCE Sydney Ethernet to GCE London 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>TCP BBR</td>
<td>10</td>
<td>73.08 70.86 65.38</td>
<td>140.21 140.26 140.30</td>
<td>0.01 0.01 0.00</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>53.20 54.87 41.61</td>
<td>145.32 145.64 147.01</td>
<td>0.00 0.03 0.17</td>
</tr>
<tr>
<td>LEDBAT</td>
<td>10</td>
<td>4.57 3.02 1.48</td>
<td>140.73 140.76 140.52</td>
<td>0.09 0.00 0.00</td>
</tr>
<tr>
<td>PCC</td>
<td>10</td>
<td>491.85 113.42 33.83</td>
<td>254.95 245.41 239.02</td>
<td>1.82 1.91 1.57</td>
</tr>
<tr>
<td>QUIC Cubic</td>
<td>10</td>
<td>51.50 56.16 33.53</td>
<td>137.40 138.13 136.89</td>
<td>0.00 0.00 0.00</td>
</tr>
<tr>
<td>SCReAM</td>
<td>10</td>
<td>0.22 0.22 0.22</td>
<td>137.99 137.19 137.50</td>
<td>0.01 0.00 0.00</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>2.03 1.24 0.42</td>
<td>138.68 139.05 140.06</td>
<td>0.00 0.00 0.01</td>
</tr>
<tr>
<td>Sprout</td>
<td>10</td>
<td>0.38 0.42 0.51</td>
<td>140.18 140.17 140.18</td>
<td>0.00 0.11 0.00</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>10</td>
<td>31.11 29.07 71.34</td>
<td>140.43 140.51 141.00</td>
<td>0.00 0.02 0.00</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>26.47 41.66 22.00</td>
<td>141.68 142.32 144.44</td>
<td>0.00 0.00 0.02</td>
</tr>
<tr>
<td>Verus</td>
<td>10</td>
<td>105.09 117.88 50.52</td>
<td>196.81 214.44 209.93</td>
<td>0.53 1.39 0.52</td>
</tr>
<tr>
<td>Copa</td>
<td>10</td>
<td>69.76 80.90 45.51</td>
<td>140.33 154.46 143.67</td>
<td>0.01 2.41 0.03</td>
</tr>
<tr>
<td>FillIP</td>
<td>10</td>
<td>799.15 702.66 663.16</td>
<td>253.86 291.80 276.56</td>
<td>5.52 9.60 8.91</td>
</tr>
<tr>
<td>Indigo-1-32</td>
<td>10</td>
<td>145.67 140.28 121.80</td>
<td>141.96 142.60 143.35</td>
<td>0.01 0.01 0.03</td>
</tr>
<tr>
<td>Vivace-latency</td>
<td>10</td>
<td>228.39 205.21 126.89</td>
<td>144.84 169.09 162.50</td>
<td>0.04 0.04 0.02</td>
</tr>
<tr>
<td>Vivace-loss</td>
<td>10</td>
<td>283.88 190.06 152.98</td>
<td>239.69 204.80 247.95</td>
<td>1.27 2.48 4.06</td>
</tr>
<tr>
<td>Vivace-LTE</td>
<td>10</td>
<td>305.86 237.60 131.71</td>
<td>201.18 168.35 233.32</td>
<td>0.30 0.15 1.93</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-03-07 17:02:33
End at: 2018-03-07 17:03:03

# Below is generated by plot.py at 2018-03-07 22:18:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.71 Mbit/s
95th percentile per-packet one-way delay: 141.297 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 72.66 Mbit/s
95th percentile per-packet one-way delay: 141.188 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 72.36 Mbit/s
95th percentile per-packet one-way delay: 141.383 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 62.89 Mbit/s
95th percentile per-packet one-way delay: 141.376 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-03-07 17:22:06
End at: 2018-03-07 17:22:36

# Below is generated by plot.py at 2018-03-07 22:18:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.47 Mbit/s
95th percentile per-packet one-way delay: 141.995 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 77.11 Mbit/s
95th percentile per-packet one-way delay: 141.987 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.90 Mbit/s
95th percentile per-packet one-way delay: 142.028 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 66.50 Mbit/s
95th percentile per-packet one-way delay: 141.951 ms
Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

![Graph showing throughput and packet delay over time](image)
Run 3: Statistics of TCP BBR

Start at: 2018-03-07 17:41:55
End at: 2018-03-07 17:42:25

# Below is generated by plot.py at 2018-03-07 22:18:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 139.03 Mbit/s
  95th percentile per-packet one-way delay: 141.942 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 72.53 Mbit/s
  95th percentile per-packet one-way delay: 141.966 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 68.28 Mbit/s
  95th percentile per-packet one-way delay: 141.881 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 63.57 Mbit/s
  95th percentile per-packet one-way delay: 141.951 ms
  Loss rate: 0.00%
Run 3: Report of TCP BBR — Data Link

![Graph showing throughput and latency over time for three different flows, with mean throughput and packet delay values given for each flow.](image-url)
Run 4: Statistics of TCP BBR

Start at: 2018-03-07 18:01:56
End at: 2018-03-07 18:02:26

# Below is generated by plot.py at 2018-03-07 22:18:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.57 Mbit/s
95th percentile per-packet one-way delay: 142.022 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.17 Mbit/s
95th percentile per-packet one-way delay: 142.035 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 68.23 Mbit/s
95th percentile per-packet one-way delay: 142.006 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.26 Mbit/s
95th percentile per-packet one-way delay: 142.002 ms
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link
Run 5: Statistics of TCP BBR

End at: 2018-03-07 18:22:53

# Below is generated by plot.py at 2018-03-07 22:18:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.93 Mbit/s
95th percentile per-packet one-way delay: 141.341 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.29 Mbit/s
95th percentile per-packet one-way delay: 141.340 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 68.56 Mbit/s
95th percentile per-packet one-way delay: 141.343 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.69 Mbit/s
95th percentile per-packet one-way delay: 141.335 ms
Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link

![Graph showing throughput and delay over time for Flow 1 ingress, Flow 1 egress, Flow 2 ingress, Flow 2 egress, Flow 3 ingress, and Flow 3 egress.]
Run 6: Statistics of TCP BBR

Start at: 2018-03-07 18:42:31
End at: 2018-03-07 18:43:02

# Below is generated by plot.py at 2018-03-07 22:18:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 137.81 Mbit/s
  95th percentile per-packet one-way delay: 141.252 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 70.90 Mbit/s
  95th percentile per-packet one-way delay: 141.234 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 69.14 Mbit/s
  95th percentile per-packet one-way delay: 141.262 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 63.04 Mbit/s
  95th percentile per-packet one-way delay: 141.290 ms
  Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link
Run 7: Statistics of TCP BBR

Start at: 2018-03-07 19:02:40
End at: 2018-03-07 19:03:10

# Below is generated by plot.py at 2018-03-07 22:18:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.22 Mbit/s
95th percentile per-packet one-way delay: 137.247 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 73.60 Mbit/s
95th percentile per-packet one-way delay: 137.160 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 74.57 Mbit/s
95th percentile per-packet one-way delay: 137.289 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.53 Mbit/s
95th percentile per-packet one-way delay: 137.367 ms
Loss rate: 0.03%
Run 7: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 73.60 Mbps)
- Flow 1 egress (mean 73.60 Mbps)
- Flow 2 ingress (mean 74.57 Mbps)
- Flow 2 egress (mean 74.57 Mbps)
- Flow 3 ingress (mean 69.51 Mbps)
- Flow 3 egress (mean 69.53 Mbps)

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

- Flow 1 (95th percentile 137.16 ms)
- Flow 2 (95th percentile 137.29 ms)
- Flow 3 (95th percentile 137.37 ms)
Run 8: Statistics of TCP BBR

End at: 2018-03-07 19:23:05

# Below is generated by plot.py at 2018-03-07 22:18:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.06 Mbit/s
95th percentile per-packet one-way delay: 137.341 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.27 Mbit/s
95th percentile per-packet one-way delay: 137.270 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.54 Mbit/s
95th percentile per-packet one-way delay: 137.309 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 68.72 Mbit/s
95th percentile per-packet one-way delay: 137.477 ms
Loss rate: 0.00%
Run 8: Report of TCP BBR — Data Link
Run 9: Statistics of TCP BBR

Start at: 2018-03-07 19:42:36
End at: 2018-03-07 19:43:06

# Below is generated by plot.py at 2018-03-07 22:20:32
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 142.00 Mbit/s
  95th percentile per-packet one-way delay: 137.273 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 72.71 Mbit/s
    95th percentile per-packet one-way delay: 137.201 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 69.95 Mbit/s
    95th percentile per-packet one-way delay: 137.225 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 69.17 Mbit/s
    95th percentile per-packet one-way delay: 137.427 ms
    Loss rate: 0.00%
Run 9: Report of TCP BBR — Data Link

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

- Flow 1 ingress (mean 72.72 Mbps)
- Flow 1 egress (mean 72.71 Mbps)
- Flow 2 ingress (mean 69.96 Mbps)
- Flow 2 egress (mean 69.95 Mbps)
- Flow 3 ingress (mean 69.15 Mbps)
- Flow 3 egress (mean 69.17 Mbps)

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

- Flow 1 (95th percentile 137.20 ms)
- Flow 2 (95th percentile 137.22 ms)
- Flow 3 (95th percentile 137.43 ms)
Run 10: Statistics of TCP BBR

Start at: 2018-03-07 20:02:30
End at: 2018-03-07 20:03:00

# Below is generated by plot.py at 2018-03-07 22:20:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 142.83 Mbit/s
  95th percentile per-packet one-way delay: 140.817 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 72.56 Mbit/s
  95th percentile per-packet one-way delay: 140.701 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 74.03 Mbit/s
  95th percentile per-packet one-way delay: 140.906 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 63.44 Mbit/s
  95th percentile per-packet one-way delay: 140.873 ms
  Loss rate: 0.00%
Run 10: Report of TCP BBR — Data Link
Run 1: Statistics of TCP Cubic

Start at: 2018-03-07 16:59:37
End at: 2018-03-07 17:00:07

# Below is generated by plot.py at 2018-03-07 22:20:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.68 Mbit/s
95th percentile per-packet one-way delay: 150.007 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.40 Mbit/s
95th percentile per-packet one-way delay: 147.969 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 79.45 Mbit/s
95th percentile per-packet one-way delay: 150.991 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.70 Mbit/s
95th percentile per-packet one-way delay: 149.156 ms
Loss rate: 0.00%
Run 1: Report of TCP Cubic — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Per-packet One-way Delay vs Time](image2)
Run 2: Statistics of TCP Cubic

Start at: 2018-03-07 17:19:09
End at: 2018-03-07 17:19:39

# Below is generated by plot.py at 2018-03-07 22:20:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.83 Mbit/s
95th percentile per-packet one-way delay: 146.447 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 57.46 Mbit/s
95th percentile per-packet one-way delay: 146.544 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.67 Mbit/s
95th percentile per-packet one-way delay: 145.186 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 37.26 Mbit/s
95th percentile per-packet one-way delay: 147.597 ms
Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

Start at: 2018-03-07 17:38:59
End at: 2018-03-07 17:39:29

# Below is generated by plot.py at 2018-03-07 22:20:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.65 Mbit/s
95th percentile per-packet one-way delay: 147.221 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 52.33 Mbit/s
95th percentile per-packet one-way delay: 147.429 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.72 Mbit/s
95th percentile per-packet one-way delay: 143.959 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 143.442 ms
Loss rate: 1.37%
Run 3: Report of TCP Cubic — Data Link
Run 4: Statistics of TCP Cubic

Start at: 2018-03-07 17:58:58
End at: 2018-03-07 17:59:28

# Below is generated by plot.py at 2018-03-07 22:20:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 102.16 Mbit/s
  95th percentile per-packet one-way delay: 149.347 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 48.77 Mbit/s
  95th percentile per-packet one-way delay: 148.332 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 45.21 Mbit/s
  95th percentile per-packet one-way delay: 147.102 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 70.28 Mbit/s
  95th percentile per-packet one-way delay: 151.427 ms
  Loss rate: 0.00%
Run 4: Report of TCP Cubic — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 48.78 Mbit/s)
Flow 1 egress (mean 48.77 Mbit/s)
Flow 2 ingress (mean 45.22 Mbit/s)
Flow 2 egress (mean 45.21 Mbit/s)
Flow 3 ingress (mean 70.23 Mbit/s)
Flow 3 egress (mean 70.28 Mbit/s)

Per-packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 148.33 ms)
Flow 2 (95th percentile 147.10 ms)
Flow 3 (95th percentile 151.43 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-03-07 18:19:26
End at: 2018-03-07 18:19:56

# Below is generated by plot.py at 2018-03-07 22:20:35
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 83.85 Mbit/s
  95th percentile per-packet one-way delay: 145.472 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 48.26 Mbit/s
  95th percentile per-packet one-way delay: 144.786 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 52.68 Mbit/s
  95th percentile per-packet one-way delay: 146.247 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.51 Mbit/s
  95th percentile per-packet one-way delay: 148.208 ms
  Loss rate: 0.24%
Run 5: Report of TCP Cubic — Data Link
Run 6: Statistics of TCP Cubic

Start at: 2018-03-07 18:39:33
End at: 2018-03-07 18:40:03

# Below is generated by plot.py at 2018-03-07 22:20:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.11 Mbit/s
95th percentile per-packet one-way delay: 148.287 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.46 Mbit/s
95th percentile per-packet one-way delay: 147.007 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 74.14 Mbit/s
95th percentile per-packet one-way delay: 147.644 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.25 Mbit/s
95th percentile per-packet one-way delay: 149.775 ms
Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 59.50 Mbit/s)
- Flow 1 egress (mean 59.46 Mbit/s)
- Flow 2 ingress (mean 74.16 Mbit/s)
- Flow 2 egress (mean 74.14 Mbit/s)
- Flow 3 ingress (mean 71.32 Mbit/s)
- Flow 3 egress (mean 71.25 Mbit/s)

- Flow 1 (95th percentile 147.01 ms)
- Flow 2 (95th percentile 147.64 ms)
- Flow 3 (95th percentile 149.78 ms)
Run 7: Statistics of TCP Cubic

Start at: 2018-03-07 18:59:42  
End at: 2018-03-07 19:00:12

# Below is generated by plot.py at 2018-03-07 22:21:17  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 96.45 Mbit/s  
  95th percentile per-packet one-way delay: 141.308 ms  
  Loss rate: 0.00%  
-- Flow 1:  
  Average throughput: 50.59 Mbit/s  
  95th percentile per-packet one-way delay: 141.937 ms  
  Loss rate: 0.00%  
-- Flow 2:  
  Average throughput: 46.79 Mbit/s  
  95th percentile per-packet one-way delay: 138.710 ms  
  Loss rate: 0.00%  
-- Flow 3:  
  Average throughput: 45.00 Mbit/s  
  95th percentile per-packet one-way delay: 142.592 ms  
  Loss rate: 0.00%
Run 7: Report of TCP Cubic — Data Link

![Graph of Throughput and Per-Packet End-to-End Delay Time]

Legend:
- Blue dashed line: Flow 1 ingress (mean 50.60 Mbit/s)
- Blue solid line: Flow 1 egress (mean 50.59 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 46.79 Mbit/s)
- Green solid line: Flow 2 egress (mean 46.79 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 45.00 Mbit/s)
- Red solid line: Flow 3 egress (mean 45.00 Mbit/s)
Run 8: Statistics of TCP Cubic

Start at: 2018-03-07 19:19:39
End at: 2018-03-07 19:20:09

# Below is generated by plot.py at 2018-03-07 22:21:26
# Datalink statistics
  -- Total of 3 flows:
    Average throughput: 99.77 Mbit/s
    95th percentile per-packet one-way delay: 145.305 ms
    Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 61.70 Mbit/s
    95th percentile per-packet one-way delay: 145.152 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 39.18 Mbit/s
    95th percentile per-packet one-way delay: 144.832 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 36.41 Mbit/s
    95th percentile per-packet one-way delay: 146.763 ms
    Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

Graph 1: Throughput (Mbps)

Graph 2: Per-packet one-way delay (ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-03-07 19:39:39
End at: 2018-03-07 19:40:09

# Below is generated by plot.py at 2018-03-07 22:21:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 97.84 Mbit/s
  95th percentile per-packet one-way delay: 140.093 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 57.31 Mbit/s
  95th percentile per-packet one-way delay: 139.910 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 41.11 Mbit/s
  95th percentile per-packet one-way delay: 140.403 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 39.72 Mbit/s
  95th percentile per-packet one-way delay: 140.222 ms
  Loss rate: 0.00%
Run 9: Report of TCP Cubic — Data Link
Run 10: Statistics of TCP Cubic

Start at: 2018-03-07 19:59:32
End at: 2018-03-07 20:00:02

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 126.63 Mbit/s
95th percentile per-packet one-way delay: 149.887 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 50.69 Mbit/s
95th percentile per-packet one-way delay: 144.139 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 151.335 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 70.10 Mbit/s
95th percentile per-packet one-way delay: 150.900 ms
Loss rate: 0.14%
Run 10: Report of TCP Cubic — Data Link

![Graph showing throughput and per-packet one-way delay](image-url)

- Flow 1 ingress (mean 50.70 Mbit/s)
- Flow 1 egress (mean 50.69 Mbit/s)
- Flow 2 ingress (mean 79.83 Mbit/s)
- Flow 2 egress (mean 79.74 Mbit/s)
- Flow 3 ingress (mean 70.28 Mbit/s)
- Flow 3 egress (mean 70.10 Mbit/s)

- Flow 1 (95th percentile 144.14 ms)
- Flow 2 (95th percentile 151.34 ms)
- Flow 3 (95th percentile 150.90 ms)
Run 1: Statistics of LEDBAT

Start at: 2018-03-07 17:10:10
End at: 2018-03-07 17:10:40

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.11 Mbit/s
  95th percentile per-packet one-way delay: 141.707 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.64 Mbit/s
  95th percentile per-packet one-way delay: 141.701 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.02 Mbit/s
  95th percentile per-packet one-way delay: 141.854 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.44 Mbit/s
  95th percentile per-packet one-way delay: 141.498 ms
  Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

![Throughput Graph]

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 4.64 Mbps)  
Flow 1 egress (mean 4.64 Mbps)  
Flow 2 ingress (mean 3.02 Mbps)  
Flow 2 egress (mean 3.02 Mbps)  
Flow 3 ingress (mean 1.44 Mbps)  
Flow 3 egress (mean 1.44 Mbps)

![Packet Loss Graph]

Packet loss rate per packet (ms)

Time (s)

Flow 1 (95th percentile 141.70 ms)  
Flow 2 (95th percentile 141.85 ms)  
Flow 3 (95th percentile 141.50 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-03-07 17:29:54
End at: 2018-03-07 17:30:24

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.96 Mbit/s
  95th percentile per-packet one-way delay: 142.694 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.48 Mbit/s
  95th percentile per-packet one-way delay: 142.747 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.03 Mbit/s
  95th percentile per-packet one-way delay: 142.503 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.45 Mbit/s
  95th percentile per-packet one-way delay: 142.319 ms
  Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

![Graph 1](graph1.png)

![Graph 2](graph2.png)

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Run 3: Statistics of LEDBAT

Start at: 2018-03-07 17:49:52
End at: 2018-03-07 17:50:22

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.90 Mbit/s
95th percentile per-packet one-way delay: 142.857 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 142.793 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 142.949 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 142.385 ms
Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link

Throughput (Mbit/s) vs Time (s)

- **Flow 1 ingress** (mean 4.48 Mbit/s)
- **Flow 1 egress** (mean 4.47 Mbit/s)
- **Flow 2 ingress** (mean 2.96 Mbit/s)
- **Flow 2 egress** (mean 2.96 Mbit/s)
- **Flow 3 ingress** (mean 1.45 Mbit/s)
- **Flow 3 egress** (mean 1.45 Mbit/s)

Packet one-way delay (ms)

- **Flow 1 (95th percentile 142.79 ms)**
- **Flow 2 (95th percentile 142.95 ms)**
- **Flow 3 (95th percentile 142.38 ms)**
Run 4: Statistics of LEDBAT

Start at: 2018-03-07 18:09:50
End at: 2018-03-07 18:10:20

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.85 Mbit/s
  95th percentile per-packet one-way delay: 142.264 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.40 Mbit/s
  95th percentile per-packet one-way delay: 142.192 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.01 Mbit/s
  95th percentile per-packet one-way delay: 142.334 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.42 Mbit/s
  95th percentile per-packet one-way delay: 141.933 ms
  Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link
Run 5: Statistics of LEDBAT

Start at: 2018-03-07 18:30:19
End at: 2018-03-07 18:30:49

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.89 Mbit/s
  95th percentile per-packet one-way delay: 141.711 ms
  Loss rate: 0.59%
-- Flow 1:
  Average throughput: 4.49 Mbit/s
  95th percentile per-packet one-way delay: 141.664 ms
  Loss rate: 0.91%
-- Flow 2:
  Average throughput: 2.91 Mbit/s
  95th percentile per-packet one-way delay: 141.880 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.48 Mbit/s
  95th percentile per-packet one-way delay: 141.593 ms
  Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link

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

- **Flow 1 ingress** (mean 4.53 Mbit/s)
- **Flow 1 egress** (mean 4.49 Mbit/s)
- **Flow 2 ingress** (mean 2.91 Mbit/s)
- **Flow 2 egress** (mean 2.91 Mbit/s)
- **Flow 3 ingress** (mean 1.46 Mbit/s)
- **Flow 3 egress** (mean 1.46 Mbit/s)

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

- **Flow 1** (95th percentile 141.66 ms)
- **Flow 2** (95th percentile 141.88 ms)
- **Flow 3** (95th percentile 141.59 ms)
Run 6: Statistics of LEDBAT

Start at: 2018-03-07 18:50:29
End at: 2018-03-07 18:50:59

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.30 Mbit/s
95th percentile per-packet one-way delay: 137.965 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 138.008 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 137.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 137.496 ms
Loss rate: 0.00%
Run 6: Report of LEDBAT — Data Link

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

Legend:
- Flow 1 ingress (mean 4.74 Mbit/s)
- Flow 1 egress (mean 4.74 Mbit/s)
- Flow 2 ingress (mean 3.14 Mbit/s)
- Flow 2 egress (mean 3.14 Mbit/s)
- Flow 3 ingress (mean 1.36 Mbit/s)
- Flow 3 egress (mean 1.36 Mbit/s)
Run 7: Statistics of LEDBAT

Start at: 2018-03-07 19:10:30
End at: 2018-03-07 19:11:00

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.23 Mbit/s
  95th percentile per-packet one-way delay: 137.651 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.76 Mbit/s
  95th percentile per-packet one-way delay: 137.630 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.00 Mbit/s
  95th percentile per-packet one-way delay: 137.814 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.55 Mbit/s
  95th percentile per-packet one-way delay: 137.634 ms
  Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link

![Graph showing time vs. throughput and time vs. packet one-way delay](image)

- Flow 1 ingress (mean 4.76 Mbit/s)
- Flow 1 egress (mean 4.76 Mbit/s)
- Flow 2 ingress (mean 3.00 Mbit/s)
- Flow 2 egress (mean 3.00 Mbit/s)
- Flow 3 ingress (mean 1.35 Mbit/s)
- Flow 3 egress (mean 1.35 Mbit/s)
Run 8: Statistics of LEDBAT

Start at: 2018-03-07 19:30:23  
End at: 2018-03-07 19:30:53

# Below is generated by plot.py at 2018-03-07 22:22:02  
# Datalink statistics  
-- Total of 3 flows:  
  Average throughput: 7.28 Mbit/s  
  95th percentile per-packet one-way delay: 137.972 ms  
  Loss rate: 0.00%  
-- Flow 1:  
  Average throughput: 4.69 Mbit/s  
  95th percentile per-packet one-way delay: 137.950 ms  
  Loss rate: 0.00%  
-- Flow 2:  
  Average throughput: 3.17 Mbit/s  
  95th percentile per-packet one-way delay: 138.028 ms  
  Loss rate: 0.00%  
-- Flow 3:  
  Average throughput: 1.56 Mbit/s  
  95th percentile per-packet one-way delay: 137.941 ms  
  Loss rate: 0.00%
Run 9: Statistics of LEDBAT

Start at: 2018-03-07 19:50:28
End at: 2018-03-07 19:50:58

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 6.90 Mbit/s
  95th percentile per-packet one-way delay: 141.417 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.48 Mbit/s
  95th percentile per-packet one-way delay: 141.461 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.96 Mbit/s
  95th percentile per-packet one-way delay: 141.238 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.45 Mbit/s
  95th percentile per-packet one-way delay: 141.452 ms
  Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link
Run 10: Statistics of LEDBAT

Start at: 2018-03-07 20:10:30
End at: 2018-03-07 20:11:00

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 7.07 Mbit/s
 95th percentile per-packet one-way delay: 141.161 ms
 Loss rate: 0.00%
 -- Flow 1:
 Average throughput: 4.56 Mbit/s
 95th percentile per-packet one-way delay: 141.171 ms
 Loss rate: 0.00%
 -- Flow 2:
 Average throughput: 3.03 Mbit/s
 95th percentile per-packet one-way delay: 141.231 ms
 Loss rate: 0.00%
 -- Flow 3:
 Average throughput: 1.49 Mbit/s
 95th percentile per-packet one-way delay: 140.917 ms
 Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

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

Start at: 2018-03-07 17:06:59
End at: 2018-03-07 17:07:29

# Below is generated by plot.py at 2018-03-07 22:29:42
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 566.81 Mbit/s
  95th percentile per-packet one-way delay: 256.441 ms
  Loss rate: 1.91%
-- Flow 1:
  Average throughput: 471.88 Mbit/s
  95th percentile per-packet one-way delay: 257.718 ms
  Loss rate: 1.86%
-- Flow 2:
  Average throughput: 126.80 Mbit/s
  95th percentile per-packet one-way delay: 253.963 ms
  Loss rate: 2.27%
-- Flow 3:
  Average throughput: 32.31 Mbit/s
  95th percentile per-packet one-way delay: 254.629 ms
  Loss rate: 1.49%
Run 1: Report of PCC — Data Link

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

![Graph 2: Packet one way delay (ms) vs Time (s)]

Legend:
- Flow 1 Ingress (mean 482.38 Mbps)
- Flow 1 Egress (mean 471.88 Mbps)
- Flow 2 Ingress (mean 129.96 Mbps)
- Flow 2 Egress (mean 126.80 Mbps)
- Flow 3 Ingress (mean 33.13 Mbps)
- Flow 3 Egress (mean 32.31 Mbps)
Run 2: Statistics of PCC

Start at: 2018-03-07 17:26:42
End at: 2018-03-07 17:27:12

# Below is generated by plot.py at 2018-03-07 22:29:51
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 578.68 Mbit/s
  95th percentile per-packet one-way delay: 264.609 ms
  Loss rate: 2.29%
-- Flow 1:
  Average throughput: 477.95 Mbit/s
  95th percentile per-packet one-way delay: 267.549 ms
  Loss rate: 2.19%
-- Flow 2:
  Average throughput: 120.43 Mbit/s
  95th percentile per-packet one-way delay: 251.977 ms
  Loss rate: 2.62%
-- Flow 3:
  Average throughput: 62.55 Mbit/s
  95th percentile per-packet one-way delay: 252.320 ms
  Loss rate: 3.22%
Run 2: Report of PCC — Data Link

![Graph showing throughput and packet delay over time]

- Flow 1 ingress (mean 489.43 Mbit/s)
- Flow 1 egress (mean 477.95 Mbit/s)
- Flow 2 ingress (mean 123.93 Mbit/s)
- Flow 2 egress (mean 120.43 Mbit/s)
- Flow 3 ingress (mean 64.94 Mbit/s)
- Flow 3 egress (mean 62.55 Mbit/s)
Run 3: Statistics of PCC

Start at: 2018-03-07 17:46:40
End at: 2018-03-07 17:47:10

# Below is generated by plot.py at 2018-03-07 22:29:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 583.19 Mbit/s
  95th percentile per-packet one-way delay: 282.541 ms
  Loss rate: 1.70%
-- Flow 1:
  Average throughput: 482.71 Mbit/s
  95th percentile per-packet one-way delay: 286.929 ms
  Loss rate: 1.68%
-- Flow 2:
  Average throughput: 120.40 Mbit/s
  95th percentile per-packet one-way delay: 252.651 ms
  Loss rate: 1.96%
-- Flow 3:
  Average throughput: 62.52 Mbit/s
  95th percentile per-packet one-way delay: 247.675 ms
  Loss rate: 1.05%
Run 3: Report of PCC — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)

- Flow 1 Ingress (mean 491.73 Mbit/s)
- Flow 1 Egress (mean 482.71 Mbit/s)
- Flow 2 Ingress (mean 123.19 Mbit/s)
- Flow 2 Egress (mean 120.40 Mbit/s)
- Flow 3 Ingress (mean 63.59 Mbit/s)
- Flow 3 Egress (mean 62.52 Mbit/s)

![Flow 1 (95th percentile 286.93 ms)](image3)

![Flow 2 (95th percentile 252.65 ms)](image4)

![Flow 3 (95th percentile 247.68 ms)](image5)
Run 4: Statistics of PCC

Start at: 2018-03-07 18:06:40
End at: 2018-03-07 18:07:10

# Below is generated by plot.py at 2018-03-07 22:29:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 578.92 Mbit/s
95th percentile per-packet one-way delay: 262.106 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 514.45 Mbit/s
95th percentile per-packet one-way delay: 264.075 ms
Loss rate: 2.11%
-- Flow 2:
Average throughput: 66.87 Mbit/s
95th percentile per-packet one-way delay: 255.051 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 60.79 Mbit/s
95th percentile per-packet one-way delay: 257.250 ms
Loss rate: 3.55%
Run 4: Report of PCC — Data Link

[Graphs showing throughput and packet delay over time for different flows]
Run 5: Statistics of PCC

Start at: 2018-03-07 18:27:06
End at: 2018-03-07 18:27:36

# Below is generated by plot.py at 2018-03-07 22:30:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 582.32 Mbit/s
95th percentile per-packet one-way delay: 213.682 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 489.67 Mbit/s
95th percentile per-packet one-way delay: 213.653 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 137.13 Mbit/s
95th percentile per-packet one-way delay: 214.342 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 180.191 ms
Loss rate: 0.05%
Run 5: Report of PCC — Data Link

Graph 1: Throughput (Mbps)

- Flow 1 ingress (mean 495.49 Mbps)
- Flow 1 egress (mean 489.67 Mbps)
- Flow 2 ingress (mean 138.19 Mbps)
- Flow 2 egress (mean 137.13 Mbps)
- Flow 3 ingress (mean 4.55 Mbps)
- Flow 3 egress (mean 4.55 Mbps)

Graph 2: Per-packet end-to-end delay (ms)

- Flow 1 (95th percentile 213.65 ms)
- Flow 2 (95th percentile 214.34 ms)
- Flow 3 (95th percentile 180.19 ms)
Run 6: Statistics of PCC

Start at: 2018-03-07 18:47:19
End at: 2018-03-07 18:47:49

# Below is generated by plot.py at 2018-03-07 22:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 587.18 Mbit/s
95th percentile per-packet one-way delay: 245.459 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 502.65 Mbit/s
95th percentile per-packet one-way delay: 246.544 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 126.69 Mbit/s
95th percentile per-packet one-way delay: 242.835 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 243.074 ms
Loss rate: 1.28%
Run 6: Report of PCC — Data Link

![Graph 1: Throughput (Mbps/s)]
- Flow 1 Ingress (mean 512.73 Mbps/s)
- Flow 1 Egress (mean 502.85 Mbps/s)
- Flow 2 Ingress (mean 129.92 Mbps/s)
- Flow 2 Egress (mean 126.69 Mbps/s)
- Flow 3 Ingress (mean 2.28 Mbps/s)
- Flow 3 Egress (mean 2.23 Mbps/s)

![Graph 2: Per packet end-to-end delay (ms)]
- Flow 1 (95th percentile 246.54 ms)
- Flow 2 (95th percentile 242.84 ms)
- Flow 3 (95th percentile 242.07 ms)
Run 7: Statistics of PCC

Start at: 2018-03-07 19:07:24
End at: 2018-03-07 19:07:54

# Below is generated by plot.py at 2018-03-07 22:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 574.56 Mbit/s
95th percentile per-packet one-way delay: 249.526 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 531.88 Mbit/s
95th percentile per-packet one-way delay: 249.873 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 63.02 Mbit/s
95th percentile per-packet one-way delay: 248.138 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 243.763 ms
Loss rate: 0.20%
Run 7: Report of PCC — Data Link

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

- Flow 1 Ingress (mean 539.81 Mbit/s)
- Flow 1 Egress (mean 531.88 Mbit/s)
- Flow 2 Ingress (mean 63.71 Mbit/s)
- Flow 2 Egress (mean 63.02 Mbit/s)
- Flow 3 Ingress (mean 2.42 Mbit/s)
- Flow 3 Egress (mean 2.41 Mbit/s)

![Graph 2: Delay vs Time](Image)

- Flow 1 (95th percentile 249.97 ms)
- Flow 2 (95th percentile 248.14 ms)
- Flow 3 (95th percentile 243.76 ms)
Run 8: Statistics of PCC

Start at: 2018-03-07 19:27:15
End at: 2018-03-07 19:27:45

# Below is generated by plot.py at 2018-03-07 22:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 574.44 Mbit/s
95th percentile per-packet one-way delay: 278.390 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 479.23 Mbit/s
95th percentile per-packet one-way delay: 284.493 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 127.74 Mbit/s
95th percentile per-packet one-way delay: 249.473 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 32.97 Mbit/s
95th percentile per-packet one-way delay: 250.104 ms
Loss rate: 0.87%
Run 8: Report of PCC — Data Link

![Graph 1: Throughput (Mbps) vs Time (s)]
- Flow 1 Ingress (mean 488.96 Mbps)
- Flow 1 Egress (mean 479.23 Mbps)
- Flow 2 Ingress (mean 130.23 Mbps)
- Flow 2 Egress (mean 127.74 Mbps)
- Flow 3 Ingress (mean 33.49 Mbps)
- Flow 3 Egress (mean 32.97 Mbps)

![Graph 2: Per-packet one-way delay (ms) vs Time (s)]
- Flow 1 (95th percentile 284.49 ms)
- Flow 2 (95th percentile 249.47 ms)
- Flow 3 (95th percentile 250.10 ms)
Run 9: Statistics of PCC

Start at: 2018-03-07 19:47:18
End at: 2018-03-07 19:47:48

# Below is generated by plot.py at 2018-03-07 22:39:38
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 580.98 Mbit/s
  95th percentile per-packet one-way delay: 253.248 ms
  Loss rate: 2.86%
  -- Flow 1:
  Average throughput: 479.85 Mbit/s
  95th percentile per-packet one-way delay: 253.357 ms
  Loss rate: 2.69%
  -- Flow 2:
  Average throughput: 122.03 Mbit/s
  95th percentile per-packet one-way delay: 252.668 ms
  Loss rate: 3.56%
  -- Flow 3:
  Average throughput: 60.64 Mbit/s
  95th percentile per-packet one-way delay: 253.918 ms
  Loss rate: 3.92%
Run 9: Report of PCC — Data Link
Run 10: Statistics of PCC

Start at: 2018-03-07 20:07:17
End at: 2018-03-07 20:07:47

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 575.81 Mbit/s
95th percentile per-packet one-way delay: 225.680 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 488.23 Mbit/s
95th percentile per-packet one-way delay: 225.323 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 123.13 Mbit/s
95th percentile per-packet one-way delay: 233.023 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 17.33 Mbit/s
95th percentile per-packet one-way delay: 207.237 ms
Loss rate: 0.04%
Run 10: Report of PCC — Data Link

![Graph of Throughput vs Time for different flows]

![Graph of Packet delay vs Time for different flows]

Legend:
- Flow 1 Ingress (mean 494.79 Mbit/s)
- Flow 1 Egress (mean 488.23 Mbit/s)
- Flow 2 Ingress (mean 125.23 Mbit/s)
- Flow 2 Egress (mean 123.33 Mbit/s)
- Flow 3 Ingress (mean 17.34 Mbit/s)
- Flow 3 Egress (mean 17.33 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 225.32 ms)
- Flow 2 (95th percentile 233.02 ms)
- Flow 3 (95th percentile 207.24 ms)
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-07 16:58:44
End at: 2018-03-07 16:59:14

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.92 Mbit/s
95th percentile per-packet one-way delay: 136.790 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 137.595 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.20 Mbit/s
95th percentile per-packet one-way delay: 136.803 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.26 Mbit/s
95th percentile per-packet one-way delay: 136.187 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link

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

Legend:
- Flow 1 ingress (mean 0.04 Mbit/s)
- Flow 1 egress (mean 0.04 Mbit/s)
- Flow 2 ingress (mean 61.20 Mbit/s)
- Flow 2 egress (mean 61.20 Mbit/s)
- Flow 3 ingress (mean 41.26 Mbit/s)
- Flow 3 egress (mean 41.26 Mbit/s)
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-07 17:18:13
End at: 2018-03-07 17:18:43

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.14 Mbit/s
  95th percentile per-packet one-way delay: 140.954 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 51.20 Mbit/s
  95th percentile per-packet one-way delay: 140.974 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 51.74 Mbit/s
  95th percentile per-packet one-way delay: 136.402 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 30.09 Mbit/s
  95th percentile per-packet one-way delay: 135.521 ms
  Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link
Run 3: Statistics of QUIC Cubic

Start at: 2018-03-07 17:38:04
End at: 2018-03-07 17:38:34

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 101.66 Mbit/s
  95th percentile per-packet one-way delay: 137.107 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 54.06 Mbit/s
  95th percentile per-packet one-way delay: 137.084 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 54.37 Mbit/s
  95th percentile per-packet one-way delay: 137.069 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 35.98 Mbit/s
  95th percentile per-packet one-way delay: 137.208 ms
  Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link
Run 4: Statistics of QUIC Cubic

Start at: 2018-03-07 17:58:02
End at: 2018-03-07 17:58:32

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.63 Mbit/s
  95th percentile per-packet one-way delay: 136.541 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 54.01 Mbit/s
  95th percentile per-packet one-way delay: 135.984 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 48.56 Mbit/s
  95th percentile per-packet one-way delay: 137.664 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 23.38 Mbit/s
  95th percentile per-packet one-way delay: 136.643 ms
  Loss rate: 0.01%
Run 4: Report of QUIC Cubic — Data Link
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-07 18:18:30
End at: 2018-03-07 18:19:00

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 110.16 Mbit/s
95th percentile per-packet one-way delay: 141.253 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 58.86 Mbit/s
95th percentile per-packet one-way delay: 141.144 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 59.89 Mbit/s
95th percentile per-packet one-way delay: 141.314 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 36.39 Mbit/s
95th percentile per-packet one-way delay: 135.240 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet delay over time for different flows.](image_url)
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-07 18:38:36
End at: 2018-03-07 18:39:06

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.96 Mbit/s
95th percentile per-packet one-way delay: 141.063 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.83 Mbit/s
95th percentile per-packet one-way delay: 136.369 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.24 Mbit/s
95th percentile per-packet one-way delay: 141.098 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 29.87 Mbit/s
95th percentile per-packet one-way delay: 136.468 ms
Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link

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

- Flow 1 ingress (mean 61.83 Mbit/s)
- Flow 1 egress (mean 61.83 Mbit/s)
- Flow 2 ingress (mean 61.25 Mbit/s)
- Flow 2 egress (mean 61.24 Mbit/s)
- Flow 3 ingress (mean 29.87 Mbit/s)
- Flow 3 egress (mean 29.67 Mbit/s)

![Graph 2: Packet RTT vs Time](image2)

- Flow 1 (95th percentile 136.37 ms)
- Flow 2 (95th percentile 141.10 ms)
- Flow 3 (95th percentile 136.47 ms)
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-07 18:58:46
End at: 2018-03-07 18:59:16

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 105.94 Mbit/s
  95th percentile per-packet one-way delay: 136.325 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 61.25 Mbit/s
  95th percentile per-packet one-way delay: 136.345 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 51.49 Mbit/s
  95th percentile per-packet one-way delay: 134.636 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 32.97 Mbit/s
  95th percentile per-packet one-way delay: 135.387 ms
  Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-03-07 19:18:43
End at: 2018-03-07 19:19:13

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 108.15 Mbit/s
95th percentile per-packet one-way delay: 135.745 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.82 Mbit/s
95th percentile per-packet one-way delay: 135.758 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.99 Mbit/s
95th percentile per-packet one-way delay: 135.592 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.63 Mbit/s
95th percentile per-packet one-way delay: 140.384 ms
Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-03-07 19:38:43
End at: 2018-03-07 19:39:13

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 108.64 Mbit/s
95th percentile per-packet one-way delay: 140.356 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.23 Mbit/s
95th percentile per-packet one-way delay: 135.813 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.22 Mbit/s
95th percentile per-packet one-way delay: 140.281 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.93 Mbit/s
95th percentile per-packet one-way delay: 140.475 ms
Loss rate: 0.00%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-07 19:58:36
End at: 2018-03-07 19:59:06

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.97 Mbit/s
95th percentile per-packet one-way delay: 140.380 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.66 Mbit/s
95th percentile per-packet one-way delay: 136.944 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.86 Mbit/s
95th percentile per-packet one-way delay: 140.419 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 135.431 ms
Loss rate: 0.00%
Run 10: Report of QUIC Cubic — Data Link

[Graphs showing throughput and packet round-trip time over time for different flows.]

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Run 1: Statistics of SCReAM

Start at: 2018-03-07 17:11:00
End at: 2018-03-07 17:11:30

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 141.078 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.101 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.122 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.153 ms
  Loss rate: 0.00%
Run 1: Report of SCReAM — Data Link

Throughput (Mbps): 0.05 to 0.8

Time (s): 0 to 30

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

One-way delay (ms): 136 to 144

Time (s): 0 to 30

Flow 1 (95th percentile 141.10 ms)
Flow 2 (95th percentile 136.12 ms)
Flow 3 (95th percentile 136.15 ms)
Run 2: Statistics of SCReAM

Start at: 2018-03-07 17:30:44
End at: 2018-03-07 17:31:14

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 137.146 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.647 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.21 Mbit/s
  95th percentile per-packet one-way delay: 137.166 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.178 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link
Run 3: Statistics of SCReAM

Start at: 2018-03-07 17:50:42
End at: 2018-03-07 17:51:12

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 141.331 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.822 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 141.391 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.216 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link
Run 4: Statistics of SCReAM

Start at: 2018-03-07 18:10:40
End at: 2018-03-07 18:11:10

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 141.615 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.390 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 134.995 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.675 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 0.22 Mb/s)
- Blue solid line: Flow 1 egress (mean 0.22 Mb/s)
- Red dashed line: Flow 2 ingress (mean 0.22 Mb/s)
- Red solid line: Flow 2 egress (mean 0.22 Mb/s)
- Green dashed line: Flow 3 ingress (mean 0.22 Mb/s)
- Green solid line: Flow 3 egress (mean 0.22 Mb/s)

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

- Blue oval: Flow 1 (95th percentile 136.39 ms)
- Green oval: Flow 2 (95th percentile 135.00 ms)
- Red oval: Flow 3 (95th percentile 141.60 ms)
Run 5: Statistics of SCReAM

Start at: 2018-03-07 18:31:09
End at: 2018-03-07 18:31:39

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.723 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.172 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.686 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.676 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

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

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

![Graph of Packet one way delay (ms) over Time (s)]

- **Flow 1** (95th percentile 141.17 ms)
- **Flow 2** (95th percentile 136.69 ms)
- **Flow 3** (95th percentile 136.60 ms)
Run 6: Statistics of SCReAM

Start at: 2018-03-07 18:51:18
End at: 2018-03-07 18:51:48

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.589 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.606 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.157 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.092 ms
  Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-03-07 19:11:20
End at: 2018-03-07 19:11:50

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 141.029 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 141.079 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 141.003 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.159 ms
Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

Throughput (Mbps)

Time (s)

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

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 141.08 ms)  Flow 2 (95th percentile 141.00 ms)  Flow 3 (95th percentile 137.16 ms)
Run 8: Statistics of SCReAM

Start at: 2018-03-07 19:31:12
End at: 2018-03-07 19:31:42

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 137.094 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.834 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.139 ms
Loss rate: 0.00%
Run 8: Report of SCReAM — Data Link

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

- 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)

![Graph showing delay over time for different flows.]
Run 9: Statistics of SCReAM

Start at: 2018-03-07 19:51:18
End at: 2018-03-07 19:51:48

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 137.089 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.033 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.111 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.073 ms
Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link
Run 10: Statistics of SCReAM

Start at: 2018-03-07 20:11:20
End at: 2018-03-07 20:11:50

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 140.539 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.207 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.162 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 140.602 ms
  Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-03-07 17:00:33
End at: 2018-03-07 17:01:03

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.57 Mbit/s
  95th percentile per-packet one-way delay: 141.190 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 1.95 Mbit/s
  95th percentile per-packet one-way delay: 137.130 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 1.23 Mbit/s
  95th percentile per-packet one-way delay: 141.240 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 141.047 ms
  Loss rate: 0.00%
Run 1: Report of WebRTC media — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 1.95 Mb/s)
Flow 1 egress (mean 1.95 Mb/s)
Flow 2 ingress (mean 1.23 Mb/s)
Flow 2 egress (mean 1.23 Mb/s)
Flow 3 ingress (mean 0.42 Mb/s)
Flow 3 egress (mean 0.42 Mb/s)

Packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 137.13 ms)
Flow 2 (95th percentile 141.24 ms)
Flow 3 (95th percentile 141.05 ms)
Run 2: Statistics of WebRTC media

Start at: 2018-03-07 17:20:04
End at: 2018-03-07 17:20:34

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 3.79 Mbit/s
   95th percentile per-packet one-way delay: 141.699 ms
   Loss rate: 0.01%
-- Flow 1:
   Average throughput: 2.10 Mbit/s
   95th percentile per-packet one-way delay: 141.723 ms
   Loss rate: 0.01%
-- Flow 2:
   Average throughput: 1.27 Mbit/s
   95th percentile per-packet one-way delay: 141.249 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 0.42 Mbit/s
   95th percentile per-packet one-way delay: 141.556 ms
   Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.10 Mbit/s)
- Flow 1 egress (mean 2.10 Mbit/s)
- Flow 2 ingress (mean 1.27 Mbit/s)
- Flow 2 egress (mean 1.27 Mbit/s)
- Flow 3 ingress (mean 0.42 Mbit/s)
- Flow 3 egress (mean 0.42 Mbit/s)

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

- Flow 1 (95th percentile 141.72 ms)
- Flow 2 (95th percentile 141.25 ms)
- Flow 3 (95th percentile 141.56 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-03-07 17:39:53
End at: 2018-03-07 17:40:23

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
| Average throughput: 3.67 Mbit/s |
| 95th percentile per-packet one-way delay: 137.383 ms |
| Loss rate: 0.01% |
-- Flow 1:
| Average throughput: 2.03 Mbit/s |
| 95th percentile per-packet one-way delay: 136.668 ms |
| Loss rate: 0.00% |
-- Flow 2:
| Average throughput: 1.25 Mbit/s |
| 95th percentile per-packet one-way delay: 137.433 ms |
| Loss rate: 0.02% |
-- Flow 3:
| Average throughput: 0.42 Mbit/s |
| 95th percentile per-packet one-way delay: 141.782 ms |
| Loss rate: 0.01% |
Run 3: Report of WebRTC media — Data Link

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

- **Throughput (Mbps):**
  - **Flow 1 ingress** (mean 2.03 Mbps)
  - **Flow 1 egress** (mean 2.03 Mbps)
  - **Flow 2 ingress** (mean 1.24 Mbps)
  - **Flow 2 egress** (mean 1.25 Mbps)
  - **Flow 3 ingress** (mean 0.42 Mbps)
  - **Flow 3 egress** (mean 0.42 Mbps)

- **Delay (ms):**
  - **Flow 1 (95th percentile 136.67 ms)**
  - **Flow 2 (95th percentile 137.43 ms)**
  - **Flow 3 (95th percentile 141.78 ms)**

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Run 4: Statistics of WebRTC media

Start at: 2018-03-07 17:59:54
End at: 2018-03-07 18:00:24

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.66 Mbit/s
  95th percentile per-packet one-way delay: 142.074 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 142.109 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 137.997 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 141.901 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Graph showing throughput and delay over time for different flows, with legends indicating mean and 95th percentile values for ingress and egress data rates.]
Run 5: Statistics of WebRTC media

Start at: 2018-03-07 18:20:21
End at: 2018-03-07 18:20:51

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.66 Mbit/s
  95th percentile per-packet one-way delay: 137.116 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 136.867 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 137.158 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 141.225 ms
  Loss rate: 0.01%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-03-07 18:40:30
End at: 2018-03-07 18:41:00

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 136.699 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 136.688 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 136.707 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 141.223 ms
Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-03-07 19:00:37
End at: 2018-03-07 19:01:07

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.67 Mbit/s
  95th percentile per-packet one-way delay: 137.181 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 137.194 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 136.697 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 137.209 ms
  Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

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

- **Flow 1 ingress (mean 2.03 Mbps)**
- **Flow 1 egress (mean 2.03 Mbps)**
- **Flow 2 ingress (mean 1.24 Mbps)**
- **Flow 2 egress (mean 1.24 Mbps)**
- **Flow 3 ingress (mean 0.43 Mbps)**
- **Flow 3 egress (mean 0.43 Mbps)**

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

- **Flow 1 (95th percentile 137.19 ms)**
- **Flow 2 (95th percentile 136.70 ms)**
- **Flow 3 (95th percentile 137.21 ms)**
Run 8: Statistics of WebRTC media

Start at: 2018-03-07 19:20:34
End at: 2018-03-07 19:21:04

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 140.648 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 140.639 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 140.668 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 137.119 ms
Loss rate: 0.01%
Run 8: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.03 Mbit/s)
- Flow 1 egress (mean 2.03 Mbit/s)
- Flow 2 ingress (mean 1.24 Mbit/s)
- Flow 2 egress (mean 1.24 Mbit/s)
- Flow 3 ingress (mean 0.42 Mbit/s)
- Flow 3 egress (mean 0.42 Mbit/s)

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

- Flow 1 (95th percentile 140.64 ms)
- Flow 2 (95th percentile 140.67 ms)
- Flow 3 (95th percentile 137.12 ms)
Run 9: Statistics of WebRTC media

Start at: 2018-03-07 19:40:34
End at: 2018-03-07 19:41:04

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 140.591 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 140.584 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 140.609 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 136.953 ms
Loss rate: 0.07%
Run 10: Statistics of WebRTC media

Start at: 2018-03-07 20:00:29
End at: 2018-03-07 20:00:59

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.67 Mbit/s
  95th percentile per-packet one-way delay: 140.671 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.04 Mbit/s
  95th percentile per-packet one-way delay: 137.221 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 140.711 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 140.548 ms
  Loss rate: 0.00%
Run 10: Report of WebRTC media — Data Link

![Graph showing throughput and packet delay over time for different flows. The graphs depict the throughput (in Mbps) and one-way delay (in ms) for flows 1, 2, and 3. The throughput and delay are measured at various time intervals. The graphs indicate stable performance with slight variations.]
Run 1: Statistics of Sprout

Start at: 2018-03-07 17:04:44
End at: 2018-03-07 17:05:14

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 141.234 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 141.237 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 141.244 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 141.207 ms
Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-03-07 17:24:21
End at: 2018-03-07 17:24:51

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.57 Mbit/s
  95th percentile per-packet one-way delay: 141.779 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.12 Mbit/s
  95th percentile per-packet one-way delay: 141.693 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.35 Mbit/s
  95th percentile per-packet one-way delay: 141.766 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.65 Mbit/s
  95th percentile per-packet one-way delay: 141.831 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

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

Legend:
- Flow 1 ingress (mean 0.12 Mbit/s)
- Flow 1 egress (mean 0.12 Mbit/s)
- Flow 2 ingress (mean 0.35 Mbit/s)
- Flow 2 egress (mean 0.35 Mbit/s)
- Flow 3 ingress (mean 0.65 Mbit/s)
- Flow 3 egress (mean 0.65 Mbit/s)

Throughput (Mbps)

Time (s)

Packet delay (ms)

Flow 1 (95th percentile 141.69 ms)
Flow 2 (95th percentile 141.77 ms)
Flow 3 (95th percentile 141.83 ms)
Run 3: Statistics of Sprout

Start at: 2018-03-07 17:44:18
End at: 2018-03-07 17:44:48

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.71 Mbit/s
  95th percentile per-packet one-way delay: 142.006 ms
  Loss rate: 0.33%
-- Flow 1:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 142.008 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.33 Mbit/s
  95th percentile per-packet one-way delay: 141.993 ms
  Loss rate: 1.07%
-- Flow 3:
  Average throughput: 0.56 Mbit/s
  95th percentile per-packet one-way delay: 142.009 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.31 Mbps)  
Flow 1 egress (mean 0.31 Mbps)  
Flow 2 ingress (mean 0.33 Mbps)  
Flow 2 egress (mean 0.33 Mbps)  
Flow 3 ingress (mean 0.56 Mbps)  
Flow 3 egress (mean 0.56 Mbps)

Delay (ms)

Time (s)

Flow 1 (95th percentile 142.01 ms)  
Flow 2 (95th percentile 141.99 ms)  
Flow 3 (95th percentile 142.01 ms)
Run 4: Statistics of Sprout

Start at: 2018-03-07 18:04:17
End at: 2018-03-07 18:04:47

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 141.924 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 141.904 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 141.891 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 141.988 ms
Loss rate: 0.00%
Run 4: Report of Sprout — Data Link

[Graph showing throughput and packet one-way delay over time for different flows, with legends indicating mean throughput rates for each flow.]
Run 5: Statistics of Sprout

Start at: 2018-03-07 18:24:48
End at: 2018-03-07 18:25:18

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.68 Mbit/s
  95th percentile per-packet one-way delay: 141.339 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.32 Mbit/s
  95th percentile per-packet one-way delay: 141.334 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 141.364 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 141.249 ms
  Loss rate: 0.00%
Run 5: Report of Sprout — Data Link

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

- Flow 1 ingress (mean 0.32 Mbps)
- Flow 1 egress (mean 0.32 Mbps)
- Flow 2 ingress (mean 0.40 Mbps)
- Flow 2 egress (mean 0.40 Mbps)
- Flow 3 ingress (mean 0.31 Mbps)
- Flow 3 egress (mean 0.31 Mbps)

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

- Flow 1 (95th percentile 141.33 ms)
- Flow 2 (95th percentile 141.36 ms)
- Flow 3 (95th percentile 141.25 ms)
Run 6: Statistics of Sprout

Start at: 2018-03-07 18:44:57
End at: 2018-03-07 18:45:27

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.81 Mbit/s
  95th percentile per-packet one-way delay: 137.394 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 137.399 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.36 Mbit/s
  95th percentile per-packet one-way delay: 137.311 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.58 Mbit/s
  95th percentile per-packet one-way delay: 137.451 ms
  Loss rate: 0.00%
Run 6: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.39 Mbit/s)  
Flow 1 egress (mean 0.39 Mbit/s)  
Flow 2 ingress (mean 0.36 Mbit/s)  
Flow 2 egress (mean 0.36 Mbit/s)  
Flow 3 ingress (mean 0.58 Mbit/s)  
Flow 3 egress (mean 0.58 Mbit/s)

Packet-come-and-go delay (ms)

Time (s)

Flow 1 (95th percentile 137.40 ms)  
Flow 2 (95th percentile 137.31 ms)  
Flow 3 (95th percentile 137.45 ms)
Run 7: Statistics of Sprout

Start at: 2018-03-07 19:05:05
End at: 2018-03-07 19:05:35

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 137.278 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 137.304 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 137.250 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 137.278 ms
Loss rate: 0.00%
Run 7: Report of Sprout — Data Link

Throughput (Mb/s) vs Time (s)

- Blue: Flow 1 ingress (mean 0.39 Mb/s)
- Blue dashed: Flow 1 egress (mean 0.39 Mb/s)
- Green: Flow 2 ingress (mean 0.41 Mb/s)
- Green dashed: Flow 2 egress (mean 0.41 Mb/s)
- Red: Flow 3 ingress (mean 0.37 Mb/s)
- Red dashed: Flow 3 egress (mean 0.37 Mb/s)

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

- Blue: Flow 1 (95th percentile 137.3 ms)
- Blue dashed: Flow 2 (95th percentile 137.25 ms)
- Red: Flow 3 (95th percentile 137.28 ms)
Run 8: Statistics of Sprout

Start at: 2018-03-07 19:24:55
End at: 2018-03-07 19:25:25

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.74 Mbit/s
  95th percentile per-packet one-way delay: 137.338 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 137.346 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 137.341 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 0.35 Mbit/s
  95th percentile per-packet one-way delay: 137.179 ms
  Loss rate: 0.00%
Run 8: Report of Sprout — Data Link
Run 9: Statistics of Sprout

Start at: 2018-03-07 19:45:00
End at: 2018-03-07 19:45:30

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 140.780 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 140.704 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 140.844 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 140.794 ms
Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-03-07 20:04:58
End at: 2018-03-07 20:05:28

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 140.841 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 140.888 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 140.654 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 140.790 ms
Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 0.89 Mbps)  Flow 1 egress (mean 0.89 Mbps)
Flow 2 ingress (mean 0.35 Mbps)  Flow 2 egress (mean 0.35 Mbps)
Flow 3 ingress (mean 0.74 Mbps)  Flow 3 egress (mean 0.74 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 140.89 ms)  Flow 2 (95th percentile 140.65 ms)  Flow 3 (95th percentile 140.79 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-07 16:57:47
End at: 2018-03-07 16:58:17

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 84.44 Mbit/s
  95th percentile per-packet one-way delay: 144.835 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 30.07 Mbit/s
  95th percentile per-packet one-way delay: 143.903 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 5.31 Mbit/s
  95th percentile per-packet one-way delay: 141.937 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 183.80 Mbit/s
  95th percentile per-packet one-way delay: 145.222 ms
  Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-07 17:17:21
End at: 2018-03-07 17:17:51

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.62 Mbit/s
95th percentile per-packet one-way delay: 141.568 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.17 Mbit/s
95th percentile per-packet one-way delay: 141.554 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.92 Mbit/s
95th percentile per-packet one-way delay: 141.580 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.25 Mbit/s
95th percentile per-packet one-way delay: 141.542 ms
Loss rate: 0.00%
Run 2: Report of TaoVA-100x — Data Link
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-07 17:37:12
End at: 2018-03-07 17:37:42

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 26.13 Mbit/s
  95th percentile per-packet one-way delay: 141.753 ms
  Loss rate: 0.11%
-- Flow 1:
  Average throughput: 7.05 Mbit/s
  95th percentile per-packet one-way delay: 141.726 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 21.98 Mbit/s
  95th percentile per-packet one-way delay: 141.763 ms
  Loss rate: 0.20%
-- Flow 3:
  Average throughput: 13.71 Mbit/s
  95th percentile per-packet one-way delay: 141.765 ms
  Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 7.05 Mbps)
Flow 1 egress (mean 7.05 Mbps)
Flow 2 ingress (mean 22.02 Mbps)
Flow 2 egress (mean 21.95 Mbps)
Flow 3 ingress (mean 13.72 Mbps)
Flow 3 egress (mean 13.72 Mbps)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 141.73 ms)
Flow 2 (95th percentile 141.76 ms)
Flow 3 (95th percentile 141.76 ms)
Run 4: Statistics of TaoVA-100x

Start at: 2018-03-07 17:57:10
End at: 2018-03-07 17:57:40

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 27.07 Mbit/s
  95th percentile per-packet one-way delay: 142.067 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 21.99 Mbit/s
    95th percentile per-packet one-way delay: 141.780 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 33.85 Mbit/s
    95th percentile per-packet one-way delay: 142.311 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 20.91 Mbit/s
    95th percentile per-packet one-way delay: 141.882 ms
    Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 22.01 Mbit/s)
  - Flow 1 egress (mean 21.99 Mbit/s)
  - Flow 2 ingress (mean 33.86 Mbit/s)
  - Flow 2 egress (mean 33.85 Mbit/s)
  - Flow 3 ingress (mean 20.92 Mbit/s)
  - Flow 3 egress (mean 20.91 Mbit/s)

- **Packet Delay (ms):**
  - Flow 1 95th percentile 141.78 ms
  - Flow 2 95th percentile 142.31 ms
  - Flow 3 95th percentile 141.88 ms
Run 5: Statistics of TaoVA-100x

Start at: 2018-03-07 18:17:24
End at: 2018-03-07 18:17:54

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 163.74 Mbit/s
  95th percentile per-packet one-way delay: 142.370 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 107.67 Mbit/s
  95th percentile per-packet one-way delay: 142.517 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 138.71 Mbit/s
  95th percentile per-packet one-way delay: 141.414 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 196.84 Mbit/s
  95th percentile per-packet one-way delay: 142.492 ms
  Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link
Run 6: Statistics of TaoVA-100x

Start at: 2018-03-07 18:37:44
End at: 2018-03-07 18:38:14

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 30.28 Mbit/s
  95th percentile per-packet one-way delay: 141.091 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 13.08 Mbit/s
  95th percentile per-packet one-way delay: 141.121 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 22.62 Mbit/s
  95th percentile per-packet one-way delay: 141.022 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 29.33 Mbit/s
  95th percentile per-packet one-way delay: 141.065 ms
  Loss rate: 0.00%
Run 6: Report of TaoVA-100x — Data Link
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-07 18:57:54
End at: 2018-03-07 18:58:24

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 26.23 Mbit/s
  95th percentile per-packet one-way delay: 137.019 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 13.23 Mbit/s
  95th percentile per-packet one-way delay: 136.963 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 13.09 Mbit/s
  95th percentile per-packet one-way delay: 136.955 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 12.90 Mbit/s
  95th percentile per-packet one-way delay: 137.119 ms
  Loss rate: 0.01%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-03-07 19:17:52
End at: 2018-03-07 19:18:22

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.41 Mbit/s
95th percentile per-packet one-way delay: 140.413 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 137.122 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.35 Mbit/s
95th percentile per-packet one-way delay: 137.097 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.46 Mbit/s
95th percentile per-packet one-way delay: 140.554 ms
Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-07 19:37:41
End at: 2018-03-07 19:38:11

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 113.89 Mbit/s
95th percentile per-packet one-way delay: 137.713 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.84 Mbit/s
95th percentile per-packet one-way delay: 137.069 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.46 Mbit/s
95th percentile per-packet one-way delay: 140.455 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 196.57 Mbit/s
95th percentile per-packet one-way delay: 137.773 ms
Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-07 19:57:41
End at: 2018-03-07 19:58:11

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 53.38 Mbit/s
  95th percentile per-packet one-way delay: 140.557 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 55.49 Mbit/s
  95th percentile per-packet one-way delay: 140.560 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 7.42 Mbit/s
  95th percentile per-packet one-way delay: 140.562 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 27.63 Mbit/s
  95th percentile per-packet one-way delay: 140.542 ms
  Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link

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

- Flow 1 ingress (mean 55.49 Mbit/s)
- Flow 1 egress (mean 55.49 Mbit/s)
- Flow 2 ingress (mean 7.42 Mbit/s)
- Flow 2 egress (mean 7.42 Mbit/s)
- Flow 3 ingress (mean 27.63 Mbit/s)
- Flow 3 egress (mean 27.63 Mbit/s)

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

- Flow 1 (95th percentile 140.56 ms)
- Flow 2 (95th percentile 140.56 ms)
- Flow 3 (95th percentile 140.54 ms)
Run 1: Statistics of TCP Vegas

Start at: 2018-03-07 17:11:48
End at: 2018-03-07 17:12:18

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 53.61 Mbit/s
  95th percentile per-packet one-way delay: 143.811 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 26.28 Mbit/s
  95th percentile per-packet one-way delay: 142.655 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 23.29 Mbit/s
  95th percentile per-packet one-way delay: 141.962 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 35.76 Mbit/s
  95th percentile per-packet one-way delay: 148.512 ms
  Loss rate: 0.00%
Run 1: Report of TCP Vegas — Data Link
Run 2: Statistics of TCP Vegas

Start at: 2018-03-07 17:31:32
End at: 2018-03-07 17:32:02

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 40.58 Mbit/s
  95th percentile per-packet one-way delay: 143.090 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 13.73 Mbit/s
  95th percentile per-packet one-way delay: 142.583 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 20.33 Mbit/s
  95th percentile per-packet one-way delay: 144.314 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 40.21 Mbit/s
  95th percentile per-packet one-way delay: 143.734 ms
  Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link
Run 3: Statistics of TCP Vegas

Start at: 2018-03-07 17:51:31
End at: 2018-03-07 17:52:01

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.97 Mbit/s
95th percentile per-packet one-way delay: 144.175 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 21.02 Mbit/s
95th percentile per-packet one-way delay: 143.956 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 56.07 Mbit/s
95th percentile per-packet one-way delay: 144.439 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.14 Mbit/s
95th percentile per-packet one-way delay: 143.975 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

Start at: 2018-03-07 18:11:29
End at: 2018-03-07 18:11:59

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 51.21 Mbit/s
  95th percentile per-packet one-way delay: 142.809 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 13.64 Mbit/s
  95th percentile per-packet one-way delay: 142.198 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 44.51 Mbit/s
  95th percentile per-packet one-way delay: 142.842 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 23.94 Mbit/s
  95th percentile per-packet one-way delay: 144.534 ms
  Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

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

- **Flow 1 Ingress**: Mean 13.65 Mbps
- **Flow 1 Egress**: Mean 13.64 Mbps
- **Flow 2 Ingress**: Mean 44.51 Mbps
- **Flow 2 Egress**: Mean 44.51 Mbps
- **Flow 3 Ingress**: Mean 23.96 Mbps
- **Flow 3 Egress**: Mean 23.94 Mbps

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

- **Flow 1 (95th percentile)**: 142.20 ms
- **Flow 2 (95th percentile)**: 142.84 ms
- **Flow 3 (95th percentile)**: 144.53 ms

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Run 5: Statistics of TCP Vegas

Start at: 2018-03-07 18:31:58
End at: 2018-03-07 18:32:28

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 102.02 Mbit/s
  95th percentile per-packet one-way delay: 148.001 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 45.20 Mbit/s
  95th percentile per-packet one-way delay: 146.723 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 79.07 Mbit/s
  95th percentile per-packet one-way delay: 148.578 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 13.66 Mbit/s
  95th percentile per-packet one-way delay: 146.894 ms
  Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link
Run 6: Statistics of TCP Vegas

Start at: 2018-03-07 18:52:07
End at: 2018-03-07 18:52:37

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.56 Mbit/s
95th percentile per-packet one-way delay: 139.756 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 139.007 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.81 Mbit/s
95th percentile per-packet one-way delay: 139.127 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.02 Mbit/s
95th percentile per-packet one-way delay: 146.311 ms
Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

![Graphs showing TCP Vegas data link results.](image)
Run 7: Statistics of TCP Vegas

Start at: 2018-03-07 19:12:09
End at: 2018-03-07 19:12:39

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 86.33 Mbit/s
  95th percentile per-packet one-way delay: 138.905 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 45.96 Mbit/s
  95th percentile per-packet one-way delay: 138.420 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 48.87 Mbit/s
  95th percentile per-packet one-way delay: 139.095 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 23.85 Mbit/s
  95th percentile per-packet one-way delay: 142.164 ms
  Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

![Graph 1: Throughput vs. Time](image1)
- Blue dashed line: Flow 1 ingress (mean 45.96 Mbit/s)
- Blue solid line: Flow 1 egress (mean 45.96 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 48.87 Mbit/s)
- Green solid line: Flow 2 egress (mean 48.87 Mbit/s)
- Red dashed line: Flow 3 ingress (mean 23.86 Mbit/s)
- Red solid line: Flow 3 egress (mean 23.85 Mbit/s)

![Graph 2: Packet Round Trip Delay vs. Time](image2)
- Blue line: Flow 1 (95th percentile 138.42 ms)
- Green line: Flow 2 (95th percentile 139.09 ms)
- Red line: Flow 3 (95th percentile 142.16 ms)
Run 8: Statistics of TCP Vegas

Start at: 2018-03-07 19:32:01
End at: 2018-03-07 19:32:31

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 72.42 Mbit/s
  95th percentile per-packet one-way delay: 138.280 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 31.72 Mbit/s
  95th percentile per-packet one-way delay: 138.052 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 47.42 Mbit/s
  95th percentile per-packet one-way delay: 137.958 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 27.61 Mbit/s
  95th percentile per-packet one-way delay: 145.400 ms
  Loss rate: 0.09%
Run 8: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 31.72 Mbit/s)
- Flow 1 egress (mean 31.72 Mbit/s)
- Flow 2 ingress (mean 47.43 Mbit/s)
- Flow 2 egress (mean 47.42 Mbit/s)
- Flow 3 ingress (mean 27.62 Mbit/s)
- Flow 3 egress (mean 27.61 Mbit/s)

![Graph of per-packet end-to-end delay over time for different flows.]

- Flow 1 (95th percentile 138.05 ms)
- Flow 2 (95th percentile 137.96 ms)
- Flow 3 (95th percentile 145.40 ms)
Run 9: Statistics of TCP Vegas

Start at: 2018-03-07 19:52:07
End at: 2018-03-07 19:52:37

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 31.73 Mbit/s
  95th percentile per-packet one-way delay: 142.260 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 13.79 Mbit/s
  95th percentile per-packet one-way delay: 141.665 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 26.50 Mbit/s
  95th percentile per-packet one-way delay: 143.489 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.98 Mbit/s
  95th percentile per-packet one-way delay: 140.891 ms
  Loss rate: 0.12%
Run 9: Report of TCP Vegas — Data Link

![Graph of Throughput and Delay over Time]

Throughput (Mb/s) vs Time (s)
- Flow 1 ingress (mean 13.79 Mb/s)
- Flow 1 egress (mean 13.79 Mb/s)
- Flow 2 ingress (mean 26.47 Mb/s)
- Flow 2 egress (mean 26.50 Mb/s)
- Flow 3 ingress (mean 0.99 Mb/s)
- Flow 3 egress (mean 0.98 Mb/s)

Delay (ms) vs Time (s)
- Flow 1 (95th percentile 141.66 ms)
- Flow 2 (95th percentile 143.49 ms)
- Flow 3 (95th percentile 140.89 ms)
Run 10: Statistics of TCP Vegas

Start at: 2018-03-07 20:12:09
End at: 2018-03-07 20:12:39

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 40.90 Mbit/s
  95th percentile per-packet one-way delay: 141.539 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 21.25 Mbit/s
  95th percentile per-packet one-way delay: 141.564 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 22.68 Mbit/s
  95th percentile per-packet one-way delay: 141.389 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 13.83 Mbit/s
  95th percentile per-packet one-way delay: 141.983 ms
  Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 21.23 Mbit/s)
- Flow 1 egress (mean 21.25 Mbit/s)
- Flow 2 ingress (mean 22.64 Mbit/s)
- Flow 2 egress (mean 22.68 Mbit/s)
- Flow 3 ingress (mean 13.83 Mbit/s)
- Flow 3 egress (mean 13.83 Mbit/s)

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

- Flow 1 (95th percentile 141.56 ms)
- Flow 2 (95th percentile 141.39 ms)
- Flow 3 (95th percentile 141.98 ms)

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Run 1: Statistics of Verus

Start at: 2018-03-07 16:56:35
End at: 2018-03-07 16:57:05

# Below is generated by plot.py at 2018-03-07 22:42:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 279.57 Mbit/s
  95th percentile per-packet one-way delay: 309.947 ms
  Loss rate: 3.18%
-- Flow 1:
  Average throughput: 157.84 Mbit/s
  95th percentile per-packet one-way delay: 326.932 ms
  Loss rate: 3.53%
-- Flow 2:
  Average throughput: 177.20 Mbit/s
  95th percentile per-packet one-way delay: 266.262 ms
  Loss rate: 2.74%
-- Flow 3:
  Average throughput: 18.80 Mbit/s
  95th percentile per-packet one-way delay: 249.144 ms
  Loss rate: 2.67%
Run 2: Statistics of Verus

Start at: 2018-03-07 17:16:18
End at: 2018-03-07 17:16:48

# Below is generated by plot.py at 2018-03-07 22:42:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 170.80 Mbit/s
95th percentile per-packet one-way delay: 192.121 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 50.67 Mbit/s
95th percentile per-packet one-way delay: 288.832 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 165.79 Mbit/s
95th percentile per-packet one-way delay: 186.415 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.13 Mbit/s
95th percentile per-packet one-way delay: 172.280 ms
Loss rate: 0.00%
Run 2: Report of Verus — Data Link
Run 3: Statistics of Verus

Start at: 2018-03-07 17:36:05  
End at: 2018-03-07 17:36:35

# Below is generated by plot.py at 2018-03-07 22:42:54  
# Datalink statistics
-- Total of 3 flows:  
Average throughput: 206.00 Mbit/s  
95th percentile per-packet one-way delay: 170.736 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 111.83 Mbit/s  
95th percentile per-packet one-way delay: 175.280 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 132.69 Mbit/s  
95th percentile per-packet one-way delay: 168.226 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 20.24 Mbit/s  
95th percentile per-packet one-way delay: 179.044 ms  
Loss rate: 0.01%
Run 3: Report of Verus — Data Link

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

Legend:
- Flow 1 ingress (mean 111.83 Mbit/s)
- Flow 1 egress (mean 111.83 Mbit/s)
- Flow 2 ingress (mean 132.71 Mbit/s)
- Flow 2 egress (mean 132.69 Mbit/s)
- Flow 3 ingress (mean 19.98 Mbit/s)
- Flow 3 egress (mean 20.24 Mbit/s)

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

Legend:
- Flow 1 (95th percentile 175.28 ms)
- Flow 2 (95th percentile 168.23 ms)
- Flow 3 (95th percentile 179.04 ms)
Run 4: Statistics of Verus

Start at: 2018-03-07 17:56:03
End at: 2018-03-07 17:56:33

# Below is generated by plot.py at 2018-03-07 22:42:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.34 Mbit/s
95th percentile per-packet one-way delay: 317.870 ms
Loss rate: 5.19%
-- Flow 1:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 181.119 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 210.96 Mbit/s
95th percentile per-packet one-way delay: 329.116 ms
Loss rate: 7.79%
-- Flow 3:
Average throughput: 53.10 Mbit/s
95th percentile per-packet one-way delay: 320.135 ms
Loss rate: 0.00%
Run 4: Report of Verus — Data Link
Run 5: Statistics of Verus

Start at: 2018-03-07 18:16:10
End at: 2018-03-07 18:16:40

# Below is generated by plot.py at 2018-03-07 22:43:41
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 294.40 Mbit/s
  95th percentile per-packet one-way delay: 195.991 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 195.26 Mbit/s
  95th percentile per-packet one-way delay: 179.451 ms
  Loss rate: 0.05%
-- Flow 2:
  Average throughput: 134.93 Mbit/s
  95th percentile per-packet one-way delay: 206.093 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 33.06 Mbit/s
  95th percentile per-packet one-way delay: 282.616 ms
  Loss rate: 2.31%
Run 5: Report of Verus — Data Link

![Graphs showing network data](image-url)
Run 6: Statistics of Verus

Start at: 2018-03-07 18:36:44
End at: 2018-03-07 18:37:14

# Below is generated by plot.py at 2018-03-07 22:43:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.73 Mbit/s
95th percentile per-packet one-way delay: 158.343 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 79.26 Mbit/s
95th percentile per-packet one-way delay: 156.056 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 53.82 Mbit/s
95th percentile per-packet one-way delay: 158.043 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 27.06 Mbit/s
95th percentile per-packet one-way delay: 174.780 ms
Loss rate: 0.19%
Run 6: Report of Verus — Data Link

![Graph showing network performance](image1)

![Graph showing packet delay](image2)
Run 7: Statistics of Verus

Start at: 2018-03-07 18:56:51
End at: 2018-03-07 18:57:21

# Below is generated by plot.py at 2018-03-07 22:43:41
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 162.22 Mbit/s
 95th percentile per-packet one-way delay: 160.311 ms
 Loss rate: 0.00%
-- Flow 1:
 Average throughput: 92.55 Mbit/s
 95th percentile per-packet one-way delay: 154.404 ms
 Loss rate: 0.00%
-- Flow 2:
 Average throughput: 59.52 Mbit/s
 95th percentile per-packet one-way delay: 168.366 ms
 Loss rate: 0.00%
-- Flow 3:
 Average throughput: 94.30 Mbit/s
 95th percentile per-packet one-way delay: 184.513 ms
 Loss rate: 0.00%
Run 7: Report of Verus — Data Link

![Graph of Throughput (Mbit/s) over Time (s)]

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

Legend:
- Flow 1 ingress (mean 92.58 Mbit/s)
- Flow 1 egress (mean 92.55 Mbit/s)
- Flow 2 ingress (mean 59.53 Mbit/s)
- Flow 2 egress (mean 59.52 Mbit/s)
- Flow 3 ingress (mean 94.30 Mbit/s)
- Flow 3 egress (mean 94.30 Mbit/s)

Legend for delay:
- Flow 1 (95th percentile 154.40 ms)
- Flow 2 (95th percentile 168.37 ms)
- Flow 3 (95th percentile 184.51 ms)
Run 8: Statistics of Verus

Start at: 2018-03-07 19:16:48
End at: 2018-03-07 19:17:18

# Below is generated by plot.py at 2018-03-07 22:43:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 163.73 Mbit/s
95th percentile per-packet one-way delay: 169.569 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 107.04 Mbit/s
95th percentile per-packet one-way delay: 164.957 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 56.59 Mbit/s
95th percentile per-packet one-way delay: 184.196 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 60.31 Mbit/s
95th percentile per-packet one-way delay: 157.814 ms
Loss rate: 0.00%
Run 8: Report of Verus — Data Link
Run 9: Statistics of Verus

Start at: 2018-03-07 19:36:36
End at: 2018-03-07 19:37:06

# Below is generated by plot.py at 2018-03-07 22:44:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 204.31 Mbit/s
95th percentile per-packet one-way delay: 236.258 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 126.56 Mbit/s
95th percentile per-packet one-way delay: 162.240 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 76.16 Mbit/s
95th percentile per-packet one-way delay: 299.646 ms
Loss rate: 3.18%
-- Flow 3:
Average throughput: 84.68 Mbit/s
95th percentile per-packet one-way delay: 189.525 ms
Loss rate: 0.00%
Run 9: Report of Verus — Data Link

![Graph of Throughput and Delay for Flows 1-3]

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 126.78 Mbps) - Flow 1 egress (mean 126.56 Mbps)
Flow 2 ingress (mean 78.78 Mbps) - Flow 2 egress (mean 76.16 Mbps)
Flow 3 ingress (mean 84.04 Mbps) - Flow 3 egress (mean 84.68 Mbps)

Delay (ms)

Time (s)

Flow 1 (95th percentile 162.24 ms) - Flow 2 (95th percentile 299.65 ms) - Flow 3 (95th percentile 189.53 ms)
Run 10: Statistics of Verus

Start at: 2018-03-07 19:56:38
End at: 2018-03-07 19:57:08

# Below is generated by plot.py at 2018-03-07 22:44:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 171.64 Mbit/s
95th percentile per-packet one-way delay: 181.690 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 71.86 Mbit/s
95th percentile per-packet one-way delay: 178.877 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 111.14 Mbit/s
95th percentile per-packet one-way delay: 178.073 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 80.57 Mbit/s
95th percentile per-packet one-way delay: 189.421 ms
Loss rate: 0.00%
Run 10: Report of Verus — Data Link

![Graphs showing network throughput and packet delay](image)

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 71.86 Mbps)
  - Flow 1 egress (mean 71.86 Mbps)
  - Flow 2 ingress (mean 111.16 Mbps)
  - Flow 2 egress (mean 111.14 Mbps)
  - Flow 3 ingress (mean 80.56 Mbps)
  - Flow 3 egress (mean 80.57 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 178.88 ms)
  - Flow 2 (95th percentile 178.07 ms)
  - Flow 3 (95th percentile 189.42 ms)
Run 1: Statistics of Copa

Start at: 2018-03-07 16:55:35
End at: 2018-03-07 16:56:05

# Below is generated by plot.py at 2018-03-07 22:45:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.81 Mbit/s
95th percentile per-packet one-way delay: 140.986 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 77.04 Mbit/s
95th percentile per-packet one-way delay: 140.997 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 75.22 Mbit/s
95th percentile per-packet one-way delay: 140.962 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 33.55 Mbit/s
95th percentile per-packet one-way delay: 140.985 ms
Loss rate: 0.08%
Run 1: Report of Copa — Data Link
Run 2: Statistics of Copa

Start at: 2018-03-07 17:15:17
End at: 2018-03-07 17:15:47

# Below is generated by plot.py at 2018-03-07 22:46:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 145.31 Mbit/s
  95th percentile per-packet one-way delay: 141.539 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 82.07 Mbit/s
  95th percentile per-packet one-way delay: 141.533 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 60.38 Mbit/s
  95th percentile per-packet one-way delay: 141.550 ms
  Loss rate: 0.04%
-- Flow 3:
  Average throughput: 69.72 Mbit/s
  95th percentile per-packet one-way delay: 141.536 ms
  Loss rate: 0.00%
Run 2: Report of Copa — Data Link
Run 3: Statistics of Copa

Start at: 2018-03-07 17:35:05
End at: 2018-03-07 17:35:35

# Below is generated by plot.py at 2018-03-07 22:46:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 121.48 Mbit/s
  95th percentile per-packet one-way delay: 141.679 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 69.64 Mbit/s
  95th percentile per-packet one-way delay: 141.619 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 54.60 Mbit/s
  95th percentile per-packet one-way delay: 141.730 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 46.68 Mbit/s
  95th percentile per-packet one-way delay: 141.580 ms
  Loss rate: 0.00%
Run 3: Report of Copa — Data Link

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

Legend:
- Flow 1 ingress (mean 69.65 Mbit/s)
- Flow 1 egress (mean 69.64 Mbit/s)
- Flow 2 ingress (mean 54.60 Mbit/s)
- Flow 2 egress (mean 54.60 Mbit/s)
- Flow 3 ingress (mean 46.70 Mbit/s)
- Flow 3 egress (mean 46.68 Mbit/s)
Run 4: Statistics of Copa

Start at: 2018-03-07 17:55:02
End at: 2018-03-07 17:55:32

# Below is generated by plot.py at 2018-03-07 22:46:17
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 127.24 Mbit/s
  95th percentile per-packet one-way delay: 141.800 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 61.17 Mbit/s
  95th percentile per-packet one-way delay: 141.776 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 72.78 Mbit/s
  95th percentile per-packet one-way delay: 141.802 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 53.12 Mbit/s
  95th percentile per-packet one-way delay: 141.913 ms
  Loss rate: 0.08%
Run 5: Statistics of Copa

Start at: 2018-03-07 18:15:04
End at: 2018-03-07 18:15:34

# Below is generated by plot.py at 2018-03-07 22:48:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 188.58 Mbit/s
95th percentile per-packet one-way delay: 275.531 ms
Loss rate: 18.16%
-- Flow 1:
Average throughput: 50.19 Mbit/s
95th percentile per-packet one-way delay: 141.413 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 198.54 Mbit/s
95th percentile per-packet one-way delay: 285.975 ms
Loss rate: 24.01%
-- Flow 3:
Average throughput: 18.98 Mbit/s
95th percentile per-packet one-way delay: 177.265 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link

![Graph showing throughput and packet delay over time for different flows with descriptive labels for each line.]

- Flow 1 ingress (mean 50.36 Mbit/s)
- Flow 2 ingress (mean 262.62 Mbit/s)
- Flow 3 ingress (mean 19.18 Mbit/s)
- Flow 1 egress (mean 50.19 Mbit/s)
- Flow 2 egress (mean 198.54 Mbit/s)
- Flow 3 egress (mean 18.96 Mbit/s)

![Graph showing packet delay over time for different flows with descriptive labels for each line.]

- Flow 1 (95th percentile 141.41 ms)
- Flow 2 (95th percentile 285.98 ms)
- Flow 3 (95th percentile 177.26 ms)
Run 6: Statistics of Copa

Start at: 2018-03-07 18:35:45
End at: 2018-03-07 18:36:15

# Below is generated by plot.py at 2018-03-07 22:48:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 112.64 Mbit/s
  95th percentile per-packet one-way delay: 141.059 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 60.26 Mbit/s
  95th percentile per-packet one-way delay: 141.022 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 60.39 Mbit/s
  95th percentile per-packet one-way delay: 141.042 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 36.68 Mbit/s
  95th percentile per-packet one-way delay: 141.313 ms
  Loss rate: 0.09%
Run 6: Report of Copa — Data Link
Run 7: Statistics of Copa

Start at: 2018-03-07 18:55:46
End at: 2018-03-07 18:56:16

# Below is generated by plot.py at 2018-03-07 22:48:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.33 Mbit/s
95th percentile per-packet one-way delay: 136.992 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.04 Mbit/s
95th percentile per-packet one-way delay: 136.957 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 78.02 Mbit/s
95th percentile per-packet one-way delay: 136.970 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.15 Mbit/s
95th percentile per-packet one-way delay: 137.599 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-03-07 19:15:44
End at: 2018-03-07 19:16:14

# Below is generated by plot.py at 2018-03-07 22:48:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.74 Mbit/s
95th percentile per-packet one-way delay: 137.130 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.28 Mbit/s
95th percentile per-packet one-way delay: 137.164 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.65 Mbit/s
95th percentile per-packet one-way delay: 137.092 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.49 Mbit/s
95th percentile per-packet one-way delay: 137.115 ms
Loss rate: 0.00%
Run 8: Report of Copa — Data Link

![Graph 1](image1)

![Graph 2](image2)
Run 9: Statistics of Copa

Start at: 2018-03-07 19:35:30
End at: 2018-03-07 19:36:00

# Below is generated by plot.py at 2018-03-07 22:49:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.62 Mbit/s
95th percentile per-packet one-way delay: 140.291 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.39 Mbit/s
95th percentile per-packet one-way delay: 140.350 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.05 Mbit/s
95th percentile per-packet one-way delay: 136.998 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.05 Mbit/s
95th percentile per-packet one-way delay: 136.891 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link

![Graph](image1)

![Graph](image2)
Run 10: Statistics of Copa

End at: 2018-03-07 19:56:07

# Below is generated by plot.py at 2018-03-07 22:49:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.74 Mbit/s
95th percentile per-packet one-way delay: 140.452 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 72.47 Mbit/s
95th percentile per-packet one-way delay: 140.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 77.40 Mbit/s
95th percentile per-packet one-way delay: 140.445 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 50.64 Mbit/s
95th percentile per-packet one-way delay: 140.474 ms
Loss rate: 0.07%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

Start at: 2018-03-07 17:08:13
End at: 2018-03-07 17:08:43

# Below is generated by plot.py at 2018-03-07 23:13:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1570.09 Mbit/s
  95th percentile per-packet one-way delay: 230.572 ms
  Loss rate: 5.75%
-- Flow 1:
  Average throughput: 830.45 Mbit/s
  95th percentile per-packet one-way delay: 224.875 ms
  Loss rate: 4.12%
-- Flow 2:
  Average throughput: 758.27 Mbit/s
  95th percentile per-packet one-way delay: 237.716 ms
  Loss rate: 7.75%
-- Flow 3:
  Average throughput: 706.35 Mbit/s
  95th percentile per-packet one-way delay: 232.269 ms
  Loss rate: 6.98%
Run 1: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 866.57 Mbps)
- Flow 1 Egress (mean 830.45 Mbps)
- Flow 2 Ingress (mean 821.77 Mbps)
- Flow 2 Egress (mean 758.27 Mbps)
- Flow 3 Ingress (mean 759.32 Mbps)
- Flow 3 Egress (mean 706.35 Mbps)
Run 2: Statistics of FillP

Start at: 2018-03-07 17:27:56
End at: 2018-03-07 17:28:26

# Below is generated by plot.py at 2018-03-07 23:13:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1526.47 Mbit/s
  95th percentile per-packet one-way delay: 345.897 ms
  Loss rate: 6.18%
-- Flow 1:
  Average throughput: 866.25 Mbit/s
  95th percentile per-packet one-way delay: 208.647 ms
  Loss rate: 2.76%
-- Flow 2:
  Average throughput: 718.57 Mbit/s
  95th percentile per-packet one-way delay: 351.020 ms
  Loss rate: 8.84%
-- Flow 3:
  Average throughput: 558.08 Mbit/s
  95th percentile per-packet one-way delay: 404.380 ms
  Loss rate: 13.81%
Run 2: Report of FillP — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 Ingress (mean 892.10 Mb/s)  Flow 1 Egress (mean 866.25 Mb/s)
Flow 2 Ingress (mean 789.34 Mb/s)  Flow 2 Egress (mean 718.57 Mb/s)
Flow 3 Ingress (mean 656.23 Mb/s)  Flow 3 Egress (mean 558.08 Mb/s)

Per packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 208.65 ms)  Flow 2 (95th percentile 351.02 ms)  Flow 3 (95th percentile 404.38 ms)
Run 3: Statistics of FillP

Start at: 2018-03-07 17:47:56
End at: 2018-03-07 17:48:26

# Below is generated by plot.py at 2018-03-07 23:13:03
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1334.92 Mbit/s
  95th percentile per-packet one-way delay: 402.130 ms
  Loss rate: 7.66%
-- Flow 1:
  Average throughput: 753.24 Mbit/s
  95th percentile per-packet one-way delay: 381.623 ms
  Loss rate: 4.55%
-- Flow 2:
  Average throughput: 556.44 Mbit/s
  95th percentile per-packet one-way delay: 429.271 ms
  Loss rate: 12.97%
-- Flow 3:
  Average throughput: 638.96 Mbit/s
  95th percentile per-packet one-way delay: 270.964 ms
  Loss rate: 8.49%
Run 3: Report of FillP — Data Link

![Graph of Throughput Over Time](image1)

![Graph of Per-packet end-to-end delay](image2)
Run 4: Statistics of FillP

Start at: 2018-03-07 18:07:54
End at: 2018-03-07 18:08:24

# Below is generated by plot.py at 2018-03-07 23:14:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1511.83 Mbit/s
  95th percentile per-packet one-way delay: 228.469 ms
  Loss rate: 6.97%
-- Flow 1:
  Average throughput: 801.90 Mbit/s
  95th percentile per-packet one-way delay: 222.777 ms
  Loss rate: 5.15%
-- Flow 2:
  Average throughput: 751.41 Mbit/s
  95th percentile per-packet one-way delay: 223.257 ms
  Loss rate: 6.53%
-- Flow 3:
  Average throughput: 632.92 Mbit/s
  95th percentile per-packet one-way delay: 251.987 ms
  Loss rate: 14.24%
Run 4: Report of FillP — Data Link
Run 5: Statistics of FillP

Start at: 2018-03-07 18:28:20
End at: 2018-03-07 18:28:50

# Below is generated by plot.py at 2018-03-07 23:14:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1424.19 Mbit/s
  95th percentile per-packet one-way delay: 363.789 ms
  Loss rate: 6.64%
-- Flow 1:
  Average throughput: 743.52 Mbit/s
  95th percentile per-packet one-way delay: 367.620 ms
  Loss rate: 6.24%
-- Flow 2:
  Average throughput: 674.23 Mbit/s
  95th percentile per-packet one-way delay: 366.109 ms
  Loss rate: 6.80%
-- Flow 3:
  Average throughput: 701.38 Mbit/s
  95th percentile per-packet one-way delay: 243.621 ms
  Loss rate: 7.57%
Run 5: Report of FillP — Data Link

![Graph of network traffic measurements over time](image)

- Flow 1 ingress (mean 793.07 Mbit/s)
- Flow 1 egress (mean 743.52 Mbit/s)
- Flow 2 ingress (mean 723.53 Mbit/s)
- Flow 2 egress (mean 674.23 Mbit/s)
- Flow 3 ingress (mean 758.49 Mbit/s)
- Flow 3 egress (mean 701.38 Mbit/s)

![Graph of packet latency](image)

- Flow 1 (95th percentile 367.62 ms)
- Flow 2 (95th percentile 366.11 ms)
- Flow 3 (95th percentile 243.62 ms)
Run 6: Statistics of FillP

Start at: 2018-03-07 18:48:33
End at: 2018-03-07 18:49:03

# Below is generated by plot.py at 2018-03-07 23:15:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1505.42 Mbit/s
  95th percentile per-packet one-way delay: 235.359 ms
  Loss rate: 7.90%
-- Flow 1:
  Average throughput: 843.19 Mbit/s
  95th percentile per-packet one-way delay: 217.584 ms
  Loss rate: 4.01%
-- Flow 2:
  Average throughput: 639.46 Mbit/s
  95th percentile per-packet one-way delay: 253.677 ms
  Loss rate: 15.51%
-- Flow 3:
  Average throughput: 714.61 Mbit/s
  95th percentile per-packet one-way delay: 229.740 ms
  Loss rate: 6.23%
Run 6: Report of FillP — Data Link

---

**Throughput (Mbps):**
- Flow 1 Ingress (mean 878.46 Mbps)
- Flow 1 Egress (mean 843.19 Mbps)
- Flow 2 Ingress (mean 756.86 Mbps)
- Flow 2 Egress (mean 639.46 Mbps)
- Flow 3 Ingress (mean 762.29 Mbps)
- Flow 3 Egress (mean 714.63 Mbps)

**Packet one way delay (ms):**
- Flow 1 (95th percentile 217.58 ms)
- Flow 2 (95th percentile 253.68 ms)
- Flow 3 (95th percentile 229.74 ms)
Run 7: Statistics of FillP

Start at: 2018-03-07 19:08:38
End at: 2018-03-07 19:09:08

# Below is generated by plot.py at 2018-03-07 23:15:13
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1413.82 Mbit/s
  95th percentile per-packet one-way delay: 244.955 ms
  Loss rate: 10.88%
-- Flow 1:
  Average throughput: 755.14 Mbit/s
  95th percentile per-packet one-way delay: 238.290 ms
  Loss rate: 10.16%
-- Flow 2:
  Average throughput: 681.34 Mbit/s
  95th percentile per-packet one-way delay: 240.547 ms
  Loss rate: 11.68%
-- Flow 3:
  Average throughput: 620.46 Mbit/s
  95th percentile per-packet one-way delay: 323.887 ms
  Loss rate: 11.75%
Run 7: Report of FillP — Data Link
Run 8: Statistics of FillP

End at: 2018-03-07 19:28:58

# Below is generated by plot.py at 2018-03-07 23:15:57
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1450.80 Mbit/s
  95th percentile per-packet one-way delay: 237.886 ms
  Loss rate: 10.05%
-- Flow 1:
  Average throughput: 770.29 Mbit/s
  95th percentile per-packet one-way delay: 234.503 ms
  Loss rate: 8.12%
-- Flow 2:
  Average throughput: 704.40 Mbit/s
  95th percentile per-packet one-way delay: 239.251 ms
  Loss rate: 12.98%
-- Flow 3:
  Average throughput: 638.88 Mbit/s
  95th percentile per-packet one-way delay: 243.658 ms
  Loss rate: 10.22%
Run 8: Report of FillP — Data Link

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

- Flow 1 ingress (mean 858.27 Mbps/s)
- Flow 1 egress (mean 770.29 Mbps/s)
- Flow 2 ingress (mean 809.48 Mbps/s)
- Flow 2 egress (mean 704.40 Mbps/s)
- Flow 3 ingress (mean 711.65 Mbps/s)
- Flow 3 egress (mean 638.88 Mbps/s)

![Chart 2: Percentile Delay (ms) vs. Time (s)]

- Flow 1 (95th percentile 234.50 ms)
- Flow 2 (95th percentile 239.25 ms)
- Flow 3 (95th percentile 243.66 ms)
Run 9: Statistics of FillP

End at: 2018-03-07 19:49:02

# Below is generated by plot.py at 2018-03-07 23:38:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1503.04 Mbit/s
95th percentile per-packet one-way delay: 324.498 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 798.16 Mbit/s
95th percentile per-packet one-way delay: 217.136 ms
Loss rate: 4.84%
-- Flow 2:
Average throughput: 722.92 Mbit/s
95th percentile per-packet one-way delay: 358.987 ms
Loss rate: 8.55%
-- Flow 3:
Average throughput: 675.41 Mbit/s
95th percentile per-packet one-way delay: 337.579 ms
Loss rate: 2.15%
Run 9: Report of FillP — Data Link

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

![Graph 2: End-to-end delay (ms)]
Run 10: Statistics of FillP

Start at: 2018-03-07 20:08:30
End at: 2018-03-07 20:09:00

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1621.69 Mbit/s
  95th percentile per-packet one-way delay: 223.809 ms
  Loss rate: 5.35%
  -- Flow 1:
  Average throughput: 829.40 Mbit/s
  95th percentile per-packet one-way delay: 225.519 ms
  Loss rate: 5.29%
  -- Flow 2:
  Average throughput: 819.59 Mbit/s
  95th percentile per-packet one-way delay: 218.181 ms
  Loss rate: 4.37%
  -- Flow 3:
  Average throughput: 744.54 Mbit/s
  95th percentile per-packet one-way delay: 227.502 ms
  Loss rate: 7.66%
Run 10: Report of FillP — Data Link

**Throughput** (Mb/s)

- Flow 1 Ingress (mean 875.68 Mb/s)
- Flow 1 Egress (mean 829.40 Mb/s)
- Flow 2 Ingress (mean 856.94 Mb/s)
- Flow 2 Egress (mean 819.59 Mb/s)
- Flow 3 Ingress (mean 806.12 Mb/s)
- Flow 3 Egress (mean 744.54 Mb/s)

**Round-trip Time (ms)**

- Flow 1 (95th percentile 225.52 ms)
- Flow 2 (95th percentile 218.18 ms)
- Flow 3 (95th percentile 227.50 ms)
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-07 17:12:41
End at: 2018-03-07 17:13:11

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 264.06 Mbit/s
  95th percentile per-packet one-way delay: 143.589 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 131.58 Mbit/s
  95th percentile per-packet one-way delay: 143.188 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 126.59 Mbit/s
  95th percentile per-packet one-way delay: 143.417 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 151.42 Mbit/s
  95th percentile per-packet one-way delay: 145.483 ms
  Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link

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

- **Throughput (Mb/s):**
  - Flow 1 ingress (mean 131.61 Mb/s)
  - Flow 1 egress (mean 131.58 Mb/s)
  - Flow 2 ingress (mean 126.62 Mb/s)
  - Flow 2 egress (mean 126.59 Mb/s)
  - Flow 3 ingress (mean 151.40 Mb/s)
  - Flow 3 egress (mean 151.42 Mb/s)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 143.19 ms)
  - Flow 2 (95th percentile 143.42 ms)
  - Flow 3 (95th percentile 145.48 ms)
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-07 17:32:24
End at: 2018-03-07 17:32:54

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 325.91 Mbit/s
  95th percentile per-packet one-way delay: 144.510 ms
  Loss rate: 0.03%
-- Flow 1:
  Average throughput: 176.66 Mbit/s
  95th percentile per-packet one-way delay: 143.970 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 173.02 Mbit/s
  95th percentile per-packet one-way delay: 145.391 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 109.42 Mbit/s
  95th percentile per-packet one-way delay: 144.745 ms
  Loss rate: 0.00%
Run 2: Report of Indigo-1-32 — Data Link
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-07 17:52:24
End at: 2018-03-07 17:52:54

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 263.78 Mbit/s
95th percentile per-packet one-way delay: 144.275 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 131.27 Mbit/s
95th percentile per-packet one-way delay: 143.310 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 127.77 Mbit/s
95th percentile per-packet one-way delay: 144.468 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 149.62 Mbit/s
95th percentile per-packet one-way delay: 145.980 ms
Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link
Run 4: Statistics of Indigo-1-32

Start at: 2018-03-07 18:12:22
End at: 2018-03-07 18:12:52

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.72 Mbit/s
95th percentile per-packet one-way delay: 145.009 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 131.93 Mbit/s
95th percentile per-packet one-way delay: 144.841 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 126.89 Mbit/s
95th percentile per-packet one-way delay: 145.046 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 106.49 Mbit/s
95th percentile per-packet one-way delay: 145.408 ms
Loss rate: 0.00%
Run 4: Report of Indigo-1-32 — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 132.00 Mb/s)
Flow 1 egress (mean 131.93 Mb/s)
Flow 2 ingress (mean 126.93 Mb/s)
Flow 2 egress (mean 126.89 Mb/s)
Flow 3 ingress (mean 106.56 Mb/s)
Flow 3 egress (mean 106.49 Mb/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 144.84 ms)
Flow 2 (95th percentile 145.05 ms)
Flow 3 (95th percentile 145.41 ms)
Run 5: Statistics of Indigo-1-32

Start at: 2018-03-07 18:32:53
End at: 2018-03-07 18:33:23

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 336.68 Mbit/s
95th percentile per-packet one-way delay: 143.272 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 176.28 Mbit/s
95th percentile per-packet one-way delay: 143.037 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 169.02 Mbit/s
95th percentile per-packet one-way delay: 143.466 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 151.69 Mbit/s
95th percentile per-packet one-way delay: 143.636 ms
Loss rate: 0.07%
Run 5: Report of Indigo-1-32 — Data Link
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-07 18:53:01
End at: 2018-03-07 18:53:31

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 280.24 Mbit/s
  95th percentile per-packet one-way delay: 140.230 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 133.74 Mbit/s
  95th percentile per-packet one-way delay: 139.948 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 168.10 Mbit/s
  95th percentile per-packet one-way delay: 140.081 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 110.64 Mbit/s
  95th percentile per-packet one-way delay: 140.845 ms
  Loss rate: 0.00%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-07 19:13:03
End at: 2018-03-07 19:13:33

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.27 Mbit/s
95th percentile per-packet one-way delay: 139.776 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 179.61 Mbit/s
95th percentile per-packet one-way delay: 139.065 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 126.45 Mbit/s
95th percentile per-packet one-way delay: 140.283 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 109.29 Mbit/s
95th percentile per-packet one-way delay: 140.905 ms
Loss rate: 0.03%
Run 7: Report of Indigo-1-32 — Data Link

![Throughput Graph](image1)

- Flow 1 ingress (mean 179.62 Mbit/s)
- Flow 1 egress (mean 179.61 Mbit/s)
- Flow 2 ingress (mean 126.47 Mbit/s)
- Flow 2 egress (mean 126.45 Mbit/s)
- Flow 3 ingress (mean 109.32 Mbit/s)
- Flow 3 egress (mean 109.29 Mbit/s)

![Delay Graph](image2)

- Flow 1 (95th percentile 139.06 ms)
- Flow 2 (95th percentile 140.28 ms)
- Flow 3 (95th percentile 140.91 ms)
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-07 19:32:55
End at: 2018-03-07 19:33:25

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.32 Mbit/s
95th percentile per-packet one-way delay: 138.220 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 134.14 Mbit/s
95th percentile per-packet one-way delay: 138.088 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 129.50 Mbit/s
95th percentile per-packet one-way delay: 138.227 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 111.42 Mbit/s
95th percentile per-packet one-way delay: 138.622 ms
Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link
Run 9: Statistics of Indigo-1-32

Start at: 2018-03-07 19:52:58
End at: 2018-03-07 19:53:28

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 247.82 Mbit/s
95th percentile per-packet one-way delay: 143.088 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 130.59 Mbit/s
95th percentile per-packet one-way delay: 142.403 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 125.56 Mbit/s
95th percentile per-packet one-way delay: 143.116 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 107.08 Mbit/s
95th percentile per-packet one-way delay: 145.114 ms
Loss rate: 0.07%
Run 9: Report of Indigo-1-32 — Data Link
Run 10: Statistics of Indigo-1-32

Start at: 2018-03-07 20:13:01
End at: 2018-03-07 20:13:31

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 252.05 Mbit/s
  95th percentile per-packet one-way delay: 142.076 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 130.94 Mbit/s
  95th percentile per-packet one-way delay: 141.772 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 129.90 Mbit/s
  95th percentile per-packet one-way delay: 142.528 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 110.94 Mbit/s
  95th percentile per-packet one-way delay: 142.737 ms
  Loss rate: 0.08%
Run 10: Report of Indigo-1-32 — Data Link

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

**Throughput (Mbps)**

- Flow 1 ingress (mean 130.96 Mbps)
- Flow 1 egress (mean 130.94 Mbps)
- Flow 2 ingress (mean 129.92 Mbps)
- Flow 2 egress (mean 129.90 Mbps)
- Flow 3 ingress (mean 110.04 Mbps)
- Flow 3 egress (mean 110.04 Mbps)

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

- Flow 1 (95th percentile 141.77 ms)
- Flow 2 (95th percentile 142.53 ms)
- Flow 3 (95th percentile 142.74 ms)
Run 1: Statistics of Vivace-latency

Start at: 2018-03-07 17:03:31
End at: 2018-03-07 17:04:01

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 270.01 Mbit/s
  95th percentile per-packet one-way delay: 137.670 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 112.71 Mbit/s
  95th percentile per-packet one-way delay: 137.744 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 171.90 Mbit/s
  95th percentile per-packet one-way delay: 137.359 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 130.96 Mbit/s
  95th percentile per-packet one-way delay: 138.867 ms
  Loss rate: 0.00%
Run 1: Report of Vivace-latency — Data Link
Run 2: Statistics of Vivace-latency

Start at: 2018-03-07 17:23:04
End at: 2018-03-07 17:23:34

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 332.32 Mbit/s
  95th percentile per-packet one-way delay: 138.840 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 154.43 Mbit/s
  95th percentile per-packet one-way delay: 139.914 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 183.28 Mbit/s
  95th percentile per-packet one-way delay: 138.061 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 170.35 Mbit/s
  95th percentile per-packet one-way delay: 137.421 ms
  Loss rate: 0.00%
Run 2: Report of Vivace-latency — Data Link

![Graph of throughput and per-packet one-way delay](image-url)
Run 3: Statistics of Vivace-latency

Start at: 2018-03-07 17:42:53
End at: 2018-03-07 17:43:23

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 425.74 Mbit/s
95th percentile per-packet one-way delay: 192.103 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 290.84 Mbit/s
95th percentile per-packet one-way delay: 154.898 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 199.42 Mbit/s
95th percentile per-packet one-way delay: 217.532 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.95 Mbit/s
95th percentile per-packet one-way delay: 141.800 ms
Loss rate: 0.00%
Run 3: Report of Vivace-latency — Data Link
Run 4: Statistics of Vivace-latency

Start at: 2018-03-07 18:02:54
End at: 2018-03-07 18:03:24

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.55 Mbit/s
95th percentile per-packet one-way delay: 188.886 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 134.69 Mbit/s
95th percentile per-packet one-way delay: 136.368 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 273.74 Mbit/s
95th percentile per-packet one-way delay: 212.429 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 176.47 Mbit/s
95th percentile per-packet one-way delay: 204.364 ms
Loss rate: 0.00%
Run 4: Report of Vivace-latency — Data Link

![Graphs showing throughput and per-packet round-trip delay over time for different flows.](image-url)
Run 5: Statistics of Vivace-latency

Start at: 2018-03-07 18:23:21
End at: 2018-03-07 18:23:51

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.70 Mbit/s
95th percentile per-packet one-way delay: 149.190 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 290.97 Mbit/s
95th percentile per-packet one-way delay: 169.857 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 181.58 Mbit/s
95th percentile per-packet one-way delay: 141.150 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 121.81 Mbit/s
95th percentile per-packet one-way delay: 139.425 ms
Loss rate: 0.01%
Run 5: Report of Vivace-latency — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 290.98 Mbit/s) — Flow 1 egress (mean 290.97 Mbit/s)
Flow 2 ingress (mean 181.52 Mbit/s) — Flow 2 egress (mean 181.58 Mbit/s)
Flow 3 ingress (mean 121.81 Mbit/s) — Flow 3 egress (mean 121.81 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 169.96 ms) — Flow 2 (95th percentile 141.15 ms) — Flow 3 (95th percentile 139.43 ms)
Run 6: Statistics of Vivace-latency

Start at: 2018-03-07 18:43:29
End at: 2018-03-07 18:43:59

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 469.84 Mbit/s
  95th percentile per-packet one-way delay: 155.997 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 296.48 Mbit/s
  95th percentile per-packet one-way delay: 142.609 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 178.43 Mbit/s
  95th percentile per-packet one-way delay: 137.133 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 166.35 Mbit/s
  95th percentile per-packet one-way delay: 259.008 ms
  Loss rate: 0.14%
Run 6: Report of Vivace-latency — Data Link
Run 7: Statistics of Vivace-latency

Start at: 2018-03-07 19:03:38
End at: 2018-03-07 19:04:08

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 454.11 Mbit/s
  95th percentile per-packet one-way delay: 205.721 ms
  Loss rate: 0.12%
-- Flow 1:
  Average throughput: 277.07 Mbit/s
  95th percentile per-packet one-way delay: 152.379 ms
  Loss rate: 0.02%
-- Flow 2:
  Average throughput: 208.34 Mbit/s
  95th percentile per-packet one-way delay: 286.609 ms
  Loss rate: 0.36%
-- Flow 3:
  Average throughput: 116.92 Mbit/s
  95th percentile per-packet one-way delay: 155.322 ms
  Loss rate: 0.00%
Run 7: Report of Vivace-latency — Data Link
Run 8: Statistics of Vivace-latency

Start at: 2018-03-07 19:23:33
End at: 2018-03-07 19:24:03

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 372.68 Mbit/s
  95th percentile per-packet one-way delay: 140.371 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 207.39 Mbit/s
  95th percentile per-packet one-way delay: 140.374 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 183.36 Mbit/s
  95th percentile per-packet one-way delay: 135.600 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 131.84 Mbit/s
  95th percentile per-packet one-way delay: 174.185 ms
  Loss rate: 0.00%
Run 8: Report of Vivace-latency — Data Link

#### Throughput (Mb/s)

- **Flow 1 Ingress** (mean 207.36 Mb/s)
- **Flow 1 Egress** (mean 207.39 Mb/s)
- **Flow 2 Ingress** (mean 183.27 Mb/s)
- **Flow 2 Egress** (mean 183.36 Mb/s)
- **Flow 3 Ingress** (mean 131.84 Mb/s)
- **Flow 3 Egress** (mean 131.84 Mb/s)

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

- **Flow 1** (95th percentile 140.37 ms)
- **Flow 2** (95th percentile 135.60 ms)
- **Flow 3** (95th percentile 174.19 ms)
Run 9: Statistics of Vivace-latency

Start at: 2018-03-07 19:43:34
End at: 2018-03-07 19:44:04

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 432.69 Mbit/s
  95th percentile per-packet one-way delay: 137.448 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 275.23 Mbit/s
  95th percentile per-packet one-way delay: 138.113 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 177.77 Mbit/s
  95th percentile per-packet one-way delay: 136.411 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 119.44 Mbit/s
  95th percentile per-packet one-way delay: 136.609 ms
  Loss rate: 0.00%
Run 10: Statistics of Vivace-latency

Start at: 2018-03-07 20:03:28
End at: 2018-03-07 20:03:58

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 481.83 Mbit/s
95th percentile per-packet one-way delay: 139.652 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 244.12 Mbit/s
95th percentile per-packet one-way delay: 136.150 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 294.32 Mbit/s
95th percentile per-packet one-way delay: 148.598 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 127.82 Mbit/s
95th percentile per-packet one-way delay: 138.039 ms
Loss rate: 0.00%
Run 10: Report of Vivace-latency — Data Link

![Graph showing throughput and per-packet one-way delay over time for three flows, with mean and 95th percentile values provided for each.](image-url)
Run 1: Statistics of Vivace-loss

Start at: 2018-03-07 16:54:20
End at: 2018-03-07 16:54:50

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 308.57 Mbit/s
  95th percentile per-packet one-way delay: 294.978 ms
  Loss rate: 6.45%
-- Flow 1:
  Average throughput: 201.72 Mbit/s
  95th percentile per-packet one-way delay: 276.820 ms
  Loss rate: 3.11%
-- Flow 2:
  Average throughput: 87.91 Mbit/s
  95th percentile per-packet one-way delay: 300.501 ms
  Loss rate: 12.63%
-- Flow 3:
  Average throughput: 146.49 Mbit/s
  95th percentile per-packet one-way delay: 305.572 ms
  Loss rate: 11.60%
Run 1: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 208.18 Mbit/s)
- Flow 1 egress (mean 201.72 Mbit/s)
- Flow 2 ingress (mean 100.62 Mbit/s)
- Flow 2 egress (mean 87.91 Mbit/s)
- Flow 3 ingress (mean 165.73 Mbit/s)
- Flow 3 egress (mean 146.49 Mbit/s)

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

- Flow 1 (95th percentile 276.82 ms)
- Flow 2 (95th percentile 300.50 ms)
- Flow 3 (95th percentile 305.57 ms)
Run 2: Statistics of Vivace-loss

Start at: 2018-03-07 17:13:52
End at: 2018-03-07 17:14:22

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.43 Mbit/s
95th percentile per-packet one-way delay: 248.329 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 236.69 Mbit/s
95th percentile per-packet one-way delay: 250.431 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 195.38 Mbit/s
95th percentile per-packet one-way delay: 143.309 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 212.27 Mbit/s
95th percentile per-packet one-way delay: 287.635 ms
Loss rate: 0.32%
Run 2: Report of Vivace-loss — Data Link

![Throughput graph](image1)

![Delay graph](image2)
Run 3: Statistics of Vivace-loss

Start at: 2018-03-07 17:33:40
End at: 2018-03-07 17:34:10

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 429.28 Mbit/s
  95th percentile per-packet one-way delay: 254.254 ms
  Loss rate: 1.57%
-- Flow 1:
  Average throughput: 255.14 Mbit/s
  95th percentile per-packet one-way delay: 271.068 ms
  Loss rate: 2.11%
-- Flow 2:
  Average throughput: 191.41 Mbit/s
  95th percentile per-packet one-way delay: 139.742 ms
  Loss rate: 0.45%
-- Flow 3:
  Average throughput: 142.62 Mbit/s
  95th percentile per-packet one-way delay: 281.762 ms
  Loss rate: 1.58%
Run 3: Report of Vivace-loss — Data Link

![Graph of network throughput and latency during Run 3. The graphs show the throughput (in Mb/s) and packet delay (in ms) over time for different data flows. The figures illustrate fluctuations in performance, with some flows experiencing peaks and drops in throughput and latency.](image-url)
Run 4: Statistics of Vivace-loss

Start at: 2018-03-07 17:53:36
End at: 2018-03-07 17:54:06

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 432.46 Mbit/s
95th percentile per-packet one-way delay: 310.624 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 271.71 Mbit/s
95th percentile per-packet one-way delay: 312.590 ms
Loss rate: 2.70%
-- Flow 2:
Average throughput: 188.89 Mbit/s
95th percentile per-packet one-way delay: 148.887 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 106.82 Mbit/s
95th percentile per-packet one-way delay: 323.185 ms
Loss rate: 8.30%
Run 5: Statistics of Vivace-loss

Start at: 2018-03-07 18:13:33
End at: 2018-03-07 18:14:03

# Below is generated by plot.py at 2018-03-07 23:44:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 513.02 Mbit/s
  95th percentile per-packet one-way delay: 255.171 ms
  Loss rate: 2.27%
  -- Flow 1:
    Average throughput: 286.80 Mbit/s
    95th percentile per-packet one-way delay: 230.185 ms
    Loss rate: 0.85%
  -- Flow 2:
    Average throughput: 285.27 Mbit/s
    95th percentile per-packet one-way delay: 275.839 ms
    Loss rate: 1.85%
  -- Flow 3:
    Average throughput: 110.97 Mbit/s
    95th percentile per-packet one-way delay: 331.771 ms
    Loss rate: 13.89%
Run 5: Report of Vivace-loss — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 289.22 Mbps)
Flow 1 egress (mean 286.80 Mbps)
Flow 2 ingress (mean 290.77 Mbps)
Flow 2 egress (mean 285.27 Mbps)
Flow 3 ingress (mean 128.85 Mbps)
Flow 3 egress (mean 110.97 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 230.19 ms)
Flow 2 (95th percentile 275.84 ms)
Flow 3 (95th percentile 331.77 ms)
Run 6: Statistics of Vivace-loss

Start at: 2018-03-07 18:34:11
End at: 2018-03-07 18:34:41

# Below is generated by plot.py at 2018-03-07 23:45:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 560.39 Mbit/s
95th percentile per-packet one-way delay: 218.537 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 318.73 Mbit/s
95th percentile per-packet one-way delay: 183.732 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 292.48 Mbit/s
95th percentile per-packet one-way delay: 255.664 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 143.49 Mbit/s
95th percentile per-packet one-way delay: 304.133 ms
Loss rate: 3.94%
Run 6: Report of Vivace-loss — Data Link

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

- **Flow 1 ingress** (mean 318.79 Mbit/s)
- **Flow 1 egress** (mean 318.73 Mbit/s)
- **Flow 2 ingress** (mean 293.08 Mbit/s)
- **Flow 2 egress** (mean 292.48 Mbit/s)
- **Flow 3 ingress** (mean 149.32 Mbit/s)
- **Flow 3 egress** (mean 143.49 Mbit/s)

![Graph 2: Packet Delay vs Time](#)

- **Flow 1** (95th percentile 183.73 ms)
- **Flow 2** (95th percentile 255.66 ms)
- **Flow 3** (95th percentile 304.13 ms)
Run 7: Statistics of Vivace-loss

Start at: 2018-03-07 18:54:14
End at: 2018-03-07 18:54:44

# Below is generated by plot.py at 2018-03-07 23:46:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 533.57 Mbit/s
95th percentile per-packet one-way delay: 225.786 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 332.03 Mbit/s
95th percentile per-packet one-way delay: 223.421 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 233.81 Mbit/s
95th percentile per-packet one-way delay: 234.431 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 139.81 Mbit/s
95th percentile per-packet one-way delay: 169.766 ms
Loss rate: 0.09%
Run 7: Report of Vivace-loss — Data Link
Run 8: Statistics of Vivace-loss

Start at: 2018-03-07 19:14:16
End at: 2018-03-07 19:14:46

# Below is generated by plot.py at 2018-03-07 23:46:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 473.21 Mbit/s
95th percentile per-packet one-way delay: 309.381 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 288.17 Mbit/s
95th percentile per-packet one-way delay: 312.748 ms
Loss rate: 3.24%
-- Flow 2:
Average throughput: 191.03 Mbit/s
95th percentile per-packet one-way delay: 140.995 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.72 Mbit/s
95th percentile per-packet one-way delay: 157.747 ms
Loss rate: 0.88%
Run 8: Report of Vivace-loss — Data Link

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

- **Flow 1 ingress** (mean 297.85 Mbit/s)
- **Flow 1 egress** (mean 288.17 Mbit/s)
- **Flow 2 ingress** (mean 196.96 Mbit/s)
- **Flow 2 egress** (mean 191.03 Mbit/s)
- **Flow 3 ingress** (mean 178.33 Mbit/s)
- **Flow 3 egress** (mean 176.72 Mbit/s)

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

- **Flow 1** (95th percentile 312.75 ms)
- **Flow 2** (95th percentile 141.00 ms)
- **Flow 3** (95th percentile 157.75 ms)
Run 9: Statistics of Vivace-loss

Start at: 2018-03-07 19:34:05
End at: 2018-03-07 19:34:35

# Below is generated by plot.py at 2018-03-07 23:46:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 432.56 Mbit/s
95th percentile per-packet one-way delay: 205.311 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 305.66 Mbit/s
95th percentile per-packet one-way delay: 196.383 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 125.05 Mbit/s
95th percentile per-packet one-way delay: 271.652 ms
Loss rate: 8.32%
-- Flow 3:
Average throughput: 133.09 Mbit/s
95th percentile per-packet one-way delay: 138.938 ms
Loss rate: 0.00%
Run 9: Report of Vivace-loss — Data Link
Run 10: Statistics of Vivace-loss

Start at: 2018-03-07 19:54:08
End at: 2018-03-07 19:54:38

# Below is generated by plot.py at 2018-03-07 23:48:46
# Datalink statistics
-- Total of 3 flows:
    Average throughput: 486.36 Mbit/s
    95th percentile per-packet one-way delay: 140.115 ms
    Loss rate: 0.00%
-- Flow 1:
    Average throughput: 342.17 Mbit/s
    95th percentile per-packet one-way delay: 139.477 ms
    Loss rate: 0.00%
-- Flow 2:
    Average throughput: 109.40 Mbit/s
    95th percentile per-packet one-way delay: 136.948 ms
    Loss rate: 0.01%
-- Flow 3:
    Average throughput: 217.50 Mbit/s
    95th percentile per-packet one-way delay: 178.958 ms
    Loss rate: 0.01%
Run 10: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 342.20 Mbps)
- Flow 1 egress (mean 342.17 Mbps)
- Flow 2 ingress (mean 109.41 Mbps)
- Flow 2 egress (mean 109.40 Mbps)
- Flow 3 ingress (mean 217.50 Mbps)
- Flow 3 egress (mean 217.50 Mbps)

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

- Flow 1 (95th percentile 139.48 ms)
- Flow 2 (95th percentile 136.95 ms)
- Flow 3 (95th percentile 178.96 ms)
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-07 17:05:33
End at: 2018-03-07 17:06:03

# Below is generated by plot.py at 2018-03-07 23:48:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 449.39 Mbit/s
  95th percentile per-packet one-way delay: 222.466 ms
  Loss rate: 0.89%
-- Flow 1:
  Average throughput: 229.62 Mbit/s
  95th percentile per-packet one-way delay: 148.134 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 262.49 Mbit/s
  95th percentile per-packet one-way delay: 222.995 ms
  Loss rate: 0.69%
-- Flow 3:
  Average throughput: 137.96 Mbit/s
  95th percentile per-packet one-way delay: 317.972 ms
  Loss rate: 5.91%
Run 1: Report of Vivace-LTE — Data Link

**Throughput (Mbps):**

- **Flow 1 ingress** (mean 229.61 Mbps)
- **Flow 1 egress** (mean 229.62 Mbps)
- **Flow 2 ingress** (mean 264.25 Mbps)
- **Flow 2 egress** (mean 262.49 Mbps)
- **Flow 3 ingress** (mean 146.62 Mbps)
- **Flow 3 egress** (mean 137.96 Mbps)

**Packet one-way delay (ms):**

- **Flow 1** (95th percentile 148.13 ms)
- **Flow 2** (95th percentile 223.00 ms)
- **Flow 3** (95th percentile 317.97 ms)
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-07 17:25:10
End at: 2018-03-07 17:25:40

# Below is generated by plot.py at 2018-03-07 23:50:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 508.29 Mbit/s
  95th percentile per-packet one-way delay: 152.979 ms
  Loss rate: 0.37%
-- Flow 1:
  Average throughput: 330.81 Mbit/s
  95th percentile per-packet one-way delay: 145.149 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 193.58 Mbit/s
  95th percentile per-packet one-way delay: 141.556 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 148.48 Mbit/s
  95th percentile per-packet one-way delay: 291.273 ms
  Loss rate: 3.76%
Run 2: Report of Vivace-LTE — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)

Legend:
- Blue dashed line: Flow 1 ingress (mean 330.81 Mbit/s)
- Blue solid line: Flow 1 egress (mean 330.81 Mbit/s)
- Green dashed line: Flow 2 ingress (mean 193.56 Mbit/s)
- Green solid line: Flow 2 egress (mean 193.56 Mbit/s)
- Gray dashed line: Flow 3 ingress (mean 154.27 Mbit/s)
- Gray solid line: Flow 3 egress (mean 148.48 Mbit/s)

Legend for Delay Graph:
- Blue circle: Flow 1 (95th percentile 145.15 ms)
- Green circle: Flow 2 (95th percentile 141.56 ms)
- Red circle: Flow 3 (95th percentile 291.27 ms)
Run 3: Statistics of Vivace-LTE

Start at: 2018-03-07 17:45:07
End at: 2018-03-07 17:45:37

# Below is generated by plot.py at 2018-03-07 23:53:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 531.06 Mbit/s
95th percentile per-packet one-way delay: 160.676 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 306.73 Mbit/s
95th percentile per-packet one-way delay: 150.043 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 290.20 Mbit/s
95th percentile per-packet one-way delay: 164.481 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 170.230 ms
Loss rate: 0.00%
Run 3: Report of Vivace-LTE — Data Link

[Graphs showing throughput and one-way delay over time]
Run 4: Statistics of Vivace-LTE

Start at: 2018-03-07 18:05:06
End at: 2018-03-07 18:05:36

# Below is generated by plot.py at 2018-03-07 23:54:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 543.57 Mbit/s
95th percentile per-packet one-way delay: 225.918 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 311.94 Mbit/s
95th percentile per-packet one-way delay: 242.015 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 296.28 Mbit/s
95th percentile per-packet one-way delay: 167.491 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 105.48 Mbit/s
95th percentile per-packet one-way delay: 319.127 ms
Loss rate: 5.94%
Run 4: Report of Vivace-LTE — Data Link
Run 5: Statistics of Vivace-LTE

Start at: 2018-03-07 18:25:36
End at: 2018-03-07 18:26:06

# Below is generated by plot.py at 2018-03-07 23:54:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 497.38 Mbit/s
95th percentile per-packet one-way delay: 181.452 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 322.72 Mbit/s
95th percentile per-packet one-way delay: 185.057 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 195.10 Mbit/s
95th percentile per-packet one-way delay: 137.618 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 136.60 Mbit/s
95th percentile per-packet one-way delay: 233.362 ms
Loss rate: 0.00%
Run 5: Report of Vivace-LTE — Data Link

![Throughput Graph]

- Flow 1 ingress (mean 322.69 Mbit/s)
- Flow 1 egress (mean 322.72 Mbit/s)
- Flow 2 ingress (mean 195.10 Mbit/s)
- Flow 2 egress (mean 195.10 Mbit/s)
- Flow 3 ingress (mean 136.59 Mbit/s)
- Flow 3 egress (mean 136.60 Mbit/s)

![Delay Graph]

- Flow 1 (95th percentile 185.06 ms)
- Flow 2 (95th percentile 137.62 ms)
- Flow 3 (95th percentile 233.36 ms)
Run 6: Statistics of Vivace-LTE

Start at: 2018-03-07 18:45:46
End at: 2018-03-07 18:46:16

# Below is generated by plot.py at 2018-03-07 23:55:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 543.46 Mbit/s
  95th percentile per-packet one-way delay: 301.854 ms
  Loss rate: 1.00%
-- Flow 1:
  Average throughput: 313.57 Mbit/s
  95th percentile per-packet one-way delay: 304.407 ms
  Loss rate: 1.29%
-- Flow 2:
  Average throughput: 268.01 Mbit/s
  95th percentile per-packet one-way delay: 291.364 ms
  Loss rate: 0.77%
-- Flow 3:
  Average throughput: 171.22 Mbit/s
  95th percentile per-packet one-way delay: 157.063 ms
  Loss rate: 0.00%
Run 6: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 317.69 Mbit/s)
- Flow 1 egress (mean 313.57 Mbit/s)
- Flow 2 ingress (mean 270.15 Mbit/s)
- Flow 2 egress (mean 268.01 Mbit/s)
- Flow 3 ingress (mean 171.35 Mbit/s)
- Flow 3 egress (mean 171.22 Mbit/s)
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-07 19:05:54
End at: 2018-03-07 19:06:24

# Below is generated by plot.py at 2018-03-07 23:55:18
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 512.79 Mbit/s
  95th percentile per-packet one-way delay: 172.573 ms
  Loss rate: 0.33%
-- Flow 1:
  Average throughput: 306.67 Mbit/s
  95th percentile per-packet one-way delay: 165.962 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 243.17 Mbit/s
  95th percentile per-packet one-way delay: 142.734 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 135.02 Mbit/s
  95th percentile per-packet one-way delay: 296.701 ms
  Loss rate: 3.70%
Run 7: Report of Vivace-LTE — Data Link

![Graph showing throughput and packet error rate over time for different flows.](image-url)

**Throughput (Mbps):**
- Flow 1 ingress (mean 306.68 Mbps)
- Flow 1 egress (mean 306.67 Mbps)
- Flow 2 ingress (mean 243.16 Mbps)
- Flow 2 egress (mean 243.17 Mbps)
- Flow 3 ingress (mean 140.20 Mbps)
- Flow 3 egress (mean 136.02 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 165.96 ms)
- Flow 2 (95th percentile 142.73 ms)
- Flow 3 (95th percentile 296.70 ms)
Run 8: Statistics of Vivace-LTE

Start at: 2018-03-07 19:25:44
End at: 2018-03-07 19:26:14

# Below is generated by plot.py at 2018-03-07 23:55:48
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 518.91 Mbit/s
  95th percentile per-packet one-way delay: 167.525 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 303.86 Mbit/s
  95th percentile per-packet one-way delay: 182.166 ms
  Loss rate: 0.26%
-- Flow 2:
  Average throughput: 257.26 Mbit/s
  95th percentile per-packet one-way delay: 138.063 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 133.29 Mbit/s
  95th percentile per-packet one-way delay: 188.565 ms
  Loss rate: 0.00%
Run 9: Statistics of Vivace-LTE

Start at: 2018-03-07 19:45:49
End at: 2018-03-07 19:46:19

# Below is generated by plot.py at 2018-03-07 23:55:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 481.02 Mbit/s
95th percentile per-packet one-way delay: 299.217 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 317.84 Mbit/s
95th percentile per-packet one-way delay: 303.058 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 177.60 Mbit/s
95th percentile per-packet one-way delay: 140.419 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 137.15 Mbit/s
95th percentile per-packet one-way delay: 168.582 ms
Loss rate: 0.00%
Run 9: Report of Vivace-LTE — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 321.61 Mbit/s)  Flow 1 egress (mean 317.84 Mbit/s)
Flow 2 ingress (mean 177.56 Mbit/s)  Flow 2 egress (mean 177.60 Mbit/s)
Flow 3 ingress (mean 137.15 Mbit/s)  Flow 3 egress (mean 137.15 Mbit/s)

Delay (ms)

Flow 1 (95th percentile 303.06 ms)  Flow 2 (95th percentile 140.42 ms)  Flow 3 (95th percentile 168.58 ms)

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Run 10: Statistics of Vivace-LTE

Start at: 2018-03-07 20:05:48
End at: 2018-03-07 20:06:18

# Below is generated by plot.py at 2018-03-07 23:56:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 480.81 Mbit/s
95th percentile per-packet one-way delay: 180.023 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 314.82 Mbit/s
95th percentile per-packet one-way delay: 185.848 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 192.33 Mbit/s
95th percentile per-packet one-way delay: 136.827 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 116.22 Mbit/s
95th percentile per-packet one-way delay: 190.321 ms
Loss rate: 0.00%
Run 10: Report of Vivace-LTE — Data Link

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

- **Throughput (Mbit/s)**
  - Flow 1 ingress (mean 315.47 Mbit/s)
  - Flow 1 egress (mean 314.82 Mbit/s)
  - Flow 2 ingress (mean 192.32 Mbit/s)
  - Flow 2 egress (mean 192.33 Mbit/s)
  - Flow 3 ingress (mean 116.25 Mbit/s)
  - Flow 3 egress (mean 116.22 Mbit/s)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 185.85 ms)
  - Flow 2 (95th percentile 136.83 ms)
  - Flow 3 (95th percentile 190.32 ms)