Pantheon Report

Generated at 2018-03-15 06:26:08 (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 @ f12c42a2c63fdd9a862ee0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagramr/sender.cc
third_party/fillip @ 828bbf95fd491149b5ce9f90f281dc69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cc1443d28af70bff6c4a2
third_party/indigo @ a9b2060d39e4a2e8987e9393e3eca2a6c7cd0a9
  third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82e08b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c924aa9d58d38cd4f0ecdfb90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41113ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ 0f2e693303ae82e908e6928ec4f1083a6681
  M datagramr/sender.cc
third_party/libutp @ b3465b942e2826f2b17eaeb4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013d2b6744ccfccf993
third_party/pcc @ 1af65f8a0d66d18b623c901a55fe87824981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3c4f2f
third_party/scream @ c3370fd7bd17265a79aeb34e016a23f5965885
third_party/sourdough @ f1a14bffe74973437f61eaeaeb30267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375ee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.cpp
  M tools/plot.py
third_party/vivace @ 7a4ba53c075b4a6f66f5c4580192120401784ce3
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></td>
<td></td>
<td>flow 1     flow 2     flow 3</td>
<td>flow 1     flow 2     flow 3</td>
<td>flow 1     flow 2     flow 3</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>10</td>
<td>74.29      71.43      64.98</td>
<td>136.78     136.79      136.51</td>
<td>0.00      0.00      0.00</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>10</td>
<td>53.83      45.64      38.72</td>
<td>139.94     140.23      140.79</td>
<td>0.00      0.02      0.04</td>
</tr>
<tr>
<td>LEDBAT</td>
<td>10</td>
<td>2.84       2.01       1.14</td>
<td>136.71     136.74      136.69</td>
<td>0.00      0.00      0.00</td>
</tr>
<tr>
<td>PCC</td>
<td>10</td>
<td>482.97     109.35     37.58</td>
<td>247.06     247.66      243.24</td>
<td>2.42      2.74      2.87</td>
</tr>
<tr>
<td>QUIC Cubic</td>
<td>10</td>
<td>54.62      60.32      46.07</td>
<td>136.27     136.31      136.35</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>137.02     137.14      136.83</td>
<td>0.00      0.00      0.00</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>10</td>
<td>2.03       1.24       0.42</td>
<td>137.51     137.39      137.30</td>
<td>0.00      0.00      0.02</td>
</tr>
<tr>
<td>Sprout</td>
<td>10</td>
<td>0.40       0.41       0.47</td>
<td>137.51     137.83      136.99</td>
<td>0.00      0.01      0.00</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>10</td>
<td>104.27     108.46     117.18</td>
<td>137.29     137.03      137.47</td>
<td>0.01      0.00      0.01</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>10</td>
<td>30.89      32.50      26.03</td>
<td>138.40     139.14      140.98</td>
<td>0.00      0.00      0.00</td>
</tr>
<tr>
<td>Verus</td>
<td>10</td>
<td>161.32     119.42     45.78</td>
<td>197.10     224.47      217.72</td>
<td>0.49      0.99      2.51</td>
</tr>
<tr>
<td>Copa</td>
<td>10</td>
<td>65.38      68.50      62.87</td>
<td>137.09     136.68      136.80</td>
<td>0.00      0.00      0.00</td>
</tr>
<tr>
<td>FillP</td>
<td>10</td>
<td>826.62     751.58     670.35</td>
<td>237.67     273.61      248.56</td>
<td>3.26      5.12      8.29</td>
</tr>
<tr>
<td>Indigo-1-32</td>
<td>10</td>
<td>165.15     160.27     144.04</td>
<td>137.35     138.19      139.39</td>
<td>0.00      0.00      0.00</td>
</tr>
<tr>
<td>Vivace-latency</td>
<td>10</td>
<td>227.08     189.86     133.14</td>
<td>137.30     137.01      146.31</td>
<td>0.01      0.00      0.01</td>
</tr>
<tr>
<td>Vivace-loss</td>
<td>10</td>
<td>265.16     223.73     149.47</td>
<td>141.25     144.08      185.29</td>
<td>0.03      0.11      0.09</td>
</tr>
<tr>
<td>Vivace-LTE</td>
<td>10</td>
<td>245.57     194.34     147.94</td>
<td>138.00     138.11      168.73</td>
<td>0.00      0.01      0.01</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

Start at: 2018-03-14 22:19:45
End at: 2018-03-14 22:20:15

# Below is generated by plot.py at 2018-03-15 03:58:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.92 Mbit/s
95th percentile per-packet one-way delay: 137.253 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.72 Mbit/s
95th percentile per-packet one-way delay: 137.266 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.86 Mbit/s
95th percentile per-packet one-way delay: 137.224 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.33 Mbit/s
95th percentile per-packet one-way delay: 137.258 ms
Loss rate: 0.00%
Run 1: Report of TCP BBR — Data Link
Run 2: Statistics of TCP BBR

Start at: 2018-03-14 22:40:07
End at: 2018-03-14 22:40:37

# Below is generated by plot.py at 2018-03-15 03:58:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.99 Mbit/s
95th percentile per-packet one-way delay: 136.504 ms
Loss rate: 0.00%
  -- Flow 1:
Average throughput: 73.77 Mbit/s
95th percentile per-packet one-way delay: 136.468 ms
Loss rate: 0.00%
  -- Flow 2:
Average throughput: 70.35 Mbit/s
95th percentile per-packet one-way delay: 136.495 ms
Loss rate: 0.00%
  -- Flow 3:
Average throughput: 64.64 Mbit/s
95th percentile per-packet one-way delay: 136.587 ms
Loss rate: 0.00%
Run 2: Report of TCP BBR — Data Link

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

Legend:
- Flow 1 ingress (mean 73.76 Mbit/s)
- Flow 1 egress (mean 73.77 Mbit/s)
- Flow 2 ingress (mean 70.35 Mbit/s)
- Flow 2 egress (mean 70.35 Mbit/s)
- Flow 3 ingress (mean 64.64 Mbit/s)
- Flow 3 egress (mean 64.64 Mbit/s)
Run 3: Statistics of TCP BBR

Start at: 2018-03-14 23:00:47  
End at: 2018-03-14 23:01:17

# Below is generated by plot.py at 2018-03-15 03:58:05  
# Datalink statistics

-- Total of 3 flows:
Average throughput: 144.48 Mbit/s  
95th percentile per-packet one-way delay: 137.136 ms  
Loss rate: 0.00%

-- Flow 1:
Average throughput: 76.12 Mbit/s  
95th percentile per-packet one-way delay: 137.155 ms  
Loss rate: 0.00%

-- Flow 2:
Average throughput: 70.19 Mbit/s  
95th percentile per-packet one-way delay: 137.143 ms  
Loss rate: 0.00%

-- Flow 3:
Average throughput: 65.31 Mbit/s  
95th percentile per-packet one-way delay: 136.601 ms  
Loss rate: 0.00%
Run 4: Statistics of TCP BBR

Start at: 2018-03-14 23:21:22  
End at: 2018-03-14 23:21:52

# Below is generated by plot.py at 2018-03-15 03:58:07  
# Datalink statistics
-- Total of 3 flows: 
Average throughput: 143.25 Mbit/s  
95th percentile per-packet one-way delay: 137.134 ms  
Loss rate: 0.00%  
-- Flow 1: 
Average throughput: 72.30 Mbit/s  
95th percentile per-packet one-way delay: 137.124 ms  
Loss rate: 0.00%  
-- Flow 2: 
Average throughput: 74.48 Mbit/s  
95th percentile per-packet one-way delay: 137.183 ms  
Loss rate: 0.00%  
-- Flow 3: 
Average throughput: 64.71 Mbit/s  
95th percentile per-packet one-way delay: 136.695 ms  
Loss rate: 0.00%
Run 4: Report of TCP BBR — Data Link

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

![Graph 2: Per-Packet End-to-End Delay (ms)](image2)
Run 5: Statistics of TCP BBR

Start at: 2018-03-14 23:41:54
End at: 2018-03-14 23:42:24

# Below is generated by plot.py at 2018-03-15 03:58:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.71 Mbit/s
95th percentile per-packet one-way delay: 137.054 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.46 Mbit/s
95th percentile per-packet one-way delay: 137.076 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 73.08 Mbit/s
95th percentile per-packet one-way delay: 137.026 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.92 Mbit/s
95th percentile per-packet one-way delay: 134.860 ms
Loss rate: 0.00%
Run 5: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 72.46 Mbps)
Flow 1 egress (mean 72.46 Mbps)
Flow 2 ingress (mean 73.08 Mbps)
Flow 2 egress (mean 73.08 Mbps)
Flow 3 ingress (mean 65.91 Mbps)
Flow 3 egress (mean 65.92 Mbps)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 137.08 ms)
Flow 2 (95th percentile 137.03 ms)
Flow 3 (95th percentile 134.86 ms)
Run 6: Statistics of TCP BBR

Start at: 2018-03-15 00:02:14
End at: 2018-03-15 00:02:44

# Below is generated by plot.py at 2018-03-15 03:58:08
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 142.08 Mbit/s
  95th percentile per-packet one-way delay: 137.142 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 73.80 Mbit/s
  95th percentile per-packet one-way delay: 137.137 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 70.28 Mbit/s
  95th percentile per-packet one-way delay: 137.142 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 64.75 Mbit/s
  95th percentile per-packet one-way delay: 137.174 ms
  Loss rate: 0.00%
Run 6: Report of TCP BBR — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 7: Statistics of TCP BBR

Start at: 2018-03-15 00:22:24
End at: 2018-03-15 00:22:54

# Below is generated by plot.py at 2018-03-15 03:58:12
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 145.24 Mbit/s
  95th percentile per-packet one-way delay: 136.482 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 75.17 Mbit/s
  95th percentile per-packet one-way delay: 136.474 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 72.48 Mbit/s
  95th percentile per-packet one-way delay: 136.459 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 65.81 Mbit/s
  95th percentile per-packet one-way delay: 136.530 ms
  Loss rate: 0.00%
Run 7: Report of TCP BBR — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.]
Run 8: Statistics of TCP BBR

Start at: 2018-03-15 00:42:48
End at: 2018-03-15 00:43:18

# Below is generated by plot.py at 2018-03-15 03:58:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.34 Mbit/s
95th percentile per-packet one-way delay: 136.497 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.20 Mbit/s
95th percentile per-packet one-way delay: 136.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.06 Mbit/s
95th percentile per-packet one-way delay: 136.509 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.06 Mbit/s
95th percentile per-packet one-way delay: 136.543 ms
Loss rate: 0.00%
Run 8: Report of TCP BBR — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress: mean 73.20 Mbps
  - Flow 1 egress: mean 73.20 Mbps
  - Flow 2 ingress: mean 72.00 Mbps
  - Flow 2 egress: mean 72.00 Mbps
  - Flow 3 ingress: mean 64.00 Mbps
  - Flow 3 egress: mean 64.00 Mbps

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile): 136.47 ms
  - Flow 2 (95th percentile): 136.51 ms
  - Flow 3 (95th percentile): 136.54 ms
Run 9: Statistics of TCP BBR

Start at: 2018-03-15 01:03:15
End at: 2018-03-15 01:03:45

# Below is generated by plot.py at 2018-03-15 04:01:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.29 Mbit/s
95th percentile per-packet one-way delay: 135.776 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.18 Mbit/s
95th percentile per-packet one-way delay: 135.760 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.30 Mbit/s
95th percentile per-packet one-way delay: 135.769 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.55 Mbit/s
95th percentile per-packet one-way delay: 135.836 ms
Loss rate: 0.00%
Run 9: Report of TCP BBR — Data Link
Run 10: Statistics of TCP BBR

Start at: 2018-03-15 01:23:37
End at: 2018-03-15 01:24:07

# Below is generated by plot.py at 2018-03-15 04:01:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.38 Mbit/s
95th percentile per-packet one-way delay: 136.924 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 76.16 Mbit/s
95th percentile per-packet one-way delay: 136.879 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.18 Mbit/s
95th percentile per-packet one-way delay: 136.916 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.68 Mbit/s
95th percentile per-packet one-way delay: 137.019 ms
Loss rate: 0.02%
Run 10: Report of TCP BBR — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 76.15 Mbps)
Flow 1 egress (mean 76.16 Mbps)
Flow 2 ingress (mean 71.18 Mbps)
Flow 2 egress (mean 71.18 Mbps)
Flow 3 ingress (mean 64.68 Mbps)
Flow 3 egress (mean 64.68 Mbps)

Per-packet round-trip delays (ms)

Time (s)

Flow 1 (95th percentile 136.88 ms)
Flow 2 (95th percentile 136.92 ms)
Flow 3 (95th percentile 137.02 ms)
Run 1: Statistics of TCP Cubic

Start at: 2018-03-14 22:12:16
End at: 2018-03-14 22:12:46

# Below is generated by plot.py at 2018-03-15 04:01:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 93.68 Mbit/s
  95th percentile per-packet one-way delay: 139.722 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 66.46 Mbit/s
  95th percentile per-packet one-way delay: 139.879 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 40.65 Mbit/s
  95th percentile per-packet one-way delay: 138.625 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.58 Mbit/s
  95th percentile per-packet one-way delay: 137.069 ms
  Loss rate: 0.38%
Run 1: Report of TCP Cubic — Data Link

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

Throughput (Mbps)

Time (s)

0 5 10 15 20 25 30

0 20 40 60 80 100

Flow 1 ingress (mean 66.46 Mbit/s)
Flow 1 egress (mean 66.46 Mbit/s)
Flow 2 ingress (mean 40.65 Mbit/s)
Flow 2 egress (mean 40.65 Mbit/s)
Flow 3 ingress (mean 1.58 Mbit/s)
Flow 3 egress (mean 1.58 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

0 5 10 15 20 25 30

134 136 138 140 142 144 146

Flow 1 (95th percentile 139.98 ms)
Flow 2 (95th percentile 138.62 ms)
Flow 3 (95th percentile 137.07 ms)
Run 2: Statistics of TCP Cubic

Start at: 2018-03-14 22:32:41
End at: 2018-03-14 22:33:11

# Below is generated by plot.py at 2018-03-15 04:01:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.67 Mbit/s
95th percentile per-packet one-way delay: 142.896 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.14 Mbit/s
95th percentile per-packet one-way delay: 141.978 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 144.248 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.82 Mbit/s
95th percentile per-packet one-way delay: 143.273 ms
Loss rate: 0.00%
Run 2: Report of TCP Cubic — Data Link
Run 3: Statistics of TCP Cubic

Start at: 2018-03-14 22:53:17
End at: 2018-03-14 22:53:47

# Below is generated by plot.py at 2018-03-15 04:01:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 99.37 Mbit/s
  95th percentile per-packet one-way delay: 142.185 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 45.73 Mbit/s
  95th percentile per-packet one-way delay: 139.773 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 44.67 Mbit/s
  95th percentile per-packet one-way delay: 141.362 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 72.51 Mbit/s
  95th percentile per-packet one-way delay: 143.584 ms
  Loss rate: 0.00%
Run 3: Report of TCP Cubic — Data Link

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

Flow 1 ingress (mean 45.73 Mbit/s) — Flow 1 egress (mean 45.73 Mbit/s)
Flow 2 ingress (mean 44.67 Mbit/s) — Flow 2 egress (mean 44.67 Mbit/s)
Flow 3 ingress (mean 72.50 Mbit/s) — Flow 3 egress (mean 72.51 Mbit/s)

Flow 1 (95th percentile 139.77 ms) — Flow 2 (95th percentile 141.36 ms) — Flow 3 (95th percentile 143.58 ms)
Run 4: Statistics of TCP Cubic

Start at: 2018-03-14 23:13:50
End at: 2018-03-14 23:14:20

# Below is generated by plot.py at 2018-03-15 04:01:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.57 Mbit/s
95th percentile per-packet one-way delay: 138.796 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.09 Mbit/s
95th percentile per-packet one-way delay: 139.132 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.95 Mbit/s
95th percentile per-packet one-way delay: 137.631 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.05 Mbit/s
95th percentile per-packet one-way delay: 139.108 ms
Loss rate: 0.00%
Run 4: Report of TCP Cubic — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 49.09 Mbps)
  - Flow 1 egress (mean 49.09 Mbps)
  - Flow 2 ingress (mean 38.95 Mbps)
  - Flow 2 egress (mean 38.95 Mbps)
  - Flow 3 ingress (mean 44.04 Mbps)
  - Flow 3 egress (mean 44.05 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 139.13 ms)
  - Flow 2 (95th percentile 137.63 ms)
  - Flow 3 (95th percentile 139.11 ms)
Run 5: Statistics of TCP Cubic

Start at: 2018-03-14 23:34:27
End at: 2018-03-14 23:34:57

# Below is generated by plot.py at 2018-03-15 04:01:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.57 Mbit/s
95th percentile per-packet one-way delay: 141.145 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.56 Mbit/s
95th percentile per-packet one-way delay: 141.025 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.88 Mbit/s
95th percentile per-packet one-way delay: 141.399 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.67 Mbit/s
95th percentile per-packet one-way delay: 138.397 ms
Loss rate: 0.00%
Run 6: Statistics of TCP Cubic

Start at: 2018-03-14 23:54:44
End at: 2018-03-14 23:55:14

# Below is generated by plot.py at 2018-03-15 04:01:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 95.57 Mbit/s
  95th percentile per-packet one-way delay: 138.846 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 57.79 Mbit/s
  95th percentile per-packet one-way delay: 137.991 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 40.12 Mbit/s
  95th percentile per-packet one-way delay: 140.817 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 33.63 Mbit/s
  95th percentile per-packet one-way delay: 141.899 ms
  Loss rate: 0.00%
Run 6: Report of TCP Cubic — Data Link

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

- **Flow 1 ingress** (mean 57.79 Mbit/s)
- **Flow 1 egress** (mean 57.79 Mbit/s)
- **Flow 2 ingress** (mean 40.03 Mbit/s)
- **Flow 2 egress** (mean 40.12 Mbit/s)
- **Flow 3 ingress** (mean 33.62 Mbit/s)
- **Flow 3 egress** (mean 33.63 Mbit/s)
Run 7: Statistics of TCP Cubic

Start at: 2018-03-15 00:14:48
End at: 2018-03-15 00:15:18

# Below is generated by plot.py at 2018-03-15 04:02:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.18 Mbit/s
95th percentile per-packet one-way delay: 140.505 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 55.06 Mbit/s
95th percentile per-packet one-way delay: 139.341 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.80 Mbit/s
95th percentile per-packet one-way delay: 140.198 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 35.19 Mbit/s
95th percentile per-packet one-way delay: 143.626 ms
Loss rate: 0.01%
Run 7: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 55.07 Mbps)
- Flow 1 egress (mean 55.06 Mbps)
- Flow 2 ingress (mean 54.88 Mbps)
- Flow 2 egress (mean 54.80 Mbps)
- Flow 3 ingress (mean 35.20 Mbps)
- Flow 3 egress (mean 35.19 Mbps)

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

- Flow 1 (95th percentile 139.34 ms)
- Flow 2 (95th percentile 140.20 ms)
- Flow 3 (95th percentile 143.63 ms)
Run 8: Statistics of TCP Cubic

Start at: 2018-03-15 00:35:32
End at: 2018-03-15 00:36:02

# Below is generated by plot.py at 2018-03-15 04:02:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.85 Mbit/s
95th percentile per-packet one-way delay: 141.613 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.05 Mbit/s
95th percentile per-packet one-way delay: 142.267 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 52.94 Mbit/s
95th percentile per-packet one-way delay: 141.085 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.96 Mbit/s
95th percentile per-packet one-way delay: 141.450 ms
Loss rate: 0.00%
Run 8: Report of TCP Cubic — Data Link

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

- Flow 1 ingress (mean 52.07 Mbps)
- Flow 1 egress (mean 52.95 Mbps)
- Flow 2 ingress (mean 52.94 Mbps)
- Flow 2 egress (mean 52.94 Mbps)
- Flow 3 ingress (mean 43.95 Mbps)
- Flow 3 egress (mean 43.96 Mbps)

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

- Flow 1 (95th percentile 142.27 ms)
- Flow 2 (95th percentile 141.09 ms)
- Flow 3 (95th percentile 141.45 ms)
Run 9: Statistics of TCP Cubic

Start at: 2018-03-15 00:55:45
End at: 2018-03-15 00:56:15

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 103.99 Mbit/s
  95th percentile per-packet one-way delay: 139.440 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 64.51 Mbit/s
  95th percentile per-packet one-way delay: 139.397 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 40.87 Mbit/s
  95th percentile per-packet one-way delay: 138.791 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 38.07 Mbit/s
  95th percentile per-packet one-way delay: 139.989 ms
  Loss rate: 0.00%
Run 9: Report of TCP Cubic — Data Link

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

- Blue dashed line: Flow 1 ingress (mean 64.52 Mbps)
- Blue solid line: Flow 1 egress (mean 64.51 Mbps)
- Green dashed line: Flow 2 ingress (mean 40.86 Mbps)
- Green solid line: Flow 2 egress (mean 40.87 Mbps)
- Black solid line: Flow 3 ingress (mean 38.07 Mbps)
- Black dashed line: Flow 3 egress (mean 38.07 Mbps)

![Graph 2: Delay vs Time (ms)](image2)

- Blue circle: Flow 1 (95th percentile 139.40 ms)
- Green circle: Flow 2 (95th percentile 138.79 ms)
- Red circle: Flow 3 (95th percentile 139.99 ms)

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Run 10: Statistics of TCP Cubic

Start at: 2018-03-15 01:16:09
End at: 2018-03-15 01:16:39

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 85.44 Mbit/s
  95th percentile per-packet one-way delay: 138.538 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 44.88 Mbit/s
  95th percentile per-packet one-way delay: 138.574 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 39.31 Mbit/s
  95th percentile per-packet one-way delay: 138.192 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 43.76 Mbit/s
  95th percentile per-packet one-way delay: 139.456 ms
  Loss rate: 0.00%
Run 10: Report of TCP Cubic — Data Link
Run 1: Statistics of LEDBAT

Start at: 2018-03-14 22:17:16
End at: 2018-03-14 22:17:46

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.39 Mbit/s
95th percentile per-packet one-way delay: 137.591 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 137.380 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 137.790 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 137.561 ms
Loss rate: 0.00%
Run 1: Report of LEDBAT — Data Link

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

- **Throughput (Mbps)**
  - Flow 1 ingress (mean 4.82 Mbps)
  - Flow 1 egress (mean 4.82 Mbps)
  - Flow 2 ingress (mean 3.16 Mbps)
  - Flow 2 egress (mean 3.16 Mbps)
  - Flow 3 ingress (mean 1.56 Mbps)
  - Flow 3 egress (mean 1.56 Mbps)

- **Per-packet one-way delay (ms)**
  - Flow 1 (95th percentile 137.38 ms)
  - Flow 2 (95th percentile 137.79 ms)
  - Flow 3 (95th percentile 137.56 ms)
Run 2: Statistics of LEDBAT

Start at: 2018-03-14 22:37:39
End at: 2018-03-14 22:38:09

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.66 Mbit/s
95th percentile per-packet one-way delay: 136.799 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 136.790 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 136.993 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 136.876 ms
Loss rate: 0.00%
Run 2: Report of LEDBAT — Data Link

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

- Flow 1 ingress (mean 4.34 Mbit/s)
- Flow 1 egress (mean 4.34 Mbit/s)
- Flow 2 ingress (mean 0.34 Mbit/s)
- Flow 2 egress (mean 0.34 Mbit/s)
- Flow 3 ingress (mean 0.33 Mbit/s)
- Flow 3 egress (mean 0.33 Mbit/s)

- Flow 1 (95th percentile 136.79 ms)
- Flow 2 (95th percentile 136.99 ms)
- Flow 3 (95th percentile 136.88 ms)
Run 3: Statistics of LEDBAT

Start at: 2018-03-14 22:58:19
End at: 2018-03-14 22:58:49

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.82 Mbit/s
  95th percentile per-packet one-way delay: 136.702 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.29 Mbit/s
  95th percentile per-packet one-way delay: 136.922 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 3.03 Mbit/s
  95th percentile per-packet one-way delay: 136.706 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.57 Mbit/s
  95th percentile per-packet one-way delay: 136.624 ms
  Loss rate: 0.00%
Run 3: Report of LEDBAT — Data Link
Run 4: Statistics of LEDBAT

Start at: 2018-03-14 23:18:54
End at: 2018-03-14 23:19:24

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 5.37 Mbit/s
  95th percentile per-packet one-way delay: 136.277 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.82 Mbit/s
  95th percentile per-packet one-way delay: 136.256 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.31 Mbit/s
  95th percentile per-packet one-way delay: 136.938 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.08 Mbit/s
  95th percentile per-packet one-way delay: 136.326 ms
  Loss rate: 0.00%
Run 4: Report of LEDBAT — Data Link

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

Start at: 2018-03-14 23:39:26
End at: 2018-03-14 23:39:56

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1.88 Mbit/s
  95th percentile per-packet one-way delay: 135.317 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.28 Mbit/s
  95th percentile per-packet one-way delay: 135.427 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.26 Mbit/s
  95th percentile per-packet one-way delay: 135.225 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.32 Mbit/s
  95th percentile per-packet one-way delay: 135.990 ms
  Loss rate: 0.00%
Run 5: Report of LEDBAT — Data Link
Run 6: Statistics of LEDBAT

Start at: 2018-03-14 23:59:45
End at: 2018-03-15 00:00:15

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.12 Mbit/s
  95th percentile per-packet one-way delay: 137.531 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 4.81 Mbit/s
  95th percentile per-packet one-way delay: 137.559 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 2.72 Mbit/s
  95th percentile per-packet one-way delay: 137.501 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.58 Mbit/s
  95th percentile per-packet one-way delay: 137.236 ms
  Loss rate: 0.00%
Run 7: Statistics of LEDBAT

Start at: 2018-03-15 00:19:55
End at: 2018-03-15 00:20:25

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 7.02 Mbit/s
  95th percentile per-packet one-way delay: 136.569 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 4.84 Mbit/s
  95th percentile per-packet one-way delay: 136.606 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 3.18 Mbit/s
  95th percentile per-packet one-way delay: 136.040 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 0.27 Mbit/s
  95th percentile per-packet one-way delay: 136.648 ms
  Loss rate: 0.00%
Run 7: Report of LEDBAT — Data Link
Run 8: Statistics of LEDBAT

Start at: 2018-03-15 00:40:20
End at: 2018-03-15 00:40:50

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.65 Mbit/s
95th percentile per-packet one-way delay: 136.707 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 136.732 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 136.697 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 136.080 ms
Loss rate: 0.00%
Run 8: Report of LEDBAT — Data Link
Run 9: Statistics of LEDBAT

Start at: 2018-03-15 01:00:48
End at: 2018-03-15 01:01:18

# Below is generated by plot.py at 2018-03-15 04:02:37
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1.22 Mbit/s
  95th percentile per-packet one-way delay: 136.184 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.26 Mbit/s
  95th percentile per-packet one-way delay: 136.039 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.67 Mbit/s
  95th percentile per-packet one-way delay: 136.267 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.58 Mbit/s
  95th percentile per-packet one-way delay: 136.189 ms
  Loss rate: 0.00%
Run 9: Report of LEDBAT — Data Link

![Graph 1: Throughput vs Time]

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

Flow 1 ingress (mean 0.26 Mbit/s)  | Flow 1 egress (mean 0.26 Mbit/s)
Flow 2 ingress (mean 0.67 Mbit/s)  | Flow 2 egress (mean 0.67 Mbit/s)
Flow 3 ingress (mean 1.58 Mbit/s)  | Flow 3 egress (mean 1.58 Mbit/s)
Run 10: Statistics of LEDBAT

Start at: 2018-03-15 01:21:09  
End at: 2018-03-15 01:21:39

# Below is generated by plot.py at 2018-03-15 04:02:37  
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 2.21 Mbit/s
  95th percentile per-packet one-way delay: 137.320 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.92 Mbit/s
  95th percentile per-packet one-way delay: 137.355 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.18 Mbit/s
  95th percentile per-packet one-way delay: 137.280 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 1.56 Mbit/s
  95th percentile per-packet one-way delay: 137.334 ms
  Loss rate: 0.00%
Run 10: Report of LEDBAT — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 0.92 Mbps)
- Flow 1 egress (mean 0.92 Mbps)
- Flow 2 ingress (mean 1.18 Mbps)
- Flow 2 egress (mean 1.18 Mbps)
- Flow 3 ingress (mean 1.56 Mbps)
- Flow 3 egress (mean 1.56 Mbps)

**Packet round-trip delay (ms):**
- Flow 1 (95th percentile 137.35 ms)
- Flow 2 (95th percentile 137.28 ms)
- Flow 3 (95th percentile 137.33 ms)
Run 1: Statistics of PCC

Start at: 2018-03-14 22:03:58
End at: 2018-03-14 22:04:28

# Below is generated by plot.py at 2018-03-15 04:14:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 564.19 Mbit/s
  95th percentile per-packet one-way delay: 259.163 ms
  Loss rate: 8.59%
-- Flow 1:
  Average throughput: 425.03 Mbit/s
  95th percentile per-packet one-way delay: 259.187 ms
  Loss rate: 7.88%
-- Flow 2:
  Average throughput: 208.08 Mbit/s
  95th percentile per-packet one-way delay: 259.125 ms
  Loss rate: 10.73%
-- Flow 3:
  Average throughput: 2.08 Mbit/s
  95th percentile per-packet one-way delay: 258.734 ms
  Loss rate: 8.97%
Run 1: Report of PCC — Data Link

Throughput (Mb/s)

Time (s)

Flow 1 ingress (mean 461.35 Mb/s)
Flow 1 egress (mean 425.03 Mb/s)
Flow 2 ingress (mean 233.07 Mb/s)
Flow 2 egress (mean 208.08 Mb/s)
Flow 3 ingress (mean 2.29 Mb/s)
Flow 3 egress (mean 2.08 Mb/s)

Per-packet one-way delay (ms)

Flow 1 (95th percentile 259.19 ms)
Flow 2 (95th percentile 259.12 ms)
Flow 3 (95th percentile 258.73 ms)
Run 2: Statistics of PCC

Start at: 2018-03-14 22:24:21
End at: 2018-03-14 22:24:51

# Below is generated by plot.py at 2018-03-15 04:14:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 581.22 Mbit/s
95th percentile per-packet one-way delay: 208.780 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 534.66 Mbit/s
95th percentile per-packet one-way delay: 207.938 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 65.88 Mbit/s
95th percentile per-packet one-way delay: 214.999 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 178.215 ms
Loss rate: 0.49%
Run 2: Report of PCC — Data Link

![Graph showing throughput and packet delay over time for different flows.](image-url)
Run 3: Statistics of PCC

Start at: 2018-03-14 22:44:48
End at: 2018-03-14 22:45:18

# Below is generated by plot.py at 2018-03-15 04:14:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 575.24 Mbit/s
95th percentile per-packet one-way delay: 249.696 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 477.98 Mbit/s
95th percentile per-packet one-way delay: 249.757 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 114.99 Mbit/s
95th percentile per-packet one-way delay: 249.878 ms
Loss rate: 2.51%
-- Flow 3:
Average throughput: 63.48 Mbit/s
95th percentile per-packet one-way delay: 235.220 ms
Loss rate: 0.67%
Run 3: Report of PCC — Data Link

[Graph showing throughput and per packet one-way delay over time for different flows]
Run 4: Statistics of PCC

Start at: 2018-03-14 23:05:17
End at: 2018-03-14 23:05:47

# Below is generated by plot.py at 2018-03-15 04:14:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 573.31 Mbit/s
  95th percentile per-packet one-way delay: 244.124 ms
  Loss rate: 1.57%
-- Flow 1:
  Average throughput: 470.88 Mbit/s
  95th percentile per-packet one-way delay: 243.910 ms
  Loss rate: 1.53%
-- Flow 2:
  Average throughput: 122.41 Mbit/s
  95th percentile per-packet one-way delay: 244.506 ms
  Loss rate: 1.93%
-- Flow 3:
  Average throughput: 64.01 Mbit/s
  95th percentile per-packet one-way delay: 244.744 ms
  Loss rate: 1.23%
Run 4: Report of PCC — Data Link

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

- Flow 1 Ingress (mean 478.17 Mbit/s)
- Flow 1 Egress (mean 470.88 Mbit/s)
- Flow 2 Ingress (mean 124.81 Mbit/s)
- Flow 2 Egress (mean 122.41 Mbit/s)
- Flow 3 Ingress (mean 64.80 Mbit/s)
- Flow 3 Egress (mean 64.01 Mbit/s)
Run 5: Statistics of PCC

Start at: 2018-03-14 23:26:00
End at: 2018-03-14 23:26:30

# Below is generated by plot.py at 2018-03-15 04:15:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 557.73 Mbit/s
95th percentile per-packet one-way delay: 252.192 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 495.82 Mbit/s
95th percentile per-packet one-way delay: 252.070 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 63.06 Mbit/s
95th percentile per-packet one-way delay: 251.675 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 60.87 Mbit/s
95th percentile per-packet one-way delay: 257.146 ms
Loss rate: 5.00%
Run 5: Report of PCC — Data Link

**Throughput** (Mb/s)

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
</tr>
</thead>
</table>

**Delay** (ms)

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
</tr>
</thead>
</table>
Run 6: Statistics of PCC

Start at: 2018-03-14 23:46:10
End at: 2018-03-14 23:46:40

# Below is generated by plot.py at 2018-03-15 04:15:22
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 557.82 Mbit/s
  95th percentile per-packet one-way delay: 254.567 ms
  Loss rate: 3.01%
-- Flow 1:
  Average throughput: 455.66 Mbit/s
  95th percentile per-packet one-way delay: 254.424 ms
  Loss rate: 2.79%
-- Flow 2:
  Average throughput: 123.97 Mbit/s
  95th percentile per-packet one-way delay: 254.416 ms
  Loss rate: 3.44%
-- Flow 3:
  Average throughput: 60.11 Mbit/s
  95th percentile per-packet one-way delay: 259.015 ms
  Loss rate: 6.03%
Run 6: Report of PCC — Data Link
Run 7: Statistics of PCC

Start at: 2018-03-15 00:06:21
End at: 2018-03-15 00:06:51

# Below is generated by plot.py at 2018-03-15 04:15:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 575.05 Mbit/s
95th percentile per-packet one-way delay: 247.775 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 509.75 Mbit/s
95th percentile per-packet one-way delay: 248.164 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 66.16 Mbit/s
95th percentile per-packet one-way delay: 247.103 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 65.09 Mbit/s
95th percentile per-packet one-way delay: 246.286 ms
Loss rate: 1.15%
Run 7: Report of PCC — Data Link

[Graph showing throughput and latency over time for different flows.]
Run 8: Statistics of PCC

Start at: 2018-03-15 00:27:05
End at: 2018-03-15 00:27:35

# Below is generated by plot.py at 2018-03-15 04:15:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 556.82 Mbit/s
95th percentile per-packet one-way delay: 251.115 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 462.16 Mbit/s
95th percentile per-packet one-way delay: 251.220 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 125.99 Mbit/s
95th percentile per-packet one-way delay: 251.020 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 33.14 Mbit/s
95th percentile per-packet one-way delay: 247.581 ms
Loss rate: 0.19%
Run 9: Statistics of PCC

Start at: 2018-03-15 00:47:18
End at: 2018-03-15 00:47:48

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 577.72 Mbit/s
  95th percentile per-packet one-way delay: 252.810 ms
  Loss rate: 1.77%
-- Flow 1:
  Average throughput: 535.27 Mbit/s
  95th percentile per-packet one-way delay: 252.910 ms
  Loss rate: 1.80%
-- Flow 2:
  Average throughput: 62.95 Mbit/s
  95th percentile per-packet one-way delay: 251.911 ms
  Loss rate: 1.37%
-- Flow 3:
  Average throughput: 2.27 Mbit/s
  95th percentile per-packet one-way delay: 253.419 ms
  Loss rate: 2.52%
Run 9: Report of PCC — Data Link
Run 10: Statistics of PCC

Start at: 2018-03-15 01:07:42
End at: 2018-03-15 01:08:12

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 560.89 Mbit/s
  95th percentile per-packet one-way delay: 251.250 ms
  Loss rate: 2.15%
-- Flow 1:
  Average throughput: 462.46 Mbit/s
  95th percentile per-packet one-way delay: 251.056 ms
  Loss rate: 2.08%
-- Flow 2:
  Average throughput: 140.06 Mbit/s
  95th percentile per-packet one-way delay: 251.967 ms
  Loss rate: 2.49%
-- Flow 3:
  Average throughput: 16.31 Mbit/s
  95th percentile per-packet one-way delay: 252.086 ms
  Loss rate: 2.46%
Run 10: Report of PCC — Data Link

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

Legend:
- Flow 1 ingress (mean 472.30 Mbit/s)
- Flow 1 egress (mean 462.46 Mbit/s)
- Flow 2 ingress (mean 143.65 Mbit/s)
- Flow 2 egress (mean 140.06 Mbit/s)
- Flow 3 ingress (mean 16.72 Mbit/s)
- Flow 3 egress (mean 16.31 Mbit/s)
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-14 22:11:23
End at: 2018-03-14 22:11:53

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.42 Mbit/s
95th percentile per-packet one-way delay: 137.169 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 135.846 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.03 Mbit/s
95th percentile per-packet one-way delay: 135.270 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.16 Mbit/s
95th percentile per-packet one-way delay: 137.232 ms
Loss rate: 0.00%
Run 1: Report of QUIC Cubic — Data Link
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-14 22:31:44
End at: 2018-03-14 22:32:14

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 116.92 Mbit/s
  95th percentile per-packet one-way delay: 136.936 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 59.70 Mbit/s
  95th percentile per-packet one-way delay: 136.959 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 60.97 Mbit/s
  95th percentile per-packet one-way delay: 135.724 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 52.27 Mbit/s
  95th percentile per-packet one-way delay: 134.945 ms
  Loss rate: 0.00%
Run 2: Report of QUIC Cubic — Data Link

[Graphs showing throughput and per-packet one-way delay over time for different flows.]
Run 3: Statistics of QUIC Cubic

Start at: 2018-03-14 22:52:20
End at: 2018-03-14 22:52:50

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.99 Mbit/s
95th percentile per-packet one-way delay: 136.844 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.08 Mbit/s
95th percentile per-packet one-way delay: 135.953 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.43 Mbit/s
95th percentile per-packet one-way delay: 136.842 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.56 Mbit/s
95th percentile per-packet one-way delay: 136.935 ms
Loss rate: 0.00%
Run 3: Report of QUIC Cubic — Data Link

---

**Graph 1:**

- **Flow 1 Ingress (mean 61.08 Mbit/s)**
- **Flow 1 Egress (mean 61.08 Mbit/s)**
- **Flow 2 Ingress (mean 60.43 Mbit/s)**
- **Flow 2 Egress (mean 60.43 Mbit/s)**
- **Flow 3 Ingress (mean 55.56 Mbit/s)**
- **Flow 3 Egress (mean 55.56 Mbit/s)**

**Graph 2:**

- **Flow 1 (95th percentile 135.95 ms)**
- **Flow 2 (95th percentile 136.84 ms)**
- **Flow 3 (95th percentile 136.94 ms)**
Run 4: Statistics of QUIC Cubic

Start at: 2018-03-14 23:12:53
End at: 2018-03-14 23:13:23

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 117.08 Mbit/s
95th percentile per-packet one-way delay: 136.877 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.52 Mbit/s
95th percentile per-packet one-way delay: 136.866 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.88 Mbit/s
95th percentile per-packet one-way delay: 136.897 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.51 Mbit/s
95th percentile per-packet one-way delay: 135.573 ms
Loss rate: 0.00%
Run 4: Report of QUIC Cubic — Data Link

---

**Diagram 1:**
- X-axis: Time (s)
- Y-axis: Throughput (Mb/s)
- Legend: Flow 1 ingress (mean 60.52 Mb/s), Flow 1 egress (mean 60.52 Mb/s), Flow 2 ingress (mean 60.88 Mb/s), Flow 2 egress (mean 60.88 Mb/s), Flow 3 ingress (mean 50.51 Mb/s), Flow 3 egress (mean 50.51 Mb/s)

**Diagram 2:**
- X-axis: Time (s)
- Y-axis: Per-packet one-way delay (ms)
- Legend: Flow 1 (95th percentile 136.87 ms), Flow 2 (95th percentile 136.90 ms), Flow 3 (95th percentile 135.57 ms)
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-14 23:33:30
End at: 2018-03-14 23:34:00

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 116.37 Mbit/s
95th percentile per-packet one-way delay: 136.954 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.94 Mbit/s
95th percentile per-packet one-way delay: 136.983 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.60 Mbit/s
95th percentile per-packet one-way delay: 136.873 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.55 Mbit/s
95th percentile per-packet one-way delay: 136.639 ms
Loss rate: 0.00%
Run 5: Report of QUIC Cubic — Data Link

![Graph showing throughput and packet round-trip time](image-url)
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-14 23:53:47
End at: 2018-03-14 23:54:17

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 113.03 Mbit/s
95th percentile per-packet one-way delay: 136.324 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.66 Mbit/s
95th percentile per-packet one-way delay: 135.392 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.54 Mbit/s
95th percentile per-packet one-way delay: 136.346 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.53 Mbit/s
95th percentile per-packet one-way delay: 136.379 ms
Loss rate: 0.00%
Run 6: Report of QUIC Cubic — Data Link

---

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

- **Flow 1 ingress (mean 61.66 Mbps/s)**
- **Flow 1 egress (mean 61.66 Mbps/s)**
- **Flow 2 ingress (mean 53.55 Mbps/s)**
- **Flow 2 egress (mean 53.54 Mbps/s)**
- **Flow 3 ingress (mean 49.32 Mbps/s)**
- **Flow 3 egress (mean 49.33 Mbps/s)**

**Graph 2:** Packet Latency (ms)

- **Flow 1 (95th percentile 135.39 ms)**
- **Flow 2 (95th percentile 136.35 ms)**
- **Flow 3 (95th percentile 136.38 ms)**

---
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-15 00:13:51
End at: 2018-03-15 00:14:21

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 113.10 Mbit/s
95th percentile per-packet one-way delay: 136.641 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 60.96 Mbit/s
95th percentile per-packet one-way delay: 135.913 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 61.45 Mbit/s
95th percentile per-packet one-way delay: 136.637 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.57 Mbit/s
95th percentile per-packet one-way delay: 136.734 ms
Loss rate: 0.00%
Run 7: Report of QUIC Cubic — Data Link
Run 8: Statistics of QUIC Cubic

Start at: 2018-03-15 00:34:36
End at: 2018-03-15 00:35:06

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 117.05 Mbit/s
  95th percentile per-packet one-way delay: 136.288 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 61.51 Mbit/s
  95th percentile per-packet one-way delay: 135.798 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 61.14 Mbit/s
  95th percentile per-packet one-way delay: 135.505 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 46.78 Mbit/s
  95th percentile per-packet one-way delay: 136.426 ms
  Loss rate: 0.00%
Run 8: Report of QUIC Cubic — Data Link
Run 9: Statistics of QUIC Cubic

Start at: 2018-03-15 00:54:49
End at: 2018-03-15 00:55:19

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.03 Mbit/s
95th percentile per-packet one-way delay: 136.370 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.05 Mbit/s
95th percentile per-packet one-way delay: 136.384 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.65 Mbit/s
95th percentile per-packet one-way delay: 136.337 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.26 Mbit/s
95th percentile per-packet one-way delay: 135.886 ms
Loss rate: 0.00%
Run 9: Report of QUIC Cubic — Data Link
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-15 01:15:12
End at: 2018-03-15 01:15:42

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.09 Mbit/s
95th percentile per-packet one-way delay: 136.653 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.75 Mbit/s
95th percentile per-packet one-way delay: 136.638 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.48 Mbit/s
95th percentile per-packet one-way delay: 136.644 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.53 Mbit/s
95th percentile per-packet one-way delay: 136.710 ms
Loss rate: 0.01%
Run 10: Report of QUIC Cubic — Data Link

![Graph 1: Throughput](image1)

![Graph 2: Packet Delay](image2)

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Run 1: Statistics of SCReAM

Start at: 2018-03-14 22:18:56
End at: 2018-03-14 22:19:26

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 137.100 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.058 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.565 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.150 ms
  Loss rate: 0.00%
Run 1: 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 137.06 ms)  Flow 2 (95th percentile 136.56 ms)  Flow 3 (95th percentile 137.15 ms)
Run 2: Statistics of SCReAM

Start at: 2018-03-14 22:39:18
End at: 2018-03-14 22:39:48

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.851 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.114 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.886 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.577 ms
  Loss rate: 0.00%
Run 2: Report of SCReAM — Data Link

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

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

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

- Blue dots: Flow 1 (95th percentile 136.11 ms)
- Green dots: Flow 2 (95th percentile 136.89 ms)
- Red dots: Flow 3 (95th percentile 136.58 ms)
Run 3: Statistics of SCReAM

Start at: 2018-03-14 22:59:58
End at: 2018-03-14 23:00:28

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 137.110 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.102 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.129 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.088 ms
Loss rate: 0.00%
Run 3: Report of SCReAM — Data Link

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

Legend:
- 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)

Legend for per-packet end-to-end delay:
- Flow 1 (95th percentile 137.10 ms)
- Flow 2 (95th percentile 137.13 ms)
- Flow 3 (95th percentile 137.09 ms)
Run 4: Statistics of SCReAM

Start at: 2018-03-14 23:20:33
End at: 2018-03-14 23:21:03

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 137.108 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.149 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.576 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.163 ms
  Loss rate: 0.00%
Run 4: Report of SCReAM — Data Link

![Graph 1](image1.png)

![Graph 2](image2.png)
Run 5: Statistics of SCReAM

Start at: 2018-03-14 23:41:05
End at: 2018-03-14 23:41:35

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 137.116 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.533 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.128 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 137.146 ms
  Loss rate: 0.00%
Run 5: Report of SCReAM — Data Link

![Throughput (Mbps)](image1)

![Per-connection one-way delay (ms)](image2)
Run 6: Statistics of SCReAM

Start at: 2018-03-15 00:01:24
End at: 2018-03-15 00:01:54

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 137.013 ms
Loss rate: 0.00%
-- Flow 1:
95th percentile per-packet one-way delay: 135.890 ms
Loss rate: 0.00%
-- Flow 2:
95th percentile per-packet one-way delay: 136.994 ms
Loss rate: 0.00%
-- Flow 3:
95th percentile per-packet one-way delay: 137.074 ms
Loss rate: 0.00%
Run 6: Report of SCReAM — Data Link
Run 7: Statistics of SCReAM

Start at: 2018-03-15 00:21:34
End at: 2018-03-15 00:22:04

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 141.224 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.246 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.230 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 141.070 ms
  Loss rate: 0.00%
Run 7: Report of SCReAM — Data Link

![Graph showing throughput and delay over time for different flows. The graphs display fluctuating data points with labels for each flow's ingress and egress mean throughput and 95th percentile delay.]

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Run 8: Statistics of SCReAM

Start at: 2018-03-15 00:41:59
End at: 2018-03-15 00:42:29

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.551 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.833 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.597 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.048 ms
  Loss rate: 0.00%
Run 9: Statistics of SCReAM

Start at: 2018-03-15 01:02:25
End at: 2018-03-15 01:02:55

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.439 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.456 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.145 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 134.542 ms
  Loss rate: 0.00%
Run 9: Report of SCReAM — Data Link

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

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

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Run 10: Statistics of SCReAM

Start at: 2018-03-15 01:22:48
End at: 2018-03-15 01:23:18

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 136.755 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.781 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 136.162 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.22 Mbit/s
  95th percentile per-packet one-way delay: 135.477 ms
  Loss rate: 0.00%
Run 10: Report of SCReAM — Data Link
Run 1: Statistics of WebRTC media

Start at: 2018-03-14 22:18:06
End at: 2018-03-14 22:18:36

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.62 Mbit/s
  95th percentile per-packet one-way delay: 136.827 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 1.99 Mbit/s
  95th percentile per-packet one-way delay: 136.859 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 135.102 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 136.101 ms
  Loss rate: 0.07%
Run 1: Report of WebRTC media — Data Link
Run 2: Statistics of WebRTC media

Start at: 2018-03-14 22:38:29  
End at: 2018-03-14 22:38:59

# Below is generated by plot.py at 2018-03-15 04:27:26  
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.79 Mbit/s
  95th percentile per-packet one-way delay: 137.183 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.11 Mbit/s
  95th percentile per-packet one-way delay: 137.200 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.27 Mbit/s
  95th percentile per-packet one-way delay: 137.089 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 137.117 ms
  Loss rate: 0.00%
Run 2: Report of WebRTC media — Data Link

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

- Flow 1 ingress (mean 2.11 Mbps)
- Flow 1 egress (mean 2.11 Mbps)
- Flow 2 ingress (mean 1.26 Mbps)
- Flow 2 egress (mean 1.27 Mbps)
- Flow 3 ingress (mean 0.42 Mbps)
- Flow 3 egress (mean 0.42 Mbps)

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

- Flow 1 (95th percentile 137.20 ms)
- Flow 2 (95th percentile 137.09 ms)
- Flow 3 (95th percentile 137.12 ms)
Run 3: Statistics of WebRTC media

Start at: 2018-03-14 22:59:09
End at: 2018-03-14 22:59:39

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 3.67 Mbit/s
   95th percentile per-packet one-way delay: 137.215 ms
   Loss rate: 0.00%
   - Flow 1:
     Average throughput: 2.03 Mbit/s
     95th percentile per-packet one-way delay: 137.241 ms
     Loss rate: 0.00%
   - Flow 2:
     Average throughput: 1.25 Mbit/s
     95th percentile per-packet one-way delay: 136.825 ms
     Loss rate: 0.00%
   - Flow 3:
     Average throughput: 0.43 Mbit/s
     95th percentile per-packet one-way delay: 137.071 ms
     Loss rate: 0.00%
Run 3: Report of WebRTC media — Data Link
Run 4: Statistics of WebRTC media

Start at: 2018-03-14 23:19:43
End at: 2018-03-14 23:20:13

# Below is generated by plot.py at 2018-03-15 04:27:26
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.66 Mbit/s
  95th percentile per-packet one-way delay: 137.211 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 137.234 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 136.586 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 137.032 ms
  Loss rate: 0.00%
Run 4: Report of WebRTC media — Data Link

![Chart 1: Throughput (Mbps)]

![Chart 2: Jitter (ms)]

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Run 5: Statistics of WebRTC media

Start at: 2018-03-14 23:40:15
End at: 2018-03-14 23:40:45

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.66 Mbit/s
  95th percentile per-packet one-way delay: 137.272 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 137.260 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.23 Mbit/s
  95th percentile per-packet one-way delay: 137.315 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 137.129 ms
  Loss rate: 0.00%
Run 5: Report of WebRTC media — Data Link
Run 6: Statistics of WebRTC media

Start at: 2018-03-15 00:00:35
End at: 2018-03-15 00:01:05

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.65 Mbit/s
  95th percentile per-packet one-way delay: 137.215 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 2.02 Mbit/s
  95th percentile per-packet one-way delay: 137.154 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 137.255 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 136.104 ms
  Loss rate: 0.00%
Run 6: Report of WebRTC media — Data Link
Run 7: Statistics of WebRTC media

Start at: 2018-03-15 00:20:45
End at: 2018-03-15 00:21:15

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 139.083 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 136.990 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 139.140 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.549 ms
Loss rate: 0.00%
Run 7: Report of WebRTC media — Data Link

**Graph 1:** Throughput (Mbps)

- Flow 1 ingress (mean 2.02 Mbps)
- Flow 1 egress (mean 2.02 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)

- Flow 1 (95th percentile 136.99 ms)
- Flow 2 (95th percentile 139.14 ms)
- Flow 3 (95th percentile 136.55 ms)
Run 8: Statistics of WebRTC media

Start at: 2018-03-15 00:41:10
End at: 2018-03-15 00:41:40

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.66 Mbit/s
  95th percentile per-packet one-way delay: 141.209 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 141.240 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 1.24 Mbit/s
  95th percentile per-packet one-way delay: 141.129 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 136.792 ms
  Loss rate: 0.00%
Run 8: Report of WebRTC media — Data Link

![Graph showing throughput and delay over time for different flows.](image-url)
Run 9: Statistics of WebRTC media

Start at: 2018-03-15 01:01:36
End at: 2018-03-15 01:02:06

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 139.135 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 136.920 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 136.944 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 139.262 ms
Loss rate: 0.07%
Run 9: Report of WebRTC media — Data Link
Run 10: Statistics of WebRTC media

Start at: 2018-03-15 01:21:58
End at: 2018-03-15 01:22:28

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 3.65 Mbit/s
  95th percentile per-packet one-way delay: 139.771 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 2.03 Mbit/s
  95th percentile per-packet one-way delay: 136.980 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 1.23 Mbit/s
  95th percentile per-packet one-way delay: 136.558 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 139.881 ms
  Loss rate: 0.07%
Run 10: Report of WebRTC media — Data Link
Run 1: Statistics of Sprout

Start at: 2018-03-14 22:08:15
End at: 2018-03-14 22:08:45

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.91 Mbit/s
  95th percentile per-packet one-way delay: 137.220 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 137.219 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.55 Mbit/s
  95th percentile per-packet one-way delay: 137.091 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 137.263 ms
  Loss rate: 0.00%
Run 1: Report of Sprout — Data Link
Run 2: Statistics of Sprout

Start at: 2018-03-14 22:28:36
End at: 2018-03-14 22:29:06

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.85 Mbit/s
  95th percentile per-packet one-way delay: 137.237 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 137.211 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.44 Mbit/s
  95th percentile per-packet one-way delay: 137.260 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.43 Mbit/s
  95th percentile per-packet one-way delay: 137.250 ms
  Loss rate: 0.00%
Run 2: Report of Sprout — Data Link

![Graph showing throughput and round-trip delay](image-url)
Run 3: Statistics of Sprout

Start at: 2018-03-14 22:49:11
End at: 2018-03-14 22:49:41

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.90 Mbit/s
  95th percentile per-packet one-way delay: 137.243 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.51 Mbit/s
  95th percentile per-packet one-way delay: 137.242 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 137.243 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 137.242 ms
  Loss rate: 0.00%
Run 3: Report of Sprout — Data Link
Run 4: Statistics of Sprout

Start at: 2018-03-14 23:09:47
End at: 2018-03-14 23:10:17

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.81 Mbit/s
  95th percentile per-packet one-way delay: 137.160 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.39 Mbit/s
  95th percentile per-packet one-way delay: 137.188 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 137.046 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.52 Mbit/s
  95th percentile per-packet one-way delay: 136.978 ms
  Loss rate: 0.00%
Run 4: Report of Sprout — Data Link
Run 5: Statistics of Sprout

Start at: 2018-03-14 23:30:20
End at: 2018-03-14 23:30:50

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 137.199 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 137.263 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 137.030 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 136.951 ms
Loss rate: 0.00%
Run 6: Statistics of Sprout

Start at: 2018-03-14 23:50:39
End at: 2018-03-14 23:51:09

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 137.284 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 137.246 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 137.272 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 137.361 ms
Loss rate: 0.00%
Run 6: Report of Sprout — Data Link
Run 7: Statistics of Sprout

Start at: 2018-03-15 00:10:43
End at: 2018-03-15 00:11:13

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.80 Mbit/s
  95th percentile per-packet one-way delay: 137.249 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 137.227 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.42 Mbit/s
  95th percentile per-packet one-way delay: 137.223 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 137.321 ms
  Loss rate: 0.00%
Run 8: Statistics of Sprout

Start at: 2018-03-15 00:31:28
End at: 2018-03-15 00:31:58

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.83 Mbit/s
  95th percentile per-packet one-way delay: 140.899 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.40 Mbit/s
  95th percentile per-packet one-way delay: 140.942 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 136.075 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.47 Mbit/s
  95th percentile per-packet one-way delay: 136.403 ms
  Loss rate: 0.00%
Run 8: Report of Sprout — Data Link

![Graphs showing throughput and delay over time for different flows.](image-url)
Run 9: Statistics of Sprout

Start at: 2018-03-15 00:51:39
End at: 2018-03-15 00:52:09

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.80 Mbit/s
  95th percentile per-packet one-way delay: 140.965 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 0.38 Mbit/s
  95th percentile per-packet one-way delay: 136.394 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 141.030 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 0.53 Mbit/s
  95th percentile per-packet one-way delay: 136.485 ms
  Loss rate: 0.00%
Run 9: Report of Sprout — Data Link
Run 10: Statistics of Sprout

Start at: 2018-03-15 01:12:03
End at: 2018-03-15 01:12:33

# Below is generated by plot.py at 2018-03-15 04:27:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 0.76 Mbit/s
  95th percentile per-packet one-way delay: 139.804 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 137.160 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 0.37 Mbit/s
  95th percentile per-packet one-way delay: 141.015 ms
  Loss rate: 0.06%
-- Flow 3:
  Average throughput: 0.41 Mbit/s
  95th percentile per-packet one-way delay: 136.638 ms
  Loss rate: 0.00%
Run 10: Report of Sprout — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 0.37 Mbps)
- Flow 1 egress (mean 0.37 Mbps)
- Flow 2 ingress (mean 0.37 Mbps)
- Flow 2 egress (mean 0.37 Mbps)
- Flow 3 ingress (mean 0.41 Mbps)
- Flow 3 egress (mean 0.41 Mbps)

**Per-packet one-way delay (ms):**
- Flow 1 (95th percentile 137.16 ms)
- Flow 2 (95th percentile 141.01 ms)
- Flow 3 (95th percentile 136.64 ms)
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-14 22:21:36
End at: 2018-03-14 22:22:06

# Below is generated by plot.py at 2018-03-15 04:30:06
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 256.84 Mbit/s
  95th percentile per-packet one-way delay: 136.504 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 82.90 Mbit/s
  95th percentile per-packet one-way delay: 136.592 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 198.14 Mbit/s
  95th percentile per-packet one-way delay: 135.607 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 126.62 Mbit/s
  95th percentile per-packet one-way delay: 135.448 ms
  Loss rate: 0.00%
Run 1: Report of TaoVA-100x — Data Link
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-14 22:42:02
End at: 2018-03-14 22:42:32

# Below is generated by plot.py at 2018-03-15 04:33:25
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 331.12 Mbit/s
  95th percentile per-packet one-way delay: 137.787 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 182.51 Mbit/s
  95th percentile per-packet one-way delay: 138.223 ms
  Loss rate: 0.06%
-- Flow 2:
  Average throughput: 172.48 Mbit/s
  95th percentile per-packet one-way delay: 137.092 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 101.86 Mbit/s
  95th percentile per-packet one-way delay: 139.040 ms
  Loss rate: 0.03%
Run 2: Report of TaoVA-100x — Data Link

![Graph showing throughput and packet delay over time]

**Throughput (Mbps)**

- Flow 1 ingress (mean 182.63 Mbps)
- Flow 1 egress (mean 182.51 Mbps)
- Flow 2 ingress (mean 172.51 Mbps)
- Flow 2 egress (mean 172.48 Mbps)
- Flow 3 ingress (mean 101.89 Mbps)
- Flow 3 egress (mean 101.86 Mbps)

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

- Flow 1 (95th percentile 138.22 ms)
- Flow 2 (95th percentile 137.09 ms)
- Flow 3 (95th percentile 139.04 ms)
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-14 23:02:39
End at: 2018-03-14 23:03:09

# Below is generated by plot.py at 2018-03-15 04:33:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 193.35 Mbit/s
95th percentile per-packet one-way delay: 137.144 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.67 Mbit/s
95th percentile per-packet one-way delay: 137.200 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 187.82 Mbit/s
95th percentile per-packet one-way delay: 137.113 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 174.55 Mbit/s
95th percentile per-packet one-way delay: 137.211 ms
Loss rate: 0.00%
Run 3: Report of TaoVA-100x — Data Link

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

Flow 1 ingress (mean 10.67 Mbit/s)  
Flow 1 egress (mean 10.67 Mbit/s)  
Flow 2 ingress (mean 187.82 Mbit/s)  
Flow 2 egress (mean 187.82 Mbit/s)  
Flow 3 ingress (mean 174.53 Mbit/s)  
Flow 3 egress (mean 174.53 Mbit/s)
Run 4: Statistics of TaoVA-100x

End at: 2018-03-14 23:23:43

# Below is generated by plot.py at 2018-03-15 04:34:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 319.79 Mbit/s
  95th percentile per-packet one-way delay: 138.550 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 175.40 Mbit/s
  95th percentile per-packet one-way delay: 137.504 ms
  Loss rate: 0.03%
-- Flow 2:
  Average throughput: 138.44 Mbit/s
  95th percentile per-packet one-way delay: 140.315 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 157.74 Mbit/s
  95th percentile per-packet one-way delay: 140.284 ms
  Loss rate: 0.00%
Run 4: Report of TaoVA-100x — Data Link

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

![Graph 2: Per-packet one-way delay vs Time](image)
Run 5: Statistics of TaoVA-100x

Start at: 2018-03-14 23:43:44
End at: 2018-03-14 23:44:14

# Below is generated by plot.py at 2018-03-15 04:34:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 114.51 Mbit/s
  95th percentile per-packet one-way delay: 136.332 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 13.39 Mbit/s
  95th percentile per-packet one-way delay: 136.349 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 148.24 Mbit/s
  95th percentile per-packet one-way delay: 136.316 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 7.45 Mbit/s
  95th percentile per-packet one-way delay: 137.765 ms
  Loss rate: 0.00%
Run 5: Report of TaoVA-100x — Data Link

![Graph showing network performance metrics]

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Run 6: Statistics of TaoVA-100x

Start at: 2018-03-15 00:04:05
End at: 2018-03-15 00:04:35

# Below is generated by plot.py at 2018-03-15 04:34:16
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 22.48 Mbit/s
  95th percentile per-packet one-way delay: 136.957 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 13.25 Mbit/s
  95th percentile per-packet one-way delay: 136.928 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 7.54 Mbit/s
  95th percentile per-packet one-way delay: 136.972 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 12.73 Mbit/s
  95th percentile per-packet one-way delay: 136.985 ms
  Loss rate: 0.01%
Run 6: Report of TaoVA-100x — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 13.25 Mbit/s)
- Flow 1 egress (mean 13.25 Mbit/s)
- Flow 2 ingress (mean 7.54 Mbit/s)
- Flow 2 egress (mean 7.54 Mbit/s)
- Flow 3 ingress (mean 12.73 Mbit/s)
- Flow 3 egress (mean 12.73 Mbit/s)

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

- Flow 1 (95th percentile 136.93 ms)
- Flow 2 (95th percentile 136.97 ms)
- Flow 3 (95th percentile 136.99 ms)
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-15 00:24:15
End at: 2018-03-15 00:24:45

# Below is generated by plot.py at 2018-03-15 04:36:59
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 341.57 Mbit/s
  95th percentile per-packet one-way delay: 137.292 ms
  Loss rate: 0.01%
-- Flow 1:
  Average throughput: 209.22 Mbit/s
  95th percentile per-packet one-way delay: 137.091 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 192.49 Mbit/s
  95th percentile per-packet one-way delay: 137.576 ms
  Loss rate: 0.02%
-- Flow 3:
  Average throughput: 12.68 Mbit/s
  95th percentile per-packet one-way delay: 136.948 ms
  Loss rate: 0.02%
Run 7: Report of TaoVA-100x — Data Link
Run 8: Statistics of TaoVA-100x

Start at: 2018-03-15 00:44:40
End at: 2018-03-15 00:45:10

# Below is generated by plot.py at 2018-03-15 04:36:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 224.86 Mbit/s
95th percentile per-packet one-way delay: 137.127 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 161.51 Mbit/s
95th percentile per-packet one-way delay: 136.997 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 137.069 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 191.77 Mbit/s
95th percentile per-packet one-way delay: 137.638 ms
Loss rate: 0.00%
Run 8: Report of TaoVA-100x — Data Link
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-15 01:05:05
End at: 2018-03-15 01:05:35

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 258.20 Mbit/s
  95th percentile per-packet one-way delay: 136.441 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 184.83 Mbit/s
  95th percentile per-packet one-way delay: 136.391 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 13.07 Mbit/s
  95th percentile per-packet one-way delay: 136.557 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 194.83 Mbit/s
  95th percentile per-packet one-way delay: 136.526 ms
  Loss rate: 0.00%
Run 9: Report of TaoVA-100x — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 184.83 Mbit/s)
Flow 1 egress (mean 184.83 Mbit/s)
Flow 2 ingress (mean 13.07 Mbit/s)
Flow 2 egress (mean 13.07 Mbit/s)
Flow 3 ingress (mean 194.82 Mbit/s)
Flow 3 egress (mean 194.83 Mbit/s)

Per-packet one-way delay (ms)

Time (s)

Flow 1 (95th percentile 136.39 ms)
Flow 2 (95th percentile 136.56 ms)
Flow 3 (95th percentile 136.53 ms)
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-15 01:25:28
End at: 2018-03-15 01:25:58

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.49 Mbit/s
95th percentile per-packet one-way delay: 136.834 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 139.629 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.26 Mbit/s
95th percentile per-packet one-way delay: 135.719 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 191.57 Mbit/s
95th percentile per-packet one-way delay: 136.831 ms
Loss rate: 0.00%
Run 10: Report of TaoVA-100x — Data Link
Run 1: Statistics of TCP Vegas

Start at: 2018-03-14 22:20:43

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.77 Mbit/s
95th percentile per-packet one-way delay: 139.684 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 26.43 Mbit/s
95th percentile per-packet one-way delay: 137.361 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.62 Mbit/s
95th percentile per-packet one-way delay: 142.032 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.08 Mbit/s
95th percentile per-packet one-way delay: 142.336 ms
Loss rate: 0.00%
Run 2: Statistics of TCP Vegas

Start at: 2018-03-14 22:41:06
End at: 2018-03-14 22:41:36

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 104.61 Mbit/s
  95th percentile per-packet one-way delay: 142.620 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 43.16 Mbit/s
  95th percentile per-packet one-way delay: 140.438 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 80.74 Mbit/s
  95th percentile per-packet one-way delay: 143.587 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.27 Mbit/s
  95th percentile per-packet one-way delay: 139.092 ms
  Loss rate: 0.00%
Run 2: Report of TCP Vegas — Data Link

![Graph showing throughput and per-packet one-way delay over time for different flows.](image-url)
Run 3: Statistics of TCP Vegas

Start at: 2018-03-14 23:01:45
End at: 2018-03-14 23:02:16

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.59 Mbit/s
95th percentile per-packet one-way delay: 138.411 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.05 Mbit/s
95th percentile per-packet one-way delay: 137.991 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.95 Mbit/s
95th percentile per-packet one-way delay: 137.833 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.91 Mbit/s
95th percentile per-packet one-way delay: 142.742 ms
Loss rate: 0.00%
Run 3: Report of TCP Vegas — Data Link
Run 4: Statistics of TCP Vegas

End at: 2018-03-14 23:22:50

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 65.79 Mbit/s
  95th percentile per-packet one-way delay: 139.267 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 26.84 Mbit/s
  95th percentile per-packet one-way delay: 138.821 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 44.30 Mbit/s
  95th percentile per-packet one-way delay: 138.662 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 28.48 Mbit/s
  95th percentile per-packet one-way delay: 142.237 ms
  Loss rate: 0.00%
Run 4: Report of TCP Vegas — Data Link

The first graph shows the throughput over time for different flows:
- Flow 1 ingress (mean 26.38 Mbit/s)
- Flow 1 egress (mean 26.38 Mbit/s)
- Flow 2 ingress (mean 44.29 Mbit/s)
- Flow 2 egress (mean 44.29 Mbit/s)
- Flow 3 ingress (mean 28.48 Mbit/s)
- Flow 3 egress (mean 28.48 Mbit/s)

The second graph displays the packet loss rate over time for the same flows:
- Flow 1 (95th percentile 138.82 ms)
- Flow 2 (95th percentile 138.66 ms)
- Flow 3 (95th percentile 142.24 ms)
Run 5: Statistics of TCP Vegas

Start at: 2018-03-14 23:42:52
End at: 2018-03-14 23:43:22

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 42.35 Mbit/s
  95th percentile per-packet one-way delay: 140.733 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 20.19 Mbit/s
  95th percentile per-packet one-way delay: 140.938 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 21.90 Mbit/s
  95th percentile per-packet one-way delay: 139.350 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 22.90 Mbit/s
  95th percentile per-packet one-way delay: 142.118 ms
  Loss rate: 0.00%
Run 5: Report of TCP Vegas — Data Link

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

- Flow 1 ingress (mean 20.19 Mbit/s)
- Flow 1 egress (mean 20.19 Mbit/s)
- Flow 2 ingress (mean 21.90 Mbit/s)
- Flow 2 egress (mean 21.90 Mbit/s)
- Flow 3 ingress (mean 22.89 Mbit/s)
- Flow 3 egress (mean 22.90 Mbit/s)

![Graph of packet delay distribution for different flows.]

- Flow 1 (95th percentile 140.94 ms)
- Flow 2 (95th percentile 139.35 ms)
- Flow 3 (95th percentile 142.12 ms)
Run 6: Statistics of TCP Vegas

Start at: 2018-03-15 00:03:12
End at: 2018-03-15 00:03:42

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 49.75 Mbit/s
  95th percentile per-packet one-way delay: 138.145 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 24.85 Mbit/s
  95th percentile per-packet one-way delay: 137.596 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 25.39 Mbit/s
  95th percentile per-packet one-way delay: 137.841 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.16 Mbit/s
  95th percentile per-packet one-way delay: 139.946 ms
  Loss rate: 0.00%
Run 6: Report of TCP Vegas — Data Link

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

Legend:
- Flow 1 ingress (mean 24.85 Mbit/s)
- Flow 1 egress (mean 24.85 Mbit/s)
- Flow 2 ingress (mean 25.39 Mbit/s)
- Flow 2 egress (mean 25.39 Mbit/s)
- Flow 3 ingress (mean 24.15 Mbit/s)
- Flow 3 egress (mean 24.16 Mbit/s)
Run 7: Statistics of TCP Vegas

Start at: 2018-03-15 00:23:22
End at: 2018-03-15 00:23:52

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.24 Mbit/s
95th percentile per-packet one-way delay: 138.994 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.25 Mbit/s
95th percentile per-packet one-way delay: 137.677 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.41 Mbit/s
95th percentile per-packet one-way delay: 139.122 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.45 Mbit/s
95th percentile per-packet one-way delay: 142.484 ms
Loss rate: 0.00%
Run 7: Report of TCP Vegas — Data Link

![Throughput Graph]

- **Flow 1 ingress (mean 35.25 Mbit/s)**
- **Flow 1 egress (mean 35.25 Mbit/s)**
- **Flow 2 ingress (mean 23.41 Mbit/s)**
- **Flow 2 egress (mean 23.41 Mbit/s)**
- **Flow 3 ingress (mean 31.45 Mbit/s)**
- **Flow 3 egress (mean 31.45 Mbit/s)**

![Packet Delay Graph]

- **Flow 1 (95th percentile 137.68 ms)**
- **Flow 2 (95th percentile 139.12 ms)**
- **Flow 3 (95th percentile 142.48 ms)**
Run 8: Statistics of TCP Vegas

Start at: 2018-03-15 00:43:46
End at: 2018-03-15 00:44:16

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.84 Mbit/s
95th percentile per-packet one-way delay: 137.547 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.10 Mbit/s
95th percentile per-packet one-way delay: 136.606 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.02 Mbit/s
95th percentile per-packet one-way delay: 137.528 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.50 Mbit/s
95th percentile per-packet one-way delay: 141.341 ms
Loss rate: 0.00%
Run 8: Report of TCP Vegas — Data Link

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

![Graph of Percent one-way delay (ms) vs Time (s)]
Run 9: Statistics of TCP Vegas

Start at: 2018-03-15 01:04:13
End at: 2018-03-15 01:04:43

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 47.64 Mbit/s
  95th percentile per-packet one-way delay: 138.630 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 25.89 Mbit/s
  95th percentile per-packet one-way delay: 138.941 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 20.48 Mbit/s
  95th percentile per-packet one-way delay: 137.571 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 24.54 Mbit/s
  95th percentile per-packet one-way delay: 139.199 ms
  Loss rate: 0.00%
Run 9: Report of TCP Vegas — Data Link
Run 10: Statistics of TCP Vegas

Start at: 2018-03-15 01:24:35
End at: 2018-03-15 01:25:05

# Below is generated by plot.py at 2018-03-15 04:38:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.57 Mbit/s
95th percentile per-packet one-way delay: 137.826 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.18 Mbit/s
95th percentile per-packet one-way delay: 137.650 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.22 Mbit/s
95th percentile per-packet one-way delay: 137.893 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.97 Mbit/s
95th percentile per-packet one-way delay: 138.306 ms
Loss rate: 0.00%
Run 10: Report of TCP Vegas — Data Link

![Graph of Throughput and Delay over Time](image)

- **Flow 1 ingress (mean 27.18 Mbit/s)**
- **Flow 1 egress (mean 27.18 Mbit/s)**
- **Flow 2 ingress (mean 26.22 Mbit/s)**
- **Flow 2 egress (mean 26.22 Mbit/s)**
- **Flow 3 ingress (mean 26.97 Mbit/s)**
- **Flow 3 egress (mean 26.97 Mbit/s)**

![Graph of Packet Delay over Time](image)

- **Flow 1 (95th percentile 137.65 ms)**
- **Flow 2 (95th percentile 137.89 ms)**
- **Flow 3 (95th percentile 138.31 ms)**
Run 1: Statistics of Verus

Start at: 2018-03-14 22:05:12
End at: 2018-03-14 22:05:42

# Below is generated by plot.py at 2018-03-15 04:38:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 205.86 Mbit/s
95th percentile per-packet one-way delay: 267.135 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 160.40 Mbit/s
95th percentile per-packet one-way delay: 210.367 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 49.04 Mbit/s
95th percentile per-packet one-way delay: 339.160 ms
Loss rate: 3.30%
-- Flow 3:
Average throughput: 44.47 Mbit/s
95th percentile per-packet one-way delay: 364.662 ms
Loss rate: 14.06%
Run 1: Report of Verus — Data Link
Run 2: Statistics of Verus

End at: 2018-03-14 22:26:05

# Below is generated by plot.py at 2018-03-15 04:38:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 198.81 Mbit/s
  95th percentile per-packet one-way delay: 200.308 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 142.45 Mbit/s
  95th percentile per-packet one-way delay: 234.580 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 66.92 Mbit/s
  95th percentile per-packet one-way delay: 168.964 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 38.64 Mbit/s
  95th percentile per-packet one-way delay: 185.635 ms
  Loss rate: 0.00%
Run 2: Report of Verus — Data Link

![Graph showing network performance metrics over time. The graphs depict throughput and per-packet one-way delay for different flow types: Flow 1, Flow 2, Flow 3. The figures illustrate mean values and percentile delays.]
Run 3: Statistics of Verus

Start at: 2018-03-14 22:46:03
End at: 2018-03-14 22:46:33

# Below is generated by plot.py at 2018-03-15 04:39:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 243.40 Mbit/s
95th percentile per-packet one-way delay: 163.428 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 187.62 Mbit/s
95th percentile per-packet one-way delay: 160.993 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 62.89 Mbit/s
95th percentile per-packet one-way delay: 247.548 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.40 Mbit/s
95th percentile per-packet one-way delay: 158.550 ms
Loss rate: 2.07%
Run 3: Report of Verus — Data Link

Throughput (Mbps)

Time (s)

Flow 1 ingress (mean 187.78 Mbps)
Flow 1 egress (mean 187.62 Mbps)
Flow 2 ingress (mean 62.92 Mbps)
Flow 2 egress (mean 62.89 Mbps)
Flow 3 ingress (mean 44.32 Mbps)
Flow 3 egress (mean 43.40 Mbps)

Per packet one way delay (ns)

Time (s)

Flow 1 (95th percentile 160.99 ms)
Flow 2 (95th percentile 247.55 ms)
Flow 3 (95th percentile 158.55 ms)
Run 4: Statistics of Verus

Start at: 2018-03-14 23:06:32
End at: 2018-03-14 23:07:02

# Below is generated by plot.py at 2018-03-15 04:42:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 325.12 Mbit/s
  95th percentile per-packet one-way delay: 183.191 ms
  Loss rate: 0.05%
-- Flow 1:
  Average throughput: 185.63 Mbit/s
  95th percentile per-packet one-way delay: 176.344 ms
  Loss rate: 0.08%
-- Flow 2:
  Average throughput: 204.54 Mbit/s
  95th percentile per-packet one-way delay: 187.679 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 12.17 Mbit/s
  95th percentile per-packet one-way delay: 164.260 ms
  Loss rate: 0.00%
Run 4: Report of Verus — Data Link

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

Start at: 2018-03-14 23:27:14
End at: 2018-03-14 23:27:44

# Below is generated by plot.py at 2018-03-15 04:42:01
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 225.04 Mbit/s
  95th percentile per-packet one-way delay: 176.335 ms
  Loss rate: 0.15%
-- Flow 1:
  Average throughput: 79.86 Mbit/s
  95th percentile per-packet one-way delay: 148.372 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 200.98 Mbit/s
  95th percentile per-packet one-way delay: 186.758 ms
  Loss rate: 0.26%
-- Flow 3:
  Average throughput: 39.07 Mbit/s
  95th percentile per-packet one-way delay: 148.448 ms
  Loss rate: 0.00%
Run 5: Report of Verus — Data Link

![Graph of Throughput (Mbps) over time showing the throughput rates for Flow 1 Ingress, Flow 1 Egress, Flow 2 Ingress, Flow 2 Egress, Flow 3 Ingress, and Flow 3 Egress.]

![Graph of Per-packet one way delay (ms) over time showing the 95th percentile delay for Flow 1, Flow 2, and Flow 3.]

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Run 6: Statistics of Verus

Start at: 2018-03-14 23:47:24
End at: 2018-03-14 23:47:54

# Below is generated by plot.py at 2018-03-15 04:42:54
# Datalink statistics
# Total of 3 flows:
  Average throughput: 338.89 Mbit/s
  95th percentile per-packet one-way delay: 268.990 ms
  Loss rate: 2.52%
  -- Flow 1:
    Average throughput: 174.27 Mbit/s
    95th percentile per-packet one-way delay: 240.035 ms
    Loss rate: 1.72%
  -- Flow 2:
    Average throughput: 240.15 Mbit/s
    95th percentile per-packet one-way delay: 319.623 ms
    Loss rate: 3.42%
  -- Flow 3:
    Average throughput: 17.26 Mbit/s
    95th percentile per-packet one-way delay: 241.340 ms
    Loss rate: 0.96%
Run 6: Report of Verus — Data Link

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

**Throughput (Mbps):**
- **Flow 1 ingress:** mean 177.34 Mbps
- **Flow 1 egress:** mean 174.27 Mbps
- **Flow 2 ingress:** mean 249.40 Mbps
- **Flow 2 egress:** mean 240.15 Mbps
- **Flow 3 ingress:** mean 17.52 Mbps
- **Flow 3 egress:** mean 17.26 Mbps

**Per-packet one-way delay (ms):**
- **Flow 1:** 95th percentile 240.03 ms
- **Flow 2:** 95th percentile 319.62 ms
- **Flow 3:** 95th percentile 241.34 ms
Run 7: Statistics of Verus

Start at: 2018-03-15 00:07:35
End at: 2018-03-15 00:08:05

# Below is generated by plot.py at 2018-03-15 04:44:02
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 283.44 Mbit/s
  95th percentile per-packet one-way delay: 193.858 ms
  Loss rate: 0.34%
-- Flow 1:
  Average throughput: 208.08 Mbit/s
  95th percentile per-packet one-way delay: 197.973 ms
  Loss rate: 0.47%
-- Flow 2:
  Average throughput: 89.41 Mbit/s
  95th percentile per-packet one-way delay: 183.338 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 49.89 Mbit/s
  95th percentile per-packet one-way delay: 194.881 ms
  Loss rate: 0.00%
Run 7: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 209.09 Mbps)
- Flow 1 egress (mean 208.08 Mbps)
- Flow 2 ingress (mean 89.41 Mbps)
- Flow 2 egress (mean 89.41 Mbps)
- Flow 3 ingress (mean 49.90 Mbps)
- Flow 3 egress (mean 49.89 Mbps)

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

- Flow 1 (95th percentile 197.97 ms)
- Flow 2 (95th percentile 183.34 ms)
- Flow 3 (95th percentile 194.88 ms)
Run 8: Statistics of Verus

Start at: 2018-03-15 00:28:19
End at: 2018-03-15 00:28:49

# Below is generated by plot.py at 2018-03-15 04:45:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 293.67 Mbit/s
95th percentile per-packet one-way delay: 248.531 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 196.53 Mbit/s
95th percentile per-packet one-way delay: 245.511 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 94.14 Mbit/s
95th percentile per-packet one-way delay: 236.522 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 107.20 Mbit/s
95th percentile per-packet one-way delay: 324.252 ms
Loss rate: 4.67%
Run 8: Report of Verus — Data Link

![Graphs showing network throughput and packet latency data for different flows.](image-url)
Run 9: Statistics of Verus

Start at: 2018-03-15 00:48:32
End at: 2018-03-15 00:49:02

# Below is generated by plot.py at 2018-03-15 04:45:23
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 237.00 Mbit/s
  95th percentile per-packet one-way delay: 215.387 ms
  Loss rate: 1.14%
-- Flow 1:
  Average throughput: 174.06 Mbit/s
  95th percentile per-packet one-way delay: 196.016 ms
  Loss rate: 0.84%
-- Flow 2:
  Average throughput: 76.46 Mbit/s
  95th percentile per-packet one-way delay: 224.113 ms
  Loss rate: 1.63%
-- Flow 3:
  Average throughput: 37.67 Mbit/s
  95th percentile per-packet one-way delay: 244.581 ms
  Loss rate: 3.36%
Run 9: Report of Verus — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 175.55 Mbps)
- Flow 1 egress (mean 174.06 Mbps)
- Flow 2 ingress (mean 77.74 Mbps)
- Flow 2 egress (mean 76.46 Mbps)
- Flow 3 ingress (mean 38.99 Mbps)
- Flow 3 egress (mean 37.67 Mbps)

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

- Flow 1 (95th percentile 196.02 ms)
- Flow 2 (95th percentile 224.11 ms)
- Flow 3 (95th percentile 244.58 ms)
Run 10: Statistics of Verus

Start at: 2018-03-15 01:08:57
End at: 2018-03-15 01:09:27

# Below is generated by plot.py at 2018-03-15 04:45:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 199.04 Mbit/s
95th percentile per-packet one-way delay: 156.533 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 104.31 Mbit/s
95th percentile per-packet one-way delay: 160.771 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 109.67 Mbit/s
95th percentile per-packet one-way delay: 150.945 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 68.06 Mbit/s
95th percentile per-packet one-way delay: 150.569 ms
Loss rate: 0.00%
Run 10: Report of Verus — Data Link

![Graphs showing throughput and per-packet one-way delay]
Run 1: Statistics of Copa

Start at: 2018-03-14 22:09:04
End at: 2018-03-14 22:09:34

# Below is generated by plot.py at 2018-03-15 04:45:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.53 Mbit/s
95th percentile per-packet one-way delay: 137.252 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.57 Mbit/s
95th percentile per-packet one-way delay: 137.258 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.30 Mbit/s
95th percentile per-packet one-way delay: 137.242 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.42 Mbit/s
95th percentile per-packet one-way delay: 137.257 ms
Loss rate: 0.00%
Run 1: Report of Copa — Data Link

Throughput (Mbit/s)

0 5 10 15 20 25 30

Time (s)

Flow 1 ingress (mean 56.56 Mbit/s)  Flow 1 egress (mean 56.57 Mbit/s)
Flow 2 ingress (mean 70.29 Mbit/s)  Flow 2 egress (mean 70.30 Mbit/s)
Flow 3 ingress (mean 57.42 Mbit/s)  Flow 3 egress (mean 57.42 Mbit/s)

Per-packet one-way delay (ms)

0 5 10 15 20 25 30

Time (s)

Flow 1 (95th percentile 137.26 ms)  Flow 2 (95th percentile 137.24 ms)  Flow 3 (95th percentile 137.26 ms)
Run 2: Statistics of Copa

Start at: 2018-03-14 22:29:24
End at: 2018-03-14 22:29:54

# Below is generated by plot.py at 2018-03-15 04:45:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.65 Mbit/s
95th percentile per-packet one-way delay: 136.884 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.38 Mbit/s
95th percentile per-packet one-way delay: 136.904 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.55 Mbit/s
95th percentile per-packet one-way delay: 136.807 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.11 Mbit/s
95th percentile per-packet one-way delay: 136.695 ms
Loss rate: 0.00%
Run 2: Report of Copa — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 66.38 Mbps)
  - Flow 2 ingress (mean 72.55 Mbps)
  - Flow 3 ingress (mean 48.11 Mbps)
  - Flow 1 egress (mean 66.38 Mbps)
  - Flow 2 egress (mean 72.55 Mbps)
  - Flow 3 egress (mean 48.11 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 136.90 ms)
  - Flow 2 (95th percentile 136.81 ms)
  - Flow 3 (95th percentile 136.69 ms)
Run 3: Statistics of Copa

Start at: 2018-03-14 22:50:00
End at: 2018-03-14 22:50:30

# Below is generated by plot.py at 2018-03-15 04:47:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.66 Mbit/s
95th percentile per-packet one-way delay: 136.981 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.19 Mbit/s
95th percentile per-packet one-way delay: 136.946 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 67.97 Mbit/s
95th percentile per-packet one-way delay: 136.908 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.92 Mbit/s
95th percentile per-packet one-way delay: 137.061 ms
Loss rate: 0.00%
Run 3: Report of Copa — Data Link

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

![Graph 2: Delay vs Time](image2)
Run 4: Statistics of Copa

Start at: 2018-03-14 23:10:36
End at: 2018-03-14 23:11:06

# Below is generated by plot.py at 2018-03-15 04:47:55
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 103.76 Mbit/s
  95th percentile per-packet one-way delay: 136.994 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 42.34 Mbit/s
  95th percentile per-packet one-way delay: 136.948 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 64.31 Mbit/s
  95th percentile per-packet one-way delay: 136.847 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 56.10 Mbit/s
  95th percentile per-packet one-way delay: 137.134 ms
  Loss rate: 0.00%
Run 4: Report of Copa — Data Link
Run 5: Statistics of Copa

Start at: 2018-03-14 23:31:09
End at: 2018-03-14 23:31:39

# Below is generated by plot.py at 2018-03-15 04:49:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.00 Mbit/s
95th percentile per-packet one-way delay: 136.947 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.79 Mbit/s
95th percentile per-packet one-way delay: 136.929 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 67.86 Mbit/s
95th percentile per-packet one-way delay: 136.975 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 66.37 Mbit/s
95th percentile per-packet one-way delay: 136.913 ms
Loss rate: 0.00%
Run 5: Report of Copa — Data Link
Run 6: Statistics of Copa

Start at: 2018-03-14 23:51:28
End at: 2018-03-14 23:51:58

# Below is generated by plot.py at 2018-03-15 04:50:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.19 Mbit/s
95th percentile per-packet one-way delay: 136.923 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.67 Mbit/s
95th percentile per-packet one-way delay: 136.895 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.14 Mbit/s
95th percentile per-packet one-way delay: 135.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.80 Mbit/s
95th percentile per-packet one-way delay: 137.072 ms
Loss rate: 0.00%
Run 6: Report of Copa — Data Link
Run 7: Statistics of Copa

Start at: 2018-03-15 00:11:32
End at: 2018-03-15 00:12:02

# Below is generated by plot.py at 2018-03-15 04:50:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.15 Mbit/s
95th percentile per-packet one-way delay: 136.939 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.42 Mbit/s
95th percentile per-packet one-way delay: 136.971 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.32 Mbit/s
95th percentile per-packet one-way delay: 136.924 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 75.22 Mbit/s
95th percentile per-packet one-way delay: 136.476 ms
Loss rate: 0.00%
Run 7: Report of Copa — Data Link
Run 8: Statistics of Copa

Start at: 2018-03-15 00:32:17
End at: 2018-03-15 00:32:47

# Below is generated by plot.py at 2018-03-15 04:50:37
# Datalink statistics
   -- Total of 3 flows:
      Average throughput: 130.61 Mbit/s
      95th percentile per-packet one-way delay: 136.467 ms
      Loss rate: 0.00%
   -- Flow 1:
      Average throughput: 70.88 Mbit/s
      95th percentile per-packet one-way delay: 136.493 ms
      Loss rate: 0.00%
   -- Flow 2:
      Average throughput: 58.44 Mbit/s
      95th percentile per-packet one-way delay: 136.478 ms
      Loss rate: 0.01%
   -- Flow 3:
      Average throughput: 62.82 Mbit/s
      95th percentile per-packet one-way delay: 136.337 ms
      Loss rate: 0.00%
Run 8: Report of Copa — Data Link

The first graph shows the throughput over time for three different flows (Flow 1, Flow 2, and Flow 3) with their respective ingress and egress rates. The throughput fluctuates significantly over time, with peaks and valleys occurring at various intervals.

The second graph illustrates the per-packet one-way delay for each flow. The delay values show a less pronounced variation compared to the throughput, with some spikes at certain points in time.

Flow 1 ingress (mean 70.87 Mbit/s)  Flow 1 egress (mean 70.88 Mbit/s)
Flow 2 ingress (mean 58.44 Mbit/s)  Flow 2 egress (mean 58.44 Mbit/s)
Flow 3 ingress (mean 62.81 Mbit/s)  Flow 3 egress (mean 62.82 Mbit/s)

Flow 1 (95th percentile 136.49 ms)  Flow 2 (95th percentile 136.49 ms)  Flow 3 (95th percentile 136.34 ms)
Run 9: Statistics of Copa

Start at: 2018-03-15 00:52:27
End at: 2018-03-15 00:52:57

# Below is generated by plot.py at 2018-03-15 04:51:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.58 Mbit/s
95th percentile per-packet one-way delay: 136.552 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.08 Mbit/s
95th percentile per-packet one-way delay: 135.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.67 Mbit/s
95th percentile per-packet one-way delay: 136.593 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.71 Mbit/s
95th percentile per-packet one-way delay: 136.592 ms
Loss rate: 0.00%
Run 9: Report of Copa — Data Link
Run 10: Statistics of Copa

Start at: 2018-03-15 01:12:52
End at: 2018-03-15 01:13:22

# Below is generated by plot.py at 2018-03-15 04:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.43 Mbit/s
95th percentile per-packet one-way delay: 139.638 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.51 Mbit/s
95th percentile per-packet one-way delay: 139.692 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.47 Mbit/s
95th percentile per-packet one-way delay: 136.244 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 62.26 Mbit/s
95th percentile per-packet one-way delay: 136.481 ms
Loss rate: 0.00%
Run 10: Report of Copa — Data Link
Run 1: Statistics of FillP

Start at: 2018-03-14 22:06:18
End at: 2018-03-14 22:06:48

# Below is generated by plot.py at 2018-03-15 05:25:21
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1511.41 Mbit/s
  95th percentile per-packet one-way delay: 226.777 ms
  Loss rate: 5.27%
-- Flow 1:
  Average throughput: 782.97 Mbit/s
  95th percentile per-packet one-way delay: 219.245 ms
  Loss rate: 5.18%
-- Flow 2:
  Average throughput: 791.31 Mbit/s
  95th percentile per-packet one-way delay: 214.324 ms
  Loss rate: 2.95%
-- Flow 3:
  Average throughput: 604.01 Mbit/s
  95th percentile per-packet one-way delay: 257.934 ms
  Loss rate: 11.25%
Run 1: Report of FillP — Data Link
Run 2: Statistics of FillP

Start at: 2018-03-14 22:26:41
End at: 2018-03-14 22:27:11

# Below is generated by plot.py at 2018-03-15 05:25:28
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1479.18 Mbit/s
  95th percentile per-packet one-way delay: 261.377 ms
  Loss rate: 5.84%
-- Flow 1:
  Average throughput: 812.59 Mbit/s
  95th percentile per-packet one-way delay: 221.277 ms
  Loss rate: 2.68%
-- Flow 2:
  Average throughput: 676.88 Mbit/s
  95th percentile per-packet one-way delay: 364.796 ms
  Loss rate: 8.44%
-- Flow 3:
  Average throughput: 655.11 Mbit/s
  95th percentile per-packet one-way delay: 239.030 ms
  Loss rate: 11.43%
Run 2: Report of FillP — Data Link

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

- Flow 1 ingress (mean 834.96 Mbit/s)
- Flow 1 egress (mean 812.59 Mbit/s)
- Flow 2 ingress (mean 739.27 Mbit/s)
- Flow 2 egress (mean 676.88 Mbit/s)
- Flow 3 ingress (mean 739.64 Mbit/s)
- Flow 3 egress (mean 655.13 Mbit/s)

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

- Flow 1 (95th percentile 221.28 ms)
- Flow 2 (95th percentile 364.80 ms)
- Flow 3 (95th percentile 239.03 ms)
Run 3: Statistics of FillP

Start at: 2018-03-14 22:47:12
End at: 2018-03-14 22:47:42

# Below is generated by plot.py at 2018-03-15 05:29:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1583.42 Mbit/s
95th percentile per-packet one-way delay: 222.896 ms
Loss rate: 4.44%
-- Flow 1:
Average throughput: 833.24 Mbit/s
95th percentile per-packet one-way delay: 217.359 ms
Loss rate: 4.06%
-- Flow 2:
Average throughput: 810.32 Mbit/s
95th percentile per-packet one-way delay: 215.176 ms
Loss rate: 2.91%
-- Flow 3:
Average throughput: 641.58 Mbit/s
95th percentile per-packet one-way delay: 235.710 ms
Loss rate: 9.46%
Run 3: Report of FillP — Data Link

![Graph of throughput over time for various flows, showing data link performance metrics such as ingress and egress throughput.]

![Graph of packet delay over time for various flows, showing 95th percentile delay values.]

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Run 4: Statistics of FillP

Start at: 2018-03-14 23:07:48
End at: 2018-03-14 23:08:18

# Below is generated by plot.py at 2018-03-15 05:29:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1595.62 Mbit/s
  95th percentile per-packet one-way delay: 229.571 ms
  Loss rate: 4.07%
-- Flow 1:
  Average throughput: 868.84 Mbit/s
  95th percentile per-packet one-way delay: 203.869 ms
  Loss rate: 1.64%
-- Flow 2:
  Average throughput: 757.52 Mbit/s
  95th percentile per-packet one-way delay: 243.745 ms
  Loss rate: 6.85%
-- Flow 3:
  Average throughput: 674.98 Mbit/s
  95th percentile per-packet one-way delay: 227.468 ms
  Loss rate: 6.77%
Run 4: Report of FillP — Data Link

Throughput (Mbps/s)

Time (s)

Flow 1 Ingress (mean 883.30 Mbps/s) — Flow 1 Egress (mean 868.84 Mbps/s)
Flow 2 Ingress (mean 813.17 Mbps/s) — Flow 2 Egress (mean 757.52 Mbps/s)
Flow 3 Ingress (mean 723.95 Mbps/s) — Flow 3 Egress (mean 674.98 Mbps/s)

Packet per second (per sec)

Time (s)

Flow 1 (95th percentile 203.87 ms) — Flow 2 (95th percentile 243.75 ms) — Flow 3 (95th percentile 227.47 ms)
Run 5: Statistics of FillP

Start at: 2018-03-14 23:28:22
End at: 2018-03-14 23:28:52

# Below is generated by plot.py at 2018-03-15 05:29:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1590.24 Mbit/s
95th percentile per-packet one-way delay: 222.119 ms
Loss rate: 4.36%
-- Flow 1:
Average throughput: 839.68 Mbit/s
95th percentile per-packet one-way delay: 218.224 ms
Loss rate: 2.76%
-- Flow 2:
Average throughput: 796.83 Mbit/s
95th percentile per-packet one-way delay: 217.832 ms
Loss rate: 5.36%
-- Flow 3:
Average throughput: 666.10 Mbit/s
95th percentile per-packet one-way delay: 249.279 ms
Loss rate: 7.78%
Run 5: Report of FillP — Data Link

![Graph 1](image1.png)

- Flow 1 Ingress (mean 863.50 Mbit/s)
- Flow 1 Egress (mean 859.68 Mbit/s)
- Flow 2 Ingress (mean 842.20 Mbit/s)
- Flow 2 Egress (mean 796.83 Mbit/s)
- Flow 3 Ingress (mean 722.47 Mbit/s)
- Flow 3 Egress (mean 666.10 Mbit/s)

![Graph 2](image2.png)

- Flow 1 95th percentile 218.22 ms
- Flow 2 95th percentile 217.83 ms
- Flow 3 95th percentile 249.28 ms
Run 6: Statistics of FillP

Start at: 2018-03-14 23:48:41
End at: 2018-03-14 23:49:11

# Below is generated by plot.py at 2018-03-15 05:29:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1587.54 Mbit/s
  95th percentile per-packet one-way delay: 237.684 ms
  Loss rate: 3.05%
-- Flow 1:
  Average throughput: 846.53 Mbit/s
  95th percentile per-packet one-way delay: 216.360 ms
  Loss rate: 2.77%
-- Flow 2:
  Average throughput: 781.50 Mbit/s
  95th percentile per-packet one-way delay: 283.969 ms
  Loss rate: 2.84%
-- Flow 3:
  Average throughput: 668.86 Mbit/s
  95th percentile per-packet one-way delay: 288.588 ms
  Loss rate: 4.63%
Run 6: Report of FillP — Data Link

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

- Flow 1 Ingress (mean 870.59 Mbit/s)
- Flow 1 Egress (mean 846.53 Mbit/s)
- Flow 2 Ingress (mean 804.51 Mbit/s)
- Flow 2 Egress (mean 783.50 Mbit/s)
- Flow 3 Ingress (mean 701.34 Mbit/s)
- Flow 3 Egress (mean 668.86 Mbit/s)

Packet delay:
- Flow 1: 95th percentile 216.36 ms
- Flow 2: 95th percentile 283.97 ms
- Flow 3: 95th percentile 288.59 ms

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Run 7: Statistics of FillP

Start at: 2018-03-15 00:08:47
End at: 2018-03-15 00:09:17

# Below is generated by plot.py at 2018-03-15 05:29:46
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1436.67 Mbit/s
  95th percentile per-packet one-way delay: 356.053 ms
  Loss rate: 4.44%
-- Flow 1:
  Average throughput: 758.30 Mbit/s
  95th percentile per-packet one-way delay: 356.466 ms
  Loss rate: 3.11%
-- Flow 2:
  Average throughput: 681.50 Mbit/s
  95th percentile per-packet one-way delay: 365.318 ms
  Loss rate: 3.57%
-- Flow 3:
  Average throughput: 681.62 Mbit/s
  95th percentile per-packet one-way delay: 238.599 ms
  Loss rate: 10.18%
Run 7: Report of FillP — Data Link
Run 8: Statistics of FillP

Start at: 2018-03-15 00:29:31
End at: 2018-03-15 00:30:01

# Below is generated by plot.py at 2018-03-15 05:30:09
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 1526.59 Mbit/s
  95th percentile per-packet one-way delay: 260.621 ms
  Loss rate: 4.47%
-- Flow 1:
  Average throughput: 851.58 Mbit/s
  95th percentile per-packet one-way delay: 216.965 ms
  Loss rate: 2.95%
-- Flow 2:
  Average throughput: 651.19 Mbit/s
  95th percentile per-packet one-way delay: 389.612 ms
  Loss rate: 7.63%
-- Flow 3:
  Average throughput: 730.26 Mbit/s
  95th percentile per-packet one-way delay: 224.789 ms
  Loss rate: 3.83%
Run 8: Report of FillP — Data Link

![Graph showing throughput and delay over time for Flow 1, Flow 2, and Flow 3.]

- **Throughput (Mbps)**:
  - Flow 1 Ingress (mean 877.43 Mbps)
  - Flow 1 Egress (mean 851.58 Mbps)
  - Flow 2 Ingress (mean 704.94 Mbps)
  - Flow 2 Egress (mean 651.19 Mbps)
  - Flow 3 Ingress (mean 759.24 Mbps)
  - Flow 3 Egress (mean 730.26 Mbps)

- **Delay (ms)**:
  - Flow 1 (95th percentile 216.97 ms)
  - Flow 2 (95th percentile 309.61 ms)
  - Flow 3 (95th percentile 224.79 ms)
Run 9: Statistics of FillP

Start at: 2018-03-15 00:49:40
End at: 2018-03-15 00:50:10

# Below is generated by plot.py at 2018-03-15 06:04:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1546.46 Mbit/s
95th percentile per-packet one-way delay: 266.913 ms
Loss rate: 5.67%
-- Flow 1:
Average throughput: 806.21 Mbit/s
95th percentile per-packet one-way delay: 288.514 ms
Loss rate: 4.97%
-- Flow 2:
Average throughput: 769.68 Mbit/s
95th percentile per-packet one-way delay: 223.126 ms
Loss rate: 5.18%
-- Flow 3:
Average throughput: 688.25 Mbit/s
95th percentile per-packet one-way delay: 274.324 ms
Loss rate: 9.07%
Run 9: Report of FillP — Data Link
Run 10: Statistics of FillP

Start at: 2018-03-15 01:10:03
End at: 2018-03-15 01:10:33

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1627.17 Mbit/s
95th percentile per-packet one-way delay: 223.434 ms
Loss rate: 4.38%
-- Flow 1:
Average throughput: 866.30 Mbit/s
95th percentile per-packet one-way delay: 218.397 ms
Loss rate: 2.50%
-- Flow 2:
Average throughput: 799.10 Mbit/s
95th percentile per-packet one-way delay: 218.179 ms
Loss rate: 5.49%
-- Flow 3:
Average throughput: 692.77 Mbit/s
95th percentile per-packet one-way delay: 249.896 ms
Loss rate: 8.51%
Run 10: Report of FillP — Data Link

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

- Flow 1 ingress (mean 888.56 Mbit/s), egress (mean 886.30 Mbit/s)
- Flow 2 ingress (mean 845.47 Mbit/s), egress (mean 799.10 Mbit/s)
- Flow 3 ingress (mean 757.09 Mbit/s), egress (mean 692.77 Mbit/s)
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-14 22:10:07
End at: 2018-03-14 22:10:37

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 327.45 Mbit/s
95th percentile per-packet one-way delay: 137.918 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 171.10 Mbit/s
95th percentile per-packet one-way delay: 137.669 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 164.96 Mbit/s
95th percentile per-packet one-way delay: 138.439 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 147.85 Mbit/s
95th percentile per-packet one-way delay: 139.097 ms
Loss rate: 0.00%
Run 1: Report of Indigo-1-32 — Data Link

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

- **Flow 1 ingress (mean 171.10 Mbit/s)**
- **Flow 1 egress (mean 171.10 Mbit/s)**
- **Flow 2 ingress (mean 164.95 Mbit/s)**
- **Flow 2 egress (mean 164.96 Mbit/s)**
- **Flow 3 ingress (mean 147.79 Mbit/s)**
- **Flow 3 egress (mean 147.85 Mbit/s)**
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-14 22:30:29
End at: 2018-03-14 22:30:59

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 327.22 Mbit/s
95th percentile per-packet one-way delay: 137.269 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 168.78 Mbit/s
95th percentile per-packet one-way delay: 136.870 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 167.74 Mbit/s
95th percentile per-packet one-way delay: 137.855 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 148.42 Mbit/s
95th percentile per-packet one-way delay: 137.644 ms
Loss rate: 0.00%
Run 2: Report of Indigo-1-32 — Data Link

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

- Flow 1 ingress (mean 168.79 Mbit/s)
- Flow 1 egress (mean 166.78 Mbit/s)
- Flow 2 ingress (mean 167.74 Mbit/s)
- Flow 2 egress (mean 167.74 Mbit/s)
- Flow 3 ingress (mean 148.45 Mbit/s)
- Flow 3 egress (mean 148.42 Mbit/s)

![Graph 2: Packet Delay Over Time](image)

- Flow 1 (95th percentile 136.87 ms)
- Flow 2 (95th percentile 137.85 ms)
- Flow 3 (95th percentile 137.64 ms)
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-14 22:51:06
End at: 2018-03-14 22:51:36

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.42 Mbit/s
95th percentile per-packet one-way delay: 138.240 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 164.13 Mbit/s
95th percentile per-packet one-way delay: 137.715 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 155.63 Mbit/s
95th percentile per-packet one-way delay: 138.955 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 147.71 Mbit/s
95th percentile per-packet one-way delay: 139.619 ms
Loss rate: 0.00%
Run 3: Report of Indigo-1-32 — Data Link

![Graph showing throughput and per-packet one-way delay over time for flows 1, 2, and 3.]

Throughput (Mbps)

0 5 10 15 20 25 30

Time (s)

Flow 1 ingress (mean 164.12 Mbps) — Flow 1 egress (mean 164.13 Mbps)
Flow 2 ingress (mean 155.55 Mbps) — Flow 2 egress (mean 155.63 Mbps)
Flow 3 ingress (mean 147.72 Mbps) — Flow 3 egress (mean 147.71 Mbps)

Per-packet one-way delay (ms)

0 5 10 15 20 25 30

Time (s)

Flow 1 (95th percentile 137.72 ms) — Flow 2 (95th percentile 138.96 ms) — Flow 3 (95th percentile 139.62 ms)
Run 4: Statistics of Indigo-1-32

Start at: 2018-03-14 23:11:37
End at: 2018-03-14 23:12:07

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.19 Mbit/s
95th percentile per-packet one-way delay: 137.474 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 171.81 Mbit/s
95th percentile per-packet one-way delay: 136.969 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 163.47 Mbit/s
95th percentile per-packet one-way delay: 137.900 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 150.58 Mbit/s
95th percentile per-packet one-way delay: 138.912 ms
Loss rate: 0.00%
Run 4: Report of Indigo-1-32 — Data Link

![Graph of Throughput vs Time](image1)

- Flow 1 ingress (mean 171.80 Mbit/s)
- Flow 1 egress (mean 171.81 Mbit/s)
- Flow 2 ingress (mean 163.48 Mbit/s)
- Flow 2 egress (mean 163.47 Mbit/s)
- Flow 3 ingress (mean 150.58 Mbit/s)
- Flow 3 egress (mean 150.58 Mbit/s)

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

- Flow 1 (95th percentile 136.97 ms)
- Flow 2 (95th percentile 137.90 ms)
- Flow 3 (95th percentile 138.91 ms)
Run 5: Statistics of Indigo-1-32

Start at: 2018-03-14 23:32:15
End at: 2018-03-14 23:32:45

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 317.66 Mbit/s
  95th percentile per-packet one-way delay: 138.408 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 159.46 Mbit/s
  95th percentile per-packet one-way delay: 137.901 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 168.38 Mbit/s
  95th percentile per-packet one-way delay: 138.545 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 147.25 Mbit/s
  95th percentile per-packet one-way delay: 139.752 ms
  Loss rate: 0.00%
Run 5: Report of Indigo-1-32 — Data Link
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-14 23:52:34
End at: 2018-03-14 23:53:04

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 288.57 Mbit/s
  95th percentile per-packet one-way delay: 137.965 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 147.62 Mbit/s
  95th percentile per-packet one-way delay: 137.351 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 144.14 Mbit/s
  95th percentile per-packet one-way delay: 138.489 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 142.62 Mbit/s
  95th percentile per-packet one-way delay: 140.577 ms
  Loss rate: 0.00%
Run 6: Report of Indigo-1-32 — Data Link
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-15 00:12:37
End at: 2018-03-15 00:13:07

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
   Average throughput: 315.50 Mbit/s
   95th percentile per-packet one-way delay: 137.527 ms
   Loss rate: 0.00%
-- Flow 1:
   Average throughput: 165.68 Mbit/s
   95th percentile per-packet one-way delay: 136.974 ms
   Loss rate: 0.00%
-- Flow 2:
   Average throughput: 155.29 Mbit/s
   95th percentile per-packet one-way delay: 137.947 ms
   Loss rate: 0.00%
-- Flow 3:
   Average throughput: 146.64 Mbit/s
   95th percentile per-packet one-way delay: 140.617 ms
   Loss rate: 0.00%
Run 7: Report of Indigo-1-32 — Data Link

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

- **Flow 1** ingress (mean 165.69 Mbit/s)
- **Flow 1** egress (mean 165.68 Mbit/s)
- **Flow 2** ingress (mean 155.29 Mbit/s)
- **Flow 2** egress (mean 155.29 Mbit/s)
- **Flow 3** ingress (mean 146.64 Mbit/s)
- **Flow 3** egress (mean 146.64 Mbit/s)

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

- **Flow 1** (95th percentile 136.97 ms)
- **Flow 2** (95th percentile 137.95 ms)
- **Flow 3** (95th percentile 140.62 ms)
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-15 00:33:21
End at: 2018-03-15 00:33:51

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.60 Mbit/s
95th percentile per-packet one-way delay: 137.878 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 172.34 Mbit/s
95th percentile per-packet one-way delay: 137.294 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 164.57 Mbit/s
95th percentile per-packet one-way delay: 138.262 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 110.43 Mbit/s
95th percentile per-packet one-way delay: 138.791 ms
Loss rate: 0.00%
Run 8: Report of Indigo-1-32 — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 172.34 Mbps)
- Flow 1 egress (mean 172.34 Mbps)
- Flow 2 ingress (mean 164.56 Mbps)
- Flow 2 egress (mean 164.57 Mbps)
- Flow 3 ingress (mean 110.43 Mbps)
- Flow 3 egress (mean 110.43 Mbps)

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

- Flow 1 (95th percentile 137.29 ms)
- Flow 2 (95th percentile 138.26 ms)
- Flow 3 (95th percentile 138.79 ms)

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Run 9: Statistics of Indigo-1-32

Start at: 2018-03-15 00:53:34
End at: 2018-03-15 00:54:04

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 322.02 Mbit/s
  95th percentile per-packet one-way delay: 138.013 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 167.98 Mbit/s
  95th percentile per-packet one-way delay: 137.466 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 161.31 Mbit/s
  95th percentile per-packet one-way delay: 138.011 ms
  Loss rate: 0.01%
-- Flow 3:
  Average throughput: 147.39 Mbit/s
  95th percentile per-packet one-way delay: 140.181 ms
  Loss rate: 0.04%
Run 9: Report of Indigo-1-32 — Data Link
Run 10: Statistics of Indigo-1-32

Start at: 2018-03-15 01:13:57
End at: 2018-03-15 01:14:27

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
  -- Total of 3 flows:
  Average throughput: 314.76 Mbit/s
  95th percentile per-packet one-way delay: 137.420 ms
  Loss rate: 0.00%
  -- Flow 1:
  Average throughput: 162.57 Mbit/s
  95th percentile per-packet one-way delay: 137.298 ms
  Loss rate: 0.00%
  -- Flow 2:
  Average throughput: 157.17 Mbit/s
  95th percentile per-packet one-way delay: 137.513 ms
  Loss rate: 0.00%
  -- Flow 3:
  Average throughput: 151.56 Mbit/s
  95th percentile per-packet one-way delay: 138.691 ms
  Loss rate: 0.00%
Run 10: Report of Indigo-1-32 — Data Link

![Graph 1: Throughput (Mbps)]

- Flow 1 ingress (mean 162.57 Mbps)
- Flow 1 egress (mean 162.57 Mbps)
- Flow 2 ingress (mean 157.17 Mbps)
- Flow 2 egress (mean 157.17 Mbps)
- Flow 3 ingress (mean 151.54 Mbps)
- Flow 3 egress (mean 151.56 Mbps)

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

- Flow 1 (95th percentile 137.30 ms)
- Flow 2 (95th percentile 137.51 ms)
- Flow 3 (95th percentile 138.69 ms)
Run 1: Statistics of Vivace-latency

Start at: 2018-03-14 22:02:33
End at: 2018-03-14 22:03:03

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 425.48 Mbit/s
95th percentile per-packet one-way delay: 137.221 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 260.73 Mbit/s
95th percentile per-packet one-way delay: 137.236 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 186.62 Mbit/s
95th percentile per-packet one-way delay: 137.326 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 122.56 Mbit/s
95th percentile per-packet one-way delay: 136.650 ms
Loss rate: 0.00%
Run 1: Report of Vivace-latency — Data Link

![Graph showing network performance metrics over time]

- **Throughput** (Mbps):
  - Flow 1 ingress (mean 261.02 Mbps)
  - Flow 1 egress (mean 260.73 Mbps)
  - Flow 2 ingress (mean 186.63 Mbps)
  - Flow 2 egress (mean 186.62 Mbps)
  - Flow 3 ingress (mean 122.55 Mbps)
  - Flow 3 egress (mean 122.56 Mbps)

- **Packet delay (ms)**
  - Flow 1 (95th percentile 137.24 ms)
  - Flow 2 (95th percentile 137.33 ms)
  - Flow 3 (95th percentile 136.65 ms)
Run 2: Statistics of Vivace-latency

End at: 2018-03-14 22:23:25

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 430.75 Mbit/s
95th percentile per-packet one-way delay: 137.430 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.70 Mbit/s
95th percentile per-packet one-way delay: 136.746 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 244.58 Mbit/s
95th percentile per-packet one-way delay: 137.737 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 126.35 Mbit/s
95th percentile per-packet one-way delay: 141.254 ms
Loss rate: 0.01%
Run 2: Report of Vivace-latency — Data Link

![Graphs showing data link throughput and latency](image-url)
Run 3: Statistics of Vivace-latency

Start at: 2018-03-14 22:43:27
End at: 2018-03-14 22:43:57

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.48 Mbit/s
95th percentile per-packet one-way delay: 137.828 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 229.15 Mbit/s
95th percentile per-packet one-way delay: 138.343 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 175.84 Mbit/s
95th percentile per-packet one-way delay: 136.997 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 68.11 Mbit/s
95th percentile per-packet one-way delay: 137.076 ms
Loss rate: 0.00%
Run 3: Report of Vivace-latency — Data Link
Run 4: Statistics of Vivace-latency

Start at: 2018-03-14 23:03:50
End at: 2018-03-14 23:04:20

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
 Average throughput: 445.20 Mbit/s
  95th percentile per-packet one-way delay: 139.292 ms
  Loss rate: 0.00%
 -- Flow 1:
 Average throughput: 262.29 Mbit/s
  95th percentile per-packet one-way delay: 138.633 ms
  Loss rate: 0.00%
 -- Flow 2:
 Average throughput: 186.09 Mbit/s
  95th percentile per-packet one-way delay: 137.464 ms
  Loss rate: 0.00%
 -- Flow 3:
 Average throughput: 180.06 Mbit/s
  95th percentile per-packet one-way delay: 161.913 ms
  Loss rate: 0.01%
Run 4: Report of Vivace-latency — Data Link
Run 5: Statistics of Vivace-latency

Start at: 2018-03-14 23:24:39
End at: 2018-03-14 23:25:09

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.85 Mbit/s
95th percentile per-packet one-way delay: 137.152 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 213.48 Mbit/s
95th percentile per-packet one-way delay: 136.632 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 175.61 Mbit/s
95th percentile per-packet one-way delay: 136.832 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 123.48 Mbit/s
95th percentile per-packet one-way delay: 140.283 ms
Loss rate: 0.00%
Run 5: Report of Vivace-latency — Data Link

![Graph 1: Throughput (Mbps)]

![Graph 2: Per-packet one-way delay (ms)]
Run 6: Statistics of Vivace-latency

Start at: 2018-03-14 23:44:47
End at: 2018-03-14 23:45:17

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 399.00 Mbit/s
  95th percentile per-packet one-way delay: 137.307 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 229.48 Mbit/s
  95th percentile per-packet one-way delay: 136.740 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 190.93 Mbit/s
  95th percentile per-packet one-way delay: 137.712 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 129.40 Mbit/s
  95th percentile per-packet one-way delay: 137.419 ms
  Loss rate: 0.00%
Run 6: Report of Vivace-latency — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 229.48 Mbps)
  - Flow 1 egress (mean 229.48 Mbps)
  - Flow 2 ingress (mean 190.93 Mbps)
  - Flow 2 egress (mean 190.93 Mbps)
  - Flow 3 ingress (mean 129.41 Mbps)
  - Flow 3 egress (mean 129.40 Mbps)

- **Latency (ms):**
  - Flow 1 (95th percentile 136.74 ms)
  - Flow 2 (95th percentile 137.71 ms)
  - Flow 3 (95th percentile 137.42 ms)
Run 7: Statistics of Vivace-latency

Start at: 2018-03-15 00:04:57
End at: 2018-03-15 00:05:27

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 405.73 Mbit/s
95th percentile per-packet one-way delay: 138.198 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 234.08 Mbit/s
95th percentile per-packet one-way delay: 138.076 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 193.66 Mbit/s
95th percentile per-packet one-way delay: 136.868 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 130.47 Mbit/s
95th percentile per-packet one-way delay: 140.792 ms
Loss rate: 0.01%
Run 7: Report of Vivace-latency — Data Link
Run 8: Statistics of Vivace-latency

Start at: 2018-03-15 00:25:42
End at: 2018-03-15 00:26:12

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.82 Mbit/s
95th percentile per-packet one-way delay: 137.433 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 236.58 Mbit/s
95th percentile per-packet one-way delay: 137.067 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 190.85 Mbit/s
95th percentile per-packet one-way delay: 135.749 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 116.59 Mbit/s
95th percentile per-packet one-way delay: 141.167 ms
Loss rate: 0.02%
Run 8: Report of Vivace-latency — Data Link

![Graph of throughput and delay over time for different flows.]
Run 9: Statistics of Vivace-latency

Start at: 2018-03-15 00:45:56
End at: 2018-03-15 00:46:26

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.09 Mbit/s
95th percentile per-packet one-way delay: 136.945 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.16 Mbit/s
95th percentile per-packet one-way delay: 136.467 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 172.61 Mbit/s
95th percentile per-packet one-way delay: 136.948 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 134.26 Mbit/s
95th percentile per-packet one-way delay: 145.155 ms
Loss rate: 0.00%
Run 9: Report of Vivace-latency — Data Link
Run 10: Statistics of Vivace-latency

Start at: 2018-03-15 01:06:24
End at: 2018-03-15 01:06:54

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 337.85 Mbit/s
95th percentile per-packet one-way delay: 138.145 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 151.16 Mbit/s
95th percentile per-packet one-way delay: 137.080 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.82 Mbit/s
95th percentile per-packet one-way delay: 136.487 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 200.11 Mbit/s
95th percentile per-packet one-way delay: 181.386 ms
Loss rate: 0.00%
Run 10: Report of Vivace-latency — Data Link

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

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Run 1: Statistics of Vivace-loss

Start at: 2018-03-14 22:15:46
End at: 2018-03-14 22:16:16

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 502.82 Mbit/s
95th percentile per-packet one-way delay: 149.431 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 302.97 Mbit/s
95th percentile per-packet one-way delay: 152.825 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 260.83 Mbit/s
95th percentile per-packet one-way delay: 141.951 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 80.63 Mbit/s
95th percentile per-packet one-way delay: 193.008 ms
Loss rate: 0.00%
Run 1: Report of Vivace-loss — Data Link

![Throughput Graph](image1)

![Delay Graph](image2)
Run 2: Statistics of Vivace-loss

Start at: 2018-03-14 22:36:12
End at: 2018-03-14 22:36:42

# Below is generated by plot.py at 2018-03-15 06:06:54
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 454.85 Mbit/s
  95th percentile per-packet one-way delay: 136.916 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 302.36 Mbit/s
  95th percentile per-packet one-way delay: 136.652 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 184.16 Mbit/s
  95th percentile per-packet one-way delay: 136.725 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 91.34 Mbit/s
  95th percentile per-packet one-way delay: 138.476 ms
  Loss rate: 0.00%
Run 2: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 302.36 Mbit/s)
- Flow 1 egress (mean 302.36 Mbit/s)
- Flow 2 ingress (mean 184.14 Mbit/s)
- Flow 2 egress (mean 184.16 Mbit/s)
- Flow 3 ingress (mean 91.33 Mbit/s)
- Flow 3 egress (mean 91.34 Mbit/s)
Run 3: Statistics of Vivace-loss

Start at: 2018-03-14 22:56:49
End at: 2018-03-14 22:57:19

# Below is generated by plot.py at 2018-03-15 06:08:44
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 488.11 Mbit/s
  95th percentile per-packet one-way delay: 156.218 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 313.35 Mbit/s
  95th percentile per-packet one-way delay: 153.969 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 182.53 Mbit/s
  95th percentile per-packet one-way delay: 137.751 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 164.13 Mbit/s
  95th percentile per-packet one-way delay: 204.458 ms
  Loss rate: 0.00%
Run 3: Report of Vivace-loss — Data Link

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

Flow 1 ingress (mean 313.34 Mbit/s)
Flow 1 egress (mean 313.35 Mbit/s)
Flow 2 ingress (mean 182.52 Mbit/s)
Flow 2 egress (mean 182.53 Mbit/s)
Flow 3 ingress (mean 164.13 Mbit/s)
Flow 3 egress (mean 164.13 Mbit/s)

Flow 1 (95th percentile 153.27 ms)
Flow 2 (95th percentile 137.75 ms)
Flow 3 (95th percentile 204.46 ms)
Run 4: Statistics of Vivace-loss

Start at: 2018-03-14 23:17:22
End at: 2018-03-14 23:17:52

# Below is generated by plot.py at 2018-03-15 06:09:19
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 516.40 Mbit/s
  95th percentile per-packet one-way delay: 171.089 ms
  Loss rate: 0.43%
-- Flow 1:
  Average throughput: 288.99 Mbit/s
  95th percentile per-packet one-way delay: 137.754 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 278.92 Mbit/s
  95th percentile per-packet one-way delay: 197.019 ms
  Loss rate: 1.00%
-- Flow 3:
  Average throughput: 127.72 Mbit/s
  95th percentile per-packet one-way delay: 275.533 ms
  Loss rate: 0.79%
Run 4: Report of Vivace-loss — Data Link

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

- **Throughput (Mbps):**
  - Flow 1 ingress (mean 288.99 Mbps)
  - Flow 1 egress (mean 288.99 Mbps)
  - Flow 2 ingress (mean 281.76 Mbps)
  - Flow 2 egress (mean 278.92 Mbps)
  - Flow 3 ingress (mean 126.75 Mbps)
  - Flow 3 egress (mean 127.72 Mbps)

- **Per-packet one-way delay (ms):**
  - Flow 1 (95th percentile 137.75 ms)
  - Flow 2 (95th percentile 197.02 ms)
  - Flow 3 (95th percentile 275.53 ms)
Run 5: Statistics of Vivace-loss

Start at: 2018-03-14 23:37:57
End at: 2018-03-14 23:38:27

# Below is generated by plot.py at 2018-03-15 06:11:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 461.28 Mbit/s
95th percentile per-packet one-way delay: 139.793 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 294.22 Mbit/s
95th percentile per-packet one-way delay: 139.397 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 186.32 Mbit/s
95th percentile per-packet one-way delay: 136.785 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 131.35 Mbit/s
95th percentile per-packet one-way delay: 193.159 ms
Loss rate: 0.00%
Run 5: Report of Vivace-loss — Data Link
Run 6: Statistics of Vivace-loss

Start at: 2018-03-14 23:58:18
End at: 2018-03-14 23:58:48

# Below is generated by plot.py at 2018-03-15 06:11:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.64 Mbit/s
95th percentile per-packet one-way delay: 137.981 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 264.48 Mbit/s
95th percentile per-packet one-way delay: 136.671 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 184.14 Mbit/s
95th percentile per-packet one-way delay: 137.202 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 190.41 Mbit/s
95th percentile per-packet one-way delay: 191.590 ms
Loss rate: 0.01%
Run 6: Report of Vivace-loss — Data Link
Run 7: Statistics of Vivace-loss

Start at: 2018-03-15 00:18:26
End at: 2018-03-15 00:18:56

# Below is generated by plot.py at 2018-03-15 06:16:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 482.36 Mbit/s
95th percentile per-packet one-way delay: 141.603 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 239.55 Mbit/s
95th percentile per-packet one-way delay: 142.854 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 272.87 Mbit/s
95th percentile per-packet one-way delay: 137.556 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 186.45 Mbit/s
95th percentile per-packet one-way delay: 138.138 ms
Loss rate: 0.06%
Run 7: Report of Vivace-loss — Data Link

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

- Flow 1 ingress (mean 239.64 Mbps)
- Flow 1 egress (mean 239.55 Mbps)
- Flow 2 ingress (mean 272.89 Mbps)
- Flow 2 egress (mean 272.87 Mbps)
- Flow 3 ingress (mean 196.61 Mbps)
- Flow 3 egress (mean 196.45 Mbps)

![Graph 2: Per-packet e2e delay (ms) vs. Time (s)]

- Flow 1 (95th percentile 142.95 ms)
- Flow 2 (95th percentile 137.56 ms)
- Flow 3 (95th percentile 130.14 ms)
Run 8: Statistics of Vivace-loss

Start at: 2018-03-15 00:39:04
End at: 2018-03-15 00:39:34

# Below is generated by plot.py at 2018-03-15 06:16:20
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 312.16 Mbit/s
  95th percentile per-packet one-way delay: 139.286 ms
  Loss rate: 0.02%
-- Flow 1:
  Average throughput: 125.76 Mbit/s
  95th percentile per-packet one-way delay: 137.798 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 190.16 Mbit/s
  95th percentile per-packet one-way delay: 139.177 ms
  Loss rate: 0.03%
-- Flow 3:
  Average throughput: 182.57 Mbit/s
  95th percentile per-packet one-way delay: 178.284 ms
  Loss rate: 0.03%
Run 8: Report of Vivace-loss — Data Link

![Throughput Graph]

![Per-packet delay Graph]
Run 9: Statistics of Vivace-loss

Start at: 2018-03-15 00:59:17
End at: 2018-03-15 00:59:47

# Below is generated by plot.py at 2018-03-15 06:17:34
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 497.70 Mbit/s
  95th percentile per-packet one-way delay: 138.424 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 276.30 Mbit/s
  95th percentile per-packet one-way delay: 137.101 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 246.05 Mbit/s
  95th percentile per-packet one-way delay: 137.570 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 180.73 Mbit/s
  95th percentile per-packet one-way delay: 197.440 ms
  Loss rate: 0.00%
Run 9: Report of Vivace-loss — Data Link

Throughput (Mbit/s)

Time (s)

Flow 1 ingress (mean 276.30 Mbit/s)
Flow 1 egress (mean 276.30 Mbit/s)
Flow 2 ingress (mean 246.04 Mbit/s)
Flow 2 egress (mean 246.05 Mbit/s)
Flow 3 ingress (mean 180.73 Mbit/s)
Flow 3 egress (mean 180.73 Mbit/s)

Per packet one way delay (ms)

Time (s)

Flow 1 (95th percentile 137.10 ms)
Flow 2 (95th percentile 137.57 ms)
Flow 3 (95th percentile 197.44 ms)
Run 10: Statistics of Vivace-loss

Start at: 2018-03-15 01:19:41
End at: 2018-03-15 01:20:11

# Below is generated by plot.py at 2018-03-15 06:18:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 463.11 Mbit/s
95th percentile per-packet one-way delay: 138.396 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 243.63 Mbit/s
95th percentile per-packet one-way delay: 137.491 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 251.35 Mbit/s
95th percentile per-packet one-way delay: 139.065 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 159.41 Mbit/s
95th percentile per-packet one-way delay: 142.818 ms
Loss rate: 0.00%
Run 10: Report of Vivace-loss — Data Link

![Graph showing throughput and per-packet one-way delay over time for three flows.](chart.png)
Run 1: Statistics of Vivace-LTE


# Below is generated by plot.py at 2018-03-15 06:18:29
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 384.25 Mbit/s
  95th percentile per-packet one-way delay: 140.432 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 232.44 Mbit/s
  95th percentile per-packet one-way delay: 140.676 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 180.05 Mbit/s
  95th percentile per-packet one-way delay: 137.360 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 97.65 Mbit/s
  95th percentile per-packet one-way delay: 151.672 ms
  Loss rate: 0.00%
Run 1: Report of Vivace-LTE — Data Link

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

**Throughput (Mbps):**
- Flow 1 ingress (mean 232.45 Mbps)
- Flow 1 egress (mean 232.44 Mbps)
- Flow 2 ingress (mean 180.05 Mbps)
- Flow 2 egress (mean 180.05 Mbps)
- Flow 3 ingress (mean 97.64 Mbps)
- Flow 3 egress (mean 97.65 Mbps)

**Delay (ms):**
- Flow 1 (95th percentile 140.68 ms)
- Flow 2 (95th percentile 137.36 ms)
- Flow 3 (95th percentile 151.67 ms)
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-14 22:33:36
End at: 2018-03-14 22:34:06

# Below is generated by plot.py at 2018-03-15 06:19:39
# Datalink statistics
   -- Total of 3 flows:
   Average throughput: 408.90 Mbit/s
   95th percentile per-packet one-way delay: 137.314 ms
   Loss rate: 0.00%
   -- Flow 1:
   Average throughput: 252.17 Mbit/s
   95th percentile per-packet one-way delay: 136.560 ms
   Loss rate: 0.00%
   -- Flow 2:
   Average throughput: 179.02 Mbit/s
   95th percentile per-packet one-way delay: 137.281 ms
   Loss rate: 0.00%
   -- Flow 3:
   Average throughput: 114.58 Mbit/s
   95th percentile per-packet one-way delay: 140.911 ms
   Loss rate: 0.00%
Run 2: Report of Vivace-LTE — Data Link

![Graph of Throughput vs Time](image1)

![Graph of Per-Packet One-Way Delay vs Time](image2)
Run 3: Statistics of Vivace-LTE

End at: 2018-03-14 22:54:43

# Below is generated by plot.py at 2018-03-15 06:21:27
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 408.90 Mbit/s
  95th percentile per-packet one-way delay: 140.903 ms
  Loss rate: 0.00%
  -- Flow 1:
    Average throughput: 231.03 Mbit/s
    95th percentile per-packet one-way delay: 137.785 ms
    Loss rate: 0.00%
  -- Flow 2:
    Average throughput: 180.06 Mbit/s
    95th percentile per-packet one-way delay: 138.199 ms
    Loss rate: 0.00%
  -- Flow 3:
    Average throughput: 176.74 Mbit/s
    95th percentile per-packet one-way delay: 195.195 ms
    Loss rate: 0.00%
Run 3: Report of Vivace-LTE — Data Link
Run 4: Statistics of Vivace-LTE

Start at: 2018-03-14 23:14:45
End at: 2018-03-14 23:15:15

# Below is generated by plot.py at 2018-03-15 06:21:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.26 Mbit/s
95th percentile per-packet one-way delay: 137.776 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 269.75 Mbit/s
95th percentile per-packet one-way delay: 137.734 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 175.99 Mbit/s
95th percentile per-packet one-way delay: 137.247 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 110.83 Mbit/s
95th percentile per-packet one-way delay: 141.018 ms
Loss rate: 0.00%
Run 4: Report of Vivace-LTE — Data Link
Run 5: Statistics of Vivace-LTE

Start at: 2018-03-14 23:35:22
End at: 2018-03-14 23:35:52

# Below is generated by plot.py at 2018-03-15 06:21:58
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 400.93 Mbit/s
  95th percentile per-packet one-way delay: 138.623 ms
  Loss rate: 0.00%
-- Flow 1:
  Average throughput: 235.72 Mbit/s
  95th percentile per-packet one-way delay: 137.189 ms
  Loss rate: 0.00%
-- Flow 2:
  Average throughput: 179.53 Mbit/s
  95th percentile per-packet one-way delay: 137.385 ms
  Loss rate: 0.00%
-- Flow 3:
  Average throughput: 139.54 Mbit/s
  95th percentile per-packet one-way delay: 228.976 ms
  Loss rate: 0.00%
Run 5: Report of Vivace-LTE — Data Link
Run 6: Statistics of Vivace-LTE

End at: 2018-03-14 23:56:09

# Below is generated by plot.py at 2018-03-15 06:25:10
# Datalink statistics
-- Total of 3 flows:
  Average throughput: 448.32 Mbit/s
  95th percentile per-packet one-way delay: 138.418 ms
  Loss rate: 0.04%
-- Flow 1:
  Average throughput: 269.93 Mbit/s
  95th percentile per-packet one-way delay: 138.652 ms
  Loss rate: 0.01%
-- Flow 2:
  Average throughput: 204.83 Mbit/s
  95th percentile per-packet one-way delay: 137.466 ms
  Loss rate: 0.10%
-- Flow 3:
  Average throughput: 128.20 Mbit/s
  95th percentile per-packet one-way delay: 140.197 ms
  Loss rate: 0.00%
Run 6: Report of Vivace-LTE — Data Link

![Throughput (Mbps) vs Time (s)](image1)

- Flow 1 ingress (mean 269.93 Mbps)
- Flow 1 egress (mean 269.93 Mbps)
- Flow 2 ingress (mean 235.03 Mbps)
- Flow 2 egress (mean 204.83 Mbps)
- Flow 3 ingress (mean 126.19 Mbps)
- Flow 3 egress (mean 128.20 Mbps)

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

- Flow 1 (95th percentile 138.65 ms)
- Flow 2 (95th percentile 137.47 ms)
- Flow 3 (95th percentile 140.20 ms)
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-15 00:15:44
End at: 2018-03-15 00:16:14

# Below is generated by plot.py at 2018-03-15 06:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 500.29 Mbit/s
95th percentile per-packet one-way delay: 140.246 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 260.80 Mbit/s
95th percentile per-packet one-way delay: 136.373 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 281.42 Mbit/s
95th percentile per-packet one-way delay: 138.142 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 159.35 Mbit/s
95th percentile per-packet one-way delay: 223.107 ms
Loss rate: 0.05%
Run 7: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 260.80 Mbps)
- Flow 1 egress (mean 260.80 Mbps)
- Flow 2 ingress (mean 281.47 Mbps)
- Flow 2 egress (mean 281.42 Mbps)
- Flow 3 ingress (mean 159.38 Mbps)
- Flow 3 egress (mean 159.35 Mbps)

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

- Flow 1 (95th percentile 136.37 ms)
- Flow 2 (95th percentile 138.14 ms)
- Flow 3 (95th percentile 223.11 ms)
Run 8: Statistics of Vivace-LTE

Start at: 2018-03-15 00:36:28
End at: 2018-03-15 00:36:58

# Below is generated by plot.py at 2018-03-15 06:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 421.17 Mbit/s
95th percentile per-packet one-way delay: 140.906 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.88 Mbit/s
95th percentile per-packet one-way delay: 137.569 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 187.64 Mbit/s
95th percentile per-packet one-way delay: 140.944 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 184.09 Mbit/s
95th percentile per-packet one-way delay: 143.789 ms
Loss rate: 0.00%
Run 8: Report of Vivace-LTE — Data Link

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

- Throughput (Mbps):
  - Flow 1 ingress (mean 235.91 Mbps)
  - Flow 1 egress (mean 235.88 Mbps)
  - Flow 2 ingress (mean 187.63 Mbps)
  - Flow 2 egress (mean 187.66 Mbps)
  - Flow 3 ingress (mean 184.09 Mbps)
  - Flow 3 egress (mean 184.09 Mbps)

- Per-packet one-way delay (ms):
  - Flow 1 (95th percentile 137.57 ms)
  - Flow 2 (95th percentile 140.94 ms)
  - Flow 3 (95th percentile 143.79 ms)
Run 9: Statistics of Vivace-LTE

Start at: 2018-03-15 00:56:41
End at: 2018-03-15 00:57:11

# Below is generated by plot.py at 2018-03-15 06:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 410.86 Mbit/s
95th percentile per-packet one-way delay: 141.006 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.11 Mbit/s
95th percentile per-packet one-way delay: 137.229 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.72 Mbit/s
95th percentile per-packet one-way delay: 141.070 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 197.63 Mbit/s
95th percentile per-packet one-way delay: 136.182 ms
Loss rate: 0.00%
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-15 01:17:03
End at: 2018-03-15 01:17:33

# Below is generated by plot.py at 2018-03-15 06:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 427.55 Mbit/s
95th percentile per-packet one-way delay: 143.960 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 242.83 Mbit/s
95th percentile per-packet one-way delay: 140.198 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 193.13 Mbit/s
95th percentile per-packet one-way delay: 136.015 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 170.76 Mbit/s
95th percentile per-packet one-way delay: 186.267 ms
Loss rate: 0.03%
Run 10: Report of Vivace-LTE — Data Link

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

- Flow 1 ingress (mean 242.85 Mbps)
- Flow 1 egress (mean 242.83 Mbps)
- Flow 2 ingress (mean 193.12 Mbps)
- Flow 2 egress (mean 193.13 Mbps)
- Flow 3 ingress (mean 170.76 Mbps)
- Flow 3 egress (mean 170.76 Mbps)

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

- Flow 1 (95th percentile 140.20 ms)
- Flow 2 (95th percentile 136.01 ms)
- Flow 3 (95th percentile 136.27 ms)